BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of San Diego Gas & Electric Company (U 902 M) for Authority, Among Other Things, to Update its Electric and Gas Revenue Requirement and Base Rates Effective on January 1, 2019.	Application No. 17-10-007 (Filed October 6, 2017)
And Related Matter.	Application No. 17-10-008 (Filed October 6, 2017)

REPLY BRIEF OF SOUTHERN CALIFORNIA GAS COMPANY (U 904 G) AND SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M) IN THE TEST YEAR 2019 GENERAL RATE CASE

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SUMMARY OF RECOMMENDATIONS

SoCalGas and SDG&E incorporate by reference the Summary of Recommendations SoCalGas and SDG&E set forth in its Opening Brief (at xxiii – xxxviii).

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1. Introduction/Summary of Recommendations

Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E) (collectively, Applicants or Companies) herein file their Reply Brief (Brief) in the above captioned, consolidated General Rate Case (GRC) proceedings.

2. Procedural Background

SoCalGas and SDG&E described the procedural background of this proceeding in their opening brief (at 1-3).

3. Evidentiary Standards and Burden of Proof

Pursuant to Section 454(a) of the California Public Utilities Code, rates may only be changed upon a finding by the Commission that the new rate is justified. SoCalGas and SDG&E agree that they have the ultimate burden of proof and must justify the reasonableness of their positions in this ratemaking proceeding. The evidentiary standard that applies to ratemaking proceedings is one of a preponderance of the evidence. The Commission affirmed in the S-MAP D.14-12-025 that this standard specifically applies to a GRC.[1]

All parties that address the evidentiary standard and burden of proof, with the exception of Sierra Club and Union of Concerned Scientists, agree that the burden of proof in a GRC proceeding is one of a preponderance of the evidence. ORA and TURN highlight the

[1] SCG/SDG&E OB at 3; *see also* D.14-12-025 at 20-21 (The Commission affirmed, "[i]t is clear . . . that the standard of proof that a utility has to meet in a GRC is one of preponderance of the evidence.").

preponderance of evidence standard in their Opening Briefs. ORA notes, "the appropriate evidentiary standard is 'preponderance of the evidence.'"[2] TURN also states that "[t]he Commission currently requires utilities to meet the preponderance of the evidence standard of proof in GRC proceedings."[3] SC-UCS instead argue that the burden is one of "clear and convincing evidence."[4] SC-UCS' argument ignores D.14-12-025. ORA and SDCAN paralleled SC-UCS' evidentiary standard argument in D.14-12-025, but the Commission rejected those arguments and affirmed, "that the standard of proof that a utility has to meet in a GRC is one of preponderance of the evidence."[5] As suggested by the Commission, if SC-UCS believe otherwise, they should have filed an application for rehearing of the reviewed decisions.[6]

Preponderance of the evidence requires a utility to show that the evidence, "when weighted with that opposed to it, has more convincing force and the greater probability of truth."[7] The Companies have exceeded their burden and have demonstrated the reasonableness of their requests through prepared direct, revised, rebuttal, and updated testimony, extensive workpapers, and other exhibits of over 70 of the Companies' expert witnesses, and hearing testimony of over 40 of these witnesses.[8] The Companies also responded to over 10,500 data request questions from multiple parties throughout this proceeding.[9] As conclusively demonstrated by the record in this proceeding and as discussed, SoCalGas' and SDG&E's showings are well supported.

4. Test Year Forecasting Methods

4.1 General Forecasting

<u>The Companies' Use of Zero-Based Forecasting Methods</u>

In their opening briefs, several parties, such as ORA,[10] TURN,[11] and IS,[12] contest the Companies' use, in several areas, of the forecasting methodology referred to as "zero-based."

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2 ORA OB at 199 (internal citations omitted). ORA recently was renamed the Public Advocates Office.
3 TURN OB at xii; *see also id.* at 3 ("The Commission . . . requires utilities to meet the 'preponderance of the evidence' standard of proof in GRC proceedings.").
4 SC-UCS OB at 5 (citing D.04-07-022).
5 D.14-12-025 at 20-21.
6 *Id*.
7 D.14-08-032 at 17.
8 SCG/SDG&E OB at 3.
9 *Id.* (citing Ex. 254 SCG/SDG&E/Manzuk at 6).
10 ORA OB at 263.
11 TURN OB at 65.
12 IS OB at 10.

As Mr. Manzuk described during evidentiary hearings, zero-based forecasting "is essentially… starting from zero … witness areas would review the historical data and make [a] determination as to why they would pick zero-based forecast as to some other forecasting methodology."[13] Mr. Manzuk further explained, "[t]here may be an indication where -- or a situation where you have a subject matter expert that is better suited to forecast what that zero-based forecast would be. There could be instances where there isn't history to use, so a zero-based, start from zero."[14]

The Companies also use zero-based forecasting to address emerging technology issues. For example, the Companies used a zero-based forecast methodology for cybersecurity capital costs. In their testimony and opening brief, the Companies explained that due to the rapidly changing cybersecurity threat environment, use of a purely historical expenditure approach would fail to appropriately estimate the specific projects, assets and tasks needed to address increasing cybersecurity threats, which are constantly emerging in a dynamic environment.[15]

Zero-based cost forecasting methods include:

- An arithmetic method such as unit cost multiplied by expected volume;
- Referencing an RFP response, an invoice, or other reference document;
- Use of Subject Matter Expert judgment;
- Reference to a like-kind project or activity performed elsewhere; and
- Reference to a similar project or work done in the past and updated for current conditions.[16]

In its opening brief, IS claims that SoCalGas' "main witness" (Maria Martinez) on the subject of the zero-based forecasting methodology was "unable to provide any illuminating information"[17] on the subject, but IS' statement is inaccurate. Contrary to IS' assertion, the Companies had not identified Ms. Martinez as their "main" witness on this topic. SoCalGas' counsel objected during evidentiary hearings that IS' questioning was outside the scope of Ms. Martinez's testimony – as she, like all other cost witnesses in the Companies' case, is not a forecasting methodology expert that could address the different forecasts tools and technical forecast processes. Mr. Manzuk was identified as a witness that could answer IS' questions;

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[13] Tr. V24:2363:21-26 (Manzuk).
[14] *Id.* at 2361:9-15.
[15] *See, e.g.*, Ex. 308 SCG/Worden at 25-62; Ex. 311 SDG&E/Worden at 37-54; and SCG/SDG&E Worden at 5-8.
[16] SCG/SDG&E OB at 193; Ex. 76 SDG&E/Colton at 18.
[17] IS OB at 10.

which he did in hearings, as detailed above.[18] IS' questions did not add evidentiary value to support its attempts to undermine SoCalGas' zero-based forecasting methodologies.[19] Moreover, Ms. Martinez testified that TIMP's zero-based forecast is based on an average of historical unit costs. This provided sufficient support for the forecast methodologies:

> A [I]n order to develop costs, not a historical funding of TIMP projects, but we use on a cost-unit basis and knowing that projects that were set to be completed in order to develop the costs.
>
> Q So you use -- but we're using historical averages to determine the cost forecast; correct?
>
> A Right. But we take into consideration the projects that are required that year versus a blank funding level for each year based on previous years since the number of projects can change from year to year.[20]

In its opening brief, TURN claims that SDG&E's zero-based showing in the electric distribution capital area was, among other things, "inadequate"[21] and, as such, recommends that SDG&E - in its "next rate case showing" - provide "Unit costs (*e.g.* dollar per pole replacement) and unit counts (*e.g.* number of poles) for all applicable budget categories."[22]

TURN incorrectly assumes that using unit costs and unit counts are the only means to derive a zero-based forecast. As summarized above, there are at least five methods the Companies use – including 'unit cost times volume' – to derive zero-based forecasts.

In its opening brief, ORA acknowledges that "[t]he Commission has stated in prior decisions that there are a number of acceptable methods for forecasting test year costs."[23] ORA also notes that in the Commission's decision on SoCalGas' and SDG&E's 2012 GRC, "the Commission examined each forecast method individually to ensure an appropriate method was used 'to develop cost forecasts that . . . are reasonable to both ratepayers and the Applicants and, are as accurate as they can be within our GRC ratemaking framework'."[24] TURN, in its opening brief, states that "For purposes of forecasting costs in 2019, the Commission should identify and

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[18] Tr. V16:1331:26 – 1334:24 and 1337:17 – 1338:4 (Martinez).
[19] *See* Tr. V24:2357:4 – 2364:1 (Manzuk).
[20] Tr. V16:1330:11-25 (Martinez).
[21] TURN OB at 64.
[22] *Id*. at 67.
[23] ORA OB at 3 (citing D.12-11-051 at 13; D.13-05-010 at 16).
[24] *Id*. at 4 (citing D.13-05-010 at 20).

apply the forecasting technique that best suits the costs in question, as it has done in a long line of GRCs before this one."[25]

SoCalGas and SDG&E agree that it appropriate for the Commission to examine the Applicants' – and all parties' – choice of forecasting methodologies. SoCalGas and SDG&E believe that their testimony and workpapers justify each witnesses' selection of the most appropriate forecasting methodology for their particular area based on their particular circumstances using the best-available information at the time. Accordingly, SoCalGas and SDG&E reaffirm their forecast methods and recommend that the Commission adopt the Companies' requests.

Use of Base-Year + 1 (2017) Data

The Companies presented this GRC in accordance with the Commission's Rate Case Plan. The Rate Case Plan specifically requires applicants to "furnish base year historical and estimated data and subsequent years with evaluation of changes up to and including the test year."[26] Yet as noted in the Companies' opening brief, the data for the Base-Year-Plus-1 (in this case 2017, also called "2017 actuals") became available during the course of this proceeding, but after the filing of the Companies' respective Applications.[27] Various parties requested Base-Year-Plus-1 data, to evaluate and compare the Companies' forecasts with actuals. In some instances, parties recommended adopting the 2017 values in place of the Companies' forecasts. In their rebuttal testimony and opening brief, SoCalGas and SDG&E addressed parties' use of 2017 data on a case-by-case basis. Depending on the circumstances, SoCalGas and SDG&E accepted the use of 2017 data in some areas, but disputed it in others. For example, in this reply brief, SDG&E challenges ORA's flawed partial and selective use of 2017 data in evaluating SDG&E's electric distribution capital proposals.[28]

Producing Workpapers in Excel Format

In its opening brief, TURN reiterated the recommendation it made in testimony, that in the Companies' "next rate case showing . . . all quantitative data provided in workpapers and discovery should be provided in Excel format."[29]

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[25] TURN OB at 8.
[26] D.07-07-004 at Appendix A, A-31.
[27] SCG/SDG&E OB at 5.
[28] *See* Chapter 22 of the SCG/SDG&E OB.
[29] TURN OB at 67 (internal citations omitted).

This was thoroughly discussed in Mr. Manzuk's rebuttal testimony.[30] To summarize, the primary system the Companies use does not produce, at any stage, workpapers in Excel spreadsheet format. Rather, the workpapers are produced from a database application called GRID[31] in Adobe Portable Document (PDF) form. To convert this PDF into spreadsheets is not possible without highly customized programming. This would be both costly and an additional burden on the Companies. Spreadsheets were specifically produced containing five-year historical costs and forecast years. Some "supplemental" workpapers were produced using Excel based spreadsheets; these were all provided to parties upon request and with the Master Data Request.

In its opening brief, TURN also recommends that in the Companies' "next rate case showing . . . [t]he basic historical five-year recorded cost data should be provided in the testimony itself."[32] In making this recommendation, TURN apparently ignores not only that standardized workpapers provided with testimonies contain this exact information,[33] but also that the Companies produced the two specially-created spreadsheet files with that same data in electronic format.

TURN's requests dictating the format of workpapers and content to be included in testimony is misplaced and should be rejected by the Commission.

4.2 Aliso Canyon Incident Expenditure Requirements

SoCalGas addressed this issue in its opening brief (at 6).

5. Policy Overview

5.1 General

5.1.1 Affordability and Cost-Effectiveness

Several parties commented on the increase in the revenue requirements and affordability and cost-effectiveness concerns.[34] While SoCalGas and SDG&E already addressed these concerns in their Opening Brief,[35] they elaborate to respond to specific parties' assertions below

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[30] Ex. 254 SCG/SDG&E/Manzuk at 5-7.
[31] The Companies discuss the General Rate Case Integrated Database (GRID) in more detail in their testimony and opening brief. *See, e.g., id.* at 6-7 and SCG/SDG&E's OB at 4-5.
[32] TURN OB at 67.
[33] For example, *see* Ex. 75 SDG&E/Colton at 22.
[34] IS OB at 6-7; CFC OB at 8-23; NDC OB at 3-5; SDCAN OB at 7-9; OSA OB at 2-4; City of Lancaster OB at 4.
[35] SCG/SDG&E OB at 6-8, 626-27.

to provide more context on how to comprehensively view the proposed rate increases and cost-effectiveness considerations.

For example, IS refers to noncore gas rate increases of 23.9% to 39.4% comparing August 2017 rates to TY 2019 proposed rates.[36] When comparing rate increases, it is important to focus on both the level of rate increases, as well as the percentage of rate increases. This is particularly true for noncore customers because the noncore rates are much lower, relative to core rates, and even a modest level of rate increase might appear to be a significant rate increase in percentage terms. The proposed 23.9% rate increase referenced by IS applies to noncore Commercial/Industrial customers, whose August 2017 transportation rate was 7.8 cents per therm and the proposed 2019 rate is 9.7 cents per therm, reflecting an increase of 1.9 cents per therm. The proposed 39.4% rate increase referenced by IS applies to noncore average Electric Generation customers, whose August 2017 transportation rate was 2.0 cents per therm and the proposed 2019 rate is 2.8 cents per therm, reflecting an increase of 0.8 cents per therm.[37] Thus, the levels of noncore rate increases do not appear as dramatic as the percentages of noncore rate increases referenced by IS.

Moreover, IS' criticism is unreasonable and misleading with respect to Bret Lane's testimony on this topic at hearings. Mr. Lane's hearing testimony that he had not personally analyzed the exact percentage increase for a noncore customer in TY 2019 is hardly to be expected of the President and Chief Operating Officer (COO) of a company. As he stated, he has a "general sense … and we understand it is a large percentage increase. . . ."[38] Not wanting to speculate on the percentage does not show "absolutely no concern for or interest in the impact of its rates on noncore customers," as cavalierly asserted by IS.[39] SoCalGas' objection that IS' question called for speculation on this percentage was in fact sustained by ALJ Lirag, which means Mr. Lane was rightfully not required to speculate on it.[40] Moreover, SoCalGas is not required in the Rate Case Plan to demonstrate "the reasonableness and affordability of its rates" for a specific customer class,[41] as this issue of customer class allocation is part of the scope of

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[36] IS OB at 6.
[37] Ex. 349 SCG/Chaudhury at 5.
[38] Tr. V10:442:2-3 (Lane).
[39] IS OB at 6.
[40] Tr. V10:443:1-3 (Lirag).
[41] IS OB at 6.

TCAP, not the GRC. As SoCalGas' witness describing a general policy overview of our GRC presentation, Mr. Lane did state what his concerns are for SoCalGas' GRC request and the impact on all ratepayers:

> Q All right. Let's go back to JBL-1, and at line 13 again, you identify your priorities. One of them is a focus on reasonable rates if you see that. Again, from an executive level, what is a reasonable rate in your mind? How do you think about what's reasonable and where that line is?[42]
>
> A Well, from my perspective first, that's, I think, the purpose of this proceeding. The Commission decides what is ultimately reasonable. How we look at it is the balance of investments needed into our infrastructure, into our system, and of what is needed from our side as far as prudently managing the system from a safety perspective, but also being mindful of the rate impact it can have on our customers.[43]
>
> … So, again, as we look at any type of rate increase, we try to be mindful of our proposals and the potential impact on [our customers] and how they run their businesses.[44]

IS further asserts that "SoCalGas has made little or no effort to demonstrate the cost-effectiveness of its proposed spending measures."[45] This is baseless, which is evident by no supporting citation in the record for IS' statement. Indeed, IS' attorney questioned Mr. Lane during hearings on this very issue: "Q And so cost effectiveness does not play a role in that decision or does it?" to which ALJ Lirag sustained an objection as to the question assuming facts not in evidence.[46] Indeed, Mr. Lane testified earlier in that line of questioning that:

> That [cost effectiveness in planning SoCalGas' investments'] is an element we look at. Again, I would use an example of vintage pipe. It's how many miles a year do you replace versus are there other ways of mitigation that can address any kind of threat that might be associated with that, rather than going and spending a large sum of money for thousands of miles of replacements that, you know, in a time period. Is there a way that we can mitigate that, appropriately address the risks. So that's all part of the early planning. And then once we decide that we're going to replace X number of miles from a year in this example, then we want to make sure that we're cost effective in how we execute it.[47]

And again, Mr. Lane later testified:

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[42] Tr. V10:440:1-7 (Kahl).
[43] *Id.* at 440:8-17 (Lane).
[44] *Id.* at 443:18-21 (Lane).
[45] IS OB at 7.
[46] Tr. V10:441:15-19 (Lirag).
[47] *Id.* at 438:17-28 to 439:1-5 (Lane).

> I give an example of -- of our -- some of our older plastic in our distribution system, where one way we've looked at to help mitigate that is actually increased the frequency of leak surveys. Instead of trying to go out and do a massive wholesale changeout in a short period of time, we think that's an effective mitigation attached to it.[48]

IS does not refute any of these specific examples of cost-effectiveness considerations given during hearings to its own line of questioning. It also does not acknowledge considerations mentioned by various cost witnesses as part of their GRC forecasting process in response to IS' inquiries.[49]

CFC acknowledges in its Opening Brief that SoCalGas and SDG&E provided evidence showing that their residential gas bills are "among the lowest in the nation" based on AGA data and that SDG&E had the lowest annual bill and SoCalGas had the third-lowest annual bill.[50] CFC also concedes that "Sempra's extensive application (and supporting workpapers) propose a revenue requirement with a reasoned basis, with supporting rationale."[51] SoCalGas and SDG&E appreciate CFC's observation that the AGA data suggest "superior operational efficiency" at both SoCalGas and SDG&E relative to other gas utilities in the nation.[52] However, CFC also states that "[t]he question is whether rates that are rationally constructed are necessarily reasonable from an affordability perspective."[53] As SoCalGas noted in its Opening Brief,[54] this is not the appropriate question for a utility's GRC. This question is better suited for the statewide Affordability OIR that will consider such complex, policy issues affecting all California utilities. This OIR was also mentioned in CFC's Opening Brief, acknowledging that "[t]he OIR will address many facets of utility affordability."[55] The standard of a utility's GRC showing should not change midstream, and in a manner inconsistent with Public Utilities Code (PUC) Section 451's "just and reasonable" rates standard[56] and the prevailing Rate Case Plan's

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[48] *Id.* at 447:11-20 (Lane) (corrected transcript).
[49] *See, e.g.*, Ex. 436 IS/Gorman at Schedule MPG-2, SoCalGas Responses to Indicated Shippers Data Requests IS-SCG-003 Questions 1-8 and IS-SCG-004 Question 1-8.
[50] CFC OB at 8.
[51] *Id.* at 9.
[52] *Id.* at 13.
[53] *Id.* at 9.
[54] SCG/SDG&E OB at 626-27.
[55] CFC OB at 11-12.
[56] CFC's quote of PUC Section 454.5 (CFC OB at 9) is irrelevant to this GRC, as this applies to electrical corporations' procurement plans, which deal with the commodity costs procured by SDG&E and other

(RCP) requirements. If changes are made to a utility's GRC standard, it should be on a going forward basis, formally adopted by a Commission decision revising the RCP after sufficient due process is afforded in the appropriate proceeding, and applied fairly across all affected utilities.

While acknowledging that SoCalGas and SDG&E's average annual residential bills are among the nation's lowest, CFC suggests that this is necessarily due to the mild weather in California. CFC states:

> While the claim is correct, a significant determinant of actual bill amounts is cubic feet of gas (measured in thousands-of-cubic-feet, or MCF) used. The billed amount is primarily a function of fundamental demand; for natural gas, that driver is ambient temperature. Due to California's relatively benign climate, the extent of space heating needs, measured in Heating Degree Days (HDD), is relatively minimal. We should therefore expect average natural gas bills in the Golden State to likewise be amongst the nation's lowest, simply for that reason; any California gas utility should feature bills ranking relatively favorably against peers operating in colder climes [sic].[57]

While CFC's observation is partly true, a customer's natural gas bill is not only a function of gas demand but also a function of gas rates. As pointed out in the rebuttal testimony of Sharim Chaudhury, the relatively benign weather in California, while leads to lower natural gas demand, also leads to higher gas rates: "SoCalGas's and SDG&E's average monthly residential gas usage are among the lowest of investor-owned utilities in the nation, which logically results in higher-than-average rates due to fewer therms over which to recover fixed costs. For example, if a utility has an average cost of providing residential service, but below-average usage per residential customer, rates must be set at an above-average level."[58] Thus, mild weather leads to lower demand but also higher rates; and a customer bill is a function of both demand and rates. The higher rate counteracts the lower demand in the derivation of a customer bill.

Some parties like NDC, CFC, and OSA indicate that SoCalGas and SDG&E's proposed incremental revenue requirements represent unreasonable growth in utility rates, including for RAMP-related items.[59] NDC states:

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electric utilities and is outside the scope of a GRC. It also does not apply to SoCalGas, which is a gas corporation, and was the focus of CFC's affordability arguments.

[57] CFC OB at 12.

[58] Ex. 351 SCG/SDG&E/Chaudhury at 4, n.18.

[59] *See, e.g.*, NDC OB at 3-5; CFC OB at 10-12; OSA OB at 2-3.

> In evaluating the requested rate increases, the Commission must be mindful of the unreasonable growth in utility rates that Californians have already been enduring for years. For 2019, SDGE is seeking a 10.9 percent increase over 2018 revenue requirement, knowing that this will result in a 22.6 percent increase in the typical customer's gas bill. Their 2019 request is 22.8 percent over their 2016 revenue requirement, and 61.6 percent over their 2008 amount. SoCalGas wants a 2019 revenue request that is 19.3 percent over 2018, 33 percent over 2016, and 74 percent over 2008.[60]

NDC is accurate in calculating the percentage growth over the various rate case cycles, but some details are not fully captured that give a more complete picture of the growth rate. For instance, the SoCalGas 2019 request over the 2008 is indeed 74 percent, however it is worth noting that this covers an eleven-year period and when averaged, this amounts to an annualized growth rate of 6.7 percent a year.[61] Moreover, when addressing the SDG&E 2019 GRC request and the 22.6 percent increase in a typical customer's gas bill, NDC neglects to mention the electric bill impact which is an increase of 4 percent. On a combined bill basis this results in a requested increase of 7.9 percent.[62]

As it relates to RAMP-related items, Mr. Lane testified at hearings that "The bottom line from my perspective is we're going to make the investments that we need to make or that's what we're going to propose to ensure that we're running our system in a prudent, safe manner."[63] SoCalGas and SDG&E took the RAMP-to-GRC process seriously, and as such, proposed incremental investments to further enhance safety, not just request funding to do all the existing mitigations that reduce our key safety risks. While this represents a substantial portion of the Applicants' total revenue requirements, we firmly believe this is the point of using the risk-informed framework to more formally and systematically assess how we can enhance safety and in what specific ways. Adequate funding is a necessary component of that process and a primary purpose of this first-ever risk-informed GRC. An important aspect of that is the incremental RAMP mitigations. SoCalGas' and SDG&E's operations witnesses gave extensive testimony and examples of such enhancements and why they are just and reasonable to fund at the level requested by Applicants.

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60 NDC OB at 4.
61 *Id.* at 5, Figure-2 ((($2.931-$1.685)/$1.685) / 11 years) = 6.7%.
62 Ex. 2 SDG&E/Winn at 8.
63 Tr. V10:441:10-14 (Lane).

One example highlighted during hearings is the acceleration of leak surveys for early vintage plastic pipe (*e.g.*, Aldyl-A) from five years to annually.[64] While this enhanced RAMP mitigation would require incremental funding, Mr. Lane did testify as to how SoCalGas still considered the impact to ratepayers by balancing this mitigation against wholesale replacement of the same type of higher-risk pipe over a reasonable period of time.[65] According to CUE, the replacement rate for such pipe should be even further accelerated[66] – which further demonstrates that SoCalGas' funding request is reasonable in balancing risk reduction considerations and ratepayer costs.

Finally, in its Opening Brief, SDCAN incorrectly claims that SDG&E's average customer bills are among the state's highest.[67] This is simply not true. As illustrated in the Attachments to the rebuttal testimony of Cynthia Fang, SDG&E's Residential Average Bill falls between those of Southern California Edison Company and Pacific Gas and Electric Company.[68] SDG&E's System Average Bill falls below the respective System Average Bills of the other two California investor-owned utilities (IOUs).[69] Both SDG&E's Residential and System Average Bills fall within the lower half of the national IOUs included in the charts provided.[70]

Please see Section 47 Presentation of Rates for the response to SDCAN's incorrect statement about illustrative rate tables.

SDCAN's Opening Brief also makes assertions regarding SDG&E's profitability and rate of return.[71] These items are outside the scope of this proceeding.[72] Further, profitability and rate of return have not been addressed in the manner SDCAN recommends in the Companies' prior

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[64] Ex. 7 SCG/Orozco-Mejia at 39; Ex. 111 SCG/Martinez at 25.

[65] Tr. V10:447:11-20 (Lane)(corrected transcript).

[66] CUE OB at 7-10.

[67] SDCAN OB at 8 and n.20 (citing pages B-1 and D-1 of Ms. Fang's Attachments to her rebuttal testimony, Ex. 353 SDG&E/Fang).

[68] Ex. 353 SDG&E/Fang at B-1.

[69] *Id.* at D-1.

[70] Ms. Fang's rebuttal testimony emphasized that "SDG&E's residential average bill continues to be among the lowest 33% of the 100 largest IOUs in the United States and has been since 2010." Ex. 353 SDG&E/Fang at 4. This is based on March 2017 through February 2018 data from the U.S. Energy Information Administration. *See id.* at Appendix A.

[71] *See* SDCAN OB at 7-9.

[72] The Commission's Rate Case Plan, R.87-11-012, established separate Commission proceedings on revenue requirement, cost of capital, and rates. The Companies' currently authorized rate of return was determined in the cost of capital proceeding via D.17-07-005; SDG&E's rates will be determined in its GRC Phase 2 proceeding. Therefore, the Assigned Commissioner's Scoping Memorandum and Ruling, issued on January 29, 2018, correctly omitted these items from this proceeding.

GRCs. The final decision in the Companies' TY 2016 GRC, D.16-06-054, only addressed rate of return in the context of demonstrating that the Summary of Earnings tables reflected the rate of return authorized by the Commission in the cost of capital proceeding.[73] Ryan Hom's Summary of Earnings tables in this proceeding also reflect the currently authorized rate of return.[74] For these reasons, SDCAN's statements are misplaced and should be disregarded.

5.2 Safety (Reply to OSA)

OSA's Opening Brief improperly criticized SoCalGas and SDG&E's safety cultures and practices, largely ignoring the extensive testimony and evidence in the record proving both Companies have – as this Commission is well-aware – robust safety cultures and state-of-the-art safety practices. In multiple areas, SoCalGas and SDG&E are at the forefront of utility safety, from our wildfire prevention plans to our pipeline and well-safety programs. In this section devoted to safety, SoCalGas and SDG&E will address what OSA missed and rebut with evidence, as opposed to hyperbole, the safety cultures and records at the Companies. We address in detail the significant strides we voluntarily make with our safety culture development as measured and proven through repeated third-party surveys, our dedication to both process safety and occupational safety, our robust safety management systems, the many leading indicators we use and the important role lagging safety indicators plays in our decision-making, and how our witnesses in this GRC justified their respective safety cost forecasting. SoCalGas and SDG&E strongly believe that our case on safety is strong, solid, and proven.

5.2.1 Common Issues

In its Opening Brief, OSA takes its somewhat benign conclusory statements made by its witnesses in their direct testimony and transforms them into several brand new and false conclusions that wrongfully accuse SoCalGas and SDG&E of having a "deficient" safety culture and a "dangerous" safety approach[75] – largely without <u>any</u> evidence cited. On that basis, OSA raised an entirely new proposal in its Opening Brief to request the Commission open a safety culture Order Instituting Investigation (OII);[76] a proposal which should be rejected for the many

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[73] D.16-06-054 at Findings of Fact 150 and 225.
[74] *See* Ex. 344 SCG/Hom at 4; Ex. 346 SDG&E/Hom at 6; Ex. 514 SCG/SDG&E/Hom at A-1, B-1 – B-5.
[75] OSA OB at iii.
[76] *Id.* at 3. OSA admits on page 8 that this is a new recommendation since its testimony ("Upon further reflection since serving its testimony. . . .").

reasons discussed below. OSA takes it a step further by raising an entirely new conclusion in its Opening Brief that "[t]he costs in these GRCs and the replacement rate of aging infrastructure are not likely to be just and reasonable as Sempra's approach to managing safety and the supporting safety culture is deficient."[77]

Nowhere in OSA's original recommendations in its testimony is there an assertion that SoCalGas and SDG&E's safety culture "is deficient" or safety approach is "dangerous" as now alleged in OSA's Opening Brief. OSA's Opening Brief overwhelmingly focused on the Companies' mission statements and written testimony about our safety values and policies, effectively cherry picking to ignore evidence disproving its conclusions. Thus, in making this new claim of a "deficient" safety culture,[78] OSA's Opening Brief repeatedly indicates that SoCalGas and SDG&E's safety culture is just words.[79] OSA ignored most of the specific, concrete evidence and examples of SoCalGas and SDG&E's healthy safety culture, or dismissed those positive examples as not good enough. OSA gave little weight to our own employees' comprehensive feedback, even when supported by quantitative data assessed by a renowned, third-party consultant. Specifically, the National Safety Council (NSC) measures our safety culture against 580 companies across the nation, including the other California utilities. The extremely positive results of that recent survey completed by 6,609 SoCalGas employees[80] and 2,204 SDG&E employees[81] should not be treated so dismissively by OSA. Those very high scores, acknowledged in OSA's testimony, were not even mentioned in OSA's Opening Brief. To the extent that OSA believes this independent evaluation of our safety culture by NSC is not adequate, it has not demonstrated that by evidence.

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[77] *Id.* at 4 (emphasis in original).

[78] This deficiency claim is strikingly different from the general, inconclusive statement in an introductory paragraph of OSA witness Ms. Carolina Contreras' direct testimony:
To ensure that all of these programs, initiatives, and investments will effectively provide long-term safety benefits and create the appropriate barriers to proactively prevent safety incidents, a holistic view of safety management and safety management best practices is necessary, including the supporting safety culture. Inadequate management of safety can lead to ineffective safety programs, misinformed leadership, and potential catastrophic safety incidents. The costs in these GRCs and the replacement rate of aging infrastructure may not be just and reasonable if the approach to managing safety and the supporting safety culture is deficient. Ex. 442 OSA/Contreras at 1-1 (emphasis added).

[79] *See* OSA OB at iii, 2, 4, 35. *See also id.* at 4 ("Their positive outlook rings hollow as it is frequently only supported by opaque assumptions and contradictions.").

[80] Ex. 1 SCG/Lane at 7.

[81] Ex. 91C OSA/SEU at 231.

Moreover, OSA's recommendation to open a safety culture OII, possibly for all of the California utilities,[82] and for the Commission to choose an Independent Review Panel[83] does not account for Senate Bill (SB) 901's recent passage requiring the electric IOUs, including SDG&E, to commit to a safety culture assessment every five years by an independent third-party evaluator.[84] OSA's recommended OII would be redundant and potentially conflict with that legislation for all California electrical corporations. SoCalGas and SDG&E's gas operations suggest using the same approach and template as required by the electric utilities in SB 901 and are willing to move forward with that same approach.

Additionally, OSA did not address the vast majority of the Companies' examples of our commitment to safety through demonstrated actions and continuous improvement activities. Extensive testimony was submitted about how all employees – from our Board of Directors to senior management to the frontline employees – safely manage risks and hazards on a daily basis. Room for improvement, which is true for even a strong safety culture, should not be treated as a "deficient" and "dangerous" safety approach. Our policy witnesses noted the areas where we recognize the need for continuous improvement and ongoing constructive and well-reasoned feedback. For example, Ms. Winn testified, "At SDG&E, we work to instill in employees a mindset of continuous improvement…"[85] Ms. Day also testified regarding the processes and programs that SoCalGas and SDG&E have in place to implement continuous improvements with their enterprise risk management practices,[86] which support the Companies' safety risk management programs and activities.[87] Ms. Day also included third-party maturity assessments of SoCalGas' and SDG&E's risk management, asset management, investment

[82] It is unclear from OSA's statements as to whether it is requesting a statewide OII that would affect all utilities or just SoCalGas and SDG&E. OSA refers to an "industry-wide concern" and directed at "all the other utilities in California." OSA OB at 23. This type of statewide consideration is not appropriate for an individual utility's GRC, and really is more appropriate for a rulemaking.
[83] *Id.* at 3.
[84] S.B. No. 901, Statutes of 2018, Chapter 626 (issued September 21, 2018) (*to be codified at* Pub. Util. Code § 8386.2) ("The commission shall require a safety culture assessment of each electrical corporation to be conducted by an independent third-party evaluator. The commission shall set the schedule for each assessment, including updates to the assessment at least every five years. The electrical corporation shall not seek reimbursement for the costs of the assessment from ratepayers.").
[85] Ex. 2 SDG&E/Winn at 8.
[86] Ex. 3 SCG/SDG&E/Day at 22-23.
[87] *See id.* at 28-30.

management, and integration maturity as part of her evidentiary showing, to demonstrate the Companies' commitment to continuous improvement in these areas.[88]

Various witnesses also agreed with several of OSA's suggestions in our rebuttal testimony.[89] For example, Safety Policy witness David Geier noted that, although SDG&E reports a considerable amount of information to the Commission "on an annual basis (*e.g.*, the Fire Prevention Plan), SDG&E can incorporate OSA's requested Electric Operations Safety Plan into its overall implementation of the Electric SMS."[90] And Gas System Integrity witness Omar Rivera noted that "the Companies are open to collaborating with OSA and its safety consultants to develop experimental metrics that could help the Companies' maturity with establishing a pipeline safety management system."[91]

Moreover, in raising these and other new recommendations, new facts outside of the record, and unsupported accusations, OSA's Opening Brief shows disregard for the Commission's Rules of Practice and Procedure,[92] ALJ Lirag's explicit evidentiary rulings in this proceeding,[93] and the scope of this GRC as laid out in the Scoping Ruling and other Commission decisions such as the TY 2016 GRC (D.16-06-054).[94] OSA's new recommendations and facts should be afforded <u>no weight</u> by the Commission in rendering a final decision, including the recommendation to open a safety culture OII, which will be shown to be baseless when examining the record. OSA's new conclusions and facts regarding the Aliso Canyon and Line 235-2 incidents are shown to be entirely unsupported by facts in the record in Sections 14 (Underground Storage) and 17 (Pipeline Integrity), respectively. OSA's new rejection of the

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[88] *Id.* at 19-20 (referencing maturity assessments attached as Appendices C and D).
[89] *See, e.g.*, Ex. 114 SCG/Martinez at 9; Ex. 86 SCG/Rivera at 7, 18, 23; Ex. 90 SCG/SDG&E/Buczkowski/Geier at 5, 7, 10, 21, 23; Ex. 257 SCG/Gevorkian at 4; Ex. 361 SDG&E/Deremer at 5-7.
[90] Ex. 90 SCG/SDG&E/Buczkowski/Geier at 7.
[91] Ex. 86 SCG/Rivera at 23.
[92] CPUC Rules of Practice and Procedure, Rule 13.11 ("Factual statements must be supported by identified evidence of record. Citations to the transcript must indicate the transcript page number(s) and identify the party and witness sponsoring the cited testimony. Citations to exhibits must indicate the exhibit number and exhibit page number.").
[93] *See, e.g.*, Tr. V11:580:8-13 (Lirag) ("Next, for the storage issues, I'll only specify regarding Aliso Canyon storage issues. <u>So Aliso Canyon storage issues are going to be outside the scope of this proceeding</u>. Those are being handled in other proceedings.") (emphasis added).
[94] *See, e.g.*, D.16-06-054 at 251 ("Currently, the Commission's SED is investigating the causes of the well leakage at Aliso Canyon. Until that report is finished, it is premature for the Commission to open an Order Instituting Investigation into the causes of the Aliso Canyon leakage….").

PSEP substitution of projects proposal is a fundamental misunderstanding of this safety enhancement measure as shown in Section 18 (PSEP). Some of OSA's prior recommendations, properly raised in direct testimony,[95] such as vigorous pursuit of API 1173's voluntary implementation for pipeline operations, are shown in Section 9 (Gas System Integrity) to be fully embraced by the Companies in their GRC funding requests and transparent implementation plans. As further addressed in Sections 14 and 22.5 (Asset Management), respectively, OSA's proposals to extend API 1173 to Underground Storage and Electric Operations make little sense since SoCalGas agreed to apply the tenets of API 1173 to its storage operations and SDG&E demonstrated with rebutting evidence that its asset management initiative is consistent with OSA's recommendations.

For OSA's new conclusions, SoCalGas and SDG&E will explain in considerable detail below, examining the specific evidence in the record – including OSA's scant proffered evidence, how OSA disregarded substantial evidence in SoCalGas and SDG&E's GRC showing. Testimony was sponsored by over 70 witnesses, including at the highest ranks by the President and Chief Operating Officers (COO), demonstrating a strong safety culture, safety risk-informed GRC funding requests based on our key RAMP risks and mitigations, and robust safety management. OSA's surprising, out-of-left-field accusations are particularly disappointing given the extensive efforts to engage in a partnership with OSA. The Companies dedicated resources to educate this newly created organization about our comprehensive safety-related organizations, activities, practices, and procedures as part of this GRC proceeding. Indeed, numerous Company representatives – from the executive level on down – spent many hours with OSA in meetings and on-site tours. This was done in an effort to work productively to achieve the common goal of continuously improving safety management and safety performance. We also worked with

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[95] It is worth noting Ms. Contreras' original conclusions in full that focus on improvements for the next rate case cycle, which were presented in her testimony's Section II Summary of Recommendations to see the stark contrast with the new conclusions in OSA's Opening Brief:

> Requirements that promote improvements to the Utilities' management of and commitment to safety be instituted to help ensure the long-term effectiveness and accountability of their safety practices.
> Certain expectations be set on the Utilities' approach to managing safety for the next rate-case proposal so that the Utilities will work towards extending the safety management system framework to all of their operations, including underground gas storage and electric operations, and to consider all forms of safety, particularly process safety.
> Additional conditions be instituted on the Utilities' initiative to implement a pipeline safety management system for their gas operations[.] Ex. 442 OSA/Contreras at 1-2 to 1-3.

OSA to enter a jointly stipulated exhibit, Exhibit 91/91C, that is almost 1,000 pages long of data request responses to OSA and materials that help demonstrate our safety culture and management. These efforts were also mentioned in OSA's testimony.[96] Unfortunately, little of what we provided to OSA found its way into its Opening Brief.

OSA's proposal to open an OII also fails to account for the fact that, pursuant to Commission directives already in place,[97] the Companies put forth information describing their safety culture in SoCalGas and SDG&E's RAMP OII that fed into this GRC proceeding.[98] OSA was a participant in that OII. In integrating the RAMP results into the GRC, the Companies' showing in this proceeding included individual sections in many witnesses' testimony devoted to explaining the safety culture for their functional area.[99] The Companies' RAMP-related information in this proceeding was presented in accordance with Commission-adopted requirements, including on safety culture, and is "to be reviewed in the TY2019 GRC applications."[100] Yet, as shown below, OSA ignored the overwhelming majority of this information in reaching its new conclusions.

Further, while OSA repeatedly emphasized the benefits of a "safety management system (SMS)," it fails to recognize the rebuttal testimony of Mssrs. Buczkowski and Geier in which SoCalGas and SDG&E explain that they have many safety management programs with detailed processes throughout its operational departments.[101] Mssrs. Buczkowski and Geier further testified that "process/operational safety is considered to be a blend of engineering, operational, and management expertise focused on preventing everything from near misses to catastrophic events."[102] Their testimony illustrated the safety pillars for the Companies and how our safety

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96 *Id.* at 1-2:

> To develop this testimony, the Applications were reviewed, multiple data requests were issued, meetings with Company representatives were held, as well as consultation with respected safety industry experts. However, this is not an exhaustive review of the Utilities' practices, but rather the identification of gaps and improvements that should be addressed as part of the upcoming GRC cycle.

97 D.16-08-018 at 152.

98 I.16-10-015/-016 (cons.).

99 *See* Ex. 3 SCG/SDG&E/Day/York, *passim* (providing a detailed overview of the Companies' risk-informed presentations). ORA recognized that the Companies have "presented more detail on specific funding requests and [have] associated each funding request with one or more risks detailed in the RAMP...." Ex. 398 ORA/Stannik at 10 (internal citations omitted). The RAMP Report alone was over 900 pages of written descriptions and analysis. *See* Ex. 4 SCG/SDG&E/Day/Flores/York at 8.

100 D.18-04-016 at 12.

101 Ex. 90 SCG/SDG&E/Buczkowski/Geier at 3-4.

102 *Id.* at 5.

management processes and programs are contained within those pillars, all of which report up to the Companies' senior leadership.[103] SoCalGas and SDG&E's emphasis on process/operational safety is not new, and has been in place for decades.

OSA also undervalued the Companies' voluntary commitment to make SMS implementation proposals in their GRC's funding requests. The Commission has not adopted a definition of SMS. Despite this lack of mandated SMS requirements, the Companies exerted considerable time and effort to demonstrate the SMS-related activities that already exist or are being enhanced and how they map to our RAMP mitigations and GRC witness areas. The Companies provided OSA with a spreadsheet representing "the best efforts of SoCalGas and SDG&E to capture SMS-related activities, including, but not limited to, those intended to achieve or maintain API 1173 conformance and to address Risk Assessment Mitigation Phase (RAMP) items that mitigate SoCalGas and SDG&E's top safety risks."[104] That extensive spreadsheet, produced again here as Appendix A to this Reply Brief, was also highlighted in and appended to Mr. Rivera's rebuttal testimony responding to OSA.[105] OSA never followed up on or mentioned this comprehensive list, whether in discovery, hearings, or in its Opening Brief.

SoCalGas and SDG&E have demonstrated through strong, comprehensive evidence that their safety culture, RAMP risk mitigation efforts, and other SMS-related activities refute OSA's new and unsupported conclusions.

5.2.1.1 Quantitative Data from the Renowned National Safety Council Validates SoCalGas and SDG&E's Strong Safety Culture Among all their Employees

In questioning the seriousness of the Companies' approach to safety culture,[106] OSA seemed to give short shrift to an important fact about the NSC Barometer on Safety Culture Survey that it deems inadequate: both SoCalGas and SDG&E have *voluntarily* used this neutral

[103] *Id.* at 6-7.
[104] *See* Ex. 91 OSA/SEU (Data Request-003, Utilities' Response to Question 7a). The ambiguity of the term SMS was noted by SoCalGas and SDG&E in it discovery response that was entered as this joint exhibit by the Companies and OSA into the record of this proceeding. The Companies also noted that "[t]he exact meaning and application of 'all SMS related activities' in the question are vague and ambiguous" and "depending on the definition of SMS-related activities, this [spreadsheet] may not be a complete list or include more granular items that may be identified through a more time-consuming, comprehensive search." *Id.*
[105] Ex. 86 SCG/Rivera at 22 and Appendix B.
[106] *See* OSA OB at 6.

third-party to biannually or triennially assess safety culture since 2013.[107] The NSC Barometer on Safety Culture Survey "assesses the overall health of the safety climate and identifies areas of opportunity to eliminate injuries and improve focus and commitment to safety."[108] As mentioned above, the NSC safety culture survey benchmarks companies against others across a wide range of industries.[109] Both SoCalGas and SDG&E performed extremely well, ranking in the 90th and 85th percentile, respectively,[110] "which is considered 'high performing' amongst the 580 companies that participated in the survey."[111]

As Mr. Lane testified, "[f]or SoCalGas, 40 out of the 50 standard components in the survey achieved a percentile in the top quartile compared to the NSC Database, and 10 components received percentiles in the second quartile."[112] While SoCalGas noted how rare it is for a score to go up in the second cycle of assessment, it achieved this accomplishment. As just one of many examples, SoCalGas placed in the 97th percentile for supervisors maintaining a high safety performance standard.[113] And these metrics are not just directed at measuring our supervisors, but metrics for all employees, including frontline employees that are a critical part of our approach to safety. For instance, the level of comfort at both Companies to report near-miss/close-call incidents also had a positive average response score range of 70-75% of participants agreeing with this statement.[114] This metric was tailored specific to SoCalGas and SDG&E so that the Companies could get even more insight into safety issues of special concern, which also happens to be a process safety item that OSA emphasizes.

At both Companies, scoring above the 85% percentile (as measured against the 580 other companies participating in the survey, included: "Supervisors behaving in accord with safe job procedures," "Belief that management does more than law requires," "Presence of employees well trained in emergency practices," "Priority of safety issues relative to production," and "Belief that employees understand safety and health regulations."[115] In fact, the NSC survey

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[107] *See* Ex. 1 SCG/Lane at 7; Ex. 2 SDG&E/Winn at 6; Ex. 255 SCG/Gevorkian at 9; Ex. 362 SDG&E/Taylor at 8.
[108] Ex. 362 SDG&E/Taylor at 8.
[109] *Id.*
[110] *Id.*; Ex. 255 SCG/Gevorkian at 9.
[111] Ex. 362 SDG&E/Taylor at 8.
[112] Ex. 1 SCG/Lane at 7.
[113] *Id.*
[114] *Id.* at 8. Ex. 91C OSA/SEU at 233.
[115] *Id*. at 157 and 233.

found that the "majority of employee opinions regarding SDG&E safety management system **are above average compared to the NSC Database participants**."[116] The same is true at SoCalGas where NSC ranked SoCalGas above average in management, supervisor, and employee participation in safety, as well as for its safety support activities and climate.[117]

While OSA's testimony acknowledged the "very high" score for the overall results, OSA made an astounding dismissal of its importance by claiming, without any evidence cited, that "bias" of employees could be the reason.[118] This baseless claim is particularly egregious when OSA examined the methodology of the NSC and did not produce any evidence of such bias. OSA's new claim of a deficient safety culture based on these "inadequate assessments,"[119] disregarding the input of thousands of employees who completed the survey, including represented employees participating in this GRC, should be given no weight. OSA's speculation that underemphasizing other process/system safety considerations could be the reason for such employee bias is contradicted by the survey measuring specific process safety criteria. By OSA's own admission, reporting near-miss/close-call incidents as part of incident response is precisely part of what OSA would characterize as "operational safety" processes:

> Safety culture is enhanced through discovering, communicating, and acting upon safety lessons, often discovered through evaluation of incidents and other events such as near-misses and even stop-the job events. These activities also contribute to an environment ***where personnel are comfortable about identifying and speaking up about risk and safety concerns***, knowing that their actions will result in safety improvements.[120]

The Companies not only focused on the positive highlights of the NSC assessment results, but as Mr. Lane also specifically stated: "we are committed to doing even better by also focusing on our three lowest scoring areas of the survey."[121] He gave lockout/tagout safety procedures as a key example, where he indicated that concrete action was taken for improvement – not just rhetoric:

> This element scored high in the Transmission and Storage organizations where it is an integral part of their business, but many employees in other departments do not understand what it is. We have launched a training and education initiative, as

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116 *Id.* at 237 (emphasis added).
117 *Id.* at 164.
118 *See* Ex. 442 OSA/Contreras at 2-17.
119 OSA OB at 6.
120 Ex. 442 OSA/Contreras at 2-24 (emphasis added).
121 Ex. 1 SCG/Lane at 8.

> this simple concept applies both at work and at home. SoCalGas believes the focus, dedication, and commitment to safety is never-ending.[122]

As part of the Companies' meetings with OSA,[123] safety policy witness David Buczkowski indicated that when the Companies identify areas of improvement, either through the NSC Safety Barometer Surveys or another means, we take it very seriously and institute programs to address such concerns. As an example, SoCalGas created a new written policy outlining its incident evaluation process (IEP). OSA discusses the fact that SoCalGas has a written policy for IEP in its written testimony and SDG&E does not, suggesting SDG&E's is not as robust.[124] This is not true. SDG&E and SoCalGas met with OSA on several occasions during the period of March to June 2018 to discuss various safety practices and policies, including the Companies' IEPs.[125] During such explanations, SDG&E described its thorough incident investigation process; however, because these procedures are not documented in the same manner as SoCalGas, OSA seems to continue a false belief that these procedures are deficient. While SDG&E disagrees that it lacks a robust IEP, it recognizes that there is room for improvement with respect to documenting such procedures.[126]

All employees are encouraged to participate in continuous improvement, results are shared, targets are developed, and concrete plans are implemented and measured.[127] To maximize survey results, "internal departments formed teams which included employees from appropriate levels of the organization to review and further understand survey results. As recommended by the NSC, SoCalGas and SDG&E follow-up on all survey results by targeting low scores and creating programs to address or implementing a "three-step results interpretation process: 1) results interpretation, 2) development of action-oriented strategies, and 3) creation of action plans that contain appropriate indicators that were measured and shared."[128]

The existence of an already strong safety culture which is *regularly measured and confirmed* by a neutral third-party expertly qualified to examine SoCalGas and SDG&E's safety

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[122] *Id.*
[123] Ex. 90 SCG/SDG&E/Buczkowski/Geier at 2-3.
[124] Ex. 442 OSA/Contreras at 2-24.
[125] *Id.*
[126] *Id.* It is important to note that OSA acknowledged in testimony that it "has not performed an extensive evaluation of this procedure" referring to SDG&E incident evaluation process. *Id.* at n.64.
[127] *Id.*
[128] Ex. 257 SCG/Gevorkian at 7; Ex. 362 SDG&E/Taylor at 8.

culture against other companies, makes OSA's new request for an OII on safety culture surprising.[129] While the Companies constantly strive to improve and are always moving the needle, the self-imposed discipline around safety culture and third-party assessment make the need for a separate OII totally unsupported and unnecessary.

The one concrete practice related to this survey that OSA mentions against both SoCalGas and SDG&E in its Opening Brief, Section III Safety Gaps is OSA's preference for a "multi-method approach to safety culture assessment."[130] OSA generally cites to three volumes of SoCalGas and SDG&E rebuttal testimony[131] – with no specific citations or examples – and then reaches broad-sweeping conclusions that these testimonies "demonstrate a lack of understanding on the subject matter" and "[g]iven these inconsistencies, the inadequacy of their assessments, and the significant influence safety culture has on overall safety, the Commission should therefore question how serious Sempra's stated approach to safety culture really is."[132] First, SoCalGas and SDG&E's rebuttal testimony fully refuted OSA's claim the Companies lacked a multi-method approach (noting the Companies' approach already is multi-pronged) while demonstrating an expert, credible understanding of the subject matter. In fact, what OSA refers to as inconsistent positions is incorrect. SDG&E and SoCalGas embrace a multi-method approach, noted they continue to look at ways to improve, but also were clear that the current survey is a good indicator of safety culture.[133] Second, no other concrete "inconsistencies" or

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[129] The request, first appearing in its brief, is also inappropriate as OSA failed to request an OII on safety culture in its written testimony.
[130] OSA OB at 6.
[131] The three volumes of testimony generally mentioned are the safety policy rebuttal testimony (Ex. 90 SCG/SDG&E/Buczkowski/Geier), SoCalGas' HR rebuttal testimony (Ex. 257 SCG/Gevorkian), and SDG&E's HR rebuttal testimony (Ex. 364 SDG&E/Taylor).
[132] OSA OB at 6.
[133] Ex. 91 OSA/SEU (OSA-SEU-Data Request-002, Response to Question1) ("As Ms. Day explains (at Appendix E, DD-E-6): SoCalGas and SDG&E have processes, programs, and committees in place that welcome feedback on safety from employees on the management of risks and unsafe practices or incidents. The vision and emphasis on risk management begins at the top, with strong support for the risk management process. The companies have an open-door policy that promotes open communication between employees and their direct supervisors. In addition to these culture-based items, there are formal programs designed to encourage employees to speak up if they see unsafe behaviors, such as Stop the Job. Each company also has a Safety Congress as well as safety meetings for field employees that provide safety training, share best practices and promote leadership and employee engagement. If an employee does not feel comfortable reporting unsafe behaviors and incidents through the above-mentioned avenues, there are anonymous means including the Ethics hotline, employee engagement surveys, and National Safety Council Culture Survey.").

"inadequate assessments" were identified to support OSA's conclusions questioning the seriousness of SoCalGas and SDG&E's safety culture.

5.2.1.2 Dedicated Safety Culture Sections of Testimony were Submitted by Each Witness

OSA's Opening Brief argues that "Sempra needs to pay greater attention to enhancing its safety culture."[134] Following this title, OSA inserted generic text from various articles about corporate safety culture.[135] Without citation to any evidence, OSA further concludes that "the Commission should oversee the process."[136] OSA's brief ignores the extensive information, all of it citable and most unrebutted with contrary factual evidence, chronicling the very robust safety culture that exists at SoCalGas and SDG&E.

The Companies' policy witnesses set the tone at the top with several pages of policy testimony demonstrating that safety is a core value at SoCalGas and SDG&E, by describing specific programs and actions that demonstrate our strong safety culture, not just words about our commitment to safety.[137]

As noted in SoCalGas and SDG&E's Opening Brief, many witnesses for the Companies submitted voluminous testimony and supporting exhibits to demonstrate a strong safety culture, demonstrating a bottom-up and top-down approach to safety. SoCalGas and SDG&E's witnesses testified, for example, that regular safety meetings are held at many levels, including Executive Safety Council meetings, which have been in place for well over a decade, and annual Contractor Safety Summits, which have included hundreds of participants, representatives from other California utilities and the Safety and Enforcement Division of the CPUC.[138] The Companies' executive management, and specifically their Executive Safety Councils, are committed to and accountable for the development and maintenance of safety culture.[139] The Companies' RAMP Report also detailed the Companies' safety culture per the requirements of the S-MAP Interim Decision.[140] The risk mitigation activities described in the RAMP Report

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[134] OSA OB at 22.
[135] *See id.*
[136] *Id.* at 23.
[137] Ex. 1 SCG/Lane at 5-9; Ex. 2 SDG&E/Winn at 1-2, 4-6; Ex. 3 SCG/SDG&E/Day at 28-30.
[138] *See, e.g.,* Ex. 3 SCG/SDG&E/Day at 28-29.
[139] *Id.*
[140] I.16-10-015/-016 (cons.), Risk Assessment and Mitigation Phase (RAMP) Report (November 30, 2016) (referred to herein as the RAMP Report).

(such as the Behavior Based Safety program, Stop the Job, and employee training programs) as well as other mitigation activities evaluated as part of our risk management process help to foster and result in our strong safety culture.[141]

OSA did not address or refute with evidence any specific portions of these showings. OSA also waived cross-examination of the executive policy witnesses Mr. Lane and Ms. Winn; risk management witnesses Ms. Day, Greg Flores, and Jamie York; safety policy witnesses Mr. Buczkowski (VP of Gas Engineering and System Integrity) and David Geier (SVP of Electric Operations); and the HR witnesses Mary Gevorkian and Tashonda Taylor, all of whom provided extensive testimony on broader company safety culture.

OSA rehashes statements from its direct testimony[142] to argue for a new OII, failing to acknowledge details provided in Ms. Gevorkian and Ms. Taylor's rebuttal testimonies[143] to OSA's direct testimony[144] regarding numerous elements of SoCalGas and SDG&E's safety culture that relate to the multi-method framework to assess safety culture that was proposed by OSA.[145] This framework includes questionnaires, interviews, focus groups, observation, and document analysis. Multiple examples in each of these categories are *already in existence at SDG&E and SoCalGas* and part of this record.[146]

Ms. Taylor testified that at SDG&E, their "safety culture efforts include developing a trained workforce, safely operating and maintaining our electric and gas infrastructure, and providing safe and reliable gas and electric service. SDG&E's strong safety culture and commitment to further developing processes and programs is designed to manage safety risks and promote system reliability."[147] Ms. Taylor outlined numerous categories and specific programs in her testimony. For example, the Grassroots Culture Change, implemented in 2009, empowers employees through employee-led teams that train and work with front-line employees to advance a positive safety culture by addressing behaviors and norms taking safety beyond compliance.[148] This program is deployed as a partnership with the International Brotherhood of

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[141] Ex. 3 SCG/SDG&E/Day at 29 (citing RAMP Report Chapters SCG-2 "Employee, Contractor, Customer, and Public Safety" and SDG&E-3 "Employee, Contractor and Public Safety").
[142] OSA OB at 23.
[143] Ex. 257 SCG/Gevorkian at 5; Ex. 364 SDG&E/Taylor at 6.
[144] *See generally* Ex. 442 OSA/Contreras.
[145] *Id.* at 2-14.
[146] *See id.*; Ex. 364 SDG&E/Taylor at 6-7.
[147] Ex. 362 SDG&E/Taylor at 6.
[148] *Id.* at 8-9.

Electrical Workers (IBEW) and SDG&E.[149] Other joint union and company safety partnerships include the Code of Excellence (comprising the six tenets of Safety Focus, Operational Excellence, Customer Service, Environmental Respect, Regulatory Integrity, and Financial Strength), the Overhead Safety Partnership, and the OSHAQ Voluntary Protection Program.[150] Both SDG&E and SoCalGas employ the Environmental & Safety Compliance Management Program (ESCMP) which is a safety system focused on educating, training, and monitoring the effectiveness of health and safety activities aligned with the internationally accepted ISO 14001.[151] SDG&E and SoCalGas also use Behavior Based Safety (BBS) Programs, which are proactive approaches to safety and health management, focusing on finding at-risk behaviors in individuals and modifying them through feedback and intervention.[152] SDG&E and SoCalGas also have a Close Call/Near-Miss Program designed to encourage employees to report close calls and one that encourages frank discussion about safety.[153]

Both Ms. Gevorkian and Ms. Taylor outlined the Companies' robust culture organized around safety. Safety culture training begins with initial employee training, how we install infrastructure and operate it, and our commitment to safe and reliable service.[154] Tangible and current programs demonstrating SDG&E and SoCalGas' commitment to its safety culture include the Executive Safety Council, chaired by the Chief Operating Officer.[155] The Executive Safety Council sets safety goals for the entire company, provides resources, and reviews results from the feedback it receives from frontline employees.[156] SoCalGas also has a robust close call and near miss program giving employees multiple methods to report close calls.[157] Finally, SoCalGas embeds its safety culture in front-line leaders through its "Safety Essentials for

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149 *Id.*
150 *Id.* at 9, 16. Ex. 255 SCG/Gevorkian at 9.
151 *Id.* at 7.
152 Ex. 362 SDG&E/Taylor at 7. Ex. 119 SCG/Marelli at 11 ("SoCalGas' BBS program is a proactive approach to safety and health management focusing on principles that recognize at-risk behaviors as a frequent cause of both minor and serious injuries. The purpose of job observations and field rides is to reduce the occurrence of at-risk behaviors by modifying an individual's actions through observation, feedback and positive interventions aimed at developing safe work habits. Employees are also provided feedback and coaching so that their work conforms to policy and procedure."
153 *Id.* Ex. 255 SCG/Gevorkian at 9
154 *Id.* at 8-9.
155 *Id.* at 8. Ex. 362 SDG&E/Taylor at 9.
156 *Id.* at 8-9.
157 *Id.* at 9.

Supervisors" course, covering topics like "Safety Leadership for Everyone" and Developing an "Effective Safety Committee."[158]

Aside from discussing safety culture from the perspective of the Companies' human resources and safety departments, numerous other witnesses testified about safety culture in their areas. Ms. Orozco-Mejia testified on behalf of Gas Distribution, explaining how the Companies match their safety core value and statements with concrete programs like the Smith Driver course or "Stop the Job" or how the company stresses Personal Protective Equipment (PPE) requirements all the time.[159] The culture around safety is embedded daily in employees' regular work tasks from leak surveys, pipeline patrols, the manner by which employees reclassify work orders based on safety concerns, and the Companies' quality assurance programs.[160] As Ms. Orozco-Mejia explained, "Not only does an effective safety culture know and understand its responsibilities and objectives, it does so by building and maintaining a qualified workforce and by mitigating risks associated with public and employee safety hazards, system integrity, and reliability."[161] Both SDG&E and SoCalGas' Operator Qualification program ensures employees know how to perform their jobs, safely and reliably.[162]

Similarly, the Companies' safety culture is emphasized in the field through two-way communication and ongoing assessment.[163] "[S]afety is a core value so we provide all employees with the training necessary to safely perform their job responsibilities[.] [SoCalGas/]SDG&E takes an integrated approach to pipeline integrity and safety, beginning with the design and construction of facilities and followed by continual evaluation and improvement of operation and maintenance activities, public communication and awareness, emergency response, safety programs and practices, the implementation of new technologies, defined procurement processes that facilitate materials traceability, and a workplace that encourages continual open and informal discussion of safety-related issues."[164]

SoCalGas and SDG&E are committed to continuously improving its safety practices and operations and are open to constructively working with OSA. However, none of the Companies'

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158 *Id.*
159 *See* Ex. 7 SCG/Orozco-Mejia at 25-27; Ex. 11 SDG&E/Orozco-Mejia at 26.
160 *Id.* at 26-27.
161 *Id.* at 27.
162 *Id.*
163 *See* Ex. 115 SDG&E/Martinez at 7-9; Ex. 111 SCG/Martinez at 11.
164 *Id.* at 7.

extensive evidence on their *actual* practices were refuted, rebutted, or shown to be inadequate by OSA. In fact, in its own testimony, OSA acknowledged the role programs like incident evaluation, near-miss, and stop-the-job have on enhancing safety culture.[165] It belies logic how OSA was provided with all this evidence on SoCalGas and SDG&E's extensive and self-imposed efforts around developing, maintaining, and measuring its safety culture and still concludes the Companies have a deficient safety culture.

5.2.1.3 Process Safety at SoCalGas and SDG&E is Robust

In its brief, OSA sings a familiar tune about its belief that there is some meaningful distinction in the roles of occupational safety versus process safety.[166] This point has been rebutted. As stated in the Companies' safety policy testimony:

> OSA mistakenly suggested the Utilities may have a "false sense of security with regard to process safety"[167] because SoCalGas and SDG&E focus on worker safety. OSA's argument misses the mark. People safety reverberates in multiple areas, particularly public and process safety. Further OSA has not recognized, for example, that both SoCalGas and SDG&E have policies and use metrics to measure operational/process safety (*e.g.*, damage prevention, PSEP, TIMP, DIMP, wires down, wildfire (Fire Risk Mitigation Program) and vegetation-related activities, to name a few). ***
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> In recommending the Utilities "increase their focus on process safety,"[168] OSA appears not to recognize that process safety risks are being addressed by SoCalGas and SDG&E every day and that SoCalGas and SDG&E are committed to the critical safety principles of continuous improvement and the cycle of "Plan-Do-Check-Act."[169] These commitments are expressed by SDG&E's Chief Operating Officer, Caroline Winn and SoCalGas' Chief Operating Officer, J. Bret Lane in their GRC testimony. ***
>
> For SoCalGas and SDG&E, process/operational safety is considered to be a blend of engineering, operational, and management expertise focused on preventing everything from near misses to catastrophic events. Similar to the Utilities' focus on addressing risk, the emphasis on process/operational safety is not new. In fact, this concept of "Process Safety" has been in place at both Utilities for decades.[170]

At no point does OSA even cite this testimony and evidence, let alone rebut it. SoCalGas and SDG&E fundamentally disagree with OSA's assertion that "focus[ing] on occupational

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[165] Ex. 442 OSA/Contreras at 2-24.
[166] OSA OB at 23-25.
[167] Ex. 442 OSA/Contreras at 2-4.
[168] *Id.* at 2-2.
[169] American Petroleum Institute Recommended Practice 1173.
[170] Ex. 90 SCG/SDG&E/Buczkowski/Geier at 3-5.

safety can be detrimental to overall safety."[171] This statement, made with no citation at all, is false and places an overemphasis on process safety to the detriment of people coming home safely from work and the public being protected from safety hazards. Both occupational and process safety should be important and are interrelated. SoCalGas and SDG&E will continue to focus on a host of safety metrics no matter how they are characterized, and we will not de-emphasize the role of occupational safety.

In focusing on meaningless terminology distinctions, OSA misses the evidence in the record demonstrating SoCalGas and SDG&E's abundant safety management systems and processes designed around safety. In fact, the Safety Overview section of Ms. Winn's Policy testimony begins with a bulleted list of projects that SDG&E is investing in to modernize "our infrastructure to improve safety and reliability," including the Cleveland National Forest Project and Fire Risk Mitigation Program, of which are evidence of process safety.[172]

Conspicuously absent from OSA's brief is any discussion of SDG&E's testimony regarding its proposed RAMP risk mitigation projects and programs for electric distribution (ED), most notably SDG&E's wildfire safety risk management activities, which SDG&E considers to be process/operational safety and satisfy components of a SMS.[173] For example, the Electric Distribution O&M testimony of William Speer presented SDG&E's company-wide focus on addressing and minimizing wildfire-related risks, as demonstrated in its Fire Prevention Plan (FPP) and RAMP Report.[174] SDG&E has identified the threat of wildfire as its top safety risk in its RAMP Report, past GRCs, and in numerous other proceedings, but SDG&E's extensive programs to mitigate its top safety risk have completely escaped OSA's focus. For all of OSA's harsh criticism, "wildfire" does not appear once in OSA's opening brief. This is unfortunate, because the record evidence in this case demonstrating SDG&E's wildfire safety

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171 OSA OB at 24.
172 Ex. 2 SDG&E/Winn at 1.
173 SDG&E's proposed RAMP-related risk mitigation programs and projects are summarized in Ex. 3 SCG/SDG&E/Day at Appendix A.
174 Ex. 68 SDG&E/Speer at 7-8 (citing SDG&E's 2016 FPP and RAMP Report). SDG&E's 2017 FPP is available at http://webarchive.sdge.com/sites/default/files/documents/2021898396/SDGE_Fire_Prevention_Plan_for_2017.pdf?nid=19701. SDG&E's RAMP Report (I.16-10-015, Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company) is available at https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas.

program is substantial. Mssrs. Geier and Buczkowski cited SDG&E's fire risk mitigation and vegetation management programs as an example of where OSA has failed to notice SDG&E's use of metrics in operational/process safety practices.[175] Mr. Geier's supplemental testimony on year-round wildfire risk mitigation describes the categories of SDG&E's comprehensive and systematic fire risk mitigation program activities described in the FPP, the costs for which are requested in this case, discussed extensively in our Opening and Reply Briefs[176] and are described in Mr. Geier's testimony. These include (i) minimizing sources of ignition,[177] (ii) operational practices for reducing the risk of ignition,[178] (iii) mitigating the threat of fire through awareness and readiness,[179] and (iv) fire suppression and recovery (coordinated with community outreach and public awareness).[180]

Mr. Speer testified that SDG&E spent approximately $35 million in electric distribution O&M wildfire risk mitigation programs in 2016, including vegetation management, capstone fire brigade crews, and the O&M component of the FiRM capital project.[181] SDG&E's TY 2019 GRC proposes $5.8 million O&M for new mitigation programs, including year-round availability of the helitanker discussed in Mr. Geier's Supplemental Year-Round Wildfire Risk Mitigation testimony,[182] an expanded long span inspection and repair program, and new software and information management tools for improved emergency response.[183] But OSA's brief entirely ignores the extensive record evidence supporting SDG&E's groundbreaking fire risk mitigation program, apparently because it is not specifically called "SMS," or housed under an organization with "safety" in the title.

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175 Ex. 90 SCG/SDG&E/Buczkowski/Geier at 3-4.
176 SoCalGas and SDG&E OB at 240-244.
177 Ex. 360 SDG&E/Geier at 6-7 (citing the 2016 FPP at 5-14 and discussion of these programs in Ex. 74 SDG&E/Colton and Ex. 68 SDG&E/Speer).
178 *Id.* at 7 (citing *discussion in* 2016 FPP at 14-20; Ex. 68 SDG&E/Speer; Ex. 74 SDG&E/Colton, in Reliability/Improvement Section J – Budget 11249 at 87 (Install SCADA on line capacitors), Budget 11253 at 88 (wireless fault indicators), Budget 11267 at 90 (SCADA Expansion-Distribution), Budget 12246 at 92 (Advanced Ground Fault Detection), and Budget 12247 at 93 (Smart Isolation and Reclosing)).
179 *Id.* (citing *discussion in* 2016 FPP at 20-31; Ex. 68 SDG&E/Speer; and Ex. 74 SDG&E/Colton, in Reliability/Improvement Section J – Budget 16244 at 100 (Meteorology – Outage Prediction Modeling), Budget 16245 at 101 (Meteorology – Fire Behavior Modeling), and Budget 17253 at 105 (Electric Distribution Grid Analytics –data gathering and analysis from weather and system performance)).
180 *Id.* at 8 (citing *discussion in* 2016 FPP at 35-38 and Ex. 68 SDG&E/Speer). *See also* FPP at 31-38.
181 Ex. 68 SDG&E/Speer at 8.
182 *See generally* Ex. 360 SDG&E/Geier.
183 Ex. 68 SDG&E/Speer at 8.

And the FPP describes only one area of SDG&E's well-established SMS programs in the GRC. For example, Mr. Speer's testimony also provides cost forecasts supporting SDG&E's Corrective Maintenance Program (CMP) and its Emergency Operating Center (EOC) procedures, activated during red flag weather events.[184] Mr. Speer also supports costs for occupational safety programs involving extensive process development and implementation, systematic training, education, outreach, safety councils, reporting, lessons learned and continuous improvement,[185] which are exactly the required components of a SMS. OSA's criticism differentiating occupational safety from process safety[186] therefore misses the mark, because SDG&E's approach is more comprehensively in line with critical process safety.

Another robust SMS effort at SoCalGas and SDG&E is their Pipeline Safety Oversight Group and Pipeline Safety Oversight Committee (PSOC).[187] The Pipeline Safety Oversight Group provides centralized incident evaluation; compliance improvement oversight through monitoring and documenting the progress of corrective actions; and monitoring of compliance with federal and state regulatory requirements.[188] Centralized Incident Analysis strives to produce a consistent, structured process for compliance-related pipeline incidents, events, and close calls with the focus being to reduce repeat non-compliance events as well as new/unique non-compliance events. This team will also be enhancing compliance enhancement project tracking and communication of lessons learned throughout the Companies and with the Companies' gas pipeline contractors.[189]

Compliance Improvement Oversight monitors and documents the progress of corrective actions towards conclusion. The Compliance Improvement Oversight team enhances the consistency in process improvement activities with an emphasis on the implementation tracking, effectiveness evaluation and review of business control tracking related to system enhancements. Additionally, Compliance Improvement Oversight coordinates communication of corrective actions across departments to facilitate improvement lessons and opportunities are shared for system-wide learning and improvement. Compliance Oversight is responsible for overseeing

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[184] *Id.*, *passim.*
[185] *Id.*, *passim.*
[186] OSA OB at 24.
[187] Ex. 84 SCG/Rivera at 50-52; Ex. 90 SCG/SDG&E/Buczkowski/Geier at 11.
[188] Ex. 84 SCG/Rivera at 50.
[189] *Id.*

adherence to both federal and state regulatory requirements, tracking of new regulations, maintenance of the natural gas operator safety plans, consistency with CPUC Safety Enforcement Programs, and tracking the follow-up implementation of post-SED audits.[190]

Finally, the PSOC brings together executives and other leaders to regularly discuss pipeline safety, review metrics, and examine best practices.[191] The PSOC "is structured to review issues, identify solutions and resolution, and track follow up."[192]

The Commission has not adopted a definition of SMS and the Companies noted the ambiguity of the term in a discovery response that was entered as a joint exhibit by the Companies and OSA into the record of this proceeding.[193] Notwithstanding a clear definition of SMS, the Companies maintain that SDG&E's wildfire risk mitigation and their joint PSOC efforts are evidence that the Companies have components of SMSs already in place in their electric and gas operations.

In short, SDG&E and SoCalGas appreciate constructive feedback in striving for continuous improvement. However, OSA's failure to note major SoCalGas or SDG&E SMS and process safety programs, including extensive record evidence on its wildfire mitigation activities and pipeline safety oversight, discredits its criticism and renders it largely unhelpful.

5.2.1.4 Evidence of Leading Indicators and Safety Measurement was Ignored by OSA

Similar to its neglect in responding to the record evidence on people versus process safety, OSA also seems to ignore the fact that SoCalGas and SDG&E submitted evidence on existing leading indicators of process safety,[194] as well as other ways the Companies measure progress on our safety record. Risk management policy witness Diana Day noted the Commission's definition of "safety culture," as follows:

> [T]he collective set of that organization's values, principles, beliefs, and norms, which are manifested in the planning, behaviors, and actions of all individuals leading and associated with the organization, and where the effectiveness of the culture is judged and measured by the organization's performance and results in

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190 *Id.*
191 Ex. 90 SCG/SDG&E/Buczkowski/Geier at 11.
192 *Id.*
193 *See* Ex. 91 OSA/SEU (OSA-SEU-Data Request-003, Utilities' Response to Question 7a).
194 Ex. 90 SCG/SDG&E/Buczkowski/Geier at 9-10.

> the world (reality). Various governmental studies and federal agencies rely on this definition of organizational culture to define "safety culture."[195]

Thus, in addition to the Companies' activities and programs, their strong safety record should be considered part of their demonstration of a strong safety culture. As the Commission has recognized: "An effective safety culture is a prerequisite to a utility's positive safety performance record."[196] SoCalGas and SDG&E explained how they go above and beyond merely complying with regulations by laying out a comprehensive list of leading operational metrics used by leadership to measure safety:[197]

> Measuring the Utilities' heightened safety goals is already in play. Some examples of leading operational metrics used to gauge safety at the Utilities, include (i) near miss statistics; (ii) average number of field rides per employee; (iii) number of stop-the-job events; (iv) response time (minutes) to gas leaks; (v) total miles of transmission pipe inspected by in-line inspection; (vi) average response time for emergency, branch, and circuit outages (minutes); (vii) transmission and distribution overhead wires down; (viii) transformers at seismic guidelines; and (ix) inspections (such as vegetation) and the Corrective Maintenance Program (CMP).[198] As noted by Ms. Day, "Over the next few years, the ERM[199] department is committed to developing metrics that can be used to measure the effectiveness of our risk management efforts. This may include performance metrics to measure particular risks, methods of evaluating the effectiveness of risk mitigants, or overarching metrics, such as a risk reduction per dollar spent."[200]

It should be noted that the Companies review and consider operational safety metrics as well as occupational safety metrics, which were informally shared with OSA. Once again, OSA neglected to even mention any of this testimony in its Opening Brief – rehashing generic claims about leading and lagging metrics and incorrectly asserting SoCalGas and SDG&E lacked any meaningful leading indicators for safety.[201] The above evidence in the record proves otherwise. Further, if OSA knows of other metrics, SoCalGas and SDG&E extended a request that it share

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[195] Ex. 3 SCG/SDG&E/Day at 28 (citing I.15-08-019 (Order Instituting Investigation of Pacific Gas and Electric Company's Safety Culture, August 27, 2015), at 4).
[196] *Id.*
[197] *Id.* at 10.
[198] Some examples of important lagging operational metrics used to gauge safety at the Utilities, include (i) number of damages due to mismarks; (ii) damages on medium pressure lines per 1,000 USA tickets; (iii) number of fire ignitions; (iv) number of dig-ins; (v) number of curtailments due to unplanned pipeline and equipment outages; and (vi) aviation incident rate.
[199] Enterprise Risk Management (ERM).
[200] Ex. 3 SCG/SDG&E/Day at 26.
[201] OSA OB at 25-26.

these metrics with the utilities because, as we said, "there is always more that can be measured …."[202]

Additionally, there are other metric-related efforts ongoing at the Commission to which OSA is involved. SoCalGas and SDG&E are evolving through the participation in such efforts, including the Metrics Working Group in the Safety Model Assessment Proceeding (S-MAP), Application 15-05-002 (consolidated), and the preparation of Accountability Reporting requirements (pursuant to D.14-12-025), including future requirements that would apply to the TY 2019 GRC. As noted in Ms. Day's testimony, "[e]xploring performance metrics to be used for evaluating risks as well as additional data collection to support the metric efforts is in scope of the S-MAP."[203] Examples of the metrics being considered in the S-MAP as well as additional metrics that are included in the Companies' Interim Spending Accountability Report are as follows:[204]

- Total Locate and Mark Tickets
- Locate and Mark: Markouts
- Locate and Mark: Mismarks
- Damages Per 1,000 Tickets
- Total Damages (related to Dig-ins)
- Number of Third Party Damages to High-Pressure Pipe
- Number of Third Party Damages to Medium-Pressure Pipe
- Total miles of High-Pressure Pipe Inspected by In-line Inspection
- Wells Inspected Using an Enhanced Inspection Protocol
- Fire Ignitions
- Transmission and Distribution Wires Down
- Completed Vegetation Inspections
- Vegetation Related Outages
- Corrective Maintenance Program Inspections
- Electric Troubleshooter Response Time

The Companies also have safety-related metrics included as part of their testimony and/or workpapers in this GRC. For example, there are safety metrics related to compensation, as discussed in the testimony of Compensation and Benefits witness Debbie Robinson.[205] Other of the Companies' exhibits include metrics, some of which are associated with Ms. Robinson's showing of compensation-related metrics, such as Gas Distribution, Gas System Integrity,

[202] Ex. 90 SCG/SDG&E/Buczkowski/Geier at 10.
[203] *Id*. at 17.
[204] SCG and SDG&E Application, Appendix A Second Interim Spending Accountability Report, at 11.
[205] *See* Ex. 208 SCG/SDG&E/Robinson at 12-13.

Underground Storage, Pipeline Integrity for Transmission and Distribution, PSEP, AMI, and Electric Distribution Capital and O&M.[206]

The Companies' commitment to safety culture through compensation-related metrics and key performance indicators to drive improved safety performance was extensively demonstrated in Ms. Robinson's testimony regarding SoCalGas and SDG&E's short-term incentive compensation plans (ICP),[207] as well as in the Companies' governance regarding compensation.[208] As the Commission has stated: "One of the leading indicators of a safety culture is whether the governance of a company utilizes any compensation, benefits or incentive to promote safety and hold employees accountable for the company's safety record."[209] Ms. Robinson testified that "both SoCalGas and SDG&E have increased the emphasis on employee and operational safety measures in their ICP plans," over the past two years.[210] OSA's harsh criticism of the Companies' safety-related ICP metrics[211] demonstrates a lack of understanding regarding the measurable, auditable operational safety metrics SoCalGas and SDG&E use as part of their mix of ICP performance measures promoting safety. OSA's OB completely ignores Ms. Robinson's rebuttal testimony explaining why all of SoCalGas and SDG&E's safety-related ICP measures indeed promote operational safety.[212] OSA offers *no* suggestions for what safety-related ICP measures it would recommend adopting instead. Ironically, by OSA recognizing only ICP "employee safety measures" as those related to safety, OSA's Opening Brief argument seems to imply that OSA does not recognize process/operational safety-related ICP goals (*e.g.*, goals related to reduced wires-down, dig-ins, and foreign object contacts) as providing a benefit to customers, the public, and the electric and gas systems.[213]

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206 *See* Ex. 7 SCG/Orozco-Mejia; Ex. 11 SDG&E/Orozco-Mejia; Ex. 84 SCG/Rivera; Ex. 87 SDG&E/Rivera; Ex. 273 SCG/Navin; Ex. 111 SCG/Martinez; Ex. 115 SDG&E/Martinez; Ex. 231 SCG/Phillips; Ex. 287 SCG/Garcia; Ex. 74 SDG&E/Colton; Ex. 68 SDG&E/Speer.
207 Ex. 208 SCG/SDG&E/Robinson at 10-15.
208 *See, e.g.,* Ex. 3 SCG/SDG&E/Day at Appendix E (Governance and Compensation Items from D.16-06-054, at 155-56).
209 Ex. 208 SCG/SDG&E/Robinson at 11-12 (citing D.16-06-054 at 153).
210 *Id.* at 10.
211 OSA OB at 25-27.
212 Ex. 211 SCG/SDG&E/Robinson at 18-20.
213 *See* OSA OB at 26-27.

5.2.1.5 As OSA only addressed a handful of RAMP and other safety-related costs presented in this first-ever risk-informed GRC, it has no basis to state that the GRC costs in their entirety "are not likely to be just and reasonable"

Notably, in contrast to other parties, OSA did not submit testimony commenting on the specific costs requested in this GRC, even though this is the fundamental purpose in this proceeding.[214] Rather, OSA weighed in on various safety culture and safety management policy issues where it made recommendations that would impact the "effectiveness of all the safety programs and initiatives that are proposed in this GRC."[215] Accordingly, SoCalGas and SDG&E's rebuttal testimony focused on these OSA recommendations, some of which we agreed with as good suggestions for continuous improvement,[216] and others which we rebutted as not fully informed by the evidence that the Companies submitted to OSA. While there may have been some disagreements with OSA's previous conclusions, overall, the Companies and OSA were fairly aligned on approaching our safety journey in a collaborative and continuous improvement focused manner. That is, until OSA submitted an Opening Brief from left field.

In its Opening Brief, OSA for the first time weighs in on the main issue of costs in this proceeding in an inexplicably harsh way, without any explanation as to what changed in evidence during hearings that would cause OSA to now render an entirely new opinion: "<u>The costs in these GRCs and the replacement rate of aging infrastructure are not likely to be just and reasonable as Sempra's approach to managing safety and the supporting safety culture is deficient.</u>"[217]

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[214] A.17-10-007/-008 (cons.), Assigned Commissioner's Scoping Memorandum and Ruling (issued January 29, 2018) at 4.
[215] Ex. 442 OSA/Contreras at 3-3; *see also id.* at 1-2 ("[T]his testimony addresses select items … that are important to the effective management of, and thus relevant to the proposals presented in the Applications."); *id.* at 2-2 to 2-4 ("Summary of Recommendations" that does not discuss costs).
[216] Examples: (1) "SDG&E's Electric operations is committed to implementing an SMS including International Organization for Standardization (ISO) 55000 and its tenets" (Ex. 90 SCG/SDG&E/Buczkowski/Geier at 5); (2) "SoCalGas' Underground Storage operations is implementing API 1171 and are committed to implementing an SMS" (*Id.* at 5); (3) agree to "incorporate OSA's requested Electric Operations Safety Plan into its overall implementation of the Electric SMS" (*Id.* at 7); (4) agree that a long-term multi-year plan is necessary for the implementation of API 1173 (Ex. 86 SCG/Rivera at 7); (5) "the Companies support OSA's recommendation to establish and focus on leading indicators of process safety" (*Id.* at 21); and (6) "the Companies are open to collaborating with OSA and its safety consultants to develop experimental metrics that could help the Companies' maturity with establishing a pipeline safety management system" (*Id.* at 23).
[217] OSA OB at 4.

As a preliminary matter, to broadly say "the costs," is so vague that it would be hard for the Commission to ascertain what exactly is meant by this statement. Notably, OSA neglected to follow the joint briefing outline that would have enabled the Commission to review OSA's cost assertions area by area. To the extent OSA is now arguing deficiencies in safety culture should disallow funding, the evidence discussed above overwhelmingly shows that OSA's assertions on safety culture are woven from whole cloth. Even if these unsupported assertions were correct, which they are not, it would stand to reason that incremental funding is actually *more important* and reasonable to adopt for safety-related programs and initiatives in this GRC.

With respect to the replacement rate of aging infrastructure, again, OSA offered no testimony on the appropriate rate or pace of replacement, which was another key issue in the scope of this proceeding.[218] Other than stating that "[w]hile it is impossible and unaffordable to replace all aging infrastructure at once,"[219] there was no analysis by OSA as to the rate of replacement. OSA never even assessed the replacement rate of aging infrastructure in this case proposed by others -- whether Applicants, ORA, or CUE's proposed rates. OSA offered limited testimony with respect to lessons learned from the Line 235-2 Root Cause Analysis (RCA) for TIMP (discussed further below). While OSA recommended that safety management go beyond integrity management programs like TIMP or DIMP, for example in its recommendation to expand API 1173 SMS to Electric Operations and Underground Storage Operations (discussed in Sections 22.5 and 14), it failed to put forward cost requests. Importantly, OSA's lofty recommendations to expand SMS have little relevance to the question of the replacement rate of aging infrastructure, which was a prevalent issue throughout many parts of SoCalGas and SDG&E's testimony, most of which was not even commented on by OSA (*e.g.*, DIMP, Gas Distribution, Gas Transmission, Underground Storage).[220]

While OSA generally commented on TIMP and the expansion to non-High Consequence Areas (HCAs), OSA's statement that costs are not likely to be just and reasonable is particularly unsubstantiated and unreasonable because TIMP is a mandatory safety compliance program and

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[218] A.17-10-007/-008 (cons.), Assigned Commissioner's Scoping Memorandum and Ruling (issued January 29, 2018) at 5.

[219] Ex. 442 OSA/Au at 4-3.

[220] *See generally* Ex. 111 SCG/Martinez; Ex. 115 SDG&E/Martinez; Ex. 7 SCG/Orozco-Mejia; Ex. 11 SDG&E/Orozco Mejia; Ex. 30 SCG/Bermel/Musich; Ex. 33 SDG&E/Bermel/Musich; Ex. 273 SCG/Navin.

one where no other parties disputed SoCalGas/SDG&E's proposed requests, and ORA proposed adoption of 2017 actuals which would result in more funding.[221] TIMP and DIMP are mandated, compliance programs pursuant to the Code of Federal Regulations.[222] If TIMP should be funded at zero dollars, which is the logical conclusion of OSA's statements as the Commission is prohibited from authorizing rates that are not just and reasonable,[223] it would certainly not enhance Applicants' ability to manage pipeline safety, specifically the catastrophic damage resulting from high- and medium-pressure pipeline failure, which are among the Companies' key RAMP risks. Nor would it allow SoCalGas and SDG&E to expand TIMP into non-HCAs similar to Line 235-2's unpopulated area, which is what the Companies have requested in this GRC to further enhance safety above and beyond the minimum compliance requirements.[224] The same is true for DIMP and these same key RAMP risks of pipeline failure, which were not directly addressed by OSA, but where the "replacement rate of aging infrastructure" is directly relevant for the early vintage pipeline replacement programs (Vintage Integrity Plastic Plan (VIPP), Bare Steel Replacement Plan (BSRP)).[225] Again, there was strong support for DIMP by other parties, including CUE and ORA, which asked for more funding or asked for 2017 actuals that would result in more funding.[226] OSA submitted absolutely no testimony on these other parties' recommendations, yet now offers conflicting conclusions that these program costs are not just and reasonable.

SoCalGas and SDG&E presented a risk-informed rate request as required, and the Companies, along with most intervenors, focused their rate case presentations and arguments on these requests. OSA's arguments and conclusions regarding the reasonableness of SoCalGas and SDG&E's cost forecasts are unsupported, uninformed, and provide no real guidance to decisionmakers tasked with ensuring both safety and just and reasonable rates.

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[221] *See* ORA OB at 12.
[222] Ex. 111 SCG/Martinez at iii, 2-3, 13, 15, 20.
[223] *See generally* Pub. Util. Code § 451.
[224] *See* Ex. 111 SCG/Martinez at 3 ("Although TIMP regulations currently only require baseline assessments of transmission pipelines operated in HCAs, in an effort to further enhance the safety and reliability of the system, SoCalGas expanded its program to include assessments of non-HCA pipelines that are contiguous to or near HCA pipelines on a case-by-case basis."); Ex. 114 SCG/Martinez at 9 ("SoCalGas agrees with OSA that TIMP should be expanded beyond High Consequence Areas (HCAs) and for this reason has proactively over the years gone above and beyond compliance requirements by extending TIMP into less populated areas.").
[225] OSA OB at iii, 4; *see* Ex. 111 SCG/Martinez at 24-27, 32.
[226] *See* ORA OB at 12; CUE OB at ix, 24-25, 92-93.

5.2.1.6 OSA's criticisms appear to re-litigate S-MAP and RAMP requirements followed by the Companies for this GRC cycle

OSA's disagreements[227] with the Commission's own requirements for a risk-informed GRC process are better suited for the S-MAP proceedings, where such requirements are decided. OSA in essence criticizes the Applicants for following the Commission's process and requirements for this GRC. Notably, OSA failed to raise concerns regarding the RAMP requirements or RAMP-to-GRC integration processes in either the S-MAP or the Companies' RAMP proceedings that fed into this GRC.

As noted in SoCalGas and SDG&E's Opening Brief,[228] the RAMP is a subset of the Companies' GRC showing, in that it is limited to reporting on safety-related activities that correspond to one or more of the Company's key safety risks, with risk impacts scoring four (major) or more in the Safety, Health and Environment category.[229] SoCalGas and SDG&E were the first utilities to submit their over 900-page RAMP Report and, thus, integrate the RAMP into the GRC.[230] As the first-ever RAMP proceeding, the information provided in the Report offered unprecedented detail and analysis of the Companies' risk mitigation activities. The decision closing the Companies' RAMP proceedings noted the Commission's SED observation that "the risks identified in the RAMP Report offer a complete description of risk scenarios and proposed mitigation measures and provides a reasonable basis for understanding the intent of the mitigations and how they might be able to reduce the impact or frequency of the [RAMP risk-related] incidents."[231] The decision further noted that "the risk rankings and proposed mitigations provide more data, information, and analysis regarding SDG&E and SoCalGas' methodologies in assessing risks and how to mitigate those risks."[232]

The Companies based their risk-informed presentation in this case on D.16-08-018 and the D.14-12-025, which modified the Rate Case Plan to incorporate a risk-based decision-making framework including establishing the RAMP process and required the Companies to integrate

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[227] *See* OSA OB at 34-35 (criticizing the lack of quantitative risk data for RAMP items).
[228] SCG/SDG&E OB at 19.
[229] I.16-10-015/-016 (cons.), Risk Assessment and Mitigation Phase (RAMP) Report (November 30, 2016) at Overview and Approach Chapter (RAMP – A), A-4.
[230] Ex. 4 SCG/SDG&E/Day/Flores/York at 8 (citing the RAMP Report).
[231] *Id.* at 8-9 (alterations in original).
[232] *Id.* at 9.

"RAMP results into [their] GRC filing[s],"[233] beginning with their TY 2019 showing.[234] The Commission found that SED "reviewed the RAMP Report for compliance,"[235] the Companies "incorporated RAMP results into their respective Test Year 2019 GRC applications,"[236] "the requirements set forth [in] D.14-12-025 and D.16-08-018 have been satisfied,"[237] and "this [RAMP] process is now complete."[238] Thus, the Companies' RAMP-related information in this proceeding was presented in accordance with Commission-adopted requirements and is "to be reviewed in the TY2019 GRC applications."[239]

Accordingly, to the extent that OSA takes issue with the Companies not presenting quantitative data to prove our various risk mitigations' effectiveness in this GRC, we were not required to.[240] The Commission found, for SoCalGas and SDG&E only, that piloting calculations to measure effectiveness was acceptable for the RAMP given the early stage.[241] As discussed in Ms. Day's direct testimony, "stakeholders agreed that the RSEs are evolving, and should be further refined in the S-MAP, and have limited usefulness in their current state. SoCalGas and SDG&E explicitly stated in their comments on the SED Evaluation Report in the RAMP proceeding that they 'do not plan to include their nascent RSE calculations in the upcoming TY 2019 GRC.'"[242] In other words, the Commission did not require us to re-submit RSEs in this first risk-informed GRC when it found our RAMP Report compliant and we told parties that we were not integrating the RSEs into this GRC. Thus, quantitative risk

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233 *Id.* at 2 (quoting D.14-12-025 at 42).
234 *Id.* at 2-3 (citing D.16-08-018 at 154).
235 D.18-04-016 at 1.
236 *Id.*
237 *Id.* at 14.
238 *Id.* at 1 and Conclusion of Law (COL) 2.
239 *Id.* at 12.
240 *See* I.16-10-015/-016 (cons.), Risk Assessment and Safety Advisory Report (SED Report) (issued March 8, 2017) at 7 (regarding considerations for improvement in the GRC presentation), *available at* http://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/Safety/Risk_Assessment/RCR/Final%20Sempra%20RAMP%20030717.pdf. D.16-08-018 and D.14-12-025 provide the requirements for RAMP which include to "Present an early state 'risk mitigated to cost ratio.'" D.16-08-018 at 151. Then the "Utility incorporates RAMP results into its GRC filing." D.16-08-018 at 151. However, the Commission recognized that SoCalGas and SDG&E were the first utilities to file a RAMP report, integrate the RAMP into the GRC, and did so under a compressed time frame.
241 *See* D.16-08-018 at 151.
242 Ex. 3 SCG/SDG&E/Day at 17-18 (footnotes omitted).

effectiveness calculations are a requirement in the RAMP, but not a requirement in the Companies' GRC, as explained in Ms. Day's testimony.[243]

Further, RSEs are something the Companies are making strides to improve, as discussed in ORA's testimony[244] and through the S-MAP Phase 2 settlement. Ms. Day's rebuttal testimony discussed the S-MAP Phase 2 settlement stating:

> The settlement, if adopted, sets forth "minimum required elements to be used by the large utilities for risk and mitigation analysis in the RAMP and GRC." These minimum requirements include, among other things, a process for selecting risks for the RAMP, principles for performing risk assessment and risk ranking in preparation for the RAMP, a methodology for mitigation analysis for risks in RAMP including the calculation of risk-spend efficiency, and global items such as ensuring transparency, using data when practical and appropriate, and using Subject Matter Expert (SME) judgment if data is not available.[245]

In conclusion, OSA's criticism of the lack of RSEs <u>in this GRC</u> is not valid given the development stage that the California large utilities are in and the ongoing development in the S-MAP Phase 2 whereby the settlement, if adopted by the Commission, would commit SoCalGas and SDG&E to submit RSEs based on a new methodology in their next RAMP and GRC.

6. Risk-Informed GRC Overview

6.1 Risk Management Policy

6.2 Enterprise Risk Management

6.3 RAMP-To-GRC Integration

ORA and the Companies are in general agreement with respect to transitioning to a more quantitative risk management approach, using RAMP-related data to inform funding decisions in this proceeding, and increasing funding levels for the ERM Organization.[246] However, as discussed in the Companies' rebuttal testimony, many of the recommendations proposed by ORA are beyond the scope of this GRC, as they will be addressed in Phase 2 of the Safety Model Assessment Proceeding (S-MAP) through the pending settlement[247] and/or a final Commission

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[243] *See* Ex. 3 SCG/SDG&E/Day at 17-18; *see* Ex. 04 SCG/SDG&E/Day at Section II.A.
[244] *See* Ex. 398 ORA/Stannik at 10-11.
[245] Ex. 04 SCG/SDG&E/Day at 11 (footnotes omitted).
[246] ORA OB at 9-12.
[247] A.15-05-002/-003/-004/-005 (cons.), Joint Motion for Approval of Settlement Agreement Plus Request for Receipt into the Record of Previously Served Documents and for Expedited Comment Period (Filed May 2, 2018) (S-MAP Settlement).

decision in that proceeding.[248] For example, ORA recommends phasing out the reliance on the 7x7 matrix, further developing risk metrics (*e.g.*, risk spend efficiency), and describing specific steps taken to achieve a more quantitative framework in the next GRC.[249] The S-MAP is the appropriate proceeding to address policies and guidelines for the models used by a utility to mitigate risks, including changes to the RAMP requirements and a methodological framework to be used in future RAMP and GRC filings.[250] Therefore, ORA's concerns are outside the scope of this proceeding and are being addressed by the Commission in the ongoing S-MAP.

ORA was the only party to address the Companies' funding request for their Enterprise Risk Management (ERM) Organization and does not dispute the Companies' funding level. The Companies' ERM forecasts are therefore uncontested and should be approved.

ORA also asserted in their opening brief that the incremental ERM funding for outside expertise should be tracked in a one-way balancing account,[251] and does not address the Companies' rebuttal testimony disputing ORA's proposal. As explained in the Companies' opening brief, ORA's recommendation is not warranted or practical and should be rejected. As Ms. Day, Mr. Flores, and Ms. York explained, "[b]ecause risks and risk mitigations are dynamic, setting the precise scope of the Companies' efforts years in advance may be challenging and unreasonable."[252] Further, creating a new regulatory account for the marginal amount of the ERM Organization funding requested in this TY 2019 GRC would segregate one relatively small category of costs and would create an unnecessary administrative burden, with no foreseeable benefit. Based on the foregoing, ORA's recommendation to one-way balance the ERM Organization costs should be rejected.

In its opening brief, CUE restates its testimony position that while the RAMP may have been useful in getting the Companies to "identify issues and think about how to quantify them, the actual numbers in the RAMP analyses are meaningless for this GRC. Therefore, the RAMP computations should be ignored by the Commission for purposes of determining project costs

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[248] Ex. 4 SCG/SDG&E/Day/Flores/York at 10-12.
[249] ORA OB at 9-12.
[250] A.15-05-002/-003/-004/-005 (cons.), Scoping Memo And Ruling Of Assigned Commissioner (dated December 13, 2016) at 3-11. *See also* Ex. 4 SCG/SDG&E/Day/Flores/York at 7 ("Additionally, the appropriate proceeding to evaluate the effectiveness of risk tools and methodologies is the S-MAP, not the GRC.").
[251] ORA OB at 10.
[252] SCG/SDG&E OB at 22 (citing Ex. 4 SCG/SDG&E/Day/Flores/York at 18).

and setting rates in this GRC."[253] CUE's argument ignores the fact that "the Companies' RAMP-related information in this proceeding was presented in accordance with Commission-adopted requirements," as demonstrated in rebuttal testimony.[254] As noted in the Companies' opening brief, "The Commission has found that SED has 'reviewed the RAMP Report for compliance,' the Companies have 'incorporated RAMP results into their respective Test Year 2019 GRC applications,' 'the requirements set forth [in] D.14-12-025 and D.16-08-018 have been satisfied,' and 'this [RAMP] process is now complete.'"[255] Therefore "RAMP-related information should be used to inform funding decisions in this proceeding, as supported by ORA, and as required by the Commission."[256] It is not reasonable for parties to "expect the RAMP process to be at its end-state in the first-ever submission by any utility."[257]

UCAN's opening brief asserts that the "data presented via the RAMP is not clear and should not be relied upon."[258] This argument appears to confuse the RAMP proceeding, Investigation (I.) 16-10-015/-016 (consolidated) which was closed by the Commission on the basis that "'the requirements set forth [in] D.14-12-025 and D.16-08-018 have been satisfied,'"[259] with the RAMP-related funding requests for risk mitigation activities in this proceeding. In the same breath, UCAN criticizes the Companies for "significant discrepancies between the results of SDG&E's RAMP process and its GRC funding request[]."[260] These statements further demonstrate UCAN's misunderstanding of the RAMP-to-GRC integration process. As shown in the Companies' opening brief, the Companies did not blindly move the activities from the RAMP proceeding into the GRC; rather, the identified safety risk mitigants went through a review and evaluation process, which may have resulted in differences between the amounts shown in the RAMP Report and those requested in this GRC.[261] The Companies' testimony showing explained that there are indeed differences between the RAMP Report[262] and

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[253] CUE OB at 6.
[254] Ex. 4 SCG/SDG&E/Day/Flores/York at 3 (citing D.18-04-016 at 12).
[255] SCG/SDG&E OB at 21 (internal citations omitted).
[256] *Id.* (citing Ex. 398 ORA/Stannik at 2 and 15); *see also* Ex. 4 SCG/SDG&E/Day/Flores/York at 3 (citing D.18-04-016 at 12).
[257] Ex. 4 SCG/SDG&E/Day/Flores/York at 7.
[258] UCAN OB at 12.
[259] SCG/SDG&E OB at 21 (citing D.18-04-016 at 14).
[260] UCAN OB at 11.
[261] SCG/SDG&E OB at 20-21; Ex. 3 SCG/SDG&E/York at 4.
[262] Ex. 3 SCG/SDG&E/York at 4.

the Companies' GRC request for RAMP mitigants; however, this was always anticipated by the Commission. In fact, D.14-12-025, the decision establishing the RAMP, orders a utility to file its GRC application "*including changes resulting from the RAMP process*."[263] UCAN's criticisms of the Companies' RAMP showing are thus misplaced.

OSA makes unsupported claims in their opening brief that the availability and use of quantitative risk data is deficient, on the ground that little progress has been made to address a concern raised by ORA in the RAMP proceeding.[264] As shown in Section 5.2 Safety, above, OSA's unsupported arguments, without citation to the record, should be disregarded.

IS argues that SoCalGas' RAMP showing is deficient because it has not provided a cost-benefit analysis or quantified benefits associated with its proposed projects "to support the prudence of the expenditures."[265] Indicated Shippers also recommends that "the Commission should thus ignore or substantially discount any reliance SoCalGas has placed on the RAMP to justify its Application and focus squarely on the reasonableness and accuracy of cost justification."[266] Again, as demonstrated above, in rebuttal testimony, and in the Companies' opening brief, SoCalGas and SDG&E have presented their GRC Applications in accordance with the Rate Case Plan and new Commission directives.[267] The Rate Case Plan does not require a utility to provide a cost-benefit analysis or quantify benefits in its GRC showing. A utility's filing in its RAMP proceeding, however, does have the requirement to "[p]resent an early stage 'risk mitigated to cost ratio' or related 'risk reduction per dollar spent.'"[268] The Companies presented the required information in their RAMP proceedings, as the Commission recognized: "we find that the requirements set forth [in] D.14-12-025 and D.16-08-018 have been satisfied and that the RAMP process has been completed for the TY2019 GRC cycle."[269]

In the GRC, the Companies are not solely relying on the RAMP designation as the basis for the Commission to approve proposed projects, as IS suggests. Rather, the Companies put forth a substantial testimony showing related to RAMP to fulfill the Commission's orders to

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263 D.14-12-025 at 42 (emphasis added).
264 OSA OB at 34-35.
265 IS OB at 12-13.
266 *Id.* at 14.
267 *See* SCG/SDG&E OB at 15-17 (citing Ex. 3 SCG/SDG&E/Day and Ex. 4 SCG/SDG&E/Day/York/Flores); *see also* D.07-07-004, at Appendix A. the Commission's Rate Case Plan.
268 D.16-08-018 at 151.
269 D.18-04-016 at 14.

integrate "RAMP results into its GRC filing."[270] Ms. Day summarizes the Companies' RAMP showing as follows:

> The process used by the Companies to incorporate RAMP mitigation activities into the GRC is addressed by Ms. York in Chapter 3 of this Exhibit . . .
>
> The testimony of each witness area with RAMP-related requests provides a discussion of the risks, associated mitigation efforts, and estimated costs. Appendix A of my testimony presents summary tables demonstrating our RAMP-related request and the witness area testimonies where those requests can be found. SoCalGas and SDG&E TY 2019 GRC witnesses address specific RAMP mitigation activities in a dedicated testimony section and in the discussion of sponsored costs. Further, the GRC witnesses that are sponsoring RAMP activities discuss the expected benefits of their respective mitigation activities and any alternatives that were considered.[271]

Additionally, the Companies believe there is value in identifying activities in this GRC as RAMP, as discussed in the Companies' rebuttal Risk Management testimony volume:

> …identifying a project or program as RAMP-related is a useful indicator that the project or program is intended to mitigate one of the Companies' key safety risks, and should be viewed in that light. The "RAMP" designation in the GRC alerts parties that more information is also available in the RAMP Report, including information about risk mitigation activities that are ongoing (and may have been ongoing for some time), as well as risk mitigation activities that are newly proposed in this proceeding. Finally, the RAMP designation also alerts parties to the fact that the Companies will be held accountable for risk spending and effectiveness through accountability reporting.[272]

IS further states that "the Commission requires more in the context of the GRC" citing that the Commission has "specifically rejected some of SoCalGas' practices, including but not limited to its use of the 7X7 matrix."[273] As noted above in response to ORA's opening brief, this argument is out of scope, as the Commission is addressing these issues in the ongoing S-MAP proceeding,[274] Moreover as noted in hearing testimony, the Commission specifically authorized use of the risk management methodology SoCalGas and SDG&E used in this proceeding:

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[270] D.14-12-025 at 42.
[271] Ex. 3 SCG/SDG&E/Day at 19.
[272] Ex. 4 SCG/SDG&E/Day/Flores/York at 7-8 (internal citations omitted).
[273] IS OB at 15.
[274] A.15-05-002/-003/-004/-005 (cons.), Scoping Memo and Ruling Of Assigned Commissioner (dated December 13, 2016) at 3-11. *See also* Ex. 4 SCG/SDG&E/Day/Flores/York at 7 ("Additionally, the appropriate proceeding to evaluate the effectiveness of risk tools and methodologies is the S-MAP, not the GRC.").

> Q: … Has the Commission explicitly endorsed the risk management methodology that underlies this GRC request?
>
> …
>
> A: In the Commission's S-MAP interim decision [D.16-08-018] on page 151, they acknowledge that for the RAMP and this specific GRC… for Sempra only… they've approved our current [risk management] methodology for this purpose.[275]

The Commission has acknowledged that the Companies are the first utilities to formally incorporate RAMP and a formal risk-based framework into their respective GRC showings, and would be doing so under a "compressed schedule." Accordingly, the Commission eliminated certain requirements from the Companies' first RAMP requirements and permitted the Companies to file their RAMP based on its "current risk evaluation and risk-based decision making methodologies,"[276] recognizing that as S-MAP progressed, "requirements can be adjusted to reflect new conditions, lessons learned through experience, and changing Commission priorities."[277] Parties' arguments to the contrary are misplaced.

As more fully set forth in the Companies' opening brief[278] and risk management testimony presentation,[279] the Companies' risk-informed GRC presentation, in accordance with the Commission's new risk decision-making framework, should be fully accounted for by intervenors and the Commission in making funding decisions in this proceeding. The Commission should examine the Companies' risk-informed GRC showing in light of its risk-informed GRC framework, and disregard intervenor proposals that are inconsistent with risk-informed funding decisions.

7. Fueling Our Future

In its opening brief, ORA states that "Based on its review of SCG/SDG&E's FOF (Fueling Our Future) testimony, workpapers and responses to discovery, Cal PA does not oppose SCG/SDG&E's forecast TY 2019 FOF net benefits."[280]

In its opening brief, TURN reiterates the position set forth in its testimony that TURN does not oppose the savings that SoCalGas and SDG&E have committed to from undertaking the

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275 Tr. V.10:466:3 – 467:7 (York).
276 D.16-08-018 at Ordering Paragraph 9.
277 *Id.* at 154.
278 SCG/SDG&E OB at 15-22.
279 Exs. 3 and 4 SCG/SDG&E/Day/Flores/York; Ex. 5 SCG/Flores; Ex. 6 SDG&E/Flores.
280 ORA OB at 19.

FOF initiative: $42.76 million for SoCalGas and $26.23 million for SDG&E for a combined total of $68.99 million.[281] However, TURN continues to argue that FOF "represented a one-time effort . . . that will not likely be repeated in Test Year 2019 or the attrition years in this GRC cycle."[282] As such, TURN argues that "the Commission should insist that all SDG&E and SoCalGas costs associated with the FOF Project Phase be identified and accounted for to promote transparency and fairness to ratepayers" and that "the Commission should direct SDG&E and SoCalGas to adjust their base year 2016 costs downward by the amount of the FOF Project Phase costs identified."[283]

SoCalGas and SDG&E, in their opening brief,[284] already have responded to most of TURN's FOF recommendations, but provide additional discussion below in response to TURN's statements in its opening brief.

7.1 Contrary to TURN's Assertion, the FOF Project Phase Was Not a "One-Time," "Non-Recurring, Resource-Intensive Endeavor, Beyond the Utilities' Normal "Continuous Improvement" Efforts"

In its opening brief, TURN asserts that FOF "represented a one-time effort . . . that will not likely be repeated in Test Year 2019 or the attrition years in this GRC cycle."[285] TURN also argues that "[t]he FOF Project Phase Was a Non-Recurring, Resource-Intensive Endeavor, Beyond the Utilities' Normal 'Continuous Improvement" Efforts."[286]

To suggest that the FOF Project Phase was a "one-time," "non-recurring, resource-intensive endeavor, beyond the Utilities' normal 'continuous improvement' efforts" fails to comprehend the very essence of the 450 approved projects that comprise FOF. Over 350 of these FOF ideas, or approximately 70%, generate annual benefits less than $100,000 each, with another 75 FOF ideas (approximately 15%) contributing between $100,000 and $200,000 annual benefits. This is illustrated in the figure below, which is derived from the listing of 450 FOF projects set forth in Ex. 227:[287]

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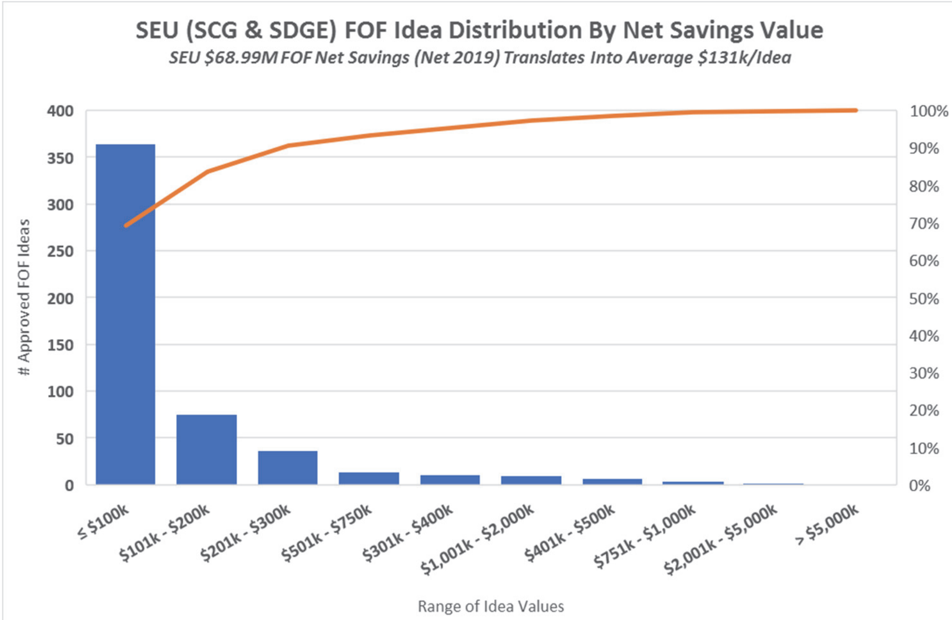
[281] TURN OB at 10.
[282] *Id*. at 10-11.
[283] *Id*. at 14.
[284] SCG/SDG&E OB at 23-26.
[285] TURN OB at 10-11.
[286] *Id*. at 10.
[287] Ex. 227 is SoCalGas' response to Question 1 of ORA data request ORA-SCG-011-TXB.

FIGURE 7



FOF ideas can be as basic as reducing re-work by implementing tighter governance and training (SCG idea 70), reducing annual report printing and mailing (SCG idea 470), consolidating media subscription services (SCG idea 50), sending Home Energy Guides electronically rather than printing and mailing it to customers (SCG idea 61), reducing expenses for annual membership dues (SDG&E idea 250), reducing catering and food services expenditures (SDG&E idea 200), and optimizing roles and responsibilities of Regulatory Affairs and Legal personnel, by reducing duplicative travel, support functions and communications (SDG&E idea 60).[288]

Thus, in reality, FOF represents a portfolio skewed heavily towards small incremental improvements, rather than a portfolio characterized by large capital-intensive, technology-dependent, resource-intensive, one-time transformational projects, as TURN appears to claim.

In its opening brief, TURN also asserts that FOF results were "significantly different enough from normal 'Continuous Improvement' activities that SEU created a new 'Project Management Office' to support FOF."[289] While it is true that SoCalGas created a FOF Project Management Office (PMO) to support SoCalGas and Shared Services in tracking and implementing ideas related to the FOF initiative, it is significant to note that the FOF PMO will

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[288] *Id.*

[289] TURN OB at 15.

continue to manage continuous improvement activities *beyond* completion of FOF implementation in the 2019 test year. As stated in the direct testimony of SoCalGas witness Mary Gevorkian, "[b]eyond 2019, the [FOF] PMO will *continue* to manage the following efforts and their portfolios across the enterprise:"[290]

- *Continuous Improvement* [E]fforts – The PMO will work directly with Directors, Managers, IT application vendors, consultants, and the SoCalGas Senior Leadership team to identify, assess, and implement *continuous improvement* initiatives throughout the Sempra Utilities to achieve enterprise productivity improvement targets. The PMO will also share best practices and provide advisory support to the Operations organizations. The PMO will also be responsible for the management, prioritization, resource allocation, budget, governance model, analysis, project management process, and benefits realization of the *continuous improvement* portfolios.
- Portfolio Management – The PMO will manage the portfolio of cross functional *continuous improvement* projects involving Operations departments, including the intake/ideation process, assessment, design/build, deploy, and eventual transfer to operations of *continuous improvement* initiatives involving multiple departments through the use of cross functional teams.

Thus, contrary to TURN's assertion, the establishment of the FOF PMO underscores the point that continuous improvement is part of SoCalGas' and SDG&E' employees' shared beliefs and values and what they commit to do on a daily basis.

Finally, TURN, in its opening brief, suggests that FOF is without precedent in SoCalGas' and SDG&E's history of continuous improvement initiatives. For example, TURN argues that one such initiative – the OpEx 20/20 initiative that SoCalGas and SDG&E discussed in the 2012 GRC – "was very different from FOF," which suggests that FOF was not "business as usual."[291]

Contrary to TURN's assertion, both initiatives (FOF and OpEx 20/20) were multi-year in duration, both initiatives benefited both SoCalGas and SDG&E, both initiatives produced benefits in the range of multiple millions of dollars, and both initiatives enlisted the services of third party consultants for additional expertise (EHS Partners and Accenture, respectively). But TURN misses the point. The point is not how similar (or dissimilar) FOF is to any of SoCalGas' or SDG&E's past initiatives but rather that FOF is part of SoCalGas' and SDG&E's culture and history of continuous improvement. Thus, it would be incorrect to characterize FOF, as TURN has, as a "one-time," "non-recurring" effort.

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[290] Ex. 255 SCG/Gevorkian at 17-18 (emphasis added).
[291] TURN OB at 17.

7.2 The Commission Should Reject TURN's Proposal to Have SoCalGas and SDG&E Go Back and Estimate the Time Their Employees Spent Supporting FOF During the FOF Project Phase in 2016 (and Then Adjusting Their Base Year 2016 Costs by These Amounts)

In its opening brief, TURN asserts that "the Commission should insist that all SDG&E and SoCalGas costs associated with the FOF Project Phase be identified and accounted for to promote transparency and fairness to ratepayers" and that "the Commission should direct SDG&E and SoCalGas to adjust their base year 2016 costs downward by the amount of the FOF Project Phase costs identified."[292]

The Commission should reject TURN's recommendation. As SoCalGas and SDG&E explained in their testimony (and summarized in their opening brief), as a threshold matter, SoCalGas and SDG&E did not separately track the 18-week project phase costs during the 2016 base year. More importantly, the employees who supported FOF were exempt employees who continued to support their current roles and responsibilities, at least in part, during the 18 weeks of the FOF Project Phase. Work that was not completed by FOF team members was not deferred but, instead, redistributed to other employees within the organization.[293] If there were any incremental costs associated with the FOF effort, those were the costs associated with the engagement of the third-party consultant EHS Partners (EHS), but, as SoCalGas and SDG&E explained in their testimony, none of EHS' costs were allocated to SoCalGas or SDG&E because the costs were retained by the Sempra Energy corporate center.[294]

In addition, the FOF Project Phase was necessary for FOF idea generation and the eventual approval of selective ideas for implementation. Without the project ideation and idea assessment phase, the $68.99 million of cost savings would not have been possible.[295]

In summary, the costs associated with employees who participate in continuous improvement projects should not be regarded as one-time costs. Whether supporting FOF or other continuous improvement initiatives, this is the job of SoCalGas and SDG&E staff on an ongoing basis. We request that the Commission adopt the $68.99 million savings in TY 2019, without any base year adjustment.

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[292] *Id.* at 14.
[293] Ex. 223 SCG/SDG&E/Baron/Widjaja at 5.
[294] Ex. 222 SCG/SDG&E/Snyder/Clark (adopted by Baron/Widjaja) at 3.
[295] Ex. 223 SCG/SDG&E/Baron/Widjaja at 5.

8. Gas Distribution (SoCalGas and SDG&E)

Five intervenors addressed SoCalGas and SDG&E's Gas Distribution GRC request in their Opening Briefs: ORA, TURN, CFC, CUE and SC/UCS.[296] With the exception of a couple issues, arguments raised by intervenors in their respective Opening Briefs primarily repeated points raised in intervenors' testimony. SoCalGas and SDG&E already addressed those arguments in their own Opening Brief and thus do not repeat the same arguments in this Reply Brief.

SoCalGas and SDG&E focus this briefing on the two issues raised in ORA's Opening Brief where ORA elaborates on its direct testimony. ORA disputes Gina Orozco-Mejia's claim that ORA "ignored" SoCalGas' testimony on Gas Distribution's RAMP risks and costs and emphasizes that Ms. Orozco-Mejia had not read ORA's Risk Assessment Mitigation testimony. ORA's assertions are without merit as Ms. Orozco-Mejia was accurate in explaining how specifically ORA had ignored the RAMP aspects of her testimony. Since ORA had not even referenced RAMP or its own Risk Assessment Mitigation testimony in its testimony dedicated to Gas Distribution, there would have been no reason for Ms. Orozco-Mejia to review it. Even upon review, it would not change the fact that ORA's Risk Assessment Mitigation testimony is irrelevant on this issue as it has no specific bearing on Gas Distribution's RAMP costs; thus again, Ms. Orozco-Mejia is accurate in stating that ORA dismissed aspects of the Companies' RAMP analysis for Gas Distribution. The Companies also show how ORA's Opening Brief defending the use of the "Last Recorded Year" (LRY) as one of many appropriate methods does not demonstrate it as more reliable relative to the Companies' use of a five-year linear trend for certain base forecasts.

Finally, SoCalGas and SDG&E briefly note how overall, their Gas Distribution forecasts represent a more reasonable, balanced approach among the funding options presented by parties like ORA and TURN often proposing significant reductions versus CUE primarily proposing significantly higher funding. Accordingly, the Commission should adopt SoCalGas and SDG&E's recommended forecasts as just and reasonable.

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[296] Sierra Club/UCS did not address Gas Distribution forecasts found in Section 8 of SCG/SDG&E Opening Brief, but they make recommendations regarding SDG&E Gas Distribution capital forecasts with regards to NGV refueling stations. SC/UCS OB at 39.

8.1 Common Issues (SoCalGas and SDG&E)

8.1.1 ORA did not fully consider Gas Distribution's risk-informed funding requests

In its Opening Brief, ORA states that Ms. Orozco-Mejia's rebuttal testimony should be "given no weight," claiming that she falsely accuses ORA of ignoring or dismissing SoCalGas' testimony, and that Ms. Orozco-Mejia had not properly considered ORA's Risk Assessment Mitigation testimony.[297] ORA's claims are without merit. First, in evidentiary hearings, Ms. Orozco-Mejia fully supported her rebuttal statements that ORA's analyst did in fact ignore or dismiss the RAMP Embedded Costs for certain areas that were not accounted for in ORA's alternate proposed methodology and forecasts. Ms. Orozco-Mejia first explained:

> Q Starting on line 7 to the end of that page, there are two references to "ORA ignores SoCalGas' base forecast methodology." Do you see that?
>
> A Yes, I see it.
>
> Q Was that a word choice of yours or someone on your team?
>
> A This statement was in reference to the report by the witness assigned -- the ORA witness assigned to my portion, to Gas Distribution for SoCalGas. Within that report, there was not a reference to RAMP or -- it simply was not -- there wasn't a reference to RAMP within Ms. Dau's report.[298]

Ms. Orozco-Mejia further clarifies:

> Q Okay. Here again we have "ORA ignores SoCalGas' base forecast methodology." If you would look in ORA's report at page 30 -- or, excuse me, page 11 to 16, there is a description of ORA's understanding of SoCalGas' proposed methodology. Do you have any disagreement with the way ORA has described SoCalGas' forecast methodology?
>
> A If you look at the entire statement that starts on line 15 and goes into line 16, the point there is that when ORA makes its recommendation for a two-year average instead of our linear trend, it dismisses the imbedded costs that are within that linear trend, which some of those costs are associated with mitigating RAMP risks. That was the purpose of that statement.
>
> Q Okay. So where the SoCalGas rebuttal testimony says that "ORA has ignored SoCalGas' base forecast methodology," would it be fair to say that ORA disputes SoCalGas' base forecast methodology?
>
> A To the point or to the extent that ORA did not reference RAMP, which my testimony indicated that RAMP mitigation actions were included within that base

[297] ORA OB at 20.
[298] Tr. V10:481:23 to 482:8 (Orozco-Mejia).

forecast, and because ORA did not reference that at all, the point that we were making is that, therefore, that was ignored, it just wasn't referenced.[299]

Thus, Ms. Orozco-Mejia was clear that ORA's failure to even reference RAMP was the basis of her rebuttal testimony that ORA had ignored aspects of her testimony.

As to ORA's second argument, that Ms. Orozco-Mejia did not properly consider ORA's Risk Assessment Mitigation testimony, as explained in SoCalGas' Opening Brief,[300] it is irrelevant whether or not Ms. Orozco-Mejia read that testimony because ORA's testimony for Risk Assessment Mitigation was not referenced or cited in ORA's Gas Distribution testimony. ORA provides no explanation or evidence as to how Risk Assessment Mitigation was considered with regard to ORA's proposed Gas Distribution specific funding. RAMP was not mentioned even once in ORA's Gas Distribution testimony. This substantiates a lack of analysis for Gas Distribution specific funding requests through a risk-informed lens that is intended by the Commission for this GRC cycle. In its Opening Brief, ORA does not address why its Gas Distribution witness did not consider or discuss the RAMP Embedded Costs in SoCalGas' forecasts or how ORA's alternate forecasts address those costs. In fact, ORA did not address the factual merits of this methodological dispute in either its cross-examination of Ms. Orozco-Mejia during hearings or in its Opening Brief. In contrast, Ms. Orozco-Mejia's very detailed account is supported with facts about how these costs were not adequately accounted for by ORA's proposed forecasting methodology.

8.1.2 ORA did not show SoCalGas and SDG&E's five-year linear trends to be less reliable than a Last Recorded Year method

ORA only has one other argument with respect to Gas Distribution that is not merely a restating of its already rebutted opening testimony. ORA asserts that using Last Recorded Year for base forecasts is more appropriate than SoCalGas' proposed use of a five-year linear trend, and that averaging 2016-2017 "reflects the most recent expenses."[301] As SoCalGas and SDG&E indicated in their Opening Brief, ORA has not provided any evidence to refute the use of a five-year linear trend as a reliable methodology for Gas Distribution expenses. Moreover, as noted in SoCalGas and SDG&E's Opening Brief, 2017 actuals were often <u>higher</u> than the 2017 forecast in Gas Distribution's cost categories, which further support the use of a five-year linear trend and

[299] *Id.* at 483:25 to 484:27.
[300] SCG/SDG&E OB at 34-35.
[301] ORA OB at 22.

make it a better forecast than ORA's proposed average of 2016-2017 expenses, since expenses are following the trend line in an upward direction. Oddly, ORA states that "[t]he use of trending is not an appropriate method to forecast future expenses given the steady increase of expenses over the five-year period from 2012-2016."[302] But this increase supports why a five-year linear trend is appropriate – it demonstrates a steady upward trend in historical data. Once again, ORA's dispute of "use of trending" is incongruent with its own use of a trending methodology (the LRY method). ORA's Opening Brief offers no further explanation of the merits of its method, other than to state that "[p]rior Commission decisions regarding the principles of forecast methodologies have found that if recorded expenses in an account have shown a trend in a certain direction over three or more years, the [LRY] is an appropriate base estimate."[303] Just because LRY is one of many "appropriate" methods does not mean it is a <u>more reliable</u> forecast than SoCalGas' five-year linear trend in this context, as already explained in SoCalGas' Opening Brief.

8.1.3 SoCalGas and SDG&E's forecasts more appropriately balance risk mitigation and cost-effectiveness than other parties' proposals

As noted in SoCalGas and SDG&E's Opening Brief, the Companies endeavored to strike an appropriate balance between Gas Distribution's pipeline safety, risk mitigation effectiveness, and impact on ratepayer costs when developing their forecasts.[304] CUE recommended higher funding in many of Gas Distribution's cost categories, whereas parties like ORA and TURN recommended reductions. As shown in the tables in the Companies' Opening Brief,[305] sometimes the variances among the parties were relatively large with significant increases on one end with CUE and significant reductions by ORA. In light of these wide variances presented before the Commission, the Companies submit that their forecasts are the most reasonable, balanced proposals based on a detailed and thorough examination of SoCalGas and SDG&E's Gas Distribution area, including historical costs and various cost drivers, such as aging infrastructure, increasing regulations, and other upward pressures. As just one particularly stark example, for Regulator Stations, CUE recommends $33.236 million for 2019 capital expenditures, $13.800 million above SoCalGas' forecast and $25.705 million above ORA's

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302 *Id.* at 29.
303 *Id.*
304 SCG/SDG&E OB at 36.
305 *Id.* at 27-28, 38, 49, 57-58.

recommendation to address the accelerated replacement of Regulator Stations.[306] CUE's estimate of costs, which is based on a close examination of the data, determined the forecasted cost to be substantially higher than what SoCalGas and ORA recommended. Although SoCalGas agrees that the regulator station replacement rate should be increased to address its outdated designs, SoCalGas' forecast strikes a better balance that more appropriately considers the impact on ratepayers' costs within the 2019 GRC cycle.

8.1.4 SoCalGas and SDG&E already addressed remaining arguments

In addition to the foregoing, for the most part, the intervenors commenting on Gas Distribution essentially repeat their original positions, sometimes verbatim, and often only cited back to their direct testimony. Accordingly, for the remaining issues, intervenors' briefs did not tend to address SoCalGas or SDG&E's rebuttal testimony nor any testimony during hearings. There are few references to the Companies' rebuttal testimony or hearing transcripts for the remaining arguments below. ORA, TURN, CFC, and SC/UCS did not elaborate much beyond their testimony for the following arguments:

- ORA's flawed arguments regarding proposed reductions for nine SoCalGas O&M workgroups (Locate and Mark, Leak Survey, Measurement and Regulation, Cathodic Protection, Main Maintenance, Service Maintenance, Field Support, Tools, Fittings and Materials, and Operations and Management) and four SDG&E O&M workgroups (Locate and Mark, Main Maintenance, Supervision and Training, and Measurement & Regulation);[307]
- ORA's insufficient support for its proposed reductions to SoCalGas' capital expense forecasts (New Business, Service Replacements, Main and Service Abandonments, Regulator Stations, Cathodic Protection Capital, Pipeline Relocations – Freeway, Pipeline Relocations – Franchise, Meter Guards, Capital Tools, and Field Capital Support) and SDG&E's capital expense forecasts (Replacement of Mains and Services (BC 508), Regulator Station Improvements (BC 510), and Local Engineering (BC 902));[308]

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[306] Ex. 370 CUE/Marcus at 16; *see* Ex. 10 SCG/Orozco-Mejia at 91, Table GOM-10; ORA OB at 52. Note ORA recommends zero funding for the accelerated replacement of regulator stations.

[307] *See* ORA OB at 20-44 for SoCalGas O&M. Examples of ORA's repeating original position statements for SCG: Main Maintenance (*compare* Ex. 406 ORA/Phan at 24:17-27:13 *with* ORA OB at 32-34), and for Leak Survey (*compare* Ex. 406 ORA/Phan at 13:28-14:23 *with* ORA OB at 25). *See* ORA OB at 63-68 for SDG&E O&M. Examples of ORA's repeating original position statements for SDG&E: Locate and Mark (*compare* Ex. 404 ORA/Campbell at 8:9 to 9: 23 *with* ORA OB at 64-65); and for Supervision and Training (*compare* Ex. 404 ORA/Campbell at 11:19 to12:28 *with* ORA OB at 66-67). With the exception of the issues addressed in Sections 8.1.1 and 8.1.2 above, ORA's Opening Brief did not elaborate on its direct testimony for these proposed reductions.

[308] *See* ORA OB at 44-62 for SoCalGas Capital. Examples of ORA's repeating original position statements for SCG: Cathodic Protection (*compare* Ex. 406 ORA/Phan at 66:18-25 *with* ORA OB at 53); and for Regulator Stations (*compare* Ex. 406 ORA/Phan at 62-64 *with* ORA OB at 51-52). *See* ORA OB

- TURN's reductions to Service Maintenance and Main Maintenance, which do not fully account for SoCalGas' rebuttal testimony on forecasting methods and incremental cost drivers;[309]
- TURN's erroneous claim that SDG&E and SoCalGas' expenses related to clothing and other gear are largely promotional and should not be paid for by ratepayers;[310] and
- CFC disputes SoCalGas' Cathodic Protection base forecast for TY 2019 by recommending a reduction of $0.500 million, but makes erroneous assumptions for improvement in efficiency of repairing leaks, which CFC argues would reduce the necessity for corrosion protection of Gas Distribution's steel pipelines.[311]
- SC/UCS's argument against SDG&E's addition of one Natural Gas Vehicles (NGV) fueling station per year in 2018 and 2019, which does not refute SDG&E's demonstrated need for these facilities.[312]

In the interest of conserving the Commission's resources, SoCalGas and SDG&E direct the Commission to the corresponding portions of their Opening Brief, which already comprehensively address and rebut intervenors' arguments for each of these areas. As such, for reasons stated in their Opening Brief, SoCalGas' and SDG&E's O&M and capital forecasts

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at 75-76, 77-78, and 79-80 for SDG&E Capital. Examples of ORA's repeating original position statements for SDG&E: Regulator Stations and Improvements (*compare* Ex. 404 ORA/Campbell at 32:6 to 34:10 *with* ORA OB at 77-78); and for Replacement of Mains and Services (*compare* Ex. 404 ORA/Campbell at 28:9 to 30:5 *with* ORA OB at 75-76). With the exception of the issues addressed in Sections 8.1.1 and 8.1.2 above, ORA's Opening Brief did not elaborate on its direct testimony for these proposed reductions.

309 *See* TURN OB at 18-24. TURN's brief does not address SoCalGas' rebuttal testimony, which discussed SoCalGas' forecasting methods and incremental cost drivers for Main Maintenance (Ex. 10 SCG/Orozco Mejia at 54:18 to 57:3) and Service Maintenance (Ex. 10 SCG/Orozco Mejia at 67:10 to 68:12). With respect to the incremental leak repairs in 2019, both ORA and TURN made similar arguments for cost recovery of these activities through the New Environmental Regulatory Balancing Account (NERBA). TURN OB at 21-22 and ORA OB at 33-34. SoCalGas' response to that argument is addressed in our Opening Brief. SCG/SDG&E OB at 42-44.

310 TURN OB at 308-09. SoCalGas and SDG&E's response to these arguments is addressed in our Opening Brief and rebuttal testimonies. SCG/SDG&E OB at 61; Ex. 10 SCG/Orozco Mejia at 143; Ex. 14 SCG/Orozco Mejia at 50.

311 *See* CFC OB at 33-45. CFC misunderstands SoCalGas TY 2019 forecast for Cathodic Protection as addressed in our Opening Brief. *See* SCG/SDG&E OB at 40. CFC also misunderstands SoCalGas incremental leak repair request, which is addressed in our Opening Brief. SCG/SDG&E OB at 42-44. With regard to CFC's focus on leak repair metrics, SoCalGas' request for the three additional Gas Distribution leak advisors will already develop appropriate performance metrics for SoCalGas' routine main repairs. Whether that development results in 'per-mile' or some other more appropriate set of metrics should be left to the utility. As described in SoCalGas and SDG&E's Opening Brief, SoCalGas' DIMP efforts (VIPP and BSRP) will continue as wholesale replacement programs, which employ a risk-based prioritization strategy. SCG/SDG&E OB at 132-33. Thus, the schedule is optimized by considering vintage pipeline quantity, age, installation conditions, available resources, and other constraints and performance, as well as completed and pending leak repairs.

312 SC/UCS OB at 39. *See* SCG/SDG&E OB at 61-62; Ex. 14 SDG&E/Orozco-Mejia at 50:22 to 51:5.

based on a detailed and thorough examination of the Gas Distribution areas should be adopted as proposed.

8.1.5 Numerical and Textual Errors in ORA's Opening Brief

There are a number of numerical and textual errors in ORA's Opening Brief with regard to SoCalGas and SDG&E's Gas Distribution. These are summarized and corrected in the following tables:

Table 8.1.5.A
Error Log for ORA's Opening Brief
Section 8.0 SoCalGas Gas Distribution

Page	Location[313] (Line No.)	Error Description
21	23	2017: $13.178 million should read $13.718 million.
23	15	2017: $7.935 million should read $7.955 million.
28	FN 116	The 2016 recorded amount was $14.406 million, not $13.831 million. The average of these two years is $13.697 million, not $13.567 million. This is a corrected value as explained in Ex. 10 SCG/Orozco-Mejia Appendix A.
30	12	The amount "$9.389 million above the 2017 recorded amount of $11.383 million" should read "$1.998 million below the 2017 recorded amount of $22.770 million."
30	19	2017: $11.383 million should read $22.770 million.
30	22	SoCalGas did not use 2017 and 2018 forecast to derive its TY 2019 Forecast.
30	23	SoCalGas did not forecast $18.752 million and is not aware of how ORA derived this value.
31	20	SoCalGas provided a graph that showed a decrease in damage credits from 2016 to 2017, not a dramatic increase as ORA states.
31	FN 130	Damage Credits for 2017 were between $1 million and $1.5 million and not $20 million and $25 million as shown in Ex. 10 (SCG-204) p. 50 and not p. 49.

[313] No line numbers were formatted in the document. Line numbers here are derived as a count from the top line.

Table 8.1.5.B
Error Log for ORA's Opening Brief
Section 8.0 SDG&E Gas Distribution

Page	Location:[314] (Line No.)	Error Description
63	13	$20.698 million should read $21.687 million. This is a corrected value as explained in Ex. 14 SDG&E/Orozco-Mejia Appendix A.
63	14	Footnote reference 293 is incorrect. It should read "Ex. 404 (ORA-9), p. 7."
63	19	The DOT 49 CFR citing is incorrect. It reads §192.124. It should read §192.614.
71	17	"…which is $1.4 million" is incorrect. It should read "…which is 4.4 million…"
76	2	"…and $16.94 million…" is incorrect. It should read "…and $14.770 million…"
76	6	"…$5.61 million." is incorrect. It should read "…$5.97 million."

9. Gas System Integrity for Distribution, Transmission and Storage

9.1 Common Issues

9.1.1 OSA's lack of support for API 1173's voluntary implementation is not reasonable

9.1.1.1 SoCalGas and SDG&E testified that API 1173 implementation for gas pipeline operations is a serious, voluntary endeavor and want to get it right

OSA seems to agree with the Companies that API 1173's implementation for gas pipeline operations is a worthwhile endeavor.[315] So concluding that "[t]he funding requests related to safety in these GRC Applications most likely are not just and reasonable"[316] and that OSA "cannot support this initiative without additional transparency on the effort and assurances of its outcome"[317] contradicts OSA's own prioritization of API 1173 implementation. As testified by Mr. Rivera in rebuttal testimony, API 1173 implementation is ongoing and will continue throughout the GRC cycle. We also provided OSA with a high-level plan, which is part of the joint stipulated exhibit with OSA and we had indicated this plan is being refined.[318] A fully-formed, detailed plan is not necessary for the Commission to know this is a reasonable pursuit

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314 *Id*.
315 *See* OSA OB at 16-18.
316 *Id*. at 35.
317 *Id*. at 20.
318 *See* Ex. 91 OSA/SEU (response to OSA-SEU-03, Question 2.b.iii); *see also* Ex. 86 SCG/Rivera at 19.

that should be adequately funded, based on OSA's own recommendation that this initiative should be vigorously pursued. Like any other GRC funding request where the activity is still in the planning stages, the Commission can still know that whatever funding it approves now for implementing API 1173 during this GRC cycle is either a reasonable investment or not. If not funded as Applicants request, or if ORA's significant reduction is adopted,[319] then OSA's high priority will be more difficult to successfully implement.

Other assertions or proposals by OSA related to API 1173 were already shown by SoCalGas/SDG&E in rebuttal testimony to be inaccurate or misguided,[320] and certain suggestions were taken by SoCalGas/SDG&E, such as an annual meeting with OSA on progress.[321]

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[319] *See* ORA OB at 81.

[320] For example, OSA claims: "[T]he plan does not delineate any efforts beyond 2018." OSA OB at 20; *but see* Ex. 86 SCG/Rivera at 27 ("In 2020, it is our objective to conduct another maturity assessment, which will determine the effectiveness of implementation and provide areas of opportunity for continuous improvement."); Ex. 91 OSA/SEU (response to OSA-SEU-03, Question 2.b.iii and attachment titled "GSMS ESC Kickoff Modified" at slides 13-20); *id.* (response to OSA-Informal with attachment titled "API 1173: Safety Management at SoCalGas, Program Update: November 15-29" at slide 4). OSA claims: the PSMS was not identified as a "RAMP post-filing" activity. OSA OB at 21; *see* Ex. 86 SCG/Rivera at 23-24 (API 1173 was incorporated in RAMP incremental adjustments and will be included in the RAMP Accountability/Spending reports). OSA claims: placement of PSMS in "Gas Contractor Controls" "does not recognize that a PSMS is a company-wide effort." OSA OB at 21-22; *but see* Ex. 86 SCG/Rivera at 24 (API 1173 was included in the appropriate cost centers and work performed in this workpaper is broader than "contractor"-related functions). "[T]he Commission should verify the Utilities' implementation of their Natural Gas Safety Plans before submittal of the next rate case Application." OSA OB at 10 (emphasis in original); *but see* Ex. 86 SCG/Rivera at 25 (SED already reviews and has always had the ability to audit the Natural Gas Safety Plans).

[321] *See* Ex. 86 SCG/Rivera at 16 ("SoCalGas strongly agrees that the implementation of API RP 1173 for its pipeline operations is a key step towards enhanced asset and risk management decision-making to ultimately improve safety performance."); *id.* at 25 ("The Companies are not opposed to working with the Commission regarding their safety plans."). OSA's additional conditions and considerations to be placed on SoCalGas/SDG&E's implementation of API 1173. OSA OB at 17-18; *see* Ex. 86 SCG/Rivera at 26 ("We do not oppose meeting annually with OSA and SED to present progress on API RP 1173."); *id.* ("While the effective execution of their API RP 1173 implementation phase must be the Companies' high priority focus over the GRC cycle, SoCalGas and SDG&E are not opposed to evaluating OSA's proposed voluntary API third-party audit program and continue meeting with SED presenting their safety measures."); *id.* ("[T]he Companies continually meet with SED to discuss programs, processes, and improvements towards safety, and would welcome OSA to participate in these discussions and any specific discussions on the progress of implementation of API RP 1173.").

9.1.1.2 Evidence that formed the basis for the Companies' API 1173 implementation was provided to OSA and is part of the record

OSA claims that the Companies did not act "in good faith" when they did not provide gap analyses that the Companies claim is protected by the attorney-client privilege and the work product doctrine. OSA bases this serious claim on its assertion that the "funding requests are based" on such privileged information.[322] OSA's allegations are incorrect based on the facts regarding the request and the evidence supporting the Companies' requests.

It is true that in 2015 the Companies performed a gap analysis of API 1173 and ISO 55000 and then a refresh analysis. This was not hidden from OSA in any way, but rather were identified as being performed by a contractor hired at the direction of counsel and supervised by counsel for purposes of assisting in providing legal advice. There is no basis to claim that the Companies did not act in good faith when they timely disclosed the existence of the analyses and had a meet and confer discussion with OSA to explain why they were privileged documents and not subject to discovery, and OSA chose not to take any further action.

Furthermore, OSA is mistaken that the "funding requests are based" on these privileged analyses. Evidence through Mr. Rivera's testimonies and workpapers has been admitted in the record that supports the basis of the funding request for API 1173 implementation.[323] That evidence was developed separate and apart from the privileged analyses. The evidence in the record includes identifying areas that need improvement to meet the API 1173 standard and the action items that will be taken to meet that standard.[324] The Companies maintain that they appropriately asserted the attorney-client privilege and work product doctrine protection with respect to the gap analyses, and that there is evidence developed separately to provide support for their funding request.

OSA claims that failing to receive this privileged information somehow impacted its ability to analyze one small portion of the Companies' safety funding request to implement a voluntary standard – which is one SMS-related activity of 406 SMS-related RAMP requests that

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322 OSA OB at 30-31.

323 *See generally* Exs. 84-86 SCG/Rivera, Exs. 87-89 SDG&E/Rivera, and Ex. 91 OSA/SEU; *see, e.g.*, Ex. 84 SCG/Rivera at 23, 37, 44-46; Ex. 86 SCG/Rivera at 3, 6-8, 16-27, Appendix B.

324 *See* Ex. 86 SCG/Rivera at 7-8, 17-20.

are intended to address their key safety risks.[325] That argument is not supported by the record or the evidence. In fact, SoCalGas and SDG&E identified key gaps and action plans in their mind mapping campaign to reach conformance, which was provided to OSA in a data request.[326] The Companies noted the RAMP and SMS-related activities in this GRC in a comprehensive file for OSA, which is part of the record, and which the Companies highlighted in Mr. Rivera's rebuttal testimony.[327] Furthermore, as noted in Mr. Buczkowski's and Mr. Geier's joint rebuttal testimony, the Companies hosted a two-day tour in June so that OSA could hear directly from company experts, many of whom are witnesses in this GRC, to educate them on SMS-related activities.[328]

OSA appears to be focused on safety management in this case, and not safety risk-informed funding decision making, which is what the Commission required the Applicants and other parties to do in this case from D.14-12-025 and D.16-08-018. The "safety management status" that OSA refers to as relevant to SoCalGas/SDG&E's API 1173 funding request was painstakingly laid out for OSA in almost 1,000 pages of data request response materials, which the parties jointly stipulated to enter into the record.[329] In addition, the parties had multiple meetings and on-site tours with OSA during the course of this proceeding to be as educational and transparent with OSA as possible as part of what the Companies considered a budding and continuous partnership.

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325 *See* Ex. 86 SCG/Rivera at Appendix B (response to OSA-SEU Data Request-003, Question 7a and attachment titled "Data Response OSA 003_Q7a," which provides the SMS-related activities requested in the 2019 GRC, including efforts related to API 1173; the spreadsheet also showed if the SMS-related activity was a RAMP request). These other RAMP requests were largely not evaluated by OSA, except a couple issues in SoCalGas' TIMP and PSEP, addressed further in this reply at Sections 17 and 18, respectively.

326 *See* Ex. 91 OSA/SEU (response to OSA-SEU-03, Question 2.b.iii and attachment titled "GSMS ESC Kickoff Modified" at slides 13-20); *id.* (response to OSA-Informal with attachment titled "API 1173: Safety Management at SoCalGas, Program Update: November 15-29" at slides 1-8). OSA admits SoCalGas and SDG&E provided information on the mind mapping campaign which is the basis for our API 1173 implementation. OSA OB at 19. "Deficiencies" identified by OSA appear to just be suggestions for possible improvement for future assessments (*e.g.,* conduct interviews with employees at all levels), not an inherent defect that would render the results unreliable. *See id.* at 20.

327 Ex. 86 SCG/Rivera at 22 and Appendix B.

328 Ex. 90 SCG/SDG&E/Buczkowski/Geier at 2-3.

329 *See* Ex. 91/91C OSA/SEU.

Finally, OSA characterizes the privileged gap analyses as the only documents that can substantiate the Companies' $3.9 million requests for API 1173 funding.[330] The evidence demonstrates otherwise. The Companies have met with OSA to answer its questions and have provided the relevant information to support their claims in a transparent manner. That evidence is in the record, including further assurances of an effective program evaluation in 2020 using an objective industry-wide tool and continuous improvement phase,[331] and the Commission should rely on that evidence to grant the API 1173 funding request, as opposed to giving any credence to OSA's unsupported arguments.

9.2 SoCalGas Issues

9.2.1 Non-Shared Operations and Maintenance

In its Opening Brief, ORA summarily concludes that SoCalGas' non-shared O&M request was "over three times" the amount for 2016 and should therefore be denied. However, ORA does not actually address the substance behind SoCalGas' cost drivers, and even continues to ignore the shortcomings in its own calculations. ORA's opposition to SoCalGas' request should therefore be disregarded.

ORA's Opening Brief merely reiterates the bare conclusion that the O&M expenses for non-shared services should be rejected because it is "over three times the record 2016 amount…."[332] Despite summarizing SoCalGas' reasons for the cost drivers as incremental factors that would not have sufficiently been captured by historical 2016 costs, ORA stops its analysis there by not addressing the merits of those drivers and whether they are valid. ORA does not directly address SoCalGas' summarized drivers to expand the scope of activity.

This lack of analysis by ORA includes its reductions for "Gas Contractor Controls," which is now the Pipeline Safety Management System (PSMS) effort that will continue to implement API 1173. As discussed in Section 9.1.1 above, both Companies and ORA's safety counterpart (OSA) recognized the importance of API 1173's implementation, and the Companies

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330 SoCalGas' request is for $3.8 million. Ex. 85 SCG/Rivera at 77. SDG&E's request is for $127,000. Ex. 88 SDG&E/Rivera at 7.

331 *See, e.g.,* Ex. 86 SCG/Rivera at 26-27. Mr. Rivera's rebuttal testimony indicated that once the Companies achieve conformance to the API 1173 standard, by using the industry-wide Pipeline SMS Roadmap tool in the phase of continuous improvement, this will help track development of program to implementation and the subsequent evaluation on the effectiveness of the PSMS.

332 ORA OB at 81.

are voluntarily embracing this initiative.[333] Yet ORA did not address how its recommended drastic reductions would not negatively impact this effort. This disconnect within the Commission's divisions is particularly troubling in light of OSA's brand new proposals and meritless accusations in its Opening Brief regarding this voluntary standard's role in preventing safety incidents over the last three years.[334] It is disturbing that one CPUC division recommends significant reductions to a funding request for API 1173's implementation at the same time another division claims this is the Commission's highest priority (and yet still say SoCalGas' funding request is "most likely [] not just and reasonable)."[335] What is evident is that ORA's mere four pages in its Opening Brief superficially addressing a $14.051 million cut for Gas System Integrity is strikingly similar to the paucity of ORA's direct testimony on this same witness area. The Commission should not rely on such cursory analyses in deciding Gas System Integrity's funding requests.

Despite noting twice now that ORA did not address the calculation discrepancies in using a 2016 adjusted-recorded base year method and that ORA's calculations cannot be recreated by SoCalGas, ORA does not address SoCalGas' assertion that ORA's calculations are inaccurate.[336] In fact, ORA does not once mention SoCalGas' (or SDG&E's) rebuttal testimony and did not question Mr. Rivera at all during hearings. Accordingly, ORA's Opening Brief sheds no light on the evidentiary merit of ORA's position on its substantial Gas System Integrity reductions – even despite the fact that SoCalGas noted that ORA did not consider the impacts of its recommended reductions from a risk reduction perspective.

9.2.2 Shared Operations and Maintenance

ORA treats SoCalGas' shared service O&M forecast in the same manner as non-shared service O&M.[337]

9.3 SDG&E Issues

9.3.1 Non-Shared Operations and Maintenance

ORA only addresses SDG&E's Damage Prevention and Public Awareness Program and how the 2016 recorded expense for it was the lowest amount incurred during 2012-2016, despite

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333 Ex. 86 SCG/Rivera at 6.
334 OSA OB at 35.
335 *Id.*
336 *See* ORA OB at 80-82.
337 *Id.* at 82.

a significant increase in the last GRC request.[338] ORA starts by criticizing SDG&E's request because SDG&E's spending in 2016 was the lowest of the last five years. However, this critique ignores the realities of the fluctuating nature of this type of program. ORA also argues that SDG&E's request is "unusually high" – but ORA fails to address the factors that will increase expenses over the next few years. For these reasons, SDG&E's GRC request for the Damage Prevention and Public Awareness Program should be adopted.

SDG&E's Damage Prevention and Public Awareness Program is federally-mandated pursuant to Title 49 of Code of Federal Regulations (C.F.R.) Section 192.616. Consistent with the Pipeline and Hazardous Materials Safety Administration's (PHMSA) determination that "'[e]ffective public awareness programs are vital to continued safe pipeline operations,'"[339] SDG&E believes this program is critical from a safety perspective as it mitigates the risk of Catastrophic Damage Involving Third-Party Dig-Ins, the number two safety risk at SDG&E. SDG&E has thus given the program a RAMP designation in this proceeding.[340] The program does this, as explained in Mr. Rivera's direct testimony, by meeting the "federal regulations directing the implementation of this program [that] specifically require that the program include activities to educate the public, appropriate government organizations, and persons engaged in excavation-related activities," such as the One-Call notification system.[341] Even ORA "recognizes that this program is important," but only recommends $347,000 in 2012, as its TY 2019 estimate.[342]

In its Opening Brief, ORA argues that SDG&E's request should be limited in light of the fact that SDG&E's expenses in 2016 were the lowest in the last five years. ORA's argument should be rejected because it ignores the significant fluctuations inherent in this type of program – something SDG&E recognized by using a five-year average as the basis for its request.[343] As SDG&E stated in its workpapers, "[t]he volume of required Damage Prevention activities is typically driven by general construction activity in public and private rights-of-way and customer

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338 *Id.* at 84.
339 Ex. 87 SDG&E/Rivera at 19 (citing Pipeline Safety: Pipeline Operator Public Awareness Program, 70 Fed. Reg. 28833, 28834 (May 19, 2005) (*codified at* 49 C.F.R. § 192.616)).
340 Ex. 89 SDG&E/Rivera at 6.
341 Ex. 87 SDG&E/Rivera at 19.
342 ORA OB at 84.
343 Ex. 88 SDG&E/Rivera at 20 ("The services provided within this workgroup fluctuate from year-to-year.").

growth."[344] These factors generally fluctuate with economic conditions, which means "the exact amount of dig-in-related activities in any given year is uncertain when managing incurred costs."[345] For SDG&E, given the "unpredictability in frequency and severity of damages to pipelines and infrastructure,"[346] "a historical five-year average of the recorded non-labor expenditures for the years 2012 through 2016 was determined to be [the] most representative [of] ongoing non-labor requirements."[347] The five-year average was $225,000, which is around the 2014 spending level of $222,000.[348] Instead of being a basis for limiting SDG&E's request, the lower expenses of 2016 in fact emphasize the fluctuating factors driving this program, which are more appropriately captured by SDG&E's use of a five-year average.

ORA also takes issue with the increase requested by SDG&E beyond the base forecast amount. The specific breakdown related to SDG&E's request of $725,000 was provided to ORA through discovery as generally acknowledged in its testimony.[349] SDG&E made an incremental adjustment of $500,000 for TY 2019 to the base forecast of $225,000, for the total for TY 2019 of $725,000. This adjustment is to allow for expansion of this important program, to address enforcement under Senate Bill (SB) 661, and to anticipate an increase in calls and tickets for the Underground Service Alert (USA) system. With the expansion of the Public Awareness Program, "SDG&E proposes to increase its awareness by exploring new creative ways to effectively communicate public awareness, safe digging, and the gas safety messaging into target audiences, as a proposed risk mitigation plan for Third-Party Dig-Ins in SDG&E's RAMP Report."[350] SDG&E also explained in rebuttal testimony that it "expects the costs in this workgroup to increase with the implementation of SB 661, known as the Dig Safe Act of 2016, and the establishment of a new Board with the power to enforce the law and issue fines,"[351] which further support SDG&E's proposed increase in funding level.

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[344] Ex. 348 SCG/SDG&E/York at Appendix C at 26 (Second Interim Spending Accountability Report).
[345] *Id.*
[346] Ex. 89 SDG&E/Rivera at 5.
[347] Ex. 88 SDG&E/Rivera at 20.
[348] *Id.* at 20-21.
[349] *See* Ex. 404 ORA/Campbell at 42 n.83, which references SDG&E's response to data request ORA-SDG&E-092-MCL, Q.6a. The $725,000 breakdown was provided to ORA in subpart c of the same question and data request response (ORA-SDG&E-092-MCL, Q.6c).
[350] Ex. 89 SDG&E/Rivera at 5-6.
[351] *Id.* at 6 (footnotes omitted).

In addition, SDG&E put forth additional justification for its proposed enhancements to the Public Awareness Program, stating "[t]he assumption is with an increase in awareness, there should be a decrease in damages. [Furthermore], increased public awareness activities are expected to increase the number of calls to USA. There has also been an increase in the number of tickets SDG&E must complete due to the growth in general construction activity in public and private rights-of-way and customer growth."[352] SDG&E even provided a figure in rebuttal testimony (Figure OR-01) demonstrating that the number of USA tickets at SDG&E has been increasing from 2012 through 2017.[353] CUE recognized this fact affirming that the number of USA ticket notifications increased by 9.34 percent from 2016 to 2017, and is expected to increase by 32.3 percent when comparing 2016 to 2019.[354]

Based on the above, ORA's recommendations should be rejected. ORA does not contest SDG&E's incremental efforts for expanding the Public Awareness program, but rather comments that "SDG&E's 2019 request is unusually high compared to the level of recorded expenses during the past five years."[355] However, ORA's recommendation that the Commission adopt the expense recorded in 2012 is not sufficient to cover the additional activities proposed, or the anticipated additional costs from SB 661 and calls and tickets for USA.[356] The Commission therefore should reject ORA's recommended forecast, as it did not provide a thorough analysis of Gas System Integrity's funding requests.

9.3.2 Shared Operations and Maintenance

ORA does not dispute SDG&E's forecast.[357]

10. Gas Transmission Operations

10.1 SoCalGas

10.1.1 Non-Shared O&M Services

SoCalGas requested a forecast in the Technical Services cost category of non-shared O&M services that included forecasts for ROW Maintenance activities and Class Location Mitigation activities, and cost recovery or the Southern Gas System Reliability Project

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352 *Id.* at 5.
353 *Id.*
354 Ex. 370 CUE/Marcus at 90.
355 ORA OB at 83.
356 *See* Ex. 89 SDG&E/Rivera at 6.
357 ORA OB at 84.

Abandonment Recovery (also referred to as the North-South Project).[358] Only ORA and TURN contested SoCalGas' forecast for non-shared O&M Services for Gas Transmission in testimony and briefs.

For ROW Maintenance and Class Location Mitigation activities, ORA's and TURN's Opening Briefs referred back to their respective positions that were provided in their testimony.[359] Accordingly, ORA's and TURN's briefs do not address SoCalGas' rebuttal testimony on this item or any related testimony provided during hearings. As such, SoCalGas' forecast for these activities should be adopted as reasonable for the reasons stated in SoCalGas' Opening Brief.

SoCalGas' request for cost recovery for the North-South Project, although requested as O&M costs in this GRC, is addressed substantively in Chapter 11 for capital costs.

10.1.1.1 Undisputed Non-Shared O&M Services

No party disputed SoCalGas' request for the Gas Transmission Pipeline and the Compressor Stations cost categories for non-shared services in testimony or briefs. Therefore, SoCalGas requests the Commission adopt these requests as reasonable.

10.1.2 Shared Services O&M

No party disputed SoCalGas' forecast for its shared services cost centers in testimony or briefs. Accordingly, SoCalGas requests the Commission adopt the forecast as reasonable.

10.2 SDG&E

No party disputed SDG&E's forecast for its for O&M costs associated with operating and maintaining the gas transmission system in testimony or briefs. SDG&E requests the Commission adopt the forecast as reasonable.

11. Gas Transmission

11.1 SoCalGas

Only ORA, TURN/SCGC, and IS disputed SoCalGas' request for capital costs associated with operating and maintaining the gas transmission system.[360] ORA's Opening Brief (for costs unrelated to the North-South Project) and IS' Opening Brief referred back to their positions as

[358] Ex. 24 SCG/Musich at 17; Ex. 26 SCG/Musich at 1.
[359] ORA OB at 84-88; TURN OB at 24-26.
[360] TURN/SCGC's testimony and briefs on this cost category relate only the North-South Project, which is addressed below.

previously provided.[361] In this regard, ORA's Opening Brief and IS' Opening Brief do not address SoCalGas' rebuttal testimony on this item or any related testimony provided during hearings. Accordingly, SoCalGas' forecast for these activities should be adopted as reasonable for the reasons stated in Applicants' Opening Brief.

11.1.1 Cost Recovery for the North-South Project

11.1.1.1 Summary of Parties' Positions

SoCalGas seeks recovery of costs reasonably incurred in the course of pursuing efforts to follow the Commission's orders to monitor and enhance the reliability of its natural gas system and comply with the Commission's direction to undertake a CEQA review. The costs requested for the North-South Project, as set forth in detail in Applicants' Opening Brief,[362] are as follows:

Table 11.1.A
Summary of Parties' O&M (Expense) Proposal
for North-South Project Cost Recovery

Base Year 2016	Test Year 2019	Change
0	$ 7,162	$ 7,162

SoCalGas requests that cost recovery for the expenses incurred in pursuing this project be spread evenly across the three-year GRC cycle.

City of Lancaster, Sierra Club and Union of Concerned Scientists (jointly, SC/UCS), TURN and SCGC (jointly, TURN/SCGC), and ORA oppose SoCalGas' request on various grounds that are addressed *infra*. While City of Lancaster, SC/UCS, and ORA oppose any recovery whatsoever, TURN/SCGC oppose all recovery and, as alternatives, also suggest reducing the amount sought by SoCalGas (a) to only those costs incurred at the specific behest of the Commission,[363] or (b) by the $10 million Applicants had anticipated spending on the project prior to obtaining a decision on the North-South Application.[364] For the reasons cited in Applicants' Opening Brief and stated below, SoCalGas should be granted recovery of the costs sought.

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[361] ORA OB at 84-88; IS OB at 23-26.
[362] SCG/SDG&E OB at 81-89.
[363] TURN/SCGC OB at 14.
[364] *Id.*

11.1.2 The Commission Should Reject City of Lancaster's, TURN/SCGC's, and ORA's Attempts to Re-Litigate the Merits of the North-South Project Itself.

City of Lancaster,[365] TURN/SCGC,[366] and ORA[367] attempt to re-litigate the merits of the North-South Project itself. In doing so, as stated in Applicants' Opening Brief,[368] these parties overlook and do not address the reasons SoCalGas seeks recovery of these costs in this GRC. Specifically, the requested costs were incurred to: (a) comply with the Commission's directives to ensure reliability and (b) comply with the Commission's orders to engage in a CEQA review and prepare a PEA. ORA argues the Commission rejected ratepayer funding of the North-South Project,[369] but this ignores that SoCalGas is *not* seeking to recover in rates "the cost of constructing a new natural gas pipeline between the town of Adelanto and the Moreno Pressure Limiting Station and rebuilding the Adelanto Compressor Station."[370]

Moreover, it is evident that TURN/SCGC's[371] and ORA's[372] criticisms of the project are not valid. All three parties suggest the project was unnecessary from the beginning, but the Commission's decision – D.16-07-015 – does not support that allegation. In fact, the Commission found through the proceeding commenced by the North-South Application "that there is a need to enhance the reliability of natural gas supplies to the Southern System."[373] Even more, "the alternate physical solutions proposed by Trans-Canada, Transwestern and EPNG"[374] that ORA purports are superior to the North-South Project are not even in development two years after the decision was issued.[375] In other words, notwithstanding a Commission-recognized need to enhance reliability in the Southern System, the status quo remains.

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[365] City of Lancaster OB at 4, 7-8.
[366] TURN/SCGC OB at 12.
[367] ORA OB at 88.
[368] SCG/SDG&E OB at 84-85.
[369] ORA OB at 88.
[370] D.16-07-015 at 1*; see also* Tr. V11:705-12-15 (Bermel), 709:28-710:5 (Musich).
[371] TURN/SCGC OB at 12.
[372] ORA OB at 88.
[373] D.16-07-015 at 15.
[374] Ex. 407 ORA/Enyinwa at 17.
[375] Ex. 32 SCG/Bermel/Musich at 9.

11.1.3 TURN/SCGC's Contention that Allowing Recovery Constitutes Retroactive Ratemaking Is a Red Herring and Lacks Merit.

TURN/SCGC do not cite *a single authority* to support their theory that SoCalGas' request for recovery constitutes "textbook retroactive ratemaking,"[376] Not a single decision; not a single statute.

The reason for this is evident: there is no retroactive ratemaking issue. The Commission has stated that, generally, "[r]etroactive ratemaking results from the recovery of past expenses in future rates,"[377] and "the prohibition against retroactive ratemaking does not apply to capital costs incurred between general rate cases if such costs are determined to be reasonably incurred."[378], [379], [380] The costs at issue here were incurred as capital.[381]

Although not relevant to retroactive ratemaking, TURN/SCGC cite to D.18-04-012 to argue that the North-South Project costs are not recoverable in rates,[382] but that decision is inapposite and does not support their contention. In that proceeding, the applicant (SoCalGas) requested a memorandum account to record costs pertaining to a potential construction project to relocate transmission pipelines if negotiations to extend the duration of certain expiring rights-of-way were not fruitful.[383] That decision bears no resemblance to the decision the Commission is asked to make here: to grant SoCalGas cost recovery for pursuing its obligation to maintain system reliability and following the orders of the Commission.

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376 TURN/SCGC OB at 6 (internal quotations omitted).

377 D.92-12-015, 49 CPUC 2d 499, 526 (finding there was no retroactive ratemaking issue where Pacific Bell had not expensed its 1989 and 1990 pre-funded PBOP contributions, which were recorded as a prepaid asset).

378 D.88-09-020, 29 CPUC 2d 185, 207 (in the context of granting a memorandum account). *See also* D.96-09-038.

379 D.95-12-055, 63 CPUC 2d 570, 609 (noting, in the context of abandoned project recovery, that "permitting recovery of expenses incurred during a previous ratemaking period would constitute unlawful retroactive ratemaking," but the same does not apply to capital investments).

380 The reasonableness of SoCalGas' actions in developing and pursuing the North-South Project are detailed in briefing and testimony. *See* SCG/SDG&E OB at 81-89; Ex. 30 SCG/Bermel/Musich at 30-32; Ex. 32 SCG/Bermel/Musich at 3-8.

381 Tr. V11:693:17-26 (Bermel), 705:26-706:9 (Musich), 707:21-708:9 (Bermel).

382 TURN/SCGC OB at 11.

383 D.18-04-012 at 5-6.

11.1.4 SoCalGas Does Not Seek Recovery on the Basis of Abandoned Plant.

SC/UCS[384] and TURN/SCGC[385] argue that SoCalGas does not meet the criteria for recovering funds under the abandoned project theory of recovery. This, however, is not the basis for SoCalGas' request for cost recovery.[386]

The abandoned project theory is an example of an equitable theory of recovery fashioned by the Commission in order to allow utilities to recover reasonably incurred costs under unique circumstances, such as this one. The exact scenario present here – a utility seeking cost recovery for following the orders of the Commission (both in furtherance of seeking to maintain reliability of service and engaging in a CEQA review) – does not appear to have been presented to the Commission previously.

While not directly applicable, decisions discussing the abandoned project theory provide guidance as to the equity of allowing cost recovery under some circumstances when capital costs are not ultimately capitalized because a plant has not become "used and useful."[387] Such projects are considered "on a case-by-case basis, where circumstances warrant."[388] The elements of the theory of recovery are applied differently depending on the facts presented.[389] Sometimes the Commission takes into account the magnitude of the costs incurred by the utility.[390] The Commission allowed recovery in one instance when the plentiful availability of gas changed the need for a project (this is not dissimilar to the facts presented in the North-South

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384 SC/UCS OB at 7.
385 TURN/SCGC OB at 9-10.
386 Ex. 32 SCG/Bermel/Musich at 9. The reference to "abandoned project theory" was stricken pursuant to a stipulation with TURN/SCGC. *See also* SCG/SDG&E OB at 81-89. To be clear, SoCalGas' request is based in equity.
387 D.84-09-089, 16 CPUC 2d 205, 228.
388 D.83-12-068, 14 CPUC 2d 15, 50.
389 For example, in D.06-11-050, the Commission determined that the "dramatic and unanticipated change" prong was satisfied by an order determining that 69% of a water utility's supply came from the illegal diversion of water, coupled with the rejection of a dam project that would have alleviated water supply concerns. D.06-11-050 at 22. The Commission extended precedent on the abandoned project theory to allow recovery.
390 D.83-12-068 at 50-52*; see also* D.92497, 4 CPUC 2d 725, 768 (granting recovery, citing concerns about the impact of the costs on the utility's bond rating, which ultimately "may affect the cost of capital paid for by the ratepayer").

Application[391]).[392] Another utility was granted partial cost recovery for siting costs relating to obtaining certification for a project, even though the project ultimately was rejected based on lack of need.[393]

These are but a few examples illustrating the Commission's equitable approach to determining when to grant recovery of costs under similar circumstances. Implicit in many of the decisions is a consideration of policy. While the City of Lancaster posits that "[t]he risk was taken by SoCalGas"[394] to propose the project, and SC/UCS argue that ratepayers should not "become the utility's underwriter for all canceled projects,"[395] this is not reflected in the Commission's decisions, as discussed *supra*. Indeed, given the explicit mandate that "the utilities must continue to study and report on the adequacy of their entire system, including local transmission, and act to ensure that it remains reliable,"[396] the Commission should not punish or disincentivize such efforts by depriving the utility of the ability to recover in rates reasonable costs incurred in undertaking the efforts.

Moreover, the scenario presented here is particularly unique because the costs to prepare for and conduct a CEQA review were high and not within the control of SoCalGas.[397] TURN/SCGC argue that the fact that the Scoping Memo required SoCalGas to incur costs prematurely, *i.e.*, before there was a decision on the North-South Application, should not affect rate recovery.[398] In so arguing, TURN/SCGC ignore that a CEQA review might not have been required at all if the ultimate decision on the Application was rendered before ordering the CEQA review.[399] Notably, in the North-South proceeding, SCGC and ORA both argued that a CEQA review should be ordered at that premature time.[400] This highlights an internal inconsistency in TURN/SCGC's arguments. On the one hand, they argue that the North-South

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[391] D.16-07-015 at 9-12 (from 2009-2013, demand for gas in the Southern System increased rapidly while customer deliveries decreased; but these trends subsequently changed).
[392] D.84-09-089, 16 CPUC 2d at 232-37.
[393] D.84-12-068, 16 CPUC 2d 721, 796-97.
[394] City of Lancaster OB at 8.
[395] SC/UCS OB at 6 (internal quotations omitted).
[396] D.06-09-039 at 61.
[397] *See* SCG/SDG&E OB at 85-88.
[398] TURNSCGC OB at 14.
[399] Indeed, a decision was rendered in this proceeding even before an Environmental Impact Report was issued. *See* SCG/SDG&E OB at 85-86.
[400] SCG/SDG&E OB at 86.

Project was untenable on its face;[401] but on the other hand, TURN/SCGC argue it was appropriate that the costly CEQA review should have been undertaken before a decision was rendered on the Application.[402]

11.1.5 Even if the Commission Agrees with TURN/SCGC that the Costs Have Not Been Shown to Be Reasonable, Not *All* the Costs Incurred Can be Unreasonable.

TURN/SCGC argue that SoCalGas is "remarkably greedy" and seeks to recover *all* its costs in pursuing the North-South Project when all costs were not incurred at the behest of the Commission.[403] This argument ignores both that the North-South Project was proposed in the first place in order to comply with the Commission's directive to monitor the state of its natural gas system and ensure it remains reliable, and also that, if the Commission is inclined to approve recovery of just the costs incurred following the Scoping Memo, the costs have been presented so as to allow such a determination:

Table 11.1.B
North-South Project Costs Incurred Before and After Assigned Commissioner's May 2014 Scoping Memorandum and Ruling

	Through May 5, 2014	After May 5, 2014
Company Labor and Expense	$172,736	$2,235,356
Preliminary Scoping & Project Dev., Eng., Design & Ministerial Permitting	$236,038	$6,311,882
Environmental Planning & Permitting	$625	$7,058,245
Public Outreach and Agency Notifications	$0	$738,345
Land and ROW Acquisition	$0	$506,362
Indirects	$199,454	$4,032,995
Directs Total	$409,399	$16,850,189
Directs + Indirects Total	$608,853	$20,883,184

And, costs have been broken out in detail by functional area:

401 TURN/SCGC OB at 10, 13.
402 *Id.* at 13-14.
403 *Id.* at 14.

Table 11.1.C
Costs Incurred for Development of North-South Project by Category

Major Activity	Costs ($millions)
Environmental/Permitting	$ 6.7
Engineering, Survey & Geotechnical	$ 7.2
Legal Services / Public Relations	$ 1.1
Subtotal Non-Labor	$ 14.9
Company Labor	$ 2.4
Total Direct Costs	$ 17.3
Indirects	$ 4.2
Total Project Costs	$ 21. 5

TURN/SCGC further contend that SoCalGas did not provide information regarding its use of competitive bidding for consultants, citing to a decision governing reasonableness reviews in PSEP, *i.e.*, pipeline replacement and hydrotest projects part of a massive, long-term program.[404] Although this type of showing is not applicable here, SoCalGas could have provided the relevant information if TURN/SCGC had requested discovery on this topic. TURN/SCGC chose not to request this information in discovery and instead elected to spring questions at evidentiary hearings such as, "Do you have an explanation in your testimony somewhere of whether, for example, you use competitive bidding to obtain the services of these consultants?"[405] Rather than asking whether a competitive bidding process *was used* as TURN/SCGC believes would be required, TURN/SCGC asked whether that information *was provided* in the GRC.

TURN/SCGC also fail to acknowledge that, even if the Commission were to deem information regarding sourcing to be required under these circumstances, the fact that such information has not been presented does not render *all* the incurred costs unreasonable. In any event, this type of information need not be provided under the circumstances presented here, *e.g.*, the short time allotted to SoCalGas to perform many of the activities required for the CEQA review (for example, a PEA was required by the Commission to be filed within 30 days of the

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[404] *Id.* at 8.
[405] Tr. V11:690:24-27 (Pedersen).

Scoping Memo[406]), and many of the costs were incurred not by SoCalGas, but rather by the Lead Agency under CEQA.[407]

Even if the Commission is inclined to give any credence to TURN/SCGC's complaints – which it should not – it is evident that *all* the costs incurred are not unreasonable.

11.1.6 Conclusion

Based on the fact that the costs incurred are just and reasonable and were incurred by SoCalGas and the CEQA Lead Agency in furtherance of complying with the directives of the Commission, the Commission should approve SoCalGas' request for cost recovery of $7,162,000 for each year in this GRC cycle.

11.1.7 Undisputed Capital Expenses

No party opposed SoCalGas' forecast for the capital cost categories of New Construction Pipeline, Pipeline Replacement, Cathodic Protection, and Measurement & Regulation Stations. Therefore, SoCalGas requests that the Commission adopt these forecasts as reasonable.

11.2 SDG&E

Only ORA disputed SDG&E's request for capital costs associated with operating and maintaining the gas transmission system.[408] ORA's Opening Brief referred back to its position as provided in its testimony.[409] ORA's brief does not address SDG&E's rebuttal testimony on these items or any related testimony provided during hearings. Accordingly, SDG&E's forecast for these activities should be adopted as reasonable for the reasons stated in its Opening Brief.

12. Gas Major Projects

12.1 Non-Shared O&M Costs

No party opposed SoCalGas' TY 2019 forecast of non-shared O&M expenses in testimony or briefs. Accordingly, SoCalGas requests the Commission authorize the forecast for non-shared O&M costs.

12.2 Capital Expenditures

Only ORA and TURN address this cost category in their Opening Briefs. ORA does not oppose SoCalGas' 2018 and 2019 proposed capital expenditures for this cost category. For

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406 *See* SCG/SDG&E OB at 85-86.
407 Ex. 32 SCG/Bermel/Musich at 8.
408 ORA OB at 92-96.
409 *Id.*

2017, ORA recommends the Commission adopt SoCalGas' 2017 recorded capital expenditures instead of SoCalGas' forecast.[410] SoCalGas does not oppose ORA's recommendation for 2017 capital expenditures.[411]

In its Opening Brief, TURN opposes the proposed DOCC and recommends disallowance of the forecasted expenditures of $26 million in TY 2019.[412] TURN's opposition to the DOCC relies on its testimony that disputes the safety benefits of the DOCC and recommends that SoCalGas be required to quantify the expected safety benefit against other safety measures.[413] TURN appears to have a several misconceptions on how the DOCC will improve safety and reliability in SoCalGas' and SDG&E's distribution systems. SoCalGas has already provided evidence on the issues raised by TURN and highlights them below to address TURN's concerns.

The DOCC will allow real time monitoring of the distribution system. Even though TURN believes that the current EPM is comprised of the same components such as sensors and alarms, it is the capabilities of these components plus their integration into a cohesive system that makes the DOCC superior to the current EPM system. The current EPM system does not allow continuous monitoring of the units. The system is reactive and sends an alarm two to five minutes after a potential pressurization issue on the system. The alarms go off only when an absolute high or low pressure is reached. Thereafter, it is a manual process by the operator receiving the call to sequentially call up the alarming sensors to obtain refreshed information, which could take 15 minutes up to an hour. Thus, the current EPM system has no ability to effectively look at multiple units and be able to triangulate and determine where a problem is on the distribution system.[414]

In contrast, the DOCC would allow for real time monitoring, which means:

> [T]here would be an operator sitting at a screen in front of them, and we would be able to see multiple pressures, and the alarms would flash right on the location of the pipeline indicated on the screens, which would be slightly different than what we have now. There could be multiple alarms that could come through at once and be viewed by an operator at the same time.[415]

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410 ORA OB at 97.
411 Ex. 53 SCG/Bermel at 6.
412 TURN OB at 28.
413 *Id*. at 28-38.
414 Tr. V12:780:2 to 781:17, 787:2-6 (Bermel).
415 Tr. V12:782:23 to 783:6 (Bermel).

The DOCC would allow flexibility for alarms to sense when a pressure reaches an absolute number or based on rate of drop of the pressure in the pipeline.[416] How this enhanced information is used displays the advantages of a real time monitoring system.

It is clear that the DOCC cannot prevent the acts of third parties that impact the distribution system and it was never designed to do so. The DOCC is, however, designed to identify pressurization incidents due to low pressure or over-pressurization through real time monitoring of the distribution system and potentially prevent them through the remote control of 200 regulator stations.[417] Additionally, when an incident does arise on the system, whether due to a third party or otherwise, the enhanced capabilities of the DOCC would allow quicker response times for personnel to be dispatched to the appropriate locations to address the incident. This is because the DOCC will provide for increased information to be received, active monitoring of the system, multiple data sets to approximate incident locations, and the ability to provide real time, informed information to personnel responding to the incident.[418]

Accordingly, SoCalGas requests the costs associated with the establishment of the DOCC be approved as reasonable.

13. Gas Engineering

Gas Engineering supports the activities and programs supporting Gas Transmission, Gas Distribution, Storage, and Customer Services.[419] SoCalGas and SDG&E take a shared-service approach to many natural gas pipeline operator responsibilities, especially in Gas Engineering. The shared-service approach benefits both Utilities and their ratepayers by enabling the Utilities to pool their collective knowledge, experience, engineering expertise and intellectual property.[420]

Only two intervenors submitted opening briefs addressing Gas Engineering: ORA and TURN. Because SoCalGas and SDG&E addressed the bulk of ORA and TURN's comments in our Opening Brief, we address only the arguments made by TURN and ORA related to the Morongo Rights-of-Way Renewal and an issue raised by ORA in this Reply.

[416] Tr. V12:787:7-12 (Bermel).
[417] Tr. V12:807-10 (Bermel).
[418] Tr. V12:790-91 (Bermel).
[419] Exs. 60 to 66, SCG/Haines and SDG&E/Haines.
[420] Ex. 60 SCG/Haines at 6.

13.1 SoCalGas

13.1.1 Morongo Rights-of-Way Renewal

SoCalGas' opening brief addresses ORA's and TURN's positions on the Morongo ROW issue, and their opposition to the balancing account (MROWBA) and memorandum account (MROWMA).[421] As explained in SoCalGas' Opening Brief, TURN's argument that SoCalGas is seeking some extraordinary relief is not convincing.[422] The Morongo facts and circumstances are unique and not like routine land right acquisitions performed in the ordinary course of business.[423] Under these unique circumstances, the ratemaking proposals of SoCalGas are not extraordinary at all. SoCalGas' testimony describes SoCalGas' efforts to obtain long-term ROWs from Morongo for the benefit of customers at terms more reasonable than the $309 million (or $1.25 billion over 50 years) Morongo proposed.[424] If TURN's primary objection is that SoCalGas did not quantify and present a cost estimate for the ROWs, the record establishes that there are unique factors involving negotiations with the Morongo tribe that made it impractical and unwise to prepare a cost forecast.[425] SoCalGas refrained from putting forth a speculative forecast in this proceeding to enable SoCalGas to continue to actively negotiate for reasonable terms on behalf of customers.[426]

Authorizing the MROWBA and MROWMA will simply enable SoCalGas to track and record actual ROW renewal and pipeline relocation costs for subsequent review by the Commission. It would not predetermine the reasonableness or the costs. Contrary to TURN's claims, the requested relief is an appropriate ratemaking vehicle to track and record operational expenditures tied to the provision of reliable transportation of natural gas for its service territory and for the customers served. Therefore, the Commission should authorize SoCalGas to create the MROWBA and MROWMA.

13.1.1.1 Supervision and Engineering Overheads (Budget Code 908).

For Supervision & Engineering Overheads capital, SoCalGas requested a 2017 forecast of $4.909 million; a 2018 forecast of $5.648 million; and a 2019 forecast of $6.388 million for a

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421 SCG/SDG&E OB at 100-103.
422 TURN OB at 39.
423 Ex. 60 SCG/Haines at 18-19. Ex. 66 SCG/Haines at 9.
424 *Id*. at 18.
425 Ex. 60, SCG/Haines at 16-19; Ex. 63, SCG/Haines at 2-3; Tr V12:914:3-9 & 16-22.
426 *Id*. at 17-19.

total forecast of $16.945 million.[427] ORA recommended a downward adjustment in the amount of $4.504 million, $4.884 million, and $5.295 million for 2017, 2018, and 2019, respectively, which is $405,000, $764,000, and $1,093,000 less than SoCalGas' request for 2017, 2018, and 2019, respectively.[428] ORA disagreed with SoCalGas' five-year linear method for capital forecast for Supervision and Engineering overheads.[429] In its place, ORA proposed a year-on-year (YOY) growth of 8.43% between 2017-2019, which is the average of growth in 2016 and 2017.[430]

In ORA's Opening Brief, ORA mistakenly states that SoCalGas "accepts Cal PA's recommendation for 2017 and forecast method to use the average of the last two years (2016-2017) to forecast 2018 and 2019" regarding capital expenditures for supervision and engineering overheads.[431] However, SoCalGas opposed ORA's recommendation and approach because ORA only used two years of historical data to average a growth rate and did not consider the variability with a historical increasing trend from year 2012 to 2017.[432] Also, ORA's recommendation did not take into account the fact that Supervision and Engineering overheads to continue to increase as they are impacted by the capital projects in other areas such as Major Projects, Storage, and Gas Transmission.[433] Therefore, SoCalGas' five-year linear trend and forecast more accurately and appropriately represents the Supervision and Engineering Overheads capital forecast. ORA's use of a YOY growth rate of 8.43 % should be rejected.

14. Underground Storage

SoCalGas' Opening Brief and its Underground Storage testimony and workpapers (supported by witness Neil Navin), describe and justify SoCalGas' forecasted activities from 2017-2019 including activities that support SoCalGas' operation of its four underground storage fields;[434] that promote the safety, integrity, design, operations, maintenance, and gas injection/withdrawal activities, along with environmental and regulatory compliance functions, within the four storage fields; that relate to the capital investments necessary to provide storage

[427] Ex. 60, SCG/Haines at 37.
[428] Ex. 408, ORA/Lasko at 29-31.
[429] *Id.*
[430] *Id.*
[431] ORA OB at 98.
[432] SCG/SDG&E OB at 108.
[433] *Id.*
[434] The storage fields are: Aliso Canyon, La Goleta, Honor Rancho, and Playa del Rey.

services for SoCalGas customers.[435] The critical goals for storage are safety, integrity, gas availability, and reliability, which are achieved in compliance with governmental regulations.[436] Notably, none of the briefs filed by Intervenors provide any additional information or evidence that would rebut SoCalGas' evidence as set forth in its Opening Brief. To the extent any of Intervenors address SoCalGas' Underground Testimony in their Opening Briefs, SoCalGas addresses such arguments in turn, below.

14.1 Underground Storage – Non-Shared Operations and Maintenance

SoCalGas presented its non-shared O&M summary of costs in three categories of Management: (1) Aboveground Storage and Underground Storage Routine O&M, (2) Storage Risk Management – Non-Refundable, and (3) Underground Storage – RSIMP.

14.1.1 Aboveground (AGS) and Underground Storage (UGS) Routine O&M

Although ORA does not suggest any adjustments to SoCalGas' Non-shared O&M forecast, ORA maintains that the AGS and UGS Non-Shared O&M Routine cost category of $38.699 million for TY 2019 should be established into a one-way balancing account.[437]

ORA's proposal for a one-way balancing account mischaracterizes forecasted activities driven by regulations. Specifically, its proposal of a one-way balancing account to record all AGS and UGS O&M expenses resulting from any new regulatory requirements to protect ratepayers,[438] originates from ORA's mischaracterization that "[m]ost of the emerging regulations [SoCalGas] refers to are still in draft form and under review."[439] ORA goes on to later claim in its Opening Brief that SoCalGas' rebuttal testimony "has not shown that all emerging regulatory requirements have been finalized and adopted and implemented in the same forms that [SoCalGas] used to base its forecast."[440] ORA's contentions are unavailing.

First, ORA reiterates a position based on outdated conclusions regarding the timing of new regulations and the associated AGS and UGS routine activities SoCalGas forecasted as attributable to these regulations. The rebuttal testimony of Mr. Navin clearly identified each regulation, their effective date, and the associated forecasted activities in detail, referencing both

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435 Exs.273-276 SCG/Navin.
436 *Id.*
437 ORA OB at 101; Ex.409 ORA/Lee at 7-8.
438 ORA OB at 101.
439 *Id.* at 100.
440 *Id.* at 103.

direct testimony and workpapers that itemized costs and activity descriptions.[441] SoCalGas, again, briefly summarizes the regulations that are in their final form, are currently effective, and were the basis of incremental AGS and UGS O&M expenses forecasted:

- SB 887 (Pavley) legislation for Natural Gas Storage Facility Monitoring was effective and activities had ***commenced by January 1, 2018***, which included additional reporting, risk management plans, training, and mentoring programs.[442]
- California Air Resources Board (CARB) Oil & Gas Regulation was effective and activities supported by AGS and UGS Routine O&M had ***commenced by January 1, 2018,*** which included activities such as developing a monitoring plan, and implementation of leak detection and emissions monitoring, repair, and reporting.[443]
- U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Underground Natural Gas Storage (UGS) regulations 49 Code of Federal Regulations (CFR) §192.12 (Interim Final Rule or IFR), which adopts API RP 1171 as a mandatory regulation, has been ***effective since January 18, 2017***, and activities supported by AGS and UGS Routine O&M have commenced.[444]
- DOGGR 14 CCR § 1726 –Requirements for California Underground Gas Storage regulations for natural gas facilities was ***effective October 1, 2018***, and activities supported by AGS and UGS Routine O&M had commenced even prior to that date out of prudency of planning to meet compliance deadlines.[445]

While the forecasted activities were developed in 2017 when SoCalGas first filed its direct testimony,[446] and some of these regulations were not then effective, they were however, approved and anticipated to be effective the following month (or were in some form of near maturity), and the forecast for AGS and UGS Routine O&M activities were known in a measurable, not widely variable manner.[447] These regulations (noted above) are now finalized, effective, and the associated forecasted activities have commenced.

Second, to address ORA's stated concern with protecting ratepayers,[448] AGS and UGS Routine O&M activities and its associated costs are incorporated into the Commission's new Risk Assessment Mitigation Phase (RAMP) process,[449] and as a part of the Commission's new risk-informed GRC framework, will be subjected to two annual reports, the Risk Mitigation

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441 Ex.276 SCG/Navin at 5-9.
442 *Id*. at 6-7.
443 *Id*. at 7.
444 *Id*. at 7-8.
445 *Id*. at 8-9. This regulation was approved by the Office of Administrative Law on June 28, 2018 and had existed as a pre-rulemaking draft since July 8, 2016.
446 SoCalGas filed its 2019 General Rate Case Application in December 2017.
447 Ex.273 SCG/Navin at 20-21.
448 ORA OB at 101.
449 Ex.276 SCG/Navin at 18-22.

Accountability Report and the Risk Spending Accountability Report, which provides for an additional layer of ratepayer protection.

In summary, ORA has provided no accurate information or evidence to support its position that a one-way balancing account is necessary or appropriate for these activities, and its recommendation should be rejected.

14.1.2 Storage Risk Management – Non-Refundable

Notably, Underground Storage Non-Shared O&M, Storage Risk Management Activities was not contested by any party in this proceeding, and, for this reason alone, SoCalGas' request should be adopted. Indeed, ORA does not recommend any adjustment to SoCalGas' Underground Storage Non-Shared O&M TY 2019 forecast for Storage Risk Management (Non-Refundable) expenses of $2.031 million for TY 2019.[450] SoCalGas requests that the Commission adopt this forecast and find this request reasonable.

14.1.3 Storage Integrity Management Program – O&M

ORA does not recommend any adjustment to SoCalGas' forecasted TY 2019 expenses of $18.91 million for Refundable Storage Integrity Management Program (Refundable SIMP).[451] SoCalGas agrees with ORA's recommendation to keep the TY 2019 forecast of $18.91 million for the SIMP O&M and requests that the Commission adopt this forecast.[452]

However, ORA maintains its recommendation to modify Storage Integrity Management Program Balancing Account (SIMPBA) from a two-way balancing account to a one-way balancing account to "better protect the ratepayers."[453] SoCalGas disagrees with ORA's proposal and rationale for a one-way balancing account.

As set forth in SoCalGas' testimony and prior briefing, ORA's recommendation for a one-way balancing account of SIMP is founded on contradictory arguments and ignores an existing Commission approved mechanism. Here, ORA asserts in its Opening Brief that "[i]n the recent GRC period, [SoCalGas] has had opportunities to determine inspection costs and degree of repair work needed. [SoCalGas] should be proficient going forward in recording these expenses in a one-way balancing account."[454] Yet, ORA contradictorily states "[t]he O&M

[450] Ex.409 ORA/Lee at 9.
[451] *Id.* at 11; ORA OB at 102.
[452] Ex.276 SCG/Navin at 10-15.
[453] ORA OB at 102.
[454] *Id.*

forecast assumes that the draft regulations [ ] will be implemented,"[455] and that "[SoCalGas] still has not shown that all emerging regulatory requirements have been finalized and adopted and implemented in the same forms that [SoCalGas] used to base its forecast."[456] Regardless of the obvious contradiction, neither argument appropriately considers any of the five reasons SoCalGas outlined in rebuttal testimony for why a two-way balancing account for SIMP is appropriate and should be maintained.

A review of these five reasons in support of a two-way balancing account is instructive. First, SoCalGas reiterated that SIMP work is variable, not discrete, and regulations[457] relating to SIMP work are dynamic and changing in this context. SoCalGas offered an example of variability with well inspection logs, which cost on average, $80K per log, and the unpredictability of knowing whether an inspection may need to be repeated for reasons such as validation testing after a well undergoes modification.[458] SoCalGas also offered another example of SIMP O&M forecast assuming a two-year inspection interval and an approximate number of wells requiring reinspection. This estimated inspection interval period may vary based on DOGGR approval of an alternative proposal, but this provision has not been tested by any operators in California to-date. Two-way balancing account treatment of SIMP would allow for excess funds to be returned to ratepayers and would also allow for cost recovery if activities should exceed forecast due to the unpredictability of inspections and remediation subject to certain reasonableness reviews.

Second, recent regulation imposes new requirements for SIMP related work such as additional well inspection logging and data analysis, improved data management systems, and broader requirements for training and emergency response plan measures which includes costs or requirements that are variable.[459]

Third, ratepayers are protected, as a two-way balancing account allows SoCalGas to recover reasonably incurred costs to maintain safety and system integrity and provides SoCalGas

[455] *Id.*
[456] *Id.* at 103.
[457] These regulations include DOGGR 14 CCR § 1726 – Requirements for California Underground Gas Storage has only recently been approved and made effective October 1, 2018.
[458] Ex.276 SCG/Navin at 11.
[459] Ex.273 SCG/Navin at 25-26 "proposed regulations" refers to DOGGR 14 CCR § 1726 –Requirements for California Underground Gas Storage, which recently was approved June 28, 2018 and became effective October 1, 2018, and would more appropriately be classified as a "recent regulation" now.

the flexibility to address unforeseen integrity work and to present costs incurred to perform that work for the Commission to review for reasonableness, which promotes the shared goal of safe system operation.[460]

Fourth, in D.16-06-054, the Commission approved a two-way balancing account for SIMP and found the two-way balancing account reasonable, stating "the costs of inspecting and remediating potential problems at the underground storage facilities may vary. To remediate potential problems at other wells, more monies than what the parties agreed to may be necessary. Accordingly, the provision in the Attachment 5 settlement agreement to institute a two-way balancing account procedure for the SIMP expenditures is reasonable."[461]

Fifth, the SIMP is designed similarly to the already existing Transmission Integrity Management Program (TIMP) and Distribution Integrity Management Program (DIMP) and should be treated similarly. From a system-wide perspective, the safety objectives, project uncertainties, and unpredictable nature of inspection and repair work for SIMP are similar to DIMP and TIMP. ORA does not dispute continuing the two-way balancing account treatment for TIMP and DIMP and should similarly accept two-way balancing account for SIMP.

Based on the foregoing, presented in rebuttal and in testimony,[462] ORA's recommendation to modify Storage Integrity Management Program Balancing Account (SIMPBA) from a two-way balancing account to a one-way balancing account is not only unnecessary, but unreasonable and should be rejected.

14.2 Underground Gas Storage – Shared Operations and Maintenance

SoCalGas forecasts $434,000 in TY 2019 for this cost category which represents the Senior Vice President's activities. These activities extend beyond Underground Storage since the Senior Vice President is also responsible for the Transmission, Capacity Planning, Gas Control & System Planning and Emergency Services. These expenses include technical and financial support, as well as policy issuance to successfully staff the operation and further the goals of the company.[463]

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[460] Ex.276 SCG/Navin at 13-14.
[461] D.16-06-054 at 249-50, OP 8.
[462] Ex.273 SCG/Navin at 25-28; Ex.276 SCG/Navin at 10-15.
[463] Ex.273 SCG/Navin at 29-30.

Here, this cost category was not contested by any party**.** Indeed, ORA does not oppose SoCalGas' forecast.[464] Accordingly, SoCalGas requests that the Commission adopt SoCalGas' forecast as reasonable.

14.3 Underground Gas Storage – Capital

SoCalGas proposed a capital forecast in the amount of $208.535 million in 2017, $180.646 million in 2018 and $172.606 million in 2019.[465] These costs for Underground Gas Storage – Capital was comprised of the sum forecast of the following seven categories: Compressors, Wells, Pipelines, Purification, Auxiliary Equipment, SIMP, and Compressors - ACTR.

14.3.1 Compressors

ORA reiterates in its Opening Brief its recommendation to adopt SoCalGas' 2017 adjusted-recorded capital expenditures and does not recommend any adjustment to 2018 and 2019 forecasted expenditures.[466] ORA's blanket recommendation to adopt 2017 recorded capital expenditures rather than 2017 forecast, casts a narrow year-to-year view of activities that were forecast over the span of three years, and ignores the broad spectrum of various projects' total costs and activities that were reasonably forecasted.

SoCalGas agrees that its 2018 and 2019 forecast should be adopted. However, as stated in Mr. Navin's Rebuttal Testimony,[467] SoCalGas disagrees with ORA's recommendation to adopt 2017 recorded capital expenditures because (1) ORA fails to provide a basis as to why 2017 recorded costs are more appropriate; (2) ORA fails to consider that the total amount of project work has not changed and that the delays in 2017 will not change the overall funding needed to complete the work; and (3) ORA does not contest SoCalGas' capital forecast methodology for 2018 and 2019.

SoCalGas developed project level cost forecast details for 2017-2019 in workpapers,[468] and provided additional detail via responses to ORA discovery, and those details, tellingly, were not disputed.

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464 ORA OB at 103.
465 Ex.273 SCG/Navin at 31.
466 ORA OB at 104.
467 Ex. 276 SCG/Navin at 17.
468 Ex. 275 SCG/Navin.

ORA also disregards the multi-year forecast cost drivers detailed in Mr. Navin's direct testimony and workpapers.[469] Because the overall 3-year forecast (2017, 2018, 2019) was established with each year being dependent on and building off the others, the 2017 forecast should not be adjusted. A variety of operational impacts such as delays, re-prioritization and project constraints have created a variance between 2017 forecast and recorded costs, however, SoCalGas expects this work to be completed in 2019 and believes the overall total cost forecast of these capital projects remain reasonable and should be adopted in its entirety.

14.3.2 Storage Wells

ORA does not recommend adjustment to SoCalGas' cost forecast for 2018 and recommends adoption of the 2017 adjusted-recorded expenditures of $51.446 million.[470] SoCalGas disagrees with ORA's recommendation to adopt adjusted-recorded expenditures for 2017 over forecast for the same reasons listed above in Section 14.3.1.

ORA also continues to recommend a one-way balancing account treatment for SoCalGas' capital expenses subcategory "Storage Wells" during this GRC period.[471] ORA does not provide any rationale for this recommendation beyond stating "[f]rom 2017 to 2018, [SoCalGas] only planned to replace four wells total, or an average of 2 wells a year. [SoCalGas'] plan to replace seven storage wells in 2019 is over four times its current pace,"[472] implying that SoCalGas' forecast is overstated.

ORA's argument is unavailing inasmuch as its observation of the well replacement activity increase in 2019 fails to acknowledge the relative inverse correlation of this forecast with other well activities such as well plug and abandonments, tubing upsizing, and well workovers as presented in Mr. Navin's direct testimony and rebuttal.[473] SoCalGas' storage wells forecast, by contrast, considers a comprehensive outlook of the activities required to correspond to well integrity assessment activities, well performance history, coupled by system reliability and deliverability needs.

Next, SoCalGas' wells forecast also considers the potential of phasing in higher-deliverability replacement wells and eliminating higher cost wells over time to reduce long term

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469 Ex. 273 SCG/Navin at 30-57, Ex.275 SCG/Navin.
470 ORA OB at 105.
471 *Id.*
472 Ex.409 ORA/Lee at 18; ORA OB at 105.
473 Ex.273 SCG/Navin at 35-42; Ex. 276 SCG/Navin at 20-22.

operating costs (reducing need for mitigation such as gravel packs) and a redesign of wells for tubing flow only to create a dual barrier of safety.

Furthermore, storage wells capital activities and associated costs are incorporated into Mr. Navin's direct testimony in accordance with the Commission's new Risk Assessment Mitigation Phase (RAMP) process. As a part of the Commission's new risk-informed GRC framework,[474] GRC cost requests for risk mitigation activities will be subjected to two annual reports, the Risk Mitigation Accountability Report and the Risk Spending Accountability Report, which already provides for an additional level of ratepayer protection.[475]

14.3.3 Pipelines

Here again, ORA does not recommend adjustment to SoCalGas' cost forecast for 2018 and 2019 but recommends adoption of the 2017 adjusted-recorded expenditures of $21.017 million rather than SoCalGas' 2017 forecast of $20.347 million. Yet again, ORA fails to offer any rationale for why 2017 adjusted-recorded expenditures are more appropriate than SoCalGas' 2017 forecast. ORA does not offer a single reason in its testimony or Opening Brief to substantiate why this recommendation is reasonable.[476] SoCalGas disagrees with ORA's recommendation to adopt adjusted-recorded expenditures for 2017 over forecast for the reasons set forth above in Section 14.3.1.

14.3.4 Purification

ORA does not recommend adjustment to SoCalGas' cost forecast for 2018 and 2019 but recommends adoption of the 2017 adjusted-recorded expenditures of $2.915 million rather than SoCalGas' 2017 forecast.[477] In this context, ORA's Opening Brief grossly overstates SoCalGas' 2017 forecast of $5.510 million by claiming SoCalGas' 2017 forecast is $45.510 million.

Assuming, *arguendo*, that $45.510 million was SoCalGas' 2017 forecast – contrary to fact – SoCalGas would agree that such a forecast was an overestimation.[478] Yet that was not SoCalGas' 2017 forecast; instead, the 2017 forecast is $5.510 million for Storage Purification

[474] D.14-12-025.
[475] Ex.276 SCG/Navin at 21-22.
[476] Ex.409 ORA/Lee at 18; ORA OB at 106.
[477] ORA OB at 106.
[478] *Id.*

Systems.[479] ORA does not offer any reason in its testimony or Opening Brief to substantiate why this recommendation is reasonable.[480]

In summary, SoCalGas disagrees with ORA's recommendation to adopt adjusted-recorded expenditures for 2017 over forecast for the reasons set forth above in Section 14.3.1.

14.3.5 Auxiliary Equipment

ORA does not recommend adjustment to SoCalGas' cost forecast for 2018 and 2019 but recommends adoption of the 2017 adjusted-recorded expenditures of $17.618 million rather than SoCalGas' 2017 forecast of $19.206 million.[481] Yet again, ORA fails to provide any reasoning why the 2017 adjusted-recorded expenditures are more appropriate than SoCalGas' 2017 forecast. As such, SoCalGas disagrees with ORA's recommendation to adopt adjusted-recorded expenditures for 2017 over forecast for the reasons set forth above in Section 14.3.1.

14.3.6 SIMP - Capital

ORA does not oppose SoCalGas' SIMP capital forecast in the amount of $71.370 million in 2018, and $53.382 million in 2019 but recommends adoption of adjusted-recorded costs for 2017 (which is addressed in Section 14.3.1 above).[482] ORA also recommends that the Commission modify SIMPBA for capital expenditures from a two-way balancing to a one-way balancing to "better protect the ratepayers."[483]

As a threshold matter, ORA ignores the fundamental difference of SIMP activities described in the 2019 GRC compared to the 2016 GRC. Instead, ORA continues its contradictory argument that references SIMP activities to several emerging regulations from DOGGR, PHMSA, SB 887, and CARB that would affect SoCalGas' expenditures during this GRC.[484] Yet ORA also states "[SoCalGas] has had experience recording SIMP costs in the balancing account in the last GRC and has had opportunities to determine inspection costs and degree of repair needed in the current GRC period."[485]

In addition, the advent of several emerging regulations effective in 2018 drives new and incremental SIMP activities that could not be foreseen in SIMP activities forecasted in the

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479 Ex.273 SCG/Navin at 31, 44-46.
480 ORA OB at 106; Ex.409 ORA/Lee at 20.
481 ORA OB at 106-07.
482 Ex.409 ORA/Lee at 25; ORA OB at 107.
483 ORA OB at 107-08.
484 *Id.* at 107.
485 ORA OB at 108.

previous GRC. In this context, SoCalGas disagrees with ORA's recommendation for one-way balancing account treatment and recommends that SIMP related costs *continue* to be recovered through a two-way balancing account due to the unpredictable and potentially variable nature of inspection and remediation costs because this is the better mechanism for recovery in this regard.[486] SIMP capital work is variable, not discrete, and regulations are dynamic and changing for: proactive plugging and abandonment of wells, inspection/return to operation, data management, pilot emerging monitoring integrity and safety technologies, and for cathodic protection. A two-way balancing account is the most appropriate way to address these costs, for the reasons explained above in Section 14.1.3 and ordered by the Commission in D.16-06-054.

In addition, there are also external market resource uncertainties. SIMP inspection and return to operation of gas storage wells is dependent on the availability of equipment and personnel, which are the same types of resources used throughout the oil and gas industry. The ability to timely secure these assets is dependent on energy demand and rig availability nationwide, and financial outlays to secure rigs and oil/gas field services can vary greatly over time due to domestic and foreign developments related to energy.

14.4 OSA Ignores the Fact That American Petroleum Institute (API) Recommended Practice (RP) 1171 Is an Integral Component of Creating an SMS for Underground Storage

OSA recommends in its testimony and reiterates in its brief, its recommendation that "[t]he Utilities should develop a safety management system (SMS) framework to address [ ] underground gas storage assets/operations and present its proposal in the next GRC. The SMS should leverage the API 1173 framework's emphasis on safety culture."[487]

As stated in the rebuttal testimony of Mr. Neil Navin, SoCalGas agrees with OSA that Underground Gas Storage would benefit from an SMS approach, and SoCalGas is committed to a voluntary implementation of API RP 1173.[488] Furthermore, as provided by SoCalGas during discovery, action plans have been developed and implementation for API RP 1173 is currently in progress.[489] In fact, SoCalGas included in its response to discovery PowerPoint presentations that describe SoCalGas' plan to address gaps and implement an API RP 1173 framework, which

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486 Ex.276 SCG/Navin at 22-25.
487 OSA OB at v.
488 Ex. 276 SCG/Navin at 15.
489 Ex. 86 SCG/Rivera at 6-7.

includes Storage and SIMP activities, and includes the Senior Vice President of Gas Transmission, Storage and System Operations as well as the Vice President of Gas Transmission and Storage as members of the Executive Steering Committee sponsoring the development and implementation of the Gas Safety Management System.[490] Again, API RP 1173 is not a mandated practice; and notwithstanding that it is not a mandated practice, SoCalGas is voluntarily implementing API RP 1173 company-wide, and further company-wide implementation efforts are discussed in the rebuttal testimony of Mr. Omar Rivera.[491]

OSA's statement that "[w]hile the Gas Operations of the Utilities are proposing to implement API 1173, the scope of adoption excludes underground gas storage at SoCalGas. . . . SoCalGas is relying on RP API 1171 (Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs), to manage safety of [its] [ ] underground gas storage operations,"[492] inaccurately characterizes SoCalGas' commitment to safety by over simplifying the breadth of forecasted GRC activities in Mr. Navin's testimony.[493] First, API RP 1171 is an integral component of creating an SMS for Underground Storage. Specifically, "[s]torage design, construction, operation, and maintenance include activities in risk management, site security, safety, emergency preparedness, and procedural documentation and training to embed human and organizational competence in the management of storage facilities."[494] Second, in addition to API RP 1171, Underground Storage will consider applicable elements developed as part of a company-wide effort of API RP 1173 for phased implementation.[495] These echo the same conclusions of OSA, specifically, that "although there is no SMS standard that is specific to underground gas storage[,] . . . the principles are broad enough that they can apply across industries."[496] In discussions with OSA, SoCalGas leadership has made clear SoCalGas' commitments to implementation of a SMS, API RP 1173, but this must be done thoughtfully and deliberately.[497]

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[490] *Id.* at 18 and Appendix B; OSA-SEU-DR 003, Question 2.b.iii.
[491] Ex. 86 SCG/Rivera at 6-7.
[492] OSA OB at 12.
[493] Exs. 273, 276 SCG/Navin.
[494] Ex. 90 SCG/SDG&E/Buczkowski/Geier at 8-9.
[495] Ex. 276 SCG/Navin at 16.
[496] OSA OB at 15.
[497] Ex. 90 SCG/SDG&E/Buczkowski/Geier at 7.

14.4.1 Aliso Canyon Incident Analysis Led by CSUN Was Not Admitted into the Record

In addition, OSA asserts the lack of API RP 1173 in underground storage as one of the contributing factors to the Aliso Canyon incident.[498] This argument also is unsupported. Specifically, in its brief, OSA attempts to improperly introduce extra-record evidence[499]—in the form of a California State University, Northridge-led report (the "CSUN Report")[500] regarding the Aliso Canyon leak—that the ALJ correctly declined to admit in evidentiary hearings.[501] Given that the ALJ already decided this issue at hearings, which is the appropriate time and place for introducing new evidence into the record, it is unclear why OSA believes it can somehow now introduce the report through its brief.

As ALJ Lirag noted on July 10, 2018, "Aliso Canyon storage issues are going to be outside the scope of this proceeding. Those are being handled in other proceedings,"[502] principally as part of a potential future Aliso Canyon RCA OII following the conclusion of the ongoing root cause analysis investigation. The CSUN Report does not, as OSA represented at the July 28, 2018 hearing, "deal[] with safety culture" generally.[503] Rather, the CSUN report concerns unfounded allegations regarding the Aliso Canyon Gas Leak.[504] As such, it was entirely proper for SoCalGas to object to the exhibit and for ALJ Lirag to sustain that objection, finding that the document did not serve any purpose as a cross-examination exhibit with respect to Mr. Phillips' PSEP testimony.[505]

Beyond the fact that the CSUN Report deals with issues outside the scope of this GRC proceeding, it is further objectionable on its face for basic evidentiary reasons. First, as noted at the hearing, this document is hearsay not within any exception and it is not sponsored by any

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[498] OSA OB at iii-v.
[499] *Id.* at v.
[500] OSA's Opening Brief states that this report was "[a] University of Southern California (USC)-led analysis of the Aliso Canyon gas leak." OSA OB at 7 n.13, 33. However, although USC personnel were involved, the report's lead author, Maryam Tabibzadeh, is a professor in the Manufacturing Systems Engineering & Management department of California State University, Northridge (CSUN). *See* https://csun.edu/engineering-computer-science/manufacturing-systems-engineering-management/maryam-tabibzadeh (last accessed Oct. 1, 2018).
[501] Tr. V11:580:10-13 (Lirag).
[502] *Id.*
[503] Tr. V23:2289:14 (Angelopulo).
[504] The full title of the report is: "A Systematic Framework for Root-Cause Analysis of the Aliso Canyon Gas Leak Using the AcciMap Methodology: Implication for Underground Gas Storage Facilities."
[505] *See* Tr. V23:2291:20-28 (Lirag).

witness on behalf of OSA.[506] As a matter of evidentiary law and basic due process, it was properly excluded. SoCalGas has not been afforded any opportunity to cross-examine the report's authors regarding their methods, hypotheses, and conclusions. Without the opportunity to test the credibility of this so-called "expert report"—which again is about a subject matter beyond the scope of these proceedings—SoCalGas would be at a severe disadvantage.

Finally, while OSA at evidentiary hearings sought, and failed, to introduce the CSUN Report for the limited purposes of cross-examining Mr. Phillips, here, in its brief, it is seeking to enter the report into the record for the much broader purpose of substantiating "gaps in the utility's management of safety and organization as a whole."[507] OSA does this without providing any information suggesting that the CSUN Report actually studied "gaps in the utility's management of safety and organization as a whole" or had any basis for making conclusions regarding this subject. As such, OSA provides zero foundation supporting the applicability of the CSUN Report to these proceedings.

15. Aliso Canyon Turbine Replacement

Only ORA submitted an Opening Brief discussing the Aliso Canyon Turbine Replacement (ACTR) project and it was focused largely on its request for a second reasonableness review or an audit as part of this GRC.[508] As discussed in detail in our Opening Brief, SoCalGas continues to oppose ORA's recommendation for a second reasonableness review, as it is unnecessary and inefficient. Since SoCalGas demonstrated the reasonableness of the $275.5 million in Project costs with substantial evidence in this GRC,[509] and no party presented evidence to rebut this showing or otherwise challenged the reasonableness of incurred costs for the Project, SoCalGas requests the Commission determine that the Project costs presented in this GRC are reasonable, and deny ORA's request to either put off its determination or repeat the entire reasonableness review process all over again in the next GRC.

Given that SoCalGas presented compelling evidence of the reasonableness of incurred costs and no party opposes SoCalGas' presentation of the Project costs, SoCalGas requests authorization to recover the $74.6 million in costs that exceed the previously-authorized cost of

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[506] Tr. V23:2288:20 to 2289:2, 2289:27 to 2290:14 (Patel).
[507] OSA OB at 7.
[508] ORA Opening Brief at 109-111.
[509] Exs. 277-278, SCG/Buczkowski.

$200.9 million for the Project.[510] SoCalGas also requests a finding that the $74.6 million above the authorized $200.9 million cost cap were reasonably-incurred and can be recovered in rates.[511] SoCalGas further asks for authorization to continue to maintain the existing Aliso Canyon Memorandum Account (ACMA) to record additional capital-related costs in excess of $275.5 million, which may be presented for review in a subsequent GRC.[512]

16. Gas Control and System Operations/Planning (SoCalGas)

SoCalGas' Gas Control and System Operations/Planning section of Applicant's Opening Brief and testimony and workpapers, supported by witness Devin Zornizer, describe and justify SoCalGas' forecasted activities for 2017-19.[513] Applicants forecast a level of O&M costs in the test year necessary to support system utility operations and emergency response.

- SoCalGas requests the Commission to adopt a TY 2019 forecast of $8,958,000 for Gas Control and System Operations/Planning O&M costs; which consists of $2,972,000 for non-shared service activities and $5,986,000 for shared service activities.

Additionally, as set forth in Applicants' Opening Brief, Mr. Zornizer's Rebuttal Testimony responded to issues raised by ORA[514] and TURN[515] regarding forecasted requests contained in Mr. Zornizer's Direct Testimony and workpapers.[516]

ORA disputes SoCalGas' TY 2019 forecast for Emergency Services and recommends the funding request to be lowered to $1.145 million.[517] As set forth in the Opening Brief, the following table below summarizes SoCalGas' and ORA's positions:

Table 16.A.

TOTAL O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SOCALGAS/SDG&E	**6,027**	**8,958**	**2,931**
ORA	**6,027**	**7,287**	**1,260**

510 Ex. 279, SCG/Buczkowski at 3.
511 *Id.*
512 *Id.*
513 *See generally* Exs. 17-19 SCG/Zornizer.
514 Ex. 406 ORA/Phan at 87, 92, 94.
515 Ex. 490 TURN/Borden at 44.
516 Exs. 17-18 SCG/Zornizer.
517 Ex. 406 ORA/Phan at 87. In the errata dated August 2018, ORA deleted its recommendation to normalize the capital costs associated with the revenue requirement recorded in the Operational Flow Cost Memorandum Account (OFCMA) over 2018 and 2019. Ex. 406A ORA/Phan. Based on ORA's deletion, SoCalGas believes that ORA does not oppose SoCalGas' ability to recover the entire amount of recorded in the OFCMA.

In addition, Mr. Zornizer's Rebuttal Testimony responded to issues raised by SCGC and EDF, which were not a part of Mr. Zornizer's GRC request, not raised in his Direct Testimony or workpaper.[518]

Notably, none of the briefs filed by Intervenors provide any additional information or evidence that would rebut Applicants' evidence as set forth in their Opening Brief. To the extent any of Intervenors addresses Applicants' Testimony in their Opening Briefs, SoCalGas addresses such arguments in turn, below.

16.1 EDF's Requests Should Be Rejected

EDF requests the Commission impose a requirement on SoCalGas to modernize the processing of scheduled quantity adjustments.[519] In this regard, EDF argues that SoCalGas purportedly refuses to take an important cost minimization step that is performed manually by a team of seven to eight people plus an additional person to do even more manual entry.[520] Not so. The fact is that only one person is normally used to process the manual trades each day which makes justification of an automated trading system under the authority of interim rules difficult to justify.[521]

EDF also claims that an automating the Scheduled Quantity Adjustments (SQA) process would decrease imbalances on the system since it would allow parties to trade more freely.[522] EDF further claims that the automation of the SQAs will diminish the overall demand for storage if only the inter-day trading of customer SQAs is allowed.[523] These claims are unavailing. Operationally, storage is the main tool used to keep the system balanced and reliable.[524] Rather than reducing the demand for storage and enhancing reliability, EDF's proposal for an inter-day imbalance trading system[525] will adversely affect reliability and put even more pressure on storage capacity. Allowing for balancing entities to carry daily OFO imbalances from previous

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518 Ex. 19 SCG/Zornizer at 12-17, 19-20.
519 EDF OB at 2-3.
520 *Id.* at 2.
521 Additional staff will be needed to manage an imbalance trading platform, regardless of whether the platform is automated. Ex. 19 SCG/Zornizer at 12.
522 EDF OB at 3.
523 EDF OB at 3.
524 *See* Ex. 19 SCG/Zornizer at 15-16.
525 EDF OB at 3.

days into future days will exacerbate the day's OFO situation and may result in system reliability issues for that day.[526]

16.2 SCGC's Recommendation's for The Cost for A System to Automate the Trading of Scheduled Quantities Would Result in a Capital Cost

SCGC's recommendation that the costs for a system to automate the trading of scheduled quantities be offset by the cost of 1 FTE would result in a loss to SoCalGas for the capital cost of the system.[527] Based on an estimated capital cost of approximately $1 million, the levelized annual revenue requirement for the system would be $210,000 compared with $75,000 estimated cost per year for an FTE.[528] This would result in under-collection of $135,000 per year for SoCalGas.[529]

16.3 Emergency Services

ORA does not dispute SoCalGas' forecast of $156,000 for Storage Productions Manager for 2019;[530] however, it disputes SoCalGas' TY 2019 forecast of $2.816 million for Emergency Services and recommends the funding request to be lowered to $1.145 million.[531]

ORA does not address the arguments and evidence submitted by Applicant's on this proposal. In Applicants' Opening Brief and in Mr. Zornizer's testimonies and workpapers, SoCalGas justified its forecast amount based on (1) costs that are driven by safety mitigation activities in RAMP, (2) the need for additional first responder training and enhanced emergency response associated with significant prolonged and recurring Southern California wildfires and related natural disasters, and (3) SoCalGas' requirements associated with corrective actions and recommendations from agency audits.[532] Applicants hereby incorporate such arguments and evidence through this reference.[533] Further, SoCalGas is requesting to fill an additional 13 positions and corrects the reference to 14 positions in the Applicants' Opening Brief.[534] Here, ORA relies on historical spending to justify its request to lower the funding but ignores

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526 Ex. 19 SCG/Zornizer at 13-14.
527 SCGC OB at 10.
528 Ex. 18 SCG/Zornizer at 50.
529 *Id.*
530 ORA OB at 111.
531 *Id.* at 111-12.
532 SCG/SDG&E OB at 120; Exs. 17-19 SCG/Zornizer.
533 *Id.*
534 This number was previously corrected in Mr. Zornizer's rebuttal testimony and in a data response to ORA and SCGC. Ex. 19 SCG/Zornizer at 4 and Appendix A (attaching ORA-SCG DR-089-DAO, Question 1).

SoCalGas' need based on large service territory and compliance requirements of state and federal rules on emergency response and procedures.[535]

ORA also argues that SoCalGas already had an Incident Command Center (ICS) compatible with the ICS used by the first responder community of California and that there are no new categories added for 2019.[536] However, as stated in Applicants' Opening Brief section 16.1.1.2, SoCalGas needs additional first responder training and enhanced emergency response pursuant to GO 112-F and due to extreme weather.[537] In 2016, SoCalGas Emergency Services group had only one director and five employees to manage all emergency preparedness and response programs.[538] SoCalGas Emergency Services group proposes additional FTEs to implement corrective actions and recommendations made by governmental agencies.[539] For example, in 2016, the Safety Enforcement Division (SED) of CPUC conducted a General Order 112-F Inspection of SoCalGas Gas Emergency Management Program and identified improvements in SoCalGas' first responder outreach program and emergency exercises program.[540] The incremental FTEs will allow SoCalGas Emergency Services to meet SED recommendations and support and deploy emergency preparedness and recovery training of SoCalGas responders.[541] Thus, SoCalGas requests that the Commission adopt SoCalGas' TY 2019 forecast of $2.816 million for Emergency Services.

Therefore, for the reasons stated in the Applicants' Opening Brief, Mr. Zornizer's testimonies and workpapers, and in this Reply Brief, SoCalGas respectfully requests that the Commission adopt a TY 2019 forecast of $8,958,000 for Gas Control and System Operations/Planning O&M costs.

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[535] SCG/SDG&E OB at 120.
[536] ORA OB at 112-13.
[537] *Id.* at 121.
[538] Ex. 19 SCG/Zornizer at 8.
[539] *Id.* at 122.
[540] Ex. 19 SCG/Zornizer at 9.
[541] *Id.*

17. Pipeline Integrity for Transmission and Distribution

17.1 Common Issues

17.1.1 ORA confirmed it does not dispute the TIMP and DIMP forecasts and the Companies do not oppose using 2017 actuals for capital

ORA does not dispute TIMP and DIMP forecasts, except recommends adopting 2017 actual recorded expenditures for capital (which are higher than forecast),[542] and which SoCalGas and SDG&E have already stated in their Opening Brief they do not oppose.[543]

17.2 SoCalGas Issues

17.2.1 OSA's premature and speculative opinions about whether safety management gaps contributed to the Line 235-2 Incident is out of scope and not relevant to the GRC

OSA renders a premature opinion – ahead of SED's own reports, and without substantiating evidence – that "gaps in the utility's management of safety and organization as a whole" contributed to the Line 235-2 rupture.[544] OSA does not specify what "serious safety gaps" it is referring to.

For the Line-235-2 RCA, ALJ Lirag determined only a narrow inquiry would be relevant to this GRC with respect to OSA questioning Ms. Maria Martinez, the Director of Pipeline Integrity, about "external corrosion protection" "inform[ing] the spending choices that we make here."[545] However, OSA's new, broad opinion above has no relationship to the limited scope and clearly goes outside the bounds of that permission. Thus, OSA's new conclusion about gaps in the utility's management of safety and organization as a whole contributing to the Line 235-2 incident is pure speculation and unsupported by evidence in the record.

Moreover, it is unsubstantiated and flawed logic to assert that in the absence of voluntary implementation of API 1173 and other unspecified best practices, "[t]he utilities' safety approach as presented in this GRC is inadequate and dangerous."[546] Equally flawed is OSA's assertion that "had Sempra not delayed consideration or implementation of the key industry best practices [discussed by OSA] until now, the Aliso Canyon leak and Line 235-2 explosion could have been

542 ORA OB at 12, 114.
543 SCG/SDG&E OB at 131.
544 OSA OB at 6-7 (emphasis in original).
545 Tr. V16:1289:2-28 (Foss, Hovsepian, Lirag).
546 OSA OB at iii.

prevented."[547] API 1173 was not formally released until July 2015, which would not have afforded enough time to fully and effectively implement this initiative before the October 2017 Line 235-2 rupture. OSA does not identify what specific tenet of API 1173 would have made a difference in prevention. Even for "process safety" practices that OSA touts, it recognized that the incident evaluation process (IEP) for the Companies' pipeline operations is "rigor[ous]" in OSA's own testimony,[548] which contradicts this new narrative.

OSA also improperly asserts that Line 235-2 is "a good example of how much safety information flies under the radar in a GRC proceeding."[549] SoCalGas has taken this incident very seriously both from a remediation and lessons learned perspective, but this does not mean premature consideration of an incident's root causes should be handled in a GRC. Footnote 11 of OSA's Opening Brief admits the RCA is not part of the record,[550] and SoCalGas and SDG&E have already explained to OSA and the Commission why this is with good reason. As noted in the Companies' data request response to OSA and in our Opening Brief,[551] handling a RCA within the context of a long-term forecast GRC application for funding would be a poor method of addressing an emergent safety incident. The Commission itself in D.16-08-018 directs the utilities to "[r]espond to immediate or short-term crises outside of the RAMP and GRC process" because they "follow a three-year cycle and are not designed to address immediate needs."[552] This was already noted in the Companies' data request response to OSA on this inquiry, which also indicated that "SoCalGas and SDG&E do not wait to respond to incidents and address safety issues in a timely manner, regardless of the timing of the GRC funding cycle."[553] SoCalGas indicated that the RCA by SED, the investigative arm of the Commission, was still ongoing at the time of OSA's inquiry, and SoCalGas did not include as part of the TIMP funding request for the TY 2019 GRC any amounts for the mitigations that will need to take place related to the

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547 *Id.* at 35.
548 *See* Ex. 86 SCG/Rivera at 19 (citing Ex. 442 OSA/Contreras at 2-23 to 2-24). *See also* OSA OB at 15 ("[T]he incident investigation is the element that ties much of safety management together."). As part of the outreach efforts noted above, SoCalGas and SDG&E spent hours going over our IEP with OSA in meetings and calls.
549 OSA OB at 5.
550 *Id.* at 7 n.11 ("The Root Cause Analysis that is not part of the record indicates the pressure at the time of the explosion. It is confidential.").
551 Ex. 91 OSA/SEU (OSA-SEU Data Request-005, Question 4); SCG/SDG&E OB at 134.
552 D.16-08-018 at 146; Ex. 91 OSA/SEU (OSA-SEU Data Request-005, Question 4).
553 Ex. 91 OSA/SEU (OSA-SEU Data Request-005, Question 4).

incident.[554] The Commission's Resolution L-436 protects confidentiality of ongoing safety investigations. The purpose of SED's investigation of the Line 235-2 RCA is determining the cause and contributing factors to this serious event. The RCA is now complete as of April 2018. It became clear that OSA has been in possession of the conclusions in the Metallurgical Analysis Final Report (RCA Report) since May, as evident by incorporation of portions of the RCA Report in OSA's testimony and Opening Brief.[555] There is nothing to suggest a deficient safety culture or lack of an overarching practice like API 1173 that OSA suggests[556] caused or contributed to the incident.[557]

Accordingly, OSA's attempt to paint SoCalGas as not transparent is disingenuous – SoCalGas followed the Commission's own rules, process, and scoping. The Commission has directed that short-term mitigation following ongoing investigations of safety incidents should not be considered within the scope of a general rate case. As emphasized several times with OSA, on a longer time horizon, SoCalGas does agree to look to adapt the final recommendations and improvements resulting from the RCA into the TIMP over the next rate case cycle.[558]

During hearings, SoCalGas did not object to OSA's limited confidential portions of the RCA Report being admitted into the record under seal, as they were high level about external pitting corrosion being at issue, and SoCalGas already addressed the improvements and further enhancements to its Cathodic Protection (CP) practices. Indeed, OSA's cross-examination of Ms. Martinez did not even pursue the relevance of external corrosion practices and how the recommendations in the RCA Report would relate to specific GRC funding requests.[559] Instead,

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[554] Tr. V16:1286:20-28 (Martinez).

[555] *See* OSA Ex. 442C OSA/Au at 4-4 n.105 and 4-7 n.115 (citing SCG – DNV-GL Final Report, Metallurgical Analysis of 30-In Diameter Pipeline 235 West Rupture (10/01/17) at Figure 3 and 13); OSA OB at 7 n.11 ("The Root Cause Analysis that is not part of the record indicates the pressure at the time of the explosion. It is confidential.").

[556] OSA OB at iii.

[557] Ex. 442C OSA/Au at 4-7 (note this portion of OSA's testimony was marked confidential as SED's investigation was ongoing, but the investigation is now complete).

[558] Tr. V16:1295:7-9 (Martinez).

[559] *See id.* at 1290:3-15 (Foss, Martinez):

> MR. FOSS: Q Could the [Line 235-2] root cause analysis inform the spending choices that the parties need to make in this rate case period?
>
> A Not at this time.
>
> Q And why is that?
>
> A Because we are still moving towards understanding the recommendations from the root cause analysis and determining how to best implement those recommendations. So without a set scope, there really isn't anything to drive or change funding requests at this time.

OSA spent most of its cross-examination asking Ms. Martinez to render a legal opinion about the RCA being outside the scope of this GRC, to which SoCalGas counsel's objections were sustained.[560] Moreover, SoCalGas already submitted in rebuttal testimony demonstrating facts showing that it has improved its CP practices that address external corrosion, which OSA did not address in briefs, nor during cross-examination of Ms. Martinez during hearings. Ms. Gina Orozco-Mejia's Gas Distribution testimony also discussed CP practices for routine work and how these RAMP-related mitigations are part of her funding requests.[561] Again, OSA entirely ignored this and submitted absolutely no testimony on this witness area.

As appropriately stated by Ms. Martinez's rebuttal testimony, SoCalGas agreed with OSA that lessons learned from the RCA would be valuable to other operators, and so SoCalGas would share that information in the proper forums.[562] Notably, OSA never made a follow-up data request to SoCalGas asking for the RCA Report after SED finished its investigation in April 2018. SoCalGas is thus at a loss as to why OSA repeatedly refers in its brief to SoCalGas' "refusal" to do so when there was no follow-up request. And OSA did not successfully make the connections between the RCA's relevance and why and how it would inform the specific funding requests here.

To that point, OSA does not seem to understand our GRC funding requests and thus has been unable to submit credible, convincing evidence of "gaps" in our safety programs. Stating that TIMP and DIMP "did not prevent the failure of Line 235-2 in October 2017" does not mean that there were "gaps" in these programs, as OSA asserts.[563] TIMP's expansion to non-HCAs is an important, proactive enhancement to safety, which is why SoCalGas voluntarily proposed this as part of TIMP for this and the last GRC cycle even before this incident occurred.[564] While OSA appears to agree with this expansion,[565] this does not mean the fact that non-HCAs were not previously part of the formal TIMP was a "deficiency."

Additionally, OSA's statement that unless TIMP and DIMP data is continuously validated means "we could not be sure SoCalGas really is 'going above and beyond compliance

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[560] *Id.* at 1285:10-22, 1286:9-15, 1287:1-9, and 1287:10-19 (Foss, Hovsepian, Lirag, Martinez).
[561] Ex. 7 SCG/Orozco-Mejia at 47.
[562] Ex. 114 SCG/Martinez at 9.
[563] OSA OB at 27.
[564] Ex. 111 SCG/Martinez at 3.
[565] *See* OSA OB at 28.

requirements'" is nonsensical.[566] If SoCalGas did ***any*** in-line inspections (ILI) in non-HCAs, this is inherently going above and beyond compliance requirements, as TIMP only requires them in HCAs. Unless OSA has factual evidence that SoCalGas does not actually perform any ILIs in non-HCAs (even though SoCalGas has data showing that ILIs for 1,380 miles in non-HCAs have been performed),[567] it has no factual basis to make such a questioning remark and it should be ignored. All ILIs go through a validation process and the data is validated – OSA never asked for the data. In fact, OSA did not assess the TIMP in its testimony with any specificity. The same is true about DIMP, where OSA makes the same assertions about untrustworthy data and submitted no testimony and did not cross-examine Ms. Martinez about the program.

OSA's unsupported assertion that TIMP and DIMP have gaps that may have contributed to the failure of Line 235-2[568] also shows a lack of analysis of the data that have been publicly available in this case that do not substantiate OSA's claims. For instance, the Interim Accountability Report shows what measures were completed for TIMP and DIMP for 2014-2016, such as the number of ILIs for TIMP. The spending portions of that report, and advice letter filings, also show we spent and did more work than what was requested.[569] This shows why two-way balancing treatment is important[570] to continue for this safety-related work so that the Companies can appropriately spend what is needed even if activities can fluctuate year over year, such as the number of assessments that are due in a given year during the seven-year TIMP cycle. ORA and TURN did not object to continue this two-way balancing treatment. DIMP's early vintage pipe replacement programs also show a ramp up in what SoCalGas has actually spent in the last three years.[571] SED does evaluate TIMP and DIMP every year via detailed audits and has not reached similar conclusions to OSA.

17.2.2 Contrary to Indicated Shippers' assertions, SoCalGas fully defended its TIMP zero-based forecast and risk prioritization

With respect to IS' arguments on several identified zero-based forecasts, please see Section 4.1 Test Year Forecasting Methods for SoCalGas' comprehensive reply. In particular, IS

566 *Id.*
567 Ex. 111 SCG/Martinez at 16.
568 OSA OB at 27-28.
569 Ex. 348 SCG/SDG&E/York at Appendix C.
570 *See* Ex. 114 SCG/Martinez at 9.
571 *See id.* at 11; Ex. 348 SCG/SDG&E/York at Appendix C.

criticized the zero-based TIMP forecast by Ms. Martinez.[572] As explained in more detail in Section 4.1, IS incorrectly characterizes Ms. Martinez as "SoCalGas's main witness on the subject" of zero-based forecasting methodology.[573] Moreover, Ms. Martinez testified that TIMP's zero-based forecast is based on an average of historical unit costs, so there was sufficient support for the forecast methodologies.[574]

Separately, IS further asserts that SoCalGas' risk processes are rudimentary and provide an insufficient basis for spending.[575] Specifically, IS asserts that Ms. Day and Ms. Martinez at hearings acknowledge a failure to support justification for programs to address risks and did not provide any risk scoring metric for any RAMP projects. As addressed in Section 5.2 Safety of this Reply Brief, and Ms. Diana Day and Ms. Jamie York's rebuttal testimony, quantitative risk effectiveness calculations were not required for this GRC, but they are included in the RAMP Report. And, as pointed out in SoCalGas' Opening Brief,[576] TIMP and DIMP are mandatory safety compliance programs, which are substantially evident as justified from a risk reduction perspective, as explained in Ms. Martinez's direct testimony.

Moreover, IS mischaracterizes Ms. Martinez's testimony at hearings regarding probabilistic assessment for each pipe segment, likelihood of failure for each pipe segment, and consequence of failure for each pipe segment. Ms. Martinez did testify that as part of TIMP, the Companies are required to assess likelihood and consequence of failure – she emphasized that the context of the questions that were posed during hearings by IS matters, which is why her answers were "No" to some of these questions.[577] She stated:

> I just want to be careful with implying that the likelihood of failure was done from a probabilistic standpoint and we know for a certainty that there's a likelihood of failure versus leveraging a likelihood of failure to do a relative risk assessment which is what we've done.

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572 IS OB at 9-10.

573 *Id.* at 10. As explained in Section 4.1, this is inaccurate. SoCalGas' counsel objected that IS' line of questioning was outside the scope of Ms. Martinez's testimony, as she, like all other cost witnesses in SoCalGas/SDG&E's case, is not a forecasting methodology expert that could speak to the suite of forecasts tools and technical forecast process. Mr. Chuck Manzuk was identified as a witness that could answer IS' questions, which he later did in hearings. Tr. V16:1331:26 to 1334:24 and 1337:17 to 1338:4 (Martinez). IS' questions added no evidentiary value to the record that would support its attempts to undermine SoCalGas' zero-based forecasting methodologies. *See* Tr. V24:2357:4 to 2364:1 (Manzuk).

574 Tr. V16:1330:11-25 (Martinez).

575 IS OB at 14.

576 SCG/SDG&E OB at 135-36.

577 *See* Tr. V16:1307-1309 (Martinez).

…

> So as part of your Transmission Integrity Program, the first step is really identifying the pipelines that are in the program and ranking them for priority. So we have done that. And that's how we develop our GRC request as meeting that compliance in that risk assessment.[578]

Thus, Ms. Martinez fully defended the basis for TIMP spending, as submitted in her direct testimony, workpapers, numerous data request responses, and as further elaborated at hearings. If anything, because TIMP is based on a relative risk assessment and dynamic segmentation analysis,[579] it is substantially justified from a risk prioritization and risk reduction perspective.

18. Pipeline Safety Enhancement Plan (PSEP)

18.1 Summary of Parties' Positions

With respect to PSEP, SoCalGas requests the Commission:

a. Adopt its O&M and Capital project-specific forecasts, including an allowance for pipeline failures,[580] in order to continue implementation of the Commission-mandated and approved safety program by executing the specific projects proposed in this proceeding;[581]

b. Authorize costs to be recorded to a two-way balancing account – the Pipeline Safety Enhancement Plan Balancing Account (PSEPBA) – so ratepayers pay only the actual costs incurred in executing PSEP;[582]

c. Authorize a process for SoCalGas to substitute one (or more) of the projects described in this proceeding in the event unavoidable delays are encountered or when it is prudent to accelerate execution of a project for operational, reliability, or safety enhancement reasons;[583] and

d. Clarify whether it was the Commission's intent that SoCalGas validate that all in-service natural gas transmission pipelines have been tested to the "modern" pressure test standard set forth in 49 CFR 192 Subpart J (Subpart J) in ordering "that all natural gas transmission pipelines in service in California must be brought into compliance with modern

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578 *Id.* at 1308:26 to 1309:28.
579 *Id.* at 1336:12-17.
580 SCG/SDG&E OB AT 155.
581 SCG/SDG&E OB at 136-137. All requested funds are linked to mitigating a top safety risk identified in the RAMP Report, namely SCG-4 Catastrophic Damage Involving High-Pressure Pipeline Failure. *Id.* at 137.
582 *Id.*
583 *Id.*

standards for safety,"[584] and further ordering SoCalGas and other California pipeline operators to file a plan "to comply with the requirement that all in-service natural gas transmission pipelines in California has been pressure tested in accord with 49 CFR 192.619, excluding subsection 49 CFR 192.619 (c)."[585], [586] This work is referred to in SoCalGas' (and SDG&E's) PSEP as "Phase 2B."

As discussed in further detail hereinbelow: TURN/SCGC, City of Lancaster, IS, and ORA oppose SoCalGas' forecasts and/or pace to execute the projects proposed, *i.e.*, the dollars requested to do the work, although they do not oppose the proposed scope of work or the projects themselves;[587] TURN/SCGC, IS, and ORA oppose SoCalGas' request for a two-way balancing account on various grounds; TURN/SCGC support SoCalGas' project substitution proposal,[588] and OSA[589] and ORA also appear to support a project substitution proposal, although ORA also proposes an alternative modification of the proposal;[590] and, finally, TURN/SCGC advocate that it was not the Commission's intent for SoCalGas' (and SDG&E's) PSEP to include Phase 2B work to be executed on a stand-alone basis,[591] and thus TURN/SCGC "recommend that the Commission modify the language in D.11-06-007 to preclude continued litigation concerning the issue."[592]

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584 D.11-06-017 at 18.
585 *Id.* at OP 4.
586 SCG/SDG&E OB at 137-138.
587 TURN/SCGC oppose some of the funding requested for one project – Line 44-1008 – based on their speculation that the project simply cannot be executed within the GRC cycle. TURN/SCGC OB at 30-32. TURN/SCGC do not, however, oppose the project itself. Similarly, IS opposes the pace of the Valve Execution Plan, but apparently only in order to reduce the total PSEP forecast. IS OB at 18-22, IS also does not oppose execution of the Valve Enhancement Plan.
588 TURN/SCGC OB at 40.
589 OSA OB at 28-29.
590 ORA OB at 17-19.
591 TURN/SCGC OB at 40-45. TURN/SCGC do not oppose the 2.8 miles of Phase 2B work that is included in the projects proposed in this proceeding because "the Phase 2B pipeline work in this case is reasonable for construction efficiency." *Id.* at 41.
592 *Id*. at 6.

18.2 SoCalGas' Forecasts Should Be Adopted because They Are Comprehensive and Prepared in Accordance with the Commission's Direction and Industry Standards; Intervenors' Proposals Are Not.

18.2.1 Summary of Forecast Differences

The parties opposing SoCalGas' request for the Commission to adopt its forecasts of $305,243,802 for O&M[593] and $765,452,875 for Capital in order to execute the sixteen pressure test projects, thirteen replacement projects, and 284 valve bundle projects in furtherance of continuing to implement the Commission-mandated and approved PSEP during the GRC period 2019-2022 have cited no evidence in the record that warrants rejecting these forecasts.

Table 18.A
O&M Requests by Year (Thousands)

2019	2020	2021	2022	Total O&M[594,595]
$83,156	$83,156	$83,156	$55,776	$305,244

Table 18.B
Capital Expenditure Forecasts Requests by Year (Thousands)

2015	2016	2017	2018	2019	2020	2021	2022	Total Capital
$1,693	**$6,462**	**$7,575**	**$18,328**	**$126,950**	**$177,944**	**$310,374**	**$116,126**	**$775,453**

TURN/SCGC, IS, and City of Lancaster recommend reducing SoCalGas' forecasts by the amount of the "risk assessment" or "contingency" factor.[596] TURN/SCGC also oppose inclusion of the bulk of costs relating to the Line 44-1008 project on the ground that there is no possibility the project can be completed within this GRC cycle,[597] and further recommend a reduction in costs for the Line 235 West Section 1 project with the belief that a portion of the project will be

[593] Does not include $2,484K in planning and engineering costs recorded in the Pipeline Safety and Enhancement Plan-Phase 2 Memorandum Account (PSEP-2MA), amortization of which will occur in a future proceeding.
[594] As stated in Ex. 231 SCG/Phillips at 21, because 2019 will be a transition year as PSEP is incorporated into the GRC process, forecasted costs for 2019 do not reflect the level of forecasted spend in the post-test years. Therefore, the PSEP TY 2019 O&M forecast has been normalized to reflect the forecasted total level of expenditures over the 2019-2021 GRC period.
[595] Does not include $2,484 in planning and engineering costs recorded in the Pipeline Safety and Enhancement Plan-Phase 2 Memorandum Account (PSEP-2MA), amortization of which will occur in a future proceeding.
[596] City of Lancaster OB at 6-7; TURN/SCGC OB at 18-24; IS OB at 18-19.
[597] TURN/SCGC OB at 31-32.

addressed otherwise.[598] IS proposes that the Valve Enhancement Plan proposed by Applicants to be executed over three years instead be executed over six years.[599] ORA created its own statistical model from a database composed primarily of the projects of other utilities, and derived forecasts based thereon.[600]

The tables below show a summary of the Capital and O&M forecast differences between the parties after evidentiary hearings:

Table 18.C
Summary of Differences – O&M (Thousands)

	Total O&M	Variance
SoCalGas	$305,244	N/A
CUE[601]	$305,244	$0
ORA	$208,879	($96,365)
SCGC/TURN	$245,743	($59,501)
Indicated Shippers	$257,830	($47,414)[602]
City of Lancaster[603]	N/A	N/A

Table 18.D
Summary of Differences – Capital (Thousands)

	Total Capital	Variance
SoCalGas	$775,453	N/A
CUE	$775,453	$0
ORA	$771,629	($3,824)
SCGC/TURN	$566,292	($209,161)
Indicated Shippers	$570,427	($205,026)[604]
City of Lancaster[605]	N/A	N/A

598 *Id.* at 33-34.
599 IS OB at 21-22.
600 ORA OB at 12-15.
601 CUE did not oppose SoCalGas' forecasts; CUE's relevant arguments pertain to opposing ORA's and TURN/SCGC's proffered forecasts. CUE OB at 97-98.
602 IS only addressed three-year (2019-2021) projects in their recommendations.
603 City of Lancaster recommends disallowance of proposed contingency factors but did not present a proposed disallowance amount.
604 IS only addressed three-year (2019-2021) projects in its recommendations.
605 City of Lancaster recommends disallowance of risk assessment factors but did not present a proposed disallowance amount.

18.2.2 SoCalGas Properly, and In Accordance with Industry Standards, Included a Risk Assessment Factor in Its Forecasts

TURN/SCGC, IS, and City of Lancaster fail to acknowledge that the risk assessment factor is a necessary component of an estimate, as prescribed by the industry association of professionals in the field of estimating, AACE International (AACE).[606]

City of Lancaster argues, "The added costs associated with contingency factors are unjustified and should be disallowed. SoCal Gas has not carried its burden to demonstrate that such costs are necessary or advisable."[607] It continues its misunderstanding of the risk assessment factor by characterizing it as providing "funding for potential costs that may nor may not materialize."[608] This ignores the substantial evidence in the record that the risk assessment factor is customary in the industry, accounts for costs that are *expected* to be incurred (it is simply the nature of the costs that are undefined), and that an estimate without a risk assessment factor cannot be accurate.[609] City of Lancaster goes on to state that "the purpose and goals behind PSEP… can be achieved in a more cost-effective manner than SoCalGas has proposed,"[610] but it provides *no* proposal for how that can be done, and moreover cites *no* evidence in the record that indicates it is even possible to execute the scope of projects proposed at a lower cost. City of Lancaster is transparent in its intent: to reduce the funding requests for PSEP.[611] While understandable, this position is not compatible with the Commission's safety goals and explicit mandate (codified by the State in Public Utilities Code section 958) that PSEP be executed, and that it be done "as soon as practicable."[612] Appropriate funding to allow SoCalGas to follow through on this mandate is imperative.

IS also ignores the same evidence in the record in arguing that the "risk assessment adder should be removed because it is unreasonable,"[613] and, like City of Lancaster, fails to cite any evidence of its lack of reasonableness other than that it carries a cost. IS betrays its argument

606 SCG/SDG&E OB at 150-152.
607 City of Lancaster OB at 6.
608 *Id*.
609 SCG/SDG&E OB at 150-152.
610 City of Lancaster OB at 4-5.
611 *Id.* at 3-4 (the PSEP funding request should be examined "in the broader context of its application to substantially increase revenue and, by extension, rates," and thus "the funding requests made by SoCalGas to support he PSEP should be significantly reduced").
612 R.11-02-019 at 19.
613 IS OB at 18.

that the risk assessment factor is unreasonable, however, by going on to argue that the Commission should grant SoCalGas' proposed forecasts, less the risk assessment factor, and then, if SoCalGas' costs exceed the project-specific costs, "it can simply reduce the number of projects it conducts within the 2019 GRC period, or reduce costs on some other projects to offset increased cost elsewhere."[614] In other words, IS seeks to have the pace of implementing PSEP reduced and uses the risk assessment factor as a proxy for doing so.[615] With respect to the Valve Enhancement Project, IS is more specific with its request to slow down the pace of implementation by recommending that it be executed over six years rather than the three years proposed by SoCalGas.[616] The proposal to slow down the implementation of PSEP, including the Valve Enhancement Plan, ignores the mandate of both the Commission and the State to execute PSEP "as soon as practicable."[617] As noted in Applicants' Opening Brief, the Valve Enhancement Plan works in concert with PSEP's pipeline testing and replacement plan,[618] and SoCalGas' proposed pace of execution is intended to comply with these mandates.[619]

TURN/SCGC also propose that the risk assessment factor be excluded from the forecast approved for implementing PSEP on various grounds: SoCalGas' cost estimates are sufficiently advanced that no risk assessment factor, or only a reduced risk assessment factor, is required;[620]

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614 *Id*. at 19 (regarding pressure test projects), 20 (regarding replacement projects "To the extent the budgeted capital is not adequate, then SoCalGas should simply defer selected projects to the next GRC"). *See also id.* at 18-19 ("SoCalGas's integration of the PSEP program into the GRC allows it latitude to prioritize projects and deviate from current planned projects so as to meet the risk mitigation and safety goals when implementing the PSEP program." "SoCalGas thus can exercise its discretion to manage capital projects during the 2019 GRC to align costs incurred with costs included in the GRC. It has discretion to delay expenditures to future GRCs if the costs within the GRC would exceed the amount of capital included in the rates approved in this GRC.")

615 IS suggests it cannot determine which projects should be deferred to the next GRC "[b]ecause SoCalGas has not provided a safety or risk assessment that prioritized the number of projects that must be completed in this GRC," and thus proposes that SoCalGas should reduce the number of projects based on its own determination. *Id*. at 19.

616 *Id*. at 22. IS's proposal with respect to the Valve Enhancement Plan also appears to misunderstand that the Valve Enhancement Plan has been underway and is not proposed to start and finish within this GRC cycle. *See* SCG/SDG&E OB at 154-155.

617 D.11-06-017 at 18; Pub. Util. Code § 958.

618 SCG/SDG&E OB at 153-155.

619 Ex. 231-R SCG/Phillips at 14-15.

620 TURN/SCGC OB at 19 (SoCalGas' cost estimation process has improved). TURN/SCGC also argue – without factual basis, and for the first time, so as to preclude any opportunity by SoCalGas to examine the claim or rebut it – that SoCalGas' estimates are closer to Class 2 estimates than Class 3 estimates. *Id.* at 22. Because this claim is unsupported by evidence in the record, and it has been argued in the opening brief for the first time, SoCalGas urges the Commission not to consider this unsupported claim.

SoCalGas' projects have a "lack of any technology risk;"[621] SoCalGas' costs, without the risk assessment factor, are already high;[622] and the Commission typically does not grant risk assessment factors, or, in the alternative, only grants reduced risk assessment factors.[623] Each of these proposals is based on a misunderstanding of the evidence in the record or the Commission's prior decisions.

The primary fact TURN/SCGC ignore in their arguments is the same as that ignored by City of Lancaster and IS: a risk assessment factor is a necessary component of an estimate.[624] Eliminating it altogether does nothing but render an estimate inaccurate. Ignoring this fact, TURN/SCGC argue that because SoCalGas's estimating process has improved, and because SoCalGas has conducted site visits,[625] a risk assessment factor is not necessary. This argument is self-contradictory. On the one hand, TURN/SCGC take the position that SoCalGas has improved its estimates so much that they are reliable; on the other hand, TURN/SCGC argues that the Commission should ignore a component of SoCalGas' improved cost estimates as superfluous. As an example, TURN/SCGC cite that SoCalGas has added a risk assessment adder for environmental costs to the Line 235 West Section 1 project, even though SoCalGas has calculated the number of environmental monitors it will need to comply with environmental regulations.[626] This argument is misguided, however, in assuming that the only environmental costs for this project are for the specified monitors.[627] Moreover, this argument also assumes that there are no construction delays or other unknowns that incur additional costs. TURN/SCGC should take a consistent position: if SoCalGas' estimation process has improved, as TURN/SCGC and SoCalGas all agree, then SoCalGas' estimates should be given full credibility.

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621 *Id.* at 21; *see also id.* at 24.
622 *Id.* at 24-26.
623 *Id.* at 29-30.
624 Ex. 235 SCG/Phillips and Chaudhury at 20. TURN/SCGC state "Applicants argue that a contingency is an integral part of the cost estimate." TURN/SCGC OB at 23-24. They mischaracterize as an "argument" all the facts in the record substantiating that the industry (AACE) recognizes risk assessment/contingency as a necessary component of an estimate. Ex. 235 SCG/Phillips/Chaudhury at Appendices A, E, F, G, H, I.
625 TURN/SCGC OB at 19-20.
626 *Id*. OB at 20.
627 Other environmental costs include, for example, those for permits and managing the permitting process and requirements imposed by permitting agencies, including the possibility that a permitting agency will require more monitors. Ex 233-R SCG/Workpapers at WP-INTRO-1.

TURN/SCGC's second reason for excluding the risk assessment factor is based on a misinterpretation of an explanatory disclaimer for the accuracy ranges (which, for Class 3 estimates, is from -20% to + 30%) from an AACE article: "The state of process technology, availability of applicable reference cost data *and many other risks* affect the range markedly."[628] TURN/SCGC clearly misunderstand the meaning of process technology in stating: "[T]he data that has been used to compile the figures in the cost estimation table include projects that might incorporate cutting edge technologies or other circumstances in which cost data is poorly understood, which in turn makes the uncertainty ranges associated with each Class level wider."[629] Based on this misunderstanding, TURN/SCGC continue, "In contrast, the Applicants are dealing with projects that incorporate well-established technologies,"[630] and argue that SoCalGas' risk assessment factor is "unreasonably high… given the lack of any technology risk"[631] The non sequitur is obvious: "process technology"[632] does not equate to the "cutting edge technologies"[633] TURN/SCGC assume. Moreover, TURN/SCGC ignore that AACE identifies specifically that "*many other* risks affect the [accuracy] range markedly."[634]

TURN/SCGC also argue that SoCalGas' cost estimates, even before adding the risk assessment factor, are too high.[635] As an initial matter, this contradicts TURN/SCGC's assessment that SoCalGas' estimation process has improved.[636] Further, the evidence offered by TURN/SCGC in support of this claim have been refuted fully.[637] TURN/SCGC's witness's

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628 TURN/SCGC OB at 23-24 *citing* Cost Estimate Classification System – As Applied in Engineering, Procurement, and Construction for the Process Industries at Ex. 235 SCG/Phillips at A-2 (Appendix A) (emphasis added).

629 *Id.* at 23.

630 *Id*.

631 *Id*. at 21

632 Process technology is defined, in relevant part, as "the ability to understand, operate, shut down, analyze and troubleshoot industrial processes." *See, e.g.,* www.alvincollege.edu/Process-Technology.

633 TURN/SCGC OB at 23.

634 *Id*. at 23-24. TURN/SCGC also ignore the other AACE articles discussing accuracy ranges and estimating principles and processes. *See* Ex. 235 SCG/Phillips/Chaudhury at Appendices A, E, F, G, H, I; Ex. 236.

635 TURN/SCGC OB at 21, 24-26. TURN/SCGC also misunderstand the application of a risk assessment factor to allowances for materials. *Id*. at 21. Allowances address known factors, whereas risk assessment factors address undefined factors. Tr. V22:2193, 2196 (Phillips)**.**

636 TURN/SCGC OB at 19-20.

637 Ex. 235 SCG/Phillips/Chaudhury at 26-29.

"normalization" process is the equivalent of fitting square pieces through round holes,[638] and thus should not be accorded any weight. Ultimately, TURN/SCGC state that their witness's analysis has demonstrated that "Applicants' forecast of costs are fairly generous when compared to actual experience with PSEP pressure testing projects."[639] But, if this were true, then it should follow that TURN/SCGC would seek a reduction of SoCalGas' base estimate for projects. Tellingly, TURN/SCGC do not do so: "TURN and SCGC do not recommend a downward adjustment of forecasted costs based on the comparison to historical costs."[640] This is so even though TURN/SCGC claim that their analysis showed that "the forecast of time-related construction costs was six-fold higher than recorded costs."[641] TURN/SCGC's inconsistent position demonstrates the lack of credibility of its "normalization" analysis.[642]

Finally, TURN/SCGC argue that the Commission has not permitted "such large contingencies for ongoing work."[643] TURN/SCGC (as well as City of Lancaster[644]) cite as an example that PG&E was denied a 21% contingency factor at the outset of PSEP.[645] This argument, however, ignores the clear language in the decision that, based on the findings related to the 2010 San Bruno incident that precipitated PSEP, the Commission concluded that, "It is not reasonable to adopt a cost overrun contingency allowance because PG&E's imprudent management decisions contributed to risk of such overruns and we adopt cost forecasts at the high end of the range of reasonableness with an added layer for program administration."[646] No such finding was been made with respect to SoCalGas (or SDG&E), and, in fact, the Commission explicitly determined in Applicants' primary PSEP decision: "*This decision does not propose or adopt any penalty for SDG&E or SoCalGas*…. Consistent with long-standing

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638 *Id.* at 27 (the four metrics created by TURN/SCGC's witness for comparison purposes "are not common metrics for cost comparisons; thus, in order to execute the forced comparison, TURN/SCGC first have to make a number of assumptions to derive costs for these metrics.")
639 TURN/SCGC OB at 25.
640 *Id.* at 26.
641 *Id.*
642 TURN/SCGC also misstate portions of the record. They state that SoCalGas indicated that projects in rural areas are costlier than those in urban areas when, in fact, the citations indicate that SoCalGas stated projects in rural and urban areas have different cost drivers. *Id.* at 27. *See also* Ex. 235 SCG/Phillips/Chaudhury at 27.
643 TURN/SCGC OB at 28.
644 City of Lancaster OB at 6-7.
645 TURN/SCGC OB at 29.
646 D.12-12-030 at COL 33. *See also id.* at FOF 31, 38 and COL 13, 14, 17, 21.

ratemaking principles, ratepayers will generally bear the reasonable costs for a safe and reliable natural gas transmission system."[647]

TURN/SCGC also cite other decisions which they purport stand for the proposition that the Commission disfavors contingencies, or only approves small contingencies.[648] However, these cases are distinguishable and, in some cases, TURN/SCGC is plain wrong. TURN/SCGC misleadingly claim that in D.10-04-027 the Commission "denied SoCalGas's request for a 10 percent contingency for its Advanced Metering Infrastructure (AMI) capital project."[649] However, TURN/SCGC fail to acknowledge that, in the same decision, the Commission granted SoCalGas a contingency allowance of 7% (as well as balancing account treatment).[650] TURN/SCGC similarly provide a misleading summary of D.10-02-032[651] in stating "the Commission refused any contingency amount for PG&E's Dynamic Pricing programming project."[652] While the Commission expressed concerns about allowing PG&E a contingency, the Commission also determined that, "if overall actual costs exceed the adopted cost estimate, PG&E can seek recovery of the difference through a traditional after-the-fact reasonableness review."[653] In other words, the Commission provided a means for PG&E to recover in rates its actual and reasonable costs in executing the project. TURN/SCGC offer no similar proposal here (in fact, TURN/SCGC even oppose SoCalGas' request for a two-way balancing account), and thus the facts are distinguishable.

In D.06-11-048, while the Commission allowed PG&E a 5% contingency in association with PG&E's Humboldt Power Plant project, the Commission also noted, "we approve PG&E's proposed owner's contingency as part of its initial capital cost" with respect to the Colusa project (in the same decision).[654] The reason for the difference in allowing PG&E's proposed contingency for the Colusa project but only a 5% contingency on the Humboldt project is

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[647] D.14-06-007 at 31 (emphasis added).
[648] TURN/SCGC OB at 29-30.
[649] *Id.* at 29.
[650] D.10-04-027 at 38, OP 1. Interestingly, TURN filed a petition for modification of this decision asking the Commission to rescind funding for the AMI project altogether because of the occurrence of the 2010 San Bruno incident which necessitated costs associated with PSEP. D.14-06-034 at 3. The Commission denied TURN's petition. *Id.* at 7.
[651] TURN/SCGC incorrectly cite this decision as D.10-02-031. TURN/SCGC OB at 29 n.88.
[652] *Id.* at 29.
[653] D.10-02-032 at 129.
[654] D.06-11-049 at 20.

explained: "PG&E included the proposed contingency in the total Colusa project cost that was evaluated in the contract selection process that led to its selection over other contracts."[655] The Commission went on to state, "This reasoning does not apply to the Humboldt project. Unlike in the case of the Colusa project, where the project bid price, including PG&E's estimated costs and contingency, was tested against competing offers, PG&E's costs related to the Humboldt project were not tested against a market alternative. Specifically, PG&E received only one offer for a PPA for the Humboldt project, which was found to be ineligible."[656] D.03-12-059 similarly deals with a PPA for Edison, in which Edison is granted a 5% contingency.[657]

The decisions cited by TURN/SCGC are distinguishable and irrelevant to the Commission's decision here. SoCalGas' witness Richard Phillips explained in his testimony that A + B = C, where C is the total amount SoCalGas believes it needs for a particular project, A is the base estimate, and B is the risk assessment factor.[658] SoCalGas has "shown the work" for the C estimate by breaking it down into A and B, and it has explained in depth how both A and B were derived.[659] Regardless of the amounts A and B represent, C is the salient representation of the costs of the project. Efforts by TURN/SCGC, Indicated Shippers, and City of Lancaster to focus on A and B are inapposite because C is the expected cost of the project.

For all the foregoing reasons, TURN/SCGC's (and IS' and City of Lancaster's) proposal to eliminate the risk assessment factor is unjustified and inconsistent with the Commission's safety goals, and thus should be rejected.[660]

18.2.3 ORA's Proposed Forecasts Have No Indicia of Reliability and Do Not Satisfy the Commission's Requirement that PSEP Forecasts Be Based on Detailed Plans, and Thus Must Be Rejected

ORA proposes that the Commission use the forecasts derived from its statistical model instead of SoCalGas' forecasts, except when SoCalGas' forecasts are lower.[661] As CUE notes,

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[655] *Id.*
[656] *Id.* at 20-21.
[657] D.03-12-059.
[658] Tr. V.22:2193 (Phillips).
[659] SCG/SDG&E OB at 140-141, 151.
[660] TURN/SCGC also seem to suggest the risk assessment factor should be reduced, but they do not offer how any reduced amount should be determined. TURN/SCGC OB at 21-23. This further elucidates TURN/SCGC's goal to minimize costs. While this is an understandable goal, funding for the PSEP projects mandated by the Commission and the State to be executed must be authorized.
[661] ORA OB at 12.

this kind of inconsistency is murky.[662] ORA does not oppose SoCalGas' forecasts for 10 projects, and also does not oppose SoCalGas' forecast for executing the Valve Enhancement Plan.[663]

SoCalGas has established the unreliability of ORA's model, as well as that its output does not meet the Commission's requirement that PSEP forecasts be based on detailed plans, in Applicants' Opening Brief.[664] ORA also acknowledges that its "model is not an estimating tool and therefore an expectation that it contains all possible factors is not reasonable."[665] ORA explains that its "model does take into account all available information,"[666] and "included all available quantifiable data in the model to make quantifiable comparisons of project costs rather than subjective determinations,"[667] but this is not supported by the facts. For example, ORA does not take into account the number of test sections each hydrotest project has, notwithstanding the fact that the number of test sections on a hydrotest project are a significant cost driver[668] and information regarding the number of test sections – which is both objective and quantifiable, consistent with ORA's criteria for factors it considers[669] – is provided in SoCalGas' workpapers.[670] These are clear concessions that SoCalGas' estimating process results in forecasts that are superior to ORA's proposals.

Even more, and somewhat astoundingly, in response to SoCalGas' evidence indicating that the data used by ORA in its model for PG&E's hydrotests does *not* include the capital costs of the tests and thus is understated,[671] ORA argues that this is irrelevant because "these minor capital components are not distinguishable by project because PG&E's accounting

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[662] CUE OB at 97-98.
[663] ORA OB at 14.
[664] SCG/SDG&E OB at 143-150.
[665] ORA OB at 15.
[666] *Id*.
[667] ORA OB at 16.
[668] Tr. V22:2173 (Phillips).
[669] ORA OB at 16.
[670] *See, e.g.,* Ex. 233-R at WP-I-A1, WP-I-A19, WP-I-A35, WP-I-A71.
[671] Ex. 235 SCG/Phillips/Chaudhury at 20. PG&E also disclosed at hearings in its pending rate case that all PSEP costs are not reported in the PSEP monthly reports, which are a main source for ORA's data. A.17-11-009, Tr. V:141655:7-22 (Barnes) ("First thing is on the PSEP compliance reports, they are not full project costs, they are project costs that span from -- that essentially stop getting reported at the point of tie-in and don't include final field construction costs such as site mediation and that sort of thing. And so it doesn't include all the costs. It also doesn't include the program management costs associated with that particular project.").

methodology."[672] ORA goes on to state – without any citation to the record – that it calculated these components to account for "less than five percent of total costs of a project, and often substantially less."[673] The lack of citation to the record is important here, particularly because SoCalGas' calculation of the capital component of PG&E's hydrotests is 24%.[674] In any event, it is nothing short of disqualifying for ORA's proposed forecasts to be acknowledged as understated yet nevertheless proposed to fund Commission-mandated safety work. ORA also further insists that its model "is reliable and should be utilized to evaluate Sempra's PSEP project proposals, including the L2000 Chino Hills project"[675] ORA's proposal for the Line 2000 Chino Hills project is $8,349,113, as compared to SoCalGas' forecast for this project of $45,335,233.[676] ORA has offered no proposals for how SoCalGas should perform the scope of work for the Line 2000 Chino Hills project for less than 20% of its forecast. ORA's model clearly produces unreliable results.

18.2.4 TURN/SCGC Offer No Credible Evidence to Support Reducing SoCalGas' Forecast for the Line 44-1008 Project

TURN/SCGC speculate that SoCalGas will not be able to complete the environmental review process during the GRC cycle, and thus all but $700,000 of the $57.486 million requested for this project by SoCalGas (for a GRC cycle through 2021; another $57.486 million is requested for 2022, should the Commission grant a third attrition year, and TURN/SCGC propose to allow another $700,000 for 2022) should be deducted from SoCalGas' proffered forecast.[677] As noted in Applicants' Opening Brief, TURN/SCGC's position is based entirely on speculation and, moreover, ignores SoCalGas' project substitution proposal (which TURN/SCGC support[678]).[679] For this reason, TURN/SCGC's proposal for a 99% reduction for this project should be rejected.

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672 ORA OB at 15-16.
673 *Id.* at 16.
674 Ex. 235 SCG/Phillips/Chaudhury at 20.
675 ORA OB at 16.
676 *Id.* at 13.
677 TURN/SCGC OB at 30-31.
678 *Id.* at 40.
679 SCG/SDG&E OB at 152-153.

18.2.5 TURN/SCGC Offer No Credible Evidence to Support Reducing SoCalGas' Forecast for the Line 235 West Section 1 Project

TURN/SCGC propose a reduction to SoCalGas' request for the Line 235 West Section 1 pressure test project on the unsupported theory that the portion of Line 235 that will be addressed by the pipeline integrity organization overlaps entirely with the proposed project.[680] TURN/SCGC conclude from a reference (outside the record in this proceeding) that the 3.4 miles of Line 235 – a 234-mile pipeline – that will be addressed as a replacement project outside of PSEP will reduce the proposal in this proceeding proportionately.[681] There is no support for this speculation and this proposal ignores the possibility that, even if there is an overlap between the two projects, it may be more cost-effective or desirable for constructability reasons to pressure test through any overlapping portion – and thus there would be no reduction to the project as proposed. To the extent it is not necessary to address any portion of the project proposed in this proceeding for the reasons cited by TURN/SCGC, or any other reason, then ratepayers will benefit by way of the two-way balancing account requested by SoCalGas. There is no reason to determine, prematurely and without evidentiary support, that any portion of this project may not be necessary.

18.2.6 The Pace of Executing PSEP Should Not Be Reduced Simply on the Basis of Cost

As noted in Applicants' Opening Brief and herein, IS's proposal to slow down the implementation of PSEP, including the Valve Enhancement Plan, ignores the mandate of both the Commission and the state to execute the safety enhancement work embodies in PSEP "as soon as practicable."[682] The pace proposed for the pressure test and replacement projects in this proceeding are in compliance with this mandate, and the Valve Enhancement Plan works in concert with PSEP's pipeline testing and replacement plan.[683]

18.3 The Commission Should Allow SoCalGas to Continue to Record the Costs of PSEP to a Two-Way Balancing Account

Indicated Shippers, TURN/SCGC, and ORA oppose continued two-way balancing account treatment for PSEP. For the reasons stated in Applicants' Opening Brief, however, the

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680 TURN/SCGC OB at 32-34.
681 *Id.*
682 D.11-06-017 at 18; Pub. Util. Code § 958.
683 SCG/SDG&E OB at 153-154.

Commission should allow SoCalGas to continue to record the costs of PSEP to a two-way balancing account.[684] CUE supports SoCalGas' request for a two-way balancing account on the basis that "the costs in question here are subject to two-way uncertainty. Therefore, a two-way balancing account is appropriate."[685] CUE notes further that ORA's opposition to two-way balancing account treatment indicates that ORA does not trust its own forecasts.[686] CUE also argues that if TURN/SCGC's (and IS's) proposal to exclude the risk assessment factor from SoCalGas' forecasts is granted, then a two-way balancing account should be granted.[687]

Although IS opposes a two-way balancing account, it does seem to support the idea that SoCalGas should recover in rates its actual costs of executing PSEP.[688] However, IS proposes that SoCalGas accomplish this by deferring certain projects proposed in this proceeding to the next GRC cycle. As discussed *infra*, this is inconsistent with the Commission's and State's safety mandate.

ORA's opposition to two-way balancing account treatment is puzzling. ORA advocates for use of its forecasts, but then states balancing account treatment should be denied because "most of SoCalGas' per-project estimates contain contingencies of up to 20% to account for some level of uncertainty."[689] This ignores that if ORA's forecasts are used, then there is no risk assessment/contingency factor. Moreover, ORA is simply wrong in opposing two-way balancing accounting treatment because PG&E "was able to complete its entire PSEP program without any balancing account treatment under a single, forecasted cost."[690] In its pending rate case, PG&E requested funding to perform work required under Pub. Util. Code § 958 – the statute which codified PSEP.[691] Moreover, as stated in Applicants' Opening Brief, PG&E's requests for funding to implement PSEP have increased significantly.[692]

ORA also notes that, if two-way balancing account treatment continues to be afforded to PSEP, then SoCalGas should not be granted the pipeline failure allowance it requested.[693] ORA

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684 *Id.* at 155-159.
685 CUE OB at 99.
686 *Id.* at 98.
687 *Id.*
688 IS OB at 19-22.
689 ORA OB at 16-17.
690 *Id*. at 17.
691 Ex. 231 SCG/Phillips at A-2; A.17-11-009, Prepared Direct Testimony of Sumeet Singh at 2-6.
692 SCG/SDG&E OB at 148-149.
693 ORA OB at 17. No other party has opposed SoCalGas' request for a pipeline failure allowance.

does not explain its rationale for this request, and SoCalGas is unable to divine one since the purpose of a forecast is to estimate costs as accurately as possible. A cost is neither incurred nor not incurred based on its regulatory accounting treatment, as ORA implies.

TURN/SCGC have cut-and-pasted their argument against two-way balancing account treatment from a different proceeding – A.17-03-021 – and thus have not cited to evidence in the record in this proceeding.[694] TURN/SCGC also include arguments that are not applicable to this GRC setting, *e.g.*, arguing that while it is true that O&M costs may not be recovered by SoCalGas if there is no balancing account treatment, loss of capital cost recovery will only occur until the next GRC period.[695]

The parties' positions opposing two-way balancing account treatment ignore that, by coupling the proposed regulatory accounting change with substantially lower forecasts that are insufficient to complete the specific projects presented in this Application, TURN/SCGC, IS, and ORA seek to impose a penalty on Applicants, notwithstanding the Commission's admonition otherwise. In D.14-06-007 (PSEP Decision), the Commission stated unequivocally:

> *This decision does not propose or adopt any penalty for SDG&E or SoCalGas*. We do however identify certain costs that should be absorbed by shareholders instead of ratepayers. Consistent with long-standing ratemaking principles, ratepayers will generally bear the reasonable costs for a safe and reliable natural gas transmission system.[696]

To support their untenable position, TURN/SCGC make sweeping statements about the purpose of balancing accounts in their opening brief that either are not supported by citations to authority at all or pertain to PG&E.[697] TURN/SCGC highlight that PG&E's transmission integrity management program (TIMP) was denied balancing account treatment,[698] but ignore that Applicants' integrity management programs (including TIMP) *are* subject to two-way balancing account treatment.[699] Similarly, TURN/SCGC note that PG&E does not have two-way balancing account treatment for their PSEP,[700] but ignore the fact that Applicants' PSEP does

[694] TURN/SCGC OB at 34-40.
[695] *Id*. at 39-40.
[696] D.14-06-007 at 31.
[697] TURN/SCGC OB at 34-38.
[698] *Id* at 37.
[699] D.13-05-010 at 1094 (COL 24, 25).
[700] TURN/SCGC OB at 38.

have two-way balancing account treatment.[701] The Commission determined it was appropriate to apply different regulatory mechanisms to two differently situated utilities.[702]

The Commission previously determined that two-way balancing account treatment is appropriate for SoCal Gas' (and SDG&E's) PSEP. When the Commission authorized Phase 1 in the PSEP Decision, the Commission determined that two-way balancing account treatment is appropriate for PSEP.[703] While two-way balancing account treatment was specifically ordered for Phase 1, because only Phase 1 was authorized by the Commission at the time, the PSEP Decision does not directly address two-way balancing account treatment with respect to Phase 2. There is no indication that the Commission intended the status quo of two-way balancing account treatment to apply just to Phase 1 of PSEP. The Commission has not signaled an intent for the transition to Applicants' general rate case to affect the previously authorized two-way balancing account treatment for PSEP. TURN/SCGC, IS, and ORA have failed to demonstrate that a reversal of the status quo is necessary or appropriate.

TURN/SCGC argue that PG&E's TIMP program was denied two-way balancing account treatment, but fail to note that the Commission was concerned that PG&E might not recover the necessary funds to comply with new requirements and thus authorized a memorandum account so as to "preserve [for PG&E] the opportunity to seek recovery of these costs at a later date."[704] TURN/SCGC also fail to note that Applicants' TIMP (and similar integrity management programs for distribution and storage, which are discussed further *infra*) *is* subject to two-way balancing account treatment.[705] Contrary to the cherry-picked examples TURN/SCGC cite to support their argument that two-way balancing account treatment is solely for new programs where costs are uncertain,[706] TIMP is not a new program.[707]

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701 D.14-06-007 at 22, 26-27.

702 Based on differing factual findings, the Commission determined to treat differently situated utilities differently. *See, e.g.,* D.12-12-030 at 121 (COL 13): "It is reasonable for PG&E's shareholders to absorb the portion of the Implementation Plan costs which were caused by imprudent management." *See also id.* (COL 8): "TURN's proposal to disallow all Implementation Plan costs should be denied."

703 D.14-06-007 at 22, 26-27.

704 D.16-06-056 at 254.

705 D.13-05-010 at 1094 (COL 24, 25) (TIMP and DIMP); D.16-06-054 at 323 (COL 72) (SIMP).

706 TURN/SCGC OB at 36-38.

707 D.13-05-010 at 381 n.64 ("The TIMP was established as the result of the Pipeline Safety Improvement Act of 2002 and the enactment of 49 CFR Part 192 Subpart O.")

In approving the Natural Gas Leak Abatement Program Consistent with Senate Bill 1371 in D.17-06-015 handed down on June 15, 2017, the Commission explained the purpose of various different regulatory accounting mechanisms:

- A one-way cost balancing account ensures that if a utility spends less on a particular program than the amount authorized, it credits the remaining budget back to ratepayers.
- Two-way balancing accounts authorize a utility to collect more or less than the authorized revenue requirement for a given program depending on actual costs, and are intended to ensure that the utility does not make or lose money due to uncertainties in the scope of work.

The Commission typically reviews the entries and the net balance in a balancing account, and authorizes recovery from or refunds to ratepayers on an annual basis. A memorandum account, on the other hand, allows the utility to book amounts for tracking purposes, in order to later ask the Commission for recovery.[708]

Whether the Commission orders two-way balancing account treatment for a program depends on the particular facts presented. PSEP is not unlike Applicants' integrity programs for transmission (TIMP), distribution (DIMP), and storage (SIMP), all of which have two-way balancing account treatment.[709] TIMP and DIMP also are mandatory programs that require compliance within certain time periods for safety reasons.[710]

Two-way balancing account treatment is necessary to achieve the Commission's goal of having ratepayers bear the reasonable costs of safety enhancement work.

TURN/SCGC ask the Commission to assume that SoCalGas will drive up the costs of executing PSEP if the Commission does not reverse course and deny two-way balancing account treatment, saying such regulatory accounting treatment "would remove any cost control pressure

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[708] D.17-06-015 at 131.

[709] D.13-05-010, mimeo, at p. 1094 (COL 24, 25) (TIMP and DIMP); D.16-06-054, at 323 (COL 72) (SIMP). In support of their argument that the costs of hydrotesting and replacement should be knowable, and thus not afforded two-way balancing account treatment, TURN/SCGC state that "hydrotesting or replacing natural gas transmission pipelines… is the type of work that the company has performed for decades as part of its construction and maintenance of the gas transmission system." TURN/SCGC at 37. However, this is patently untrue. The Commission has never ordered this type of pipeline assessment work on such a massive scale. D.12-12-030 at 86 (noting "the unprecedented number of pressure tests and pipeline replacement construction that will be performed in the upcoming years"). Re-testing pipeline (*i.e.*, pressure testing) also is not a regular part of Applicants' base business, except in connection with Applicants' integrity management programs like TIMP and DIMP. These integrity management programs precede PSEP and have two-way balancing account treatment.

[710] D.13-05-010 at 381 n.64; D.16-06-054 at 245.

on the regulated utility."[711] There is no basis for promoting such an idea. First, the fact that such regulatory accounting treatment already exists for PSEP as well as similar pipeline assessment work validates it is reasonable treatment for this kind of integrity work.

Second, Applicants have been implementing PSEP under the auspices of reasonableness reviews, and thus have been incentivized to reduce costs while executing safety enhancement work. The PSEP Decision called for reasonableness reviews and it was not until D.16-08-003 that the Commission ordered integration into general rate cases.[712] This integration will be phased over time such that reasonableness reviews will continue to take place in Applicants' general rate cases.[713] Intervenors' theory that Applicants will change their practices and imprudently execute the projects in this proceeding, while continuing to prudently manage execution of the other projects subject to reasonableness review, is not credible. Applicants have developed and implemented practices designed to promote reasonable costs, and they will continue to do so.[714] The notion that Applicants would not act prudently is further contradicted by the fact that Applicants' first reasonableness review application was granted and the Commission found costs to be reasonably incurred.[715]

Third, the PSEP Decision granted the Safety and Enforcement Division (SED) broad audit rights in order to promote reasonable management and costs:

> Safety Div. may inspect, inquire, review, examine and participate in all activities of any kind related to Safety Enhancement. San Diego Gas & Electric Company (SDG&E), Southern California Gas Company (SoCalGas), all of their contractors shall immediately provide any document, analysis, test result, plan, of any kind related to Safety Enhancement as requested by Safety Div.'s staff or its contractors. Safety Div. must subsequently confirm all requests in written form, however all responses to must be immediate."[716]

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[711] TURN/SCGC OB at 37.

[712] D.14-06-007 at 59. The Applicants' initial means of recovering the full revenue requirement associated with executing PSEP was under the auspices of two reasonableness review applications; Applicants will file another reasonableness review application this year; and will have a reasonableness review of costs in the next general rate case. D.16-08-003 at 11.

[713] *Id.*

[714] *See, e.g.*, SCG/SDG&E OB at 141-142.

[715] D.16-12-063, granting A.14-12-016. The decision declined to authorize recovery of costs for PSEP-specific insurance based on insufficient evidence (without prejudice to Applicants' ability to seek these costs in a future proceeding). *Id*. at 54, 58-59 (COL 1-22).

[716] D.14-06-007 at 59-60 (OP 3).

Given the level of scrutiny SED is entitled to exercise, TURN/SCGC's speculation that Applicants may drive up costs unless the Commission discontinues two-way balancing account treatment for PSEP is unfounded.

As part of their unsupported narrative, TURN/SCGC claim utilities, as a matter of custom, would forecast costs as high as possible if the Commission were to approve a revenue requirement based on the utility's estimates.[717] This is unsupported. SoCalGas is bound by section 451 of the Public Utilities Code, which provides in relevant part:

> All charges demanded or received by any public utility, or by any two or more public utilities, for any product or commodity furnished or to be furnished or any service rendered or to be rendered shall be just and reasonable. Every unjust or unreasonable charge demanded or received for such product or commodity or service is unlawful.[718]

There is no basis to assume SoCalGas would violate this statute deliberately. And, even if actual costs do turn out to be lower than forecasted, the protection for ratepayers in any scenario where costs come in under forecast is two-way balancing account treatment.

Finally, the Commission has determined that ratepayers benefit by having PSEP executed in full.[719] The existing two-way balancing account mechanism allows PSEP work to continue as expediently as possible while being fair to both ratepayers and SoCalGas. Even if the Commission were to deem Applicants' forecasts too high, the significantly lower forecasts proposed by TURN/SCGC, City of Lancaster, IS, and ORA, especially when coupled without two-way balancing account treatment, are not sufficient for Applicants to complete the scope of work for the safety projects presented in this proceeding. Notably, the intervenors proposing lower forecasts and opposing two-way balancing account treatment have offered no proposals for how the scopes of work for the projects should be executed if the Commission does not adopt sufficient forecasts. It is thus imperative that two-way balancing account treatment continue to be afforded to PSEP.

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717 TURN/SCGC OB at 35-36.
718 Pub. Util. Code § 451.
719 D.14-06-007 at 4.

18.4 The Commission Should Authorize Project Substitution as Proposed by SoCalGas

TURN/SCGC supports SoCalGas' project substitution proposal, so long as it is clear that project substitution is not used solely for budget overruns.[720] This is consistent with SoCalGas' proposal.

OSA's position on SoCalGas' PSEP project substitution proposal is somewhat unclear. On the one hand, it appears OSA supports the project substitution proposal. OSA writes in its opening brief:

> SoCalGas witness Phillips asserts that it is necessary to substitute projects either when it is beyond SoCalGas' control, or to expedite projects to address integrity threats. Substituting a project because it is out of your control is prudent…. OSA supports SoCalGas' proposal to expedite projects that represent greater integrity threats.[721]

But then OSA goes on to mischaracterize SoCalGas' proposal as seeking authority to substitute projects "when PSEP's total authorized budget is exceeded"[722] so that "SoCalGas' [sic] is therefore justifying the downgrading of PSEP safety threats on budgetary grounds"[723] and "substituting a PSEP project because the budget doesn't allow it,"[724] and then asserts the Commission should reject this proposal (which SoCalGas did not make). These characterizations have no evidentiary support[725] and clearly contradict the evidence in the record. SoCalGas stated the reasons for seeking such authority to substitute projects and the circumstances under which it would seek to do so:

> SoCalGas requests authority to substitute one or more PSEP project(s) with other PSEP projects in the event there is a delay in commencing construction of one of the projects presented for approval in this Application due to circumstances not within SoCalGas' control (*e.g.*, if there is a delay in obtaining a necessary permit or land rights) or when it is prudent to accelerate the execution of a PSEP project for operational, reliability or safety enhancement reasons (*e.g.*, if pressure testing

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720 TURN/SCGC OB at 40.
721 OSA OB at 29 (internal citations omitted).
722 *Id.* at 28.
723 *Id.* at 28-29.
724 *Id.* at 29.
725 OSA's misstatements regarding SoCalGas' PSEP project substitution proposal are particularly puzzling given that OSA questioned Mr. Phillips about SoCalGas' proposal extensively during hearings. Tr. V23:2277:3 - 2282:26 (Phillips, Angelopulo).

> of a segment of a pipeline is accelerated to address identification of a known integrity threat or following a pipeline rupture).[726]

Moreover, SoCalGas has been clear that it does not intend to use the project substitution process for budget reasons:

> TURN/SCGC state SoCalGas' project substitution request is reasonable so long as the Commission is clear that unanticipated conditions do not include mere exceedance of forecasts. To be clear, SoCalGas does not propose to use the project substitution process for this purpose and, as described in the Direct Testimony, if project substitution is necessitated, SoCalGas would identify the circumstances requiring the change in a Tier One advice letter.[727]

Although not clear, once the facts in the evidentiary record are taken into account, it appears OSA supports the SoCalGas's proposal, *i.e.*, for authority to substitute projects when there is a delay in a project that is not within SoCalGas' control or when it is prudent to accelerate construction of another PSEP project.

This understanding of OSA's position is consistent with SoCalGas' motivation for proposing the project substitution proposal, *i.e.*, in order to further safety enhancement. As stated in direct testimony, if a PSEP project proposed in this proceeding is delayed for a reason outside SoCalGas' control, SoCalGas does not want this to delay or stall its execution of PSEP; instead, SoCalGas seeks to substitute the delayed project with another project in order to continue to execute PSEP as soon as practicable.[728] Similarly, SoCalGas seeks to substitute projects when it is prudent to accelerate another PSEP project for "operational, reliability or *safety enhancement* reasons (*e.g.*, if pressure testing of a segment of a pipeline is accelerated to address identification of a known integrity threat or following a pipeline rupture)."[729] The request for authority to substitute projects was illustrated by providing an example which underscores the safety objectives underlying the request: "To illustrate, as a result of a service rupture of Line 235 in October, 2017, SoCalGas is proceeding with remediating the affected sections of pipeline."[730] Thus, it would certainly be consistent with OSA's safety mission to support SoCalGas' project substitution proposal.

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[726] Ex. 231 SCG/Phillips at 56.
[727] Ex. 235 SCG/Phillips/Chaudhury at 39-40 (internal citations omitted).
[728] Ex. 231 SCG/Phillips at 56.
[729] *Id.* (emphasis added).
[730] *Id.* (emphasis added).

ORA's position on project substitution is also somewhat unclear. On the one hand, ORA proposes a cumbersome and lengthy process[731] which is neither workable nor desirable for the reasons stated in Applicants' Opening Brief.[732] On the other hand, ORA states, "In the alternative, project substitution could be allowed in a narrow, well-defined set of circumstances or if the projects are similar in cost and scope."[733] Although the term "scope" is vague, this proposal seems similar to SoCalGas' proposal, which contemplates that the costs of completing a substituted project would not cause SoCalGas to exceed the aggregate amount authorized for recovery by a decision in this proceeding.[734] In any event, due to the vagueness of ORA's proposal, SoCalGas recommends adopting SoCalGas' project substitution proposal.

18.5 TURN/SCGC's Requested Remedy Regarding Phase 2B Cannot Be Ordered in this Proceeding.

Only TURN/SCGC state a position regarding Phase 2B in opening briefs. Importantly, TURN/SCGC state they do not oppose the 2.8 miles of Phase 2B work that are included within the scope of the projects proposed in this proceeding because "the Phase 2B pipeline work is in this case is reasonable for construction efficiency."[735]

In support of its opposition to SoCalGas executing Phase 2B work on a stand-alone basis, "TURN and SCGC summarize the key legal issues, though we do not wish to reiterate all of the petition for modification, which comprehensively briefed the legal arguments concerning this issue."[736] This position is odd given that a proposed decision denying TURN/SCGC's petition for modification was issued on September 24, 2018.[737] TURN/SCGC's arguments in support of their position are addressed in Applicants' Opening Brief.[738] While SoCalGas requested in the Application clarification as to the Commission's intent with respect to Phase 2B, *i.e.*, whether SoCalGas should plan stand-alone Phase 2B projects as part of PSEP, TURN/SCGC seek an extraordinary remedy which, procedurally, cannot be granted in this proceeding: "TURN and SCGC do recommend that the Commission modify the language in D.11-06-017 to preclude

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731 ORA OB at 17-19.
732 SCG/SDG&E OB at 160-161.
733 ORA OB at 18.
734 SCG/SDG&E OB at 160.
735 TURN/SCGC OB at 41.
736 *Id.*
737 R.11-02-019. The item will be heard, at earliest, at the Commission's Business Meeting on October 25, 2018.
738 SCG/SDG&E OB at 161-165.

continued litigation concerning this issue."[739] Although the Commission may not grant this particular remedy, SoCalGas welcomes clarification from the Commission with respect to Phase 2B.

18.6 OSA's accusation that the PSEP Director is "unable to discuss safety culture"[740] is false

OSA's Opening Brief also demonstrates a fundamental misunderstanding of the purpose and embodiment of the Pipeline Safety Enhancement Plan (PSEP). In its brief, OSA refers to the "in line inspection testing data in the PSEP"[741] as highlighting an unidentified "gap,"[742] and that the October 2017 Line 235-2 incident could have been prevented by PSEP's proper in-line inspecting.[743] This ignores both the purpose of PSEP (gas operators in California were ordered by the Commission to address transmission pipelines which had not been tested or for which reliable records are not available)[744] and the type of work PSEP entails (test or replacement of pipelines;[745] in-line inspection is conducted as part of TIMP,[746] but not PSEP[747]).

In OSA's brief under the heading, "Sempra refused to discuss relevant expert analysis of its corporate dysfunction leading to the Aliso Canyon gas leak,"[748] it is complained that OSA's attempt to question "SoCalGas' PCEP [sic] Director, Mr. Phillips"[749] about "a seminal report prepared for Governor Jerry Brown on the viability of underground gas storage in California"[750] was "met with evidentiary objections."[751] Without any citation whatsoever to evidence in the record, OSA goes on to state, "Mr. Phillips states that the safety culture of PSEP 'embodies the

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739 TURN/SCGC OB at 6.
740 OSA OB at 34.
741 *Id.* at 28.
742 *Id.*
743 *See id*.
744 Ex. 231 SCG/Phillips at 2.
745 *Id.* at 3.
746 *See, e.g.*, Ex. 111 SCG/Martinez at 12 ("To date, TIMP has inspected, remediated, and validated the safety of over 2,200 miles of transmission pipelines using in-line inspection (ILI) technology in both HCA and Non HCAs.").
747 Mr. Phillips explained that "PSEP performs hydrostatic tests or replaces pipeline." Tr. V23:2275:12-25 (Phillips).
748 OSA OB at 33.
749 *Id.*
750 *Id.* at 34.
751 *Id*.

safety culture at SEMPRA,' yet refused to discuss Sempra's safety culture. It is illogical to make such a statement yet be unwilling to discuss its foundation."[752]

It is evident that OSA's misunderstanding of PSEP has led to these complaints. OSA admits in its Opening Brief that it attempted to ask SoCalGas' PSEP director about Aliso Canyon and underground gas storage.[753] Even setting aside that the ALJ specifically ruled that Aliso Canyon was not within the scope of this proceeding,[754] Mr. Phillips was clear during questioning by OSA's attorney that his role as Senior Director of PSEP did not deal with underground storage or root cause analyses, and thus he could not answer questions on those topics.[755] OSA had an opportunity to question a witness – Neil Navin (VP of Gas Transmission and Storage) – about underground storage, but it waived cross-examination of Mr. Navin.[756]

OSA's contention that Mr. Phillips "refused to discuss Sempra's safety culture,"[757] has no citation to the evidentiary record, and for good reason: this claim is not supported by the evidentiary record. The ALJ specifically sustained objections to OSA's line of questioning asking Mr. Phillips questions outside the scope of PSEP and about broader company safety culture beyond PSEP that falls under other witnesses' testimonies.[758] When asked about PSEP

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[752] *Id.* The source of the statement attributed to Mr. Phillips has not been cited by OSA, and Applicants have not been able to determine the source.

[753] OSA OB at 33-34.

[754] Tr. V11:580:8-13 (Lirag) ("Next, for the storage issues, I'll only specify regarding Aliso Canyon storage issues. So Aliso Canyon storage issues are going to be outside the scope of this proceeding. Those are being handled in other proceedings.") (emphasis added); *see also* D.16-06-054 at 251 ("Currently, the Commission's SED is investigating the causes of the well leakage at Aliso Canyon. Until that report is finished, it is premature for the Commission to open an Order Instituting Investigation into the causes of the Aliso Canyon leakage….").

[755] Tr. V23:2269 (Angelopulo, Phillips).

[756] Exs. 273-276 SCG/Navin.

[757] OSA OB at 34.

[758] Tr. V23:2250:28 to 2251:7 (Angelopulo, Patel, Lirag); *id.* at 2251:18-22; *id.* at 2251:23-2252:18. In addition to asking off-topic questions of Mr. Phillips, OSA asked questions such as, "Where [sic] do you think the purpose of your testimony is today? Why are you here at the Commission" and, "Whose interest does your testimony serve, in your opinion." *Id.* at 2261:11-13, 21-22.
See also id. at 2259:11 to 2260:5:

> Q: Could you describe what you mean by safety metrics in this paragraph? You mentioned "included in the KPIs are safety metrics." Can you describe what you mean by "safety metrics"?
> A: Yes, the example is the OSHA Incident Rate. OSHA Incident Rate, which is a measure of people getting hurt. And as I mentioned elsewhere in my testimony, that incident rate is .47 which is about half the industry average. That's an example of a safety metric.
> Q: What other safety metrics have you considered while in your PSEP experience?
> A: Another metric is the Lost Time Incident. That is a standard industry metric that says when a person has gone away, has been hurt a little more severely so that they can't work that next day, that

safety culture, Mr. Phillips appropriately testified: "The safety culture portion of my direct testimony has to do with ensuring safety of the people who work within PSEP, with the public that we are hopefully making more – by making our pipelines more safe, by replacing 170 miles of old pipelines with new pipelines or retesting them, we have improved the safety of our system and therefore improved the safety for the public."[759]

The record simply does not support OSA's assertion that Mr. Phillips was a recalcitrant witness who would not answer questions regarding safety. ALJ Lirag correctly sustained objections when OSA asked Mr. Phillips questions that were outside the scope of his testimony (including those on topics that expressly were ruled to be outside the scope of this proceeding), and Mr. Phillips answered properly asked questions that were within the scope of his direct and rebuttal testimony.

18.7 Conclusion

In summary, the record is clear that Applicants developed detailed cost estimates in support of the scoped-out PSEP pipeline pressure test and replacement and Valve Enhancement Plan projects presented in this proceeding. In accordance with industry standards, the forecasts for the individual projects include a risk assessment component based on the attributes of that project; any cost estimate would be woefully incomplete without it. Based on supporting evidence in the record, Commission should approve the forecasts presented so Applicants may continue to execute important safety work and follow the Commission's directive to execute PSEP as soon as practicable while meeting Applicants' PSEP objectives to (1) enhance public safety; (2) comply with Commission directives; (3) minimize customer impacts; and (4) maximize the cost effectiveness of safety investments. Moreover, the Commission should approve Applicants' request for two-way balancing account treatment as it provides assurance to customers that they will not pay more than the actual costs of completing these safety-related projects. Applicants' requests for project substitution and a pipeline failure allowance also should be granted in their entirety. Finally, the Commission should clarify whether Phase 2B work is required to be executed as part of PSEP.

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is a metric. Safety-related metrics, I will go back to quality is a form of safety – ensuring safety. So that metrics associated with our quality can be tied to safety.

[759] *Id.* at 2272:5-13 (Phillips).

19. Procurement

19.1 Gas Procurement

As mentioned in Applicants' Opening Brief, the prepared rebuttal testimony of Martin Lazarus addressed SoCalGas Gas Procurement (Gas Acquisition)-related testimony by ORA. Issues raised by ORA in its Opening Brief have all been addressed by Applicants' Opening Brief and Lazarus' rebuttal testimony.

ORA's Opening Brief is essentially a recapitulation of direct testimony of ORA witness Fransiska Hadiprodjo.[760] ORA contends that SoCalGas' Gas Acquisition department does not need to fill its two vacant positions because the department has continued to conduct procurement activities since 2014 without filling the positions, and the Commission approved funding for the vacancies in D.16-06-054.[761] As stated in the Applicants' Opening Brief and Lazarus' rebuttal testimony, Gas Acquisition has assumed significant additional workload, primarily "Cap-and-Trade," incremental purchasing, and analytical activities resulting from system constraints and associated Commission mandates to buy incremental gas supplies to ensure system reliability, without adding incremental FTEs.[762] ORA ignores the additional workload and other activities that Gas Acquisition has undertaken. For Gas Acquisition to meet department goals of acquiring reliable low-cost gas and low-cost GHG compliance instruments in the interest of ratepayers, it is necessary the Commission approve funding for the two existing vacant positions. For the reasons stated in Applicants' Opening Brief, SoCalGas requests test year 2019 (TY 2019) operations and maintenance (O&M) funding totaling $4.230 million.

19.2 Electric and Fuel Procurement (E&FP) – (SDG&E Only)

No intervenor, including ORA, objected to SDG&E's E&FP TY 2019 O&M funding request totaling $8.641 million. Thus, for the reasons stated in Applicants' Opening Brief, SDG&E requests the Commission adopt its request for $8.641 million.

20. Advanced Metering Infrastructure (AMI) (SoCalGas Only)

The parties' Opening Briefs did not raise any new issues, arguments or proposals that are substantially different than what the parties have presented in testimony, and SoCalGas and SDG&E have responded to each of the other party's proposals in its rebuttal testimony and

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760 *Compare* ORA Opening Brief at 120-21 *with* Ex. 410 ORA/Hadiprodjo at 7-8.
761 ORA Opening Brief at 120-21.
762 Ex. 284 SCG/Lazarus at 3.

Opening Brief. Accordingly, SoCalGas' forecast for AMI activities should be adopted as reasonable for the reasons stated in SoCalGas' Opening Brief.

21. Electric Generation

21.1 Introduction

In their opening briefs, ORA, TURN and POC address various issues regarding SDG&E's TY 2019 forecasts for O&M and capital costs for the forecast years 2017, 2018, and 2019 associated with the Electric Generation area for SDG&E.[763] Because parties' opening briefs largely track the positions they set forth in their testimony – which SDG&E addressed in its rebuttal testimony[764] and in its opening brief[765] - SDG&E only summarizes the key positions below. Table DSB-1, from SDG&E's direct testimony,[766] sets forth the costs SDG&E proposes to recover in this GRC proceeding.

Table DSB-1
Test Year Summary of Costs

ELECTRIC GENERATION & SONGS (In 2016 $)			
	2016 Adjusted-Recorded (000s)	**TY2019 Estimated (000s)**	**Change (000s)**
Total Non-Shared Services	36,435	62,316	25,881
Total Shared Services (Incurred)	747	1,095	348
Total O&M	**37,182**	**63,411**	**26,229**

NEW GENERATION (In 2016 $)				
Categories of Management	**2016 Adjusted-Recorded**	**Estimated 2017 (000s)**	**Estimated 2018 (000s)**	**Estimated 2019 (000s)**
A. Generation Capital	22,984	12,807[767]	292,826	17,371
Total	**22,984**	**13,314**	**292,826**	**17,371**

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763 In its opening brief, FEA supports ORA's position with respect to the Otay Mesa Energy Center (OMEC), further discussed below. FEA OB at 17.
764 Ex. 100 SDG&E/Baerman/Shimansky.
765 SCG/SDG&E OB at 175-190.
766 Ex. 97 SDG&E/Baerman at 1.
767 SDG&E agreed to accept ORA's recommended 2017 actual capital expenses in its rebuttal testimony (Ex. 100 SDG&E/Baerman/Shimansky at 12). SDG&E's original request of $13,314,000 has been replaced with $12,807,000.

The following tables, adopted from SDG&E's rebuttal testimony,[768] summarize SDG&E's Electric Generation O&M and capital forecasts versus other parties' recommendations. Because ORA, TURN and POC recommend that the Commission address the revenue requirement associated with SDG&E's potential acquisition of OMEC in 2019 – which the Commission approved in D.06-09-021 – in a future Tier 1 Advice Letter,[769] a separate application[770] or not approved at all,[771] the summary tables below show the aggregate impacts of those recommendations, first showing SDG&E's position under the scenario under which OMEC remains in the case, and second under the scenarios recommended by ORA, TURN and POC to remove OMEC from this GRC, with the relevant recommendations by those parties.[772]

TOTAL O&M - Constant 2016 ($000) with OMEC in the GRC			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	37,182	63,411	26,229

The table above shows the values proposed by SDG&E with OMEC in the GRC.

TOTAL O&M - Constant 2016 ($000) with OMEC removed from the GRC			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E[773]	37,182	40,615	3,433
ORA	37,182	40,615	3,433
TURN	37,182	38,951	1,769
POC	NA	NA	NA

The table above shows SDG&E's, ORA's and TURN's positions with OMEC removed from this GRC. POC made no recommendations regarding non-OMEC O&M costs.

TOTAL CAPITAL - Constant 2016 ($000) with OMEC in the GRC					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	13,314	292,826	17,371	323,511	

The table above shows the values proposed by SDG&E with OMEC in the GRC.

[768] *Id.* at 1-2.
[769] ORA OB at 125-126; Ex. 403 ORA/Logan at 1.
[770] TURN OB at 55.
[771] POC OB at 4.
[772] SDG&E may enter into a Resource Adequacy (RA) contract with Calpine that could result in Calpine not exercising its right to put the OMEC facility to SDG&E. If this potential transaction is consummated, SDG&E will submit it to the Commission for approval via an advice letter. If all agreed-to approvals contained in the RA transaction have been obtained, SDG&E would withdraw its OMEC proposals from this GRC proceeding.
[773] These values are derived from Ex. 97 SDG&E/Baerman at 18 (Table DSB-6).

TOTAL CAPITAL - Constant 2016 ($000) with OMEC removed from the GRC					
	2017	2018	2019	Total	Variance[774]
SDG&E[775]	12,807[776]	12,826	12,020	37,653	-285,858
ORA	12,807	12,826	12,020	37,653	-285,858
TURN	13,314	12,826	12,020	38,160	-285,351
POC	NA	NA	NA	NA	NA

The table above shows SDG&E's, ORA's and TURN's positions with OMEC removed from this GRC. POC made no recommendations regarding non-OMEC capital costs.

In the sections below, SDG&E first responds to parties' contested non-OMEC recommendations, then addresses parties' OMEC recommendations.

21.2 SDG&E's Response to Other Parties' Contested Non-OMEC Recommendations

21.2.1 Other Parties' Non-OMEC O&M Recommendations

21.2.1.1 ORA

In its opening brief, ORA did not address SDG&E's non-OMEC electric generation forecasts, but in its testimony, ORA stated that with the exception of OMEC, "ORA accepts SDG&E's TY 2019 forecast for Electric Generation O&M expenses."[777]

21.2.1.2 TURN

21.2.1.2.1 Electric Generation Power Plants

In its opening brief, TURN continues to challenge some of SDG&E's TY O&M forecasts of the Electric Generation Power Plants, including Palomar, Desert Star, Miramar, and Cuyamaca, principally focusing on SDG&E's use of a five-year historical period of 2012-2016 for developing average amounts used for most of the base forecasts.[778] TURN argues for use of a six-year historical period, using years 2012-2017, which reflects lower 2017 costs.

Contrary to TURN's assertion, SDG&E continues to believe that SDG&E's consistent use over time of a five-year average of historical data for electric generation power plant O&M is the better approach to forecasting the amounts SDG&E needs in the test year to operate and maintain its power plants in a safe and reliable manner and allows for the inclusion of a variety

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774 Variances are shown in comparison to SDG&E's original request.
775 These values are derived from Ex. 97 SDG&E/Baerman at 28 (Table DSB-10).
776 SDG&E agreed to accept ORA's recommended 2017 actual capital expenses in rebuttal. Ex. 100 SDG&E/Baerman/Shimansky at 12. SDG&E's original request of $13,314,000 is replaced with $12,807,000.
777 Ex. 403 ORA/Logan at 1.
778 TURN OB at 55-59.

of planned and unplanned maintenance events. Because TURN's arguments in its opening brief generally track its testimony, which SDG&E addressed in its rebuttal testimony and opening brief, SDG&E won't repeat the plant-by-plant arguments it made in its opening brief.[779] SDG&E, however, wishes to clarify that, consistent with the approach SDG&E is taking in the A&G section of its brief (Chapter 35), SDG&E will be removing the $5,000 in dues for the Boulder City Chamber of Commerce reflected in 2016 historical costs (notwithstanding the fact that maintaining and fostering positive relationships with the community where Desert Star is located, and in which SDG&E employees live and work, benefits ratepayers as well as the company).

21.2.1.2.2 General Plant Administration

In its opening brief, TURN continues to recommend its proposed O&M forecast of $258,000 for Generation Plant Administration, in contrast to SDG&E's forecast of $349,000, a difference of $91,000.[780] TURN's lower forecast is due to the use of a three-year average (2015-2017) compared to the SDG&E's forecast based on Base Year 2016 costs.

Contrary to TURN's assertions, SDG&E's use of Base Year 2016 costs more accurately reflects what SDG&E realistically anticipates for 2019 and the attrition years, as SDG&E explained in its testimony.[781] In summary, SDG&E continues to believe that its forecast of $349,000 is based on a more realistic estimate of SDG&E's test year expenses and, as such, is reasonable.

21.2.1.2.3 Resource Planning

In its opening brief, TURN continues to recommend a TY 2019 forecast of $815,000 for the Resource Planning group, in contrast to SDG&E's forecast amount of $1,094,000, a difference/reduction of $279,000.[782] TURN complains that, in SDG&E's direct testimony and workpapers, SDG&E did not sufficiently detail the nature of the incremental activities that SDG&E anticipates this group will be undertaking during the test year. For example, as SDG&E explained in its rebuttal testimony,[783] SDG&E anticipates that as the Commission moves from

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[779] SCG/SDG&E OB at 181-183.
[780] TURN OB at 60-62.
[781] Ex. 97 SDG&E/Baerman at 22 ("The Base Year Recorded method is used for the forecast because of changes in the Administration staffing level during the historical period that are not representative of current staffing."). *See also* Ex. 100 SDG&E/Baerman/Shimansky at 9-10.
[782] TURN OB at 61-62.
[783] Ex. 100 SDG&E/Baerman/Shimansky at 10-11.

individual procurement proceedings to an Integrated Resource Planning (IRP) process, as required in SB 350, the complexity of the new IRP process will require additional effort and a greater skill set than was required in the past. SDG&E believes the new IRP process has the potential to produce commodity cost savings for ratepayers, but it will require incremental management expense. Failing to properly support the planning process could result in overall higher commodity costs.

TURN's recommendation fails to give proper consideration to these additional details. SDG&E has justified its TY 2019 forecast and urges the Commission to adopt it.

21.2.2 Other Parties' Non-OMEC Capital Recommendations

21.2.2.1 ORA

In its opening brief, ORA did not address SDG&E's non-OMEC electric generation forecasts, but in its testimony, ORA set forth its recommendations as follows:

- ORA recommends Year 2017 recorded capital costs of $12.807M be adopted in comparison to SDG&E Year 2017 forecasted capital cost of $13.314M.[784] SDG&E accepts ORA's recommendation.
- ORA does not dispute SDG&E's requested Year 2018 and 2019 Capital forecasted amounts of $12.826M and $12.020M, respectively, for generation power plants excluding OMEC.[785]

21.2.2.2 TURN

In its opening brief, TURN states that "TURN does not propose any specific adjustments to SDG&E's forecasts for capital spending at its generation facilities" (other than OMEC).[786]

21.3 SDG&E's Response to Parties' OMEC Proposals

21.3.1 Summary of SDG&E's Request

As explained in SDG&E's direct testimony, OMEC is a 608 megawatt combined-cycle power plant that was built and is currently owned by Calpine.[787] SDG&E has contracted for the plant's local capacity and energy through a Power Purchase Tolling Agreement (PPTA) since

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[784] Ex. 403 ORA/Logan at 18-19.
[785] *Id.*at 19.
[786] TURN OB at 62. TURN also states: "TURN identified through discovery adjustments associated with the Palomar facility to reflect amounts disallowed in the 2012 GRC but that were included in the utility's requested revenue requirement for the 2016 GRC and again here. SDG&E's discovery response committed to removing those costs retroactively to 2016, and remove those amounts from plant-in-service going forward. The utility's update testimony appears to have incorporated this change to its test year 2019 forecast." *Id.* (internal citations omitted).
[787] Ex. 97 SDG&E/Baerman at 5-7.

October 3, 2009 with the PPTA reaching the end of its term on October 2, 2019. The PPTA has no renewal option but it includes "put" and "call" options. The Put Option - exercisable at OMEC's sole discretion and with OMEC's notice due to SDG&E no later than April 1, 2019 - would require SDG&E to purchase the Otay Mesa plant at a set price. The Call Option, exercisable at SDG&E's sole discretion, "would require OMEC to sell the Otay Mesa plant at a set price."[788]

In the Commission's decision that approved SDG&E's PPTA with Calpine, D.06-09-021, the Commission further described the "put" and "call" options for the OMEC. As noted in D.06-09-021, "Pursuant to the terms of the Put Option, there would be no additional Commission review or approval required before OMEC's potential exercise of the option. Under the price set for the Put Option, SDG&E would own the Otay Mesa plant in 2019 at a price that would be significantly below that of the Net Book Value of the Palomar Energy Center (Palomar) in 2019."[789] Because of the Commission's determination in D.06-09-021, and the potential that Calpine will exercise its Put Option, SDG&E included the $280 million purchase price of the Put Option in this application. By way of contrast, the price of the call option – which SDG&E has decided *not* to exercise - would be $377 million.

To help ensure that ratepayers only pay SDG&E for the costs of owning and operating the plant when and if the ownership of the plant shifts to SDG&E,[790] SDG&E is proposing to track the revenue requirement for this particular asset in a balancing account so customers are indifferent to the timing of the transfer. SDG&E's balancing account proposal would also protect ratepayers in the event that the plant is not put to SDG&E and the PPTA merely expires. The annual revenue requirement is necessary to provide SDG&E with the necessary revenue requirement for the OMEC plant when the transfer occurs and for the attrition years beyond it and will ensure that revenues are available to own the plant at the commencement of the transfer date. The balancing account will ensure that no revenue requirement prior to the transfer date of plant ownership would be retained by SDG&E, aside from the PPTA and equity rebalancing costs included in the ERRA. There will be no double counting/collection because the invoices

788 *Id.; see also* D.06-09-021 at 5.
789 D.06-09-021 at 5 (internal citations omitted).
790 Ratepayers currently pay for the PPTA and rebalancing costs through the Electric Resources Recovery Account (ERRA), which is reviewed annually in ERRA Forecast applications and most recently approved in D.17-12-014.

paid through ERRA (with the exception of fuel costs) will cease when SDG&E gains control of the plant and will no longer be balanced or accounted for there. In summary, the balance will be returned to or collected from ratepayers based on the actual date SDG&E obtains control of the plant. SDG&E's Regulatory Accounts witness provides additional information in her testimony on how the balancing account would work and the disposition of the balance.[791]

21.3.2 SDG&E's Response to ORA's and TURN's Proposals to Remove OMEC from this GRC Proceeding

In their opening briefs, ORA and TURN continue to argue that the Commission should delay consideration of the revenue requirement that will be necessary to support SDG&E's ownership and operation of OMEC until such time as OMEC actually exercises its Put Option and/or plant ownership is transferred.[792] In support of their argument, ORA and TURN assert that it is necessary to delay consideration of SDG&E's proposed OMEC revenue requirement to protect ratepayers against any potential overcollection of costs.[793] In addition, TURN argues there are uncertainties as to whether Calpine will exercise the Put Option and the ultimate purchase price.[794]

ORA and TURN ignore that the OMEC balancing account SDG&E has proposed in this GRC proceeding would ensure that *any* overcollection of costs related to the transfer of the plant to SDG&E is returned to ratepayers. ORA's and TURN's proposals also appear to be designed to preclude SDG&E from fully recovering sufficient funds to own, operate and maintain OMEC during the attrition years (2020, 2021 and, if the Commission approves SDG&E's proposed four-year GRC cycle, 2022). SDG&E does not dispute that if Calpine exercises its Put Option, SDG&E will only own, operate, and maintain OMEC during the last quarter of 2019, but

[791] Exs. 184 and 186 SDG&E/Jasso.

[792] As explained above, if OMEC decides to exercise its Put Option, OMEC must provide notice to SDG&E no later than April 1, 2019. Under ORA's proposal, SDG&E would file a Tier 1 advice letter seeking recovery of its proposed revenue requirement sometime after it receives this notice but before the transfer in ownership occurs. ORA OB at 125-126; Ex. 403 ORA/Logan at 9. Under TURN's proposal, SDG&E would file an application *after* the transfer in ownership occurs. TURN OB at 55. TURN also states: "In order to address SDG&E's stated concern that failure to include OMEC costs in the GRC-authorized revenue requirement might jeopardize its opportunity to recover the reasonable revenue requirement associated with owning and operating OMEC through 2021, the Commission should direct SDG&E to file a Tier 2 or Tier 3 advice letter after Calpine exercises the Put Option and before October 3, 2019, seeking to establish a memorandum account for purposes of recording its plant purchase and operating costs for review and potential recovery in the application to follow." *Id.*

[793] ORA OB at 123; TURN OB at 51-54.

[794] TURN OB at 53. In its opening brief (at 21-24), POC raises similar uncertainties.

SDG&E will need a full year's revenue requirement to own, operate, and maintain OMEC during each of the attrition years 2020, 2021 and 2022.

To the extent that SDG&E's final due diligence of the plant results in any adjustments to the $280 million set price, SDG&E's proposed OMEC balancing account will provide for a true-up of that revenue requirement variance by making an adjustment in the balancing account. Those adjustments for the updated revenue requirement would be shown in the OMEC balancing account, and subject to the Commission's and parties' standard review, just like any other balancing account.

Thus, contrary to ORA's and TURN's assertions, *this* GRC proceeding is the time and place to establish SDG&E's revenue requirement for the Otay Mesa plant, subject of course to true up in the OMEC balancing account. The Commission has already approved the $280 million purchase price for the plant[795] and ORA has "verified that this price is consistent with the terms and conditions of the agreement approved by D.06-09-021."[796]

In summary, the CPUC should review and approve SDG&E's revenue requirement for the Otay Mesa plant in this pending GRC proceeding.

21.3.3 SDG&E's Response to ORA's and TURN's Proposals if OMEC Remains in this GRC Proceeding

With respect to SDG&E's 2019 forecasted going-forward O&M and capital costs for OMEC, ORA and TURN (and all parties) have had an opportunity in this GRC proceeding to review and comment on SDG&E's forecasts, and ORA and TURN have done so. For example, in its testimony, ORA has proposed a $1.1 million reduction in SDG&E's 2019 O&M forecast for OMEC[797] (which SDG&E addresses below), but "accepts" SDG&E's $5.351 million capital forecast for OMEC.[798] In its testimony, TURN proposed a $493,000 reduction in SDG&E's

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795 In D.06-09-021, the Commission stated that "Pursuant to the terms of the Put Option, *there would be no additional Commission review or approval required before OMEC's potential exercise of the option*." D.06-09-021 at 5 (emphasis added). In D.06-09-021, the Commission also expressly found that "it is reasonable to approve the acquisition by SDG&E of the Otay Mesa plant at the end of the ten-year PPA [Power Purchase Agreement] if OMEC exercises the Put Option." *Id.* at Finding of Fact (FOF) 18. In contrast to the procedure for the Put Option, had SDG&E decided to exercise the higher-priced Call Option, the Commission would have required SDG&E to "seek further Commission review and approval prior to exercising that option." *Id.* at 5.

796 Ex. 403 ORA/Logan at 20.

797 *Id.* at 7-8.

798 *Id.* at 20.

2019 O&M forecast for OMEC[799] (which SDG&E also addresses below), and did not address SDG&E's proposed capital forecast with respect to OMEC.

21.3.3.1 ORA's Proposed $1.1 million adjustment to OMEC O&M

In its opening brief, ORA continues to argue that, if the Commission establishes a revenue requirement for OMEC in this GRC proceeding, the Commission should reduce SDG&E's proposed O&M expense for OMEC by $1.1 million for "Contracting/Procurement Efficiencies," the same adjustment as ORA proposes for the Desert Star plant.[800]

For the reasons set forth in its rebuttal testimony[801] and opening brief, SDG&E continues to oppose this recommendation. It is SDG&E's position that it is unreasonable to expect that such a large reduction in O&M costs could be secured immediately upon a change of ownership. SDG&E will need time to familiarize itself with the operation and maintenance of the plant before it can know what, if any, efficiencies can be achieved. If OMEC is removed from this GRC, this adjustment is moot (for purposes of the GRC revenue requirement).

21.3.3.2 TURN's Proposed $493,000 adjustment to OMEC O&M

In its opening brief, TURN argues that if the Commission establishes a revenue requirement for OMEC in this GRC, the Commission should reduce SDG&E's 2019 O&M forecast for OMEC by $493,000, the same amount of reduction TURN proposes for Palomar.[802] TURN's argument is based on its proposal to use a six-year average of historical costs instead of SDG&E's proposed five-year average.

For the reasons discussed above, and set forth in SDG&E's rebuttal testimony, SDG&E continues to disagree with TURN's recommendation. For these reasons, it would not be appropriate to reduce the OMEC Forecast by $493,000. If OMEC is removed from this GRC, this adjustment is moot (for purposes of the GRC revenue requirement).

21.3.4 SDG&E's Response to POC

In its opening brief, POC urges the Commission to deny SDG&E's OMEC proposals in this GRC with prejudice. Alternatively, POC suggests that the Commission could direct SDG&E to file a new application "if Calpine exercises the Put Option and a proposed cost of

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799 Ex. 494 TURN/Marcus at 63.
800 ORA OB at 123-124.
801 Ex. 100 SDG&E/Baerman/Shimansky at 16-17; SCG/SDG&E OB at 189-190.
802 TURN OB at 59-60.

acquisition is determined."[803] SDG&E has addressed several of the issues POC raises in the discussion above with respect to ORA and TURN. POC also raised several additional issues, which SDG&E addresses below.

GRC versus OMEC:

- POC Assertion: "A GRC proceeding is not the appropriate venue for the Commission to decide whether SDG&E should be authorized to *purchase* a 608 megawatt ('MW') combined cycle plant . . . This type of approval for generation assets is usually considered in an application process."[804]
- SDG&E Response: As previously noted, the Commission, in D.06-09-021, *already* has approved SDG&E's *purchase* of OMEC if Calpine puts the plant to SDG&E:
  - D.06-09-021: "Pursuant to the terms of the Put Option, there would be no additional Commission review or approval required before OMEC's potential exercise of the option."[805]
  - D.06-09-021: "[I]t is reasonable to approve the acquisition by SDG&E of the Otay Mesa plant at the end of the ten-year PPA if OMEC exercises the Put Option."[806]

Contrary to POC's assertion, what SDG&E seeks in this GRC proceeding is Commission approval of its proposed revenue requirement to own and operate OMEC, subject to the balancing account SDG&E has proposed.

Scope of Commission Authority to Revisit Past Decisions

- POC Assertion: "The Commission is not bound by its prior decisions and is free to reconsider them when there has been a change in facts and circumstances."[807]
- SDG&E Response:
  - Because the Commission has already approved SDG&E's potential purchase of OMEC, relitigating the issue in this GRC, as POC is requesting, would constitute an improper collateral attack on the Commission's prior decisions, in particular, D.06-09-021.[808] Adherence to this principle is necessary to protect the integrity of the Commission's decision-making and to preserve regulatory certainty.

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[803] *See, e.g.*, POC OB at 6.
[804] POC OB at 1 (emphasis added), 29-30.
[805] D.06-09-021 at 5.
[806] *Id.* at Finding of Fact 18.
[807] POC OB at 3, 11-14.
[808] Section (§) 1709 of the Public Utilities (P.U.) Code establishes that "[i]n all collateral actions or proceedings, the orders and decisions of the commission which have become final shall be conclusive." Under Commission Rules of Practice and Procedure, parties may challenge a Commission determination only by filing an application for rehearing or a petition for modification. *See* Commission Rules of Practice and Procedure 16.1 and 16.4, respectively. The Commission has defined a collateral attack as "an attempt to invalidate the judgment or order of the Commission in a proceeding other than that in which the judgment or order was rendered." D.07-04-017 at 8. The California Supreme Court has

- Unlike when the Commission considers changing policy in an open proceeding,[809] the Commission cannot abrogate, or deny rate recovery for, previously-approved electric procurement contracts as a matter of law.[810]

Changed Circumstances

- POC Assertion: Changes in electricity supply, load growth, renewable procurement and Community Choice Aggregation (CCA), among other things, require the Commission to revisit the need for the OMEC facility.[811]
- SDG&E Response: The issues POC seeks to raise are outside the scope of this GRC and are the types of issues that would typically be addressed in other Commission proceedings (if at all). For example, electricity supply and renewable procurement issues are generally addressed in the Commission's long-term procurement plan rulemakings (*e.g.*, Rulemaking (R.) 16-02-007) and various CCA issues are currently being addressed in the Commission's Power Charge Indifference Adjustment (PCIA) rulemaking (R.17-06-026).[812]

Reasonableness of the $280 Million Put Option Purchase Price

- POC Assertion: The $280 million Put Option Purchase Price is not just and reasonable because Calpine already has recouped its investment in the plant from payments received from the PPA, among other reasons.[813]
- SDG&E Response: POC's allegations as to what Calpine paid to construct the facility are unsubstantiated speculation. The Commission, in D.06-09-021, found *both* the payments under the PPA *and* the $280 million put purchase option to be reasonable:

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observed that the "conclusiveness arises by operation of law. It is the order and not the reasons for it that establishes its effectiveness." *People v. Western Air Lines, Inc*., 42 Cal. 2d 621, 633 (1954). Relitigating the Put Option in this GRC proceeding also would impermissibly infringe upon FERC's prior approval of the option. *See* 188 FERC ¶ 62,055 (January 22, 2007).

[809] In this regard, POC cites to P.U. Code § 1708, which states that "The commission may at any time, upon notice to the parties, and with opportunity to be heard as provided in the case of complaints, rescind, alter, or amend any order or decision made by it." POC OB at 11.

[810] *See., e.g*., P.U. Code § 454.5(d)(2), which "[e]liminate[s] the need for after-the-fact reasonableness reviews of an electrical corporation's actions in compliance with an approved procurement plan . . . However, the commission may establish a regulatory process to verify and ensure that each contract was administered in accordance with the terms of the contract, and contract disputes that may arise are reasonably resolved."

[811] POC OB at 14-21.

[812] In its opening brief, POC also wrongly asserts that "SDG&E has never demonstrated a specific local capacity need for OMEC." *Id.* at 5, 28-33. POC ignores the Commission's straightforward determinations in D.06-09-021: "We approve the Revised PPA for Otay Mesa because we find that it gives SDG&E a cost-effective, *local area reliability resource* . . ."; "part of the attraction of the Otay Mesa plant was its location *within SDG&E's load pocket*"; and "The Otay Mesa plant represents new generation in SDG&E's service territory, a goal that comports with our recent decision encouraging new generation for the state." *See* D.06-09-021 at 2 (emphasis added), 8 (emphasis added), and 17, respectively.

[813] POC OB at 24-28.

- o D.06-09-021: "We approve the Revised PPA for Otay Mesa because we find that it gives SDG&E a cost-effective, local area reliable resource, with a lower long-term cost to the utility's ratepayers than the original PPA and with the option that the utility can own the plant at the expiration of the PPA."[814]
- o D.06-09-021: "Under the price set for the Put Option, SDG&E would own the Otay Mesa plant in 2019 at a price that would be significantly below that of the Net Book Value of the Palomar Energy Center (Palomar) in 2019."[815] Consistent with the Commission's expectation in D.06-09-021, the $280 million Put Option purchase price continues to be "significantly below that of the Net Book Value of the Palomar Energy Center (Palomar) in 2019." As SDG&E's witness explained during hearings, the current Net Book Value of Palomar is approximately $378 million.[816]

For the reasons set forth above, the Commission should reject POC's unsubstantiated proposals in this proceeding.

22. Electric Distribution (SDG&E Only)

22.1 Capital Projects (General)

ORA, TURN, FEA, and CUE addressed SDG&E's Electric Distribution (ED) Capital testimony in their OBs. SDG&E's ED Capital proposals, supported by witness Mr. Alan Colton, describes and justifies SDG&E's forecasted ED Capital activities from 2017-2019,[817] as summarized in SDG&E's OB.[818] SDG&E is requesting the Commission adopt SDG&E's ED Capital forecasts for 2017, 2018, and 2019 of $445,116,000, $588,317,000, and $700,757,000, respectively.[819]

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814 D.06-09-021 at 2.
815 *Id.* at 5.
816 Tr. V15:1206:11-15 (Baerman). Finally, in its opening brief, POC also asserts that SDG&E failed to consider a third option in which Calpine does not exercise its Put Option, SDG&E does not exercise its Call Option (which SDG&E does not intend to do) and Calpine retains ownership of OMEC. POC OB at 8-10, 23-24. Contrary to POC's assertion, SDG&E has acknowledged this possibility in its testimony and explained that the proposed balancing account would address this scenario by returning any funds collected to ratepayers. POC's discussion of this third option – and Section 2.4 of the 2007 Ground Sublease and Easement agreement - is otherwise confused. As Mr. Baerman correctly explained at hearings, the purpose of Section 2.4 is to allow SDG&E "to extricate [itself"] from the project" if Calpine does not exercise its Put Option (and SDG&E does not exercise its Call Option) by providing for SDG&E's transfer of its interest in the land to OMEC. Tr. V15:1170:13-20 (Baerman). POC incorrectly identifies Calpine as the Sublessor, instead of SDG&E, and incorrectly suggests that Section 2.4 involves more than simply the transfer of the interest in the land. POC OB at 23.
817 Exs. 74-76 SDG&E/Colton.
818 SCG/SDG&E OB at 191-224.
819 Ex. 76 SDG&E/Colton at 1.

As also shown in the Companies' OB, the parties' rebuttal positions regarding electric distribution capital cost forecasts are summarized below (using SDG&E's rebuttal proposed amounts as a starting point and applying the adjustments found in each party's testimony, for comparison purposes):[820]

Table 22.1.B – Summary of Proposals by Forecast Year[821]

TOTAL CAPITAL – Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	$445,116	$588,317	700,757	1,734,190	---
ORA	$415,789	$449,382	$528,707	$1,389,670	-$344,520
TURN	$445,116	$499,624	$521,363	$1,466,103	-$268,087
CUE	$445,116	$588,317	$797,942	$1,831,375	$97,185
FEA	$415,789	$449,382	$528,707	$1,389,670	-$344,520

ORA's OB promotes two distinct and opposing themes: (1) advocating for their "portfolio-level" review of SDG&E's ED Capital costs, without analyzing the need for projects or reasonableness of project costs, and (2) protesting about the lack of detail in SDG&E's cost presentation.[822] As discussed below, in testimony, and in SDG&E's OB, ORA's "portfolio" methodology fails to analyze the significant amount of information SDG&E provided in testimony and discovery – more than in any previous GRC – supporting the need for and reasonableness of SDG&E's ED Capital projects.

Further, a significant portion (eight pages) of ORA's OB is devoted to providing justification for its arbitrary removal of 54 projects from SDG&E's 2017 actual data, and supporting the use of this cherry-picked "most recently recorded" data.[823] ORA's lengthy, detailed, and specific arguments supporting this flawed adjustment misses the big picture: there is no support for ORA's argument to support adjusting the "base year plus one" data in this way.[824] ORA argues as though 2017 is the base year, and its arguments largely ignore the fact that SDG&E had no evidentiary burden to support its most recent recorded data (2017) under the

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820 Ex. 76 SDG&E/Colton.
821 *Id.* at 1, Table 1 and n.1 through n.6.
822 ORA OB at 127-195.
823 ORA OB at 139-47.
824 To the contrary, the Commission has stated that if intervenors want to use the most recent recorded data (here, 2017) to support their forecasts, parties must use data "in a format 'compatible with the other years of recorded data in order to derive trends and forecasts.'" D.13-05-010 at 19 (citing D.08-07-046 at 9).

Commission's Rate Case Plan.[825] SDG&E's GRC forecasts were in stages of being finalized in the middle of 2017 – it is impossible to include an evidentiary showing supporting a "historic" year that is not yet complete. SDG&E continues to support use of its forecasts for 2017, 2018, and 2019, derived from the 2016 base year. If ORA supports using 2016 base year data and a 2017 forecast as well, all of its criticisms regarding use of 2017 data would fall away.

Notably, SDG&E's actual 2017 data for ED Capital amounts to approximately $436.697M, when appropriately considered in its entirety. This is within less than 2% of SDG&E's $445.116M ED Capital forecast for 2017. Thus, SDG&E's 2017 actual data supports a conclusion that the 2017 forecast is reasonable as a whole, and that its forecast methodology for the years that follow (2018 and 2019) is also reasonable and can be relied upon by the Commission. Although SDG&E has not adopted ORA's position supporting the use of 2017 actual data for ED Capital, 2017 actual data is useful in supporting reliance on SDG&E's overall ED Capital forecasts.

Because of ORA's "portfolio-level," broad brush approach, ORA's flawed reduction of 2017 actuals (by approximately $21 million) flows through and inappropriately reduces its recommendation for every ED Capital project forecast in this case. ORA's use of reduced historical averages and a RAMP "trend line" is also flawed, as discussed below. As further discussed below, ORA's flawed methodology and forecasts should be rejected. Because FEA largely adopted ORA's positions, its recommendations should be rejected for the same reasons.

Unlike ORA, TURN and CUE analyzed SDG&E's ED Capital proposals on a project-by-project basis. Their positions are addressed in the individual project sections further below.

SDG&E's Estimating and Forecasting Practices Are Reasonable and Consistent with Past GRCs and the Commission's New Risk-Informed GRC Framework.

In their direct testimony, both ORA and TURN offer comments on the quality of SDG&E's cost estimating and forecasting. SDG&E's forecasting methodology presentation for this TY 2019 GRC is consistent with its presentation in prior rate cases, as described in Mr. Colton's direct and rebuttal testimony.[826] In preparing its projections for TY 2019 requirements, SDG&E analyzed historical 2011 to 2016 spending levels, considered underlying cost drivers,

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825 For a general discussion of GRC forecasting, base year, and base-year-plus-one data, please see SCG/SDG&E OB at 4-5, and *supra* section 4.1 (General Forecasting).
826 *See* Ex. 76 SDG&E/Colton at 16-20 (citing Ex. 74 SDG&E/Colton).

and developed an assessment of future requirements. Forecast methodologies were selected based on future expectations for the underlying cost drivers, and include:

- Forecasts based on historical averages;
- Forecasts based on the Base Year) (BY) 2016 adjusted recorded spending; and
- Forecasts based on zero-based cost estimates for specific projects.

As Mr. Colton testified, zero-based cost estimates applied several methodologies, including the following:

- An arithmetic method such as unit cost multiplied by expected volume;
- Referencing an RFP response, an invoice, or other reference document;
- Use of subject matter expert judgment;
- Reference to a like-kind project or activity performed elsewhere; and
- Reference to a similar project or work done in the past and updated for current conditions.[827]

Although SDG&E's forecasting methodology presentation maintains a consistent presentation relative to prior rate cases, SDG&E strives for continuous improvements to enhance its processes and practices, as Mr. Colton explained.[828] This is particularly true in light of the Commission's increased focus on risk identification, analysis and mitigation. The direct and rebuttal testimony chapters of Diana Day, Greg Flores, and Jamie York regarding risk mitigation describe how SDG&E's risk mitigation processes have evolved and become more rigorous, and how they will continue to evolve in the future, through advancements in various CPUC proceedings.[829] Ms. Day's direct testimony describes SDG&E's strategic planning trajectory to integrate risk, asset and investment management in the TY 2019 GRC cycle, in which SDG&E:

- "further aspires to connect the risks from the enterprise risk registry (informed by the operating unit risk registers) with investment decisions and to prioritize the risk mitigations with the ultimate goal of optimizing portfolios;"[830]
- is "committed to moving forward with a more formalized asset management program," by implementing ISO 55000 standards;[831] and

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[827] *Id.* at 18.
[828] *Id.* at 19-20.
[829] Ex. 3 SCG/SDG&E/Day/Flores/York.
[830] Ex. 3 SCG/SDG&E/Day at 27.
[831] *Id.* at 26-27. *See also* SDG&E's Asset Management testimony of Kenneth J. Deremer, which describes SDG&E's commitment to and funding request for implementing ISO 55000 standards. Ex. 361 SDG&E/Deremer.

- will implement the outcome in the Commission's pending Safety Model Assessment Proceeding (S-MAP), which, "[d]epending on the outcome … may take considerable time, resources, and change management."[832]

With these new developments on the horizon, SDG&E expects that its GRC presentations will continue to evolve and present further detailed information, particularly in light of accountability reporting requirements for its next GRC presentation.[833] For this first risk-informed GRC,[834] SDG&E's presentation provides the necessary support for its requests in a manner consistent with past GRCs.[835]

22.1.1 ORA's Methodology

ORA's testimony provided an analysis of electric capital categories divided between two witnesses, Mr. Tom Roberts and Mr. Greg Wilson. ORA analysts Mr. Roberts and Mr. Wilson adopted differing methodologies for their respective analyses of separate ED Capital categories, which are described and rebutted in detail throughout Mr. Colton's rebuttal testimony.[836] Although SDG&E provided detailed estimates per budget, Mr. Roberts stated: "my testimony does not include any individual program analyses…"[837] Instead, "[his] methodology involved a portfolio-level analysis."[838]

ORA's testimony and briefing arguments claim a need for more detailed cost support, while refusing to provide analysis of the details of SDG&E's proposals on the basis of individual project need or cost reasonableness. Rather, ORA's analysis is conducted at a high level, arguing that "a high level of justification" is required for their "portfolio-level" review.[839] ORA states that it has carefully analyzed SDG&E's testimony and issued numerous data requests, and "[i]n many instances, [ORA] has found SDG&E's forecasts to be reasonable."[840] Despite this analysis, ORA has not offered an opinion as to whether individual projects are necessary or reasonable, simply stating that it "has not agreed with some of SDG&E's estimates."[841] ORA

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[832] *Id.* Ex. 3 at 26.
[833] *See* accountability reporting discussions in Ex. 3 SCG/SDG&E/Day at 3-5, 26-27.
[834] *See* discussion of first risk-informed GRC presentation in Ex. 4 SCG/SDG&E/Day/Flores/York.
[835] Please also see Section 4.1, Forecast Methodology, for additional description on forecast methodologies used.
[836] *See e.g.,* Ex 76 SDG&E/Colton at 20-29 (citing Ex. 401 ORA/Roberts and Ex. 402 ORA/Wilson).
[837] Tr. V28:2684:3-4 (Roberts).
[838] *Id.* at 2683:3-4.
[839] ORA OB at 132.
[840] *Id.* at 139.
[841] *Id.* at 139.

states: "Many of the issues in dispute in this case do not involve disagreements regarding facts. Instead, many of the topics being litigated involve matters of judgment."[842]

Thus, both ORA and SDG&E agree that SDG&E has provided responses to "numerous data requests,"[843] sufficient for ORA to conduct a "careful analysis." ORA simply disagrees with SDG&E's overall request levels, based on a high-level judgment determination. However, the Commission's new risk decision-making framework, as well as past GRC practice, requires more detailed analysis of SDG&E's individual projects and activities, particularly with respect to SDG&E's RAMP-related risk mitigation proposals.[844]

Moreover, ORA's briefing argument does not explain how its high-level judgment-based analysis comports with Cal. Pub. Util. Code Section 1705, which requires that any Commission decision "contain separately stated, findings of fact and conclusions of law by the commission on all issues material to the order or decision...." The Supreme Court of California has stated that Section 1705 requires factual findings on all material issues, and that this requirement promotes important law and policy goals:

> …such findings afford a rational basis for judicial review and assist the reviewing court to ascertain the principles relied upon by the commission and to determine whether it acted arbitrarily, as well as assist parties to know why the case was lost and to prepare for rehearing or review, assist others planning activities involving similar questions, and serve to help the commission avoid careless or arbitrary action, as there is no assurance that an administrative agency has made a reasoned analysis if it need state only the ultimate finding….[845]

Therefore, Commission decisions must be supported by findings and conclusions stated with sufficient clarity that a reviewing court may understand the basis for the action the Commission has taken in the decision.[846] It thus follows that a GRC decision must be based on a project-by-project review of the factual evidence on the record, contrary to ORA's position and methodology.

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842 *Id.* at 132.
843 Ex. 76 SDG&E/Colton at 3, 56 ("SDG&E responded to numerous data requests …"); *see also* Ex. 254 SCG/SDG&E/Manzuk at 6, n.6 ("SDG&E and SoCalGas responded to over 10,500 data request questions contained within hundreds of data requests from multiple parties.").
844 *See discussion in* Ex. 4 SCG/SDG&E/Day/Flores/York and SCG/SDG&E OB at 21-22.
845 *Pacific Telephone and Telegraph Co. v. CPUC,* 62 Cal. 2d 634, 648 (1965) (citing *California Motor Transport Co. v. CPUC*, 59 Cal. 2d 270, 273-75 (1963)) (internal quotations omitted).
846 *See Greyhound Lines, Inc. v. PUC*, 65 Cal. 2d 811 (1967); *California Motor Transport Co. v. PUC*, 59 Cal. 2d 270 (1963); *California Manufacturers Assn. v. PUC*, 24 Cal. 3d 251 (1979).

As also set forth in testimony and in SDG&E's OB, ORA's methodology is flawed in other respects, as described in more detail in the reply sections that follow:

- ORA's Arbitrary Reductions to SDG&E's 2017 Actual Costs Are Not Supported by Commission Precedent or the Rate Case Plan and Should be Rejected.
- ORA's Use of a Lower-than-Historical Average Is Also Flawed.
- ORA's Use of Historical RAMP Proxies to Create a Trend Line for RAMP-Related Forecasts Should be Disregarded.

ORA's Arbitrary Reductions to SDG&E's 2017 Actual Costs Are Not Supported by Commission Precedent or the Rate Case Plan and Should be Rejected.

As set forth in the Companies' OB, both Mr. Roberts and Mr. Wilson adopted 2017 actual costs as the forecast for 2017, but modified actuals by excluding any new capital project spending in 2017 associated with 54 budget codes that were not identified in SDG&E's testimony, which represented a $20.908 million reduction (in 2016 dollars).[847] ORA does not take issue with any of the 54 budget codes individually; rather, ORA argues, over several pages in its OB, that SDG&E generally cannot recover its reasonably incurred costs unless those costs are foreseen and forecasted in GRC testimony.[848] As shown below, ORA's OB arguments are fundamentally incorrect, as they are inconsistent with the Commission's decisions regarding GRC forecasting and the Rate Case Plan.

In ORA's OB addressing the "Results of Examination (Cal PA Audit)," ORA notes that "Typically, the basis for GRC requested revenue requirements are forecasts based on financial recorded data." ORA typically conducts an audit of the Companies' base year historical costs every three years in accordance with the Companies' rate case, and consistent with statutory requirements.[849] ORA states that the general objectives of its examination "are to protect the interests of ratepayers and to review the Applicants' financial records, upon which the GRC applications were built, to determine if they are reasonable and proper for ratemaking purposes under established Commission rules and regulations."[850] Thus, in this case, ORA conducted its audit for BY 2016 – the base year upon which SDG&E's ED Capital forecasts for 2017, 2018, and 2019 are built. Because of the passage of time and the length of a GRC proceeding, 2017 historical ED Capital data became available to SDG&E before its evidentiary hearings. SDG&E

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[847] SCG/SDG&E OB at 195-96 (citing Ex. 402 ORA/Wilson at 10-11).
[848] ORA OB at 139-40.
[849] *See id*. at 493 (citing Cal. Pub. Utils. Code §§ 314, 314.5, and 309.5).
[850] *Id.* at 493.

thus provided ORA with its 2017 adjusted-recorded ED Capital expenditures in March 2018 in discovery, as ORA states. However, it stands to reason that ORA was unable to audit SDG&E's historical 2017 data in this case, because 2017 was in its infancy when SDG&E was developing its ED Capital forecasts, and the forecasts were "locked-down … well before the end of the third quarter of 2017," as Mr. Colton testified.[851]

ORA is incorrect in stating that, "for the capital expenditures discussed in Exhibit ORA-07, SDG&E has … agreed to use recorded 2017 data."[852] SDG&E stands by and supports its ED Capital forecasts using BY 2016 data, as Mr. Colton testified.[853] And as previously noted in section 22.1 *supra*, SDG&E's actual 2017 data for ED Capital is within less than 2% of SDG&E's Capital forecast for 2017, which supports the reliability of SDG&E's ED Capital forecasts and methodology. SDG&E has not argued strenuously against use of 2017 actuals for ED Capital in this case, in part because SDG&E's 2017 actuals are consistent with its forecasts, and also because of the Commission's decision in SDG&E's TY 2012 GRC, which stated "the use of more recent data by the parties is not prohibited by the Rate Case Plan."[854] *However*, in that decision, the Commission noted: "as D.08-07-046 sets out, before this recent data can be used, the Commission needs to ensure that the recorded data is in a format 'compatible with the other years of recorded data in order to derive trends and forecasts."'[855] The Commission in D.08-07-046 rejected the use of most recent data that "was not in a format compatible with" base year data.[856]

ORA's argument for removing 54 projects from SDG&E's 2017 actual data is not consistent with the Commission standard set in D.08-07-046 and D.13-05-010. There is nothing in ORA's OB or testimony regarding its audit to suggest that ORA removed ED Capital projects from BY 2016 data for similar reasons.[857] ORA has not required SDG&E to remove projects that began in the second half of 2016, for example, and SDG&E knows of nothing in the Rate Case Plan or Commission decisions to support doing so. There is also no support for cherry-picking projects from 2017 recorded capital data in ORA's OB section 4.1, describing ORA's

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851 Ex. 76 SDG&E/Colton at 23.
852 ORA OB at 493.
853 *See* Ex. 76 SDG&E/Colton, *passim.*
854 D.13-05-010 at 19.
855 *Id.* at 19.
856 D.08-07-046 at 9.
857 ORA OB at 493-96; (citing Ex. 428 ORA/Chia/Li/Stannik).

position on general "Test-year Forecasting Methods." To SDG&E's knowledge, ORA's proposed methodology to modify 2017 recorded ED Capital expenditures is not adopted or supported elsewhere in ORA's OB. Notably, ORA cites no Commission precedent in support of its methodology, nor can it. There is no authority supporting the position ORA takes here.

ORA's criticisms that SDG&E did not "meet its burden" with respect to the 54 projects is similarly unsupported and illogical.[858] The Rate Case Plan does not require SDG&E to forecast based on historical data for a year that is not yet completed by the time of its GRC filing, nor could it. Moreover, the Rate Case Plan prohibits SDG&E from updating its data and evidence in the manner ORA suggests, stating: "No bulk or major updating amendments or recorded data to amend the final exhibits, prepared testimony, or other evidence shall be allowed, except as provided [in update testimony]."[859] Were the Commission to ignore this prohibition, it would result at best in a prejudicially project-selective update without corresponding analysis of resultant impacts elsewhere. At worst, it could result in a never-ending and unmanageable cycle of full-case updates, as ALJ Lirag noted in denying a request to update ED Capital forecasts in SDG&E's TY 2016 proceeding: "[Y]ou have to stop at a certain point in order to be able to make a forecast."[860]

In short, ORA's position is not consistent with law or Commission policy. SDG&E supports its 2017, 2018, and 2019 ED Capital forecasts derived from BY 2016 data. If ORA wishes to justify using 2017 actual data to support its forecasts, ORA must use 2017 actual data "in a format compatible with" BY 2016, under the standard set by the Commission in D.13.05-010. ORA's argument to cherry-pick projects from SDG&E's 2017 actual data must be rejected, for all the reasons stated above, in the Companies' OB, and in testimony.[861]

Using Historical Averages for Forecasts Is Also Flawed.

Mr. Colton's direct testimony provides "individual descriptions and analysis of each project's business justification, need and support related to the safety and reliability for our customers, employees and communities," and describes the selected appropriate forecast

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[858] *See id*. at 140.
[859] D.07-07-004 Appx. A (Rate Case Plan) at A-12, Day 0. The Rate Case Plan was established by D.89-01-040 and modified by D.93-07-030, D.07-07-004, and D.14-06-018.
[860] A.14-11-003, Tr. V19:2118:28 – 2119:1 (ALJ Lirag).
[861] *See* SCG/SDG&E OB at 195-96.

methodologies "based on future expectations for the underlying cost drivers."[862] In contrast, Mr. Roberts analyzed SDG&E's proposals at a high, 'portfolio' level, using the historical adjusted recorded values provided by SDG&E applicable to his six cost categories, lowering those historical amounts by certain projects that are not planned to continue into the TY 2019 GRC forecast years, then averaging that amount as a basis for his recommendations. SDG&E has concerns with ORA's methodology for several reasons, as summarized below and described in further detail in Mr. Colton's rebuttal testimony.[863]

First, SDG&E does not agree that historical recorded values indicate future need in every circumstance, particularly with respect to ED Capital projects.[864] As Mr. Colton explained, similar to SDG&E's TY 2016 GRC,[865] approximately seventy-five percent of SDG&E's proposed ED Capital projects and programs are derived from zero-based estimates, and the zero-based methodology often applies to projects or programs that are not ongoing year after year and have a set duration. ED Capital GRC forecasts should be based on the specific need for each project, including the duration of need, discrete or on-going scope, cost drivers, and business justifications for individual projects, as described in Mr. Colton's direct testimony and elucidated in discovery. Second, and perhaps more importantly, assuming an historical average were to be used (and SDG&E does not always agree that it should), arbitrarily removing project and program costs that fall off in the base year would skew the historical average, leading to inaccurate results.[866] Third, SDG&E takes issue with ORA recommendations that appear to be based in part on a premise that SDG&E should link its highest cost increases to the highest RAMP risk scores.[867] The risk management rebuttal testimony of Diana Day, Greg Flores, and Jamie York explains why funding decisions based on RAMP risk scoring is not appropriate.[868]

[862] Ex. 74 SDG&E/Colton at 2-3.
[863] Ex. 76 SDG&E/Colton at 23-28.
[864] *Id.* at 25.
[865] Ex. 74 SDG&E/Colton at 3:18-21; Ex. 76 SDG&E/Colton at 9-12.
[866] *Id.* at 26-27.
[867] *Id.* at 27-28 (citing Ex. 401 ORA/Roberts at 8-10, 36-37).
[868] Ex. 4 SCG/SDG&E/Day/Flores/York, section II.D at 12-14.

Use of Historical RAMP Proxies to Create a Trend Line for RAMP-Related Forecasts Should be Disregarded.

ORA's OB regarding its use of an historical RAMP trend line and RAMP reduction values[869] reveals new evidence that ORA did not provide in its testimony or in response to SDG&E's discovery request seeking the exact same data.[870] ORA's OB regarding its RAMP trend line approach should be stricken, disregarded, and/or given no weight for this reason alone, as (1) parties must cite to the evidentiary record and may not introduce new evidence in briefs,[871] and (2) it is improper for parties to "wait in the weeds" and fail to provide requested information in discovery, only to introduce it later as an opening brief argument. ORA's historical RAMP trend line and RAMP reduction values should also be disregarded for the reasons set forth in Mr. Colton's testimony and SDG&E's OB, as discussed further below.

As explained in Mr. Colton's rebuttal testimony, SDG&E submitted a data request to ORA regarding Mr. Wilson's ED Capital testimony, requesting that ORA "describe in detail the step-by-step process ORA took to derive its forecasts."[872] ORA responded that "a step-by-step description of how ORA derived its forecasts would essentially be a replication of the 47 pages contained in ORA's testimony …" and did not provide further detail beyond its testimony and workpapers. For the first time now, in ORA's OB, ORA has provided a detailed, step-by-step description of the process it took to derive its forecasts, as shown in the following excerpt:

> As shown graphically on Graph 7-3 above, Cal PA developed a trend line that shows a continuing increase in RAMP-type expenditures. Cal PA extended that trend line into 2018 and 2019. Even though that trend showed increased expenditures, Cal PA concluded that it did not accurately reflect the increased RAMP-type expenditures that SDG&E would experience in both 2018 and 2019. Similarly, because of the start-up problems encountered by SDG&E in 2017 (which is the start of the RAMP program), Cal PA concluded that SDG&E's 2018 and 2019 forecasts were unrealistically high. Therefore, Cal PA concluded that the most reasonable 2018 forecast would be to take the 2018 trend line amount, and add to that ½ of the difference between SDG&E's 2018 forecast and the 2018 trend line amount. For 2019, Cal PA concluded that the most reasonable 2019 forecast would be to take the 2019 trend line amount, and add to that 2/3 of the difference between SDG&E's 2019 forecast and the 2019 trend line amount.[873]

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[869] ORA OB at 154-56.
[870] *See discussion at* Ex. 76 SDG&E/Colton at 28-29, n.99.
[871] CPUC Rules of Practice and Procedure, Rule 13.11.
[872] *See* Ex. 76 SDG&E/Colton at 28-29, n.99, and Appendix A at A-2 – A-3, Q.1 and A.1 (ORA response to SEU-ORA-DR-08, submitted May 24, 2018).
[873] ORA OB at 158 (emphasis added).

ORA provides no cites to the evidentiary record for this statement, and adds: "These calculation descriptions are different from the descriptions cited by SDG&E on page AFC-28 of its Rebuttal testimony."[874]

If ORA had provided a similar response to SDG&E's data request, SDG&E would not have needed to make assumptions on how the forecasted values for 2018 and 2019 were derived, which ORA now argues to be incorrect in the OB. Moreover, it is entirely unclear why ORA did not provide this explanation in its direct testimony, rather than leaving SDG&E and parties to guess. Whatever the reason or motive, ORA's new evidence supporting its forecasts are improperly introduced as briefing arguments and should be stricken or ignored.

ORA's explanation still does not address the fact that its methodology seems to have been arbitrarily selected, as it does not provide a basis for assuming that discrete RAMP-related projects and programs follow a linear trend, and it does not explain why spreading reductions across RAMP-related projects and programs is appropriate. ORA's new explanation appears to provide the following update to the formula presented in Mr. Colton's testimony:

- 2018 = ORA's trend line forecast + (SDG&E's forecast **minus** ORA's trend line forecast) x 0.5
- 2019 = ORA's trend line forecast + (SDG&E's forecast **minus** ORA's trend line forecast) x 0.66

ORA argues that the arbitrary values 0.5 and 0.66 associated with calculating their RAMP forecasts are required for "start-up problems encountered by SDG&E in 2017" and the forecast proposed by SDG&E was "unrealistically high."[875] SDG&E disagrees with this conclusion by ORA. Out of the 45 RAMP projects outlined in Mr. Colton's testimony, only 15 were utilized by ORA to derive the trend line and only the associated 2017 expenditures were utilized to justify the arbitrary values[876]. This limited scope introduces flaws in the existing formula by not utilizing all RAMP data to populate ORA's RAMP forecast and potentially resulting in a higher arbitrary value. In addition, the majority of the eight projects identified by ORA in its OB with zero expenditures for 2017, are within the Transmission/FERC Driven category.[877] These projects typically take multiple years to be approved and constructed, because of the external approval process and permitting requirements and the best available data

[874] *Id.*
[875] ORA OB at 158.
[876] Ex. 76 SDG&E/Colton, Appendix C.
[877] ORA OB at 154.

for construction and in-service dates were appropriately incorporated into the forecasting process for this GRC at the point in time when the forecasts were locked down. The majority of the delays, unlike typical Electric Distribution projects, are out of SDG&E's control. To reduce the overall RAMP portfolio as a result of Transmission Driven projects further addresses the flaws in ORA's forecast.

ORA in its OB stated the reduction in their forecast was also based on the "RAMP-driven projects still in a state of flux and would likely be revised in the future."[878] SDG&E disagrees with this statement. The only situation where SDG&E stated a potential adjustment within an existing RAMP project pertained was to Budget Code 16252, Electric Integrity RAMP. Capturing one statement describing one specific budget code and extrapolating to all RAMP projects introduces an incorrect category-wide conclusion.[879]

SDG&E stands by the original requested funding amount contained in Mr. Colton's testimony associated with the RAMP related projects and does not agree with the forecast modifications for the 15 RAMP projects singled out by ORA. As discussed above, ORA's recommended cuts to SDG&E's RAMP projects and programs (intended to address SDG&E's key risks) are not appropriate.[880] As ORA witness Mr. Stannik testified, RAMP projects should be subject to a "traditional review process in the GRC,"[881] which ORA's RAMP linear trend analysis does not provide.

22.1.2 Capacity/Expansion

Table 22.1.C – Capacity/Expansion Rebuttal Positions – Constant 2016 ($000)

	2017	2018	2019	Total	Variance
SDG&E	$13,269	$11,002	$25,176	**$49,447**	**-**
ORA	$16,796[882]	$15,353	$15,353	**$47,502**	**-$1,945**
TURN	$13,269	$11,002	$25,176	**$49,447**	**$0**
CUE	$13,269	$11,002	$25,176	**$49,447**	**$0**
FEA	$16,796	$15,353	$15,353	**$47,502**	**-$1,945**

ORA's capital forecast for capacity (which is echoed by FEA) reduces the forecasted TY 2019 request by 39%, based on ORA's flawed historical average of SDG&E's 2013-2017

[878] *Id*. at 159.
[879] *Id*. at 159.
[880] *Id.* (citing Ex. 4 SCG/SDG&E/Day/Flores/York at 6-8).
[881] *Id.* (citing Ex. 398 ORA/Stannik at 15).
[882] ORA appears to have inadvertently omitted two budget codes in the Capacity/Expansion category in its calculations. These omissions add up to approximately $3.793M (Missing Budget Codes: BC11256 = $2.316M, BC97248 = $1.477M). Ex. 76 SDG&E/Colton at 32, n.106.

adjusted-recorded expenditures (described above in section 22.1.1) and its equally flawed reduction for the "Jamacha-New 12kV Ckt. 1090" capacity project. ORA's argument for this dramatic reduction is that the project is "more than ten times over-budget."[883] But, as SDG&E explained in rebuttal, the Jamacha project is a good example of how project requirement variability can occur as the design and permitting processes proceed, warranting flexibility in capital budgeting. After planning for the Jamacha project, jurisdictional requirements mandated night construction and design modifications for underground installation within a busy highway. To accommodate these requirements, SDG&E had to adjust design and construction schedules and reduce funding on other projects within this or other budget categories to allow for this priority capacity project to be completed.[884]

The electric system is dynamic and the increases or decreases in demand change each year, requiring the forecast for substations and circuits to also change each year. This constant adjustment requires flexibility in funding, resulting in either an increase in capacity projects for one year (*i.e.*, new large development) or a decrease in capacity-related projects (*i.e.*, changes in housing and commercial developments). ORA's chosen historical average of capacity projects does not represent SDG&E's future capacity and expansion needs, particularly where ORA has unjustifiably reduced SDG&E's historical average, as described *supra* in section 22.1.1. Moreover, ORA has also arbitrarily reduced the recorded value associated with the Jamacha project within this forecast, without accounting for budget modifications in other projects, resulting in a dramatic decrease.[885]

In its OB, ORA claims SDG&E "provided no evidence to support" the exceedance for the Jamacha project and only provided "two sentences to explain why."[886] As stated in Mr. Colton's rebuttal, the project was modified "to be installed underground within a busy highway and constructed at night".[887] This original scope of the project as stated in the TY 2012 GRC application was all above-ground 'overhead' work. With the requirements change from overhead construction to underground construction on a major highway and construction at night, SDG&E did demonstrate the two valid drivers for the cost increase. ORA claims SDG&E

[883] Ex. 401 ORA/Roberts at 60.
[884] Ex. 76 SDG&E/Colton at 32-33.
[885] *Id*.
[886] ORA OB at 259.
[887] Ex. 76 SDG&E/Colton at 33.

"did not provide analyses or reports that document the methodology and assumptions behind the analysis, including forecast for load and DER that could be used to determine if SDG&E's results are accurate and reasonable."[888] SDG&E does not currently have such a report that documents the methodology and assumptions, nor was a report of this caliber requested from ORA. The percentage factor provided for the Capacity/Expansion projects portfolio is the forecasted load amount, a utility standard to express forecasted load in percentage.

ORA is also incorrect in its suggestion that SDG&E has not provided capacity project analysis.[889] SDG&E's load/overload percentage values were captured and provided in its direct showing, within Mr. Colton's ED Capital workpapers, under the justification for many of the capacity projects with a zero-based forecast methodology.[890] SDG&E also outlined its capacity analysis process in response to an ORA data request, by providing the specific elements evaluated, the organization responsible for the final results and the types of information used. SDG&E also provided the format generated by the planning process, when the data was submitted and the specific peak year used to establish the forecasted values; and provided the results in a load/overload-percentage format used by SDG&E to justify projects for the last several years, consistent with previous GRC requests.[891] The corresponding data provided within the data requests, along with the information under the justification section in Mr. Colton's workpapers, and under the cost driver sections in Mr. Colton's direct testimony, all support SDG&E's need for the capacity projects. For all of the above reasons, ORA and FEA's proposals regarding the capacity category are unwarranted.

22.1.3 Equipment/Tools/Miscellaneous

Table 22.1.D – Equipment/Tools/Miscellaneous Rebuttal Positions Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	$4,833	$1,037	$1,037	**$6,907**	**-**
ORA	$8,130	$1,037	$1,037	**$10,204**	**$3,297**
TURN	$4,833	$1,037	$1,037	**$6,907**	**$0**
CUE	$4,833	$1,037	$1,037	**$6,907**	**$0**
FEA	$8,130	$1,037	$1,037	**$10,204**	**$3,297**

888 ORA OB at 260.
889 *Id.* at 33-34 (citing Ex. 401 ORA/Roberts at 61).
890 *See* Ex. 75 SDG&E/Colton at 22.
891 Ex. 76 SDG&E/Colton, Appendix. A at 36-37 (Data Requests ORA-SDGE-18-TCR and ORA-SDG&E-118-TCR).

SDG&E accepted in rebuttal ORA's and FEA's recommendations to correct the three-year average methodology used to derive SDG&E's 2018 and 2019 forecasts, acknowledging that a three-year average had been intended to be used. ORA and FEA also recommended to incorporate recorded data in 2017, resulting in forecasted expenditures of $8.130 million in 2017, $1.037 million in 2018, and $1.037 million in 2019. These expenditure recommendations are $3.297 million higher than SDG&E's request for 2017, $1.494 million lower in 2018, and $1.992 million lower in 2019.[892]

22.1.4 Franchise

Table 22.1.E – Franchise - Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	$34,463	$40,180	$35,190	**$109,833**	**-**
ORA	$31,374	$36,983	$35,190	**$103,547**	**-$6,286**
TURN	$34,463	$40,180	$35,190	**$109,833**	**$0**
CUE	$34,463	$40,180	$35,190	**$109,833**	**$0**
FEA	$31,374	$36,983	$35,190	**$103,547**	**-$6,286**

As described in SDG&E's OB, ORA did not take issue with SDG&E's forecast for TY 2019, but revised 2018 forecasts to reduce expenditures for Budget Codes 17250, 17251, and 17252, based on responses to ORA's data requests,[893] which asked to distinguish between collectible and rate base funding. SDG&E included collectibles for these budget codes in direct testimony, but ORA recommends only the net cost to ratepayers be included, since this is the amount for which ratepayers will be responsible.[894]

ORA's proposal leads to an inaccurate result because, in the GRC process, the estimated collectible amounts attributable to a project are recorded and later removed from the Results of Operations (RO) model during the calculation of rate base. It is thus correct to show the collectible amount (*i.e.*, the refundable costs obtained from the customer in advance of construction) as part of the direct costs to do the work. Removing collectible costs from those direct costs thus would have the effect of excluding them twice.

The rationale behind including the collectible portion of a given project in direct costs is to allow the full overhead pool to be allocated both to the collectible and the non-collectible

[892] *Id.* at 34-35 (citing Ex. 402 ORA/Wilson at 24). SDG&E's total request for the Equipment/Tools/Miscellaneous budget category incorporate ORA's recommendation for the 2018 and 2019 requested amounts.
[893] SCG/SDG&E OB at 35-36 and Appendix A at 38-39 (Data Request ORA-SDGE-18).
[894] Ex. 402 ORA/Wilson at 27.

portion of capital projects, thus accurately reflecting the appropriate amount of overheads to move into plant-in-service as capital project additions. Since SDG&E collects the applicable overheads from the customer, it would not be appropriate to include the entire overhead pool in rate base. Thus, collectibles should not be excluded from the forecasts for the three Franchise budget codes, including Budget Code 213 (or other budget codes in Mr. Colton's testimony), because collectibles are removed from the RO model during the calculation of rate base.[895]

ORA– In its OB, ORA agrees with SDG&E that collectibles should be included in the forecasts,[896] but argues that the evidence provided by SDG&E in support of its allegation (that ORA omitted collectibles) is not convincing.[897] As stated in rebuttal testimony and briefing,[898] ORA's proposal leads to an inaccurate result because, in the GRC process, the estimated collectible amounts attributable to a project are first recorded in the forecasts, and then later removed during the RO modeling during the calculation of rate base. This is done so that appropriate loaders may be calculated on the entire project cost. It is thus correct to show the collectible amount (*i.e.*, the refundable costs obtained from the customer in advance of construction) as part of the direct costs to do the work. Removing collectible costs from those direct costs during initial forecasting thus would have the effect of excluding them twice. The non-CPUC-jurisdictional costs breakout are also flagged as collectible costs that need to be included in the initial forecasting for the same reasons, and later removed.

ORA's methodology and recommendation do not take into account that the non-CPUC-jurisdictional costs are, for GRC modeling purposes, considered collectible costs. As stated in Mr. Colton's testimony, SDG&E's requested funding for the Franchise programs is needed to perform municipal overhead to underground conversion work or work in accordance with SDG&E's franchise agreements.[899] ORA's argument that the forecasted ratepayer costs provided for the three budget codes include collectibles is incorrect.

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[895] Ex. 76 SDG&E/Colton at 35-36.
[896] ORA OB at 175.
[897] *Id*.
[898] SCG/SDG&E OB at 200-01.
[899] Ex. 74 SDG&E/Colton at 35.

22.1.5 Mandated

Table 22.1.F – Mandated – Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	$33,169	$34,377	$32,662	**$100,208**	**-**
ORA	$28,641	$31,817	$31,817	**$92,275**	**-$7,933**
TURN	$33,169	$34,377	$32,662	**$100,208**	**$0**
CUE	$33,169	$34,377	$41,434	**$108,980**	**$8,772**
FEA	$28,641	$31,817	$31,817	**$92,275**	**-$7,933**

ORA – In its OB, ORA does not dispute the purpose and need of any individual SDG&E project or program in the Mandated category,[900] but argues that it "implicitly disputed the individual cost estimates that SDG&E summed to get its forecast as part of its overarching findings that SDG&E did not provide adequate support for its forecasts", and appears to take issue with the fact that several of the forecasts in this category are zero-based.[901] As stated in testimony and briefing,[902] SDG&E's forecasts for mandated projects are required by the CPUC and other regulatory agencies. It is appropriate to use zero-based forecasting for many types of ED Capital projects, because ED Capital projects often are not ongoing year after year and have a set duration, as Mr. Colton testified.[903] These types of budgets typically need a scale-up or ramp-up period where early years include planning, engineering, preparation and evaluation, with larger budgets being required during implementation and construction periods.[904]

ORA's methodology and recommendation do not take into account the discrete nature of many of SDG&E's proposed projects. As stated in Mr. Colton's testimony, SDG&E's requested funding for the Mandated programs is needed to maintain compliance with applicable regulations, promote public and employee safety, protect the overhead and underground distribution facilities, maintain quality of service to customers, and avoid degradation of reliability due to aging electric systems.[905] ORA's unsupported argument for a reduction from SDG&E's 2017 actual costs (as explained above in section 22.1.1), as well as a 7% reduction from 2018 and a 3% reduction from 2019 are arbitrary, unwarranted, and should be rejected.

[900] ORA OB at 232-33.
[901] *Id.*
[902] SCG/SDG&E OB at 210-02 (citing Ex. 76 SDG&E/Colton at 36-37).
[903] SCG/SDG&E OB at 197; Ex. 76 SDG&E/Colton at 29.
[904] Please see also in the brief Section 4.1, Forecast Methodology, for additional description on the use of zero-based forecasting.
[905] Ex. 74 SDG&E/Colton at 44.

CUE – CUE's testimony recommends cost increases above SDG&E's request for the following budgets in this category: an additional $4.905 million for the Avian Protection Program in Budget 10265, $3.201 million for Underground Switch Replacements in Budget 289, and $0.666 million for the Corrective Maintenance Program (CMP) in Budget 229. SDG&E continues to support its proposals, but acknowledges there may be value in accelerating the replacement of various aging infrastructure items as recommended by CUE.[906]

22.1.6 Materials

Table 22.1.G – Materials - Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	$24,871	$26,315	$27,694	**$78,880**	**-**
ORA	$18,303	$25,317	$26,316	**$69,936**	**-$8,944**
TURN	$24,871	$24,417	$24,928	**$74,216**	**-$4,664**
CUE	$24,871	$26,315	$30,434	**$81,620**	**$2,740**
FEA	$18,303	$25,317	$26,316	**$69,936**	**-$8,944**

ORA – ORA recommends lowering the Electric Meters and Regulators budget by the same percentage recommended for the New Business category (addressed in section 22.1.7). The Electric Meters and Regulators budget includes transformers, meters and regulators for new installation (which correlates with New Business) as well as routine replacements (which does not). ORA's testimony does not acknowledge that the Electric Meters and Regulators budget is also used for "replacements for meters that are damaged or not properly functioning," as shown in direct testimony.[907] Because ORA does not distinguish between new meters and replacement meters for this budget, its recommended reduction for Electric Meters and Regulators is overstated. SDG&E therefore does not agree with a reduction to either component of this budget and recommends adoption of the requested funding for the Materials budget category in its entirety.[908]

ORA has acknowledged that it did not differentiate new meters and replacement meters when developing its forecast.[909] However, ORA's OB now references the "Cost Driver" statement in Mr. Colton's testimony[910] associated with Budget Code 202, Electric Meters and

[906] Ex. 76 SDG&E/Colton at 37.
[907] Ex. 74 SDG&E/Colton at 54 (stating that the Electric Meters and Regulators budget is used for "replacements for meters that are damaged or not properly functioning").
[908] Ex. 76 SDG&E/Colton at 37-38.
[909] ORA OB at 186-87.
[910] Ex. 74, SDG&E/Colton at 55.

Regulators, and how the lack of discussion differentiating between types of meter replacements (new business versus replacements) alludes to the cost of replacements being negligible.[911] SDG&E disagrees with this conclusion. While the replacement of existing meters is not the main driver of the budget, as stated in Mr. Colton's rebuttal (at page 38), this budget is also used for "replacement for meters that are damaged or not properly functioning." ORA should not reduce the Electric Meter and Regulators budget by the exact same percentage, but include additional compensation for replacements of equipment.

TURN – TURN recommends that Budget Code 202 for the Meters and Regulators component of this category be reduced by $1.898 million in 2018 and by $2.766 million in 2019 from SDG&E's proposal, based on the 2012-2016 historical average for this budget.[912] TURN's recommendation is misguided, because the forecast for meters and regulators in large measure follows the trend of New Business, which is increasing, as further discussed in section 22.1.7 below. An historical average thus would not be appropriate. Without the proper inventory of electric meters, customers would be required to delay construction, potentially also delaying subsequent events such as occupancy of a premises or commencement of business. Budget Code 202 also includes replacements for damaged or malfunctioning units. The equipment associated with this budget is thus key to SDG&E's day-to-day operations of providing service to customers. TURN's proposed reductions should therefore be disregarded, and SDG&E's requested funding for the Materials budget category should be approved in its entirety.

TURN's OB argues that SDG&E is claiming meters are driven by new customer connections, while TURN states that "annual purchases are not directly tied to new customer connection."[913] While SDG&E agrees that there is not a perfect 'directly tied' correlation to new connections, the two drivers of replacements and new meter sets justifies why multiple data points are used to establish the budget rather than simple reliance on an historical average, as recommended by TURN.

CUE – CUE recommends an increase to Budget Code 214 for Distribution Transformers of $2.740 million above SDG&E's request for TY 2019. The purpose of this budget increase is to accommodate the increased New Business projections and replace failed equipment while

911 ORA OB at 186-187.
912 *Id.* at 38 (citing Ex. 490 TURN/Borden at 10).
913 TURN OB at 70.

allowing for potential cost increases for material and fabrication. SDG&E supports its direct testimony request, but acknowledges there may be value in accelerating the replacement of aging transformers while meeting the New Business demands.[914]

22.1.7 New Business

Table 22.1.H – New Business- Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	$55,317	$57,186	$60,592	**$173,095**	**-**
ORA	$54,082	$46,007	$46,613	**$146,702**	**-$26,393**
TURN	$55,317	$56,016	$59,149	**$170,482**	**-$2,613**
CUE	$55,317	$57,186	$60,592	**$173,095**	**$0**
FEA	$54,082	$46,007	$46,613	**$146,702**	**-$26,393**

SDG&E's direct testimony summarized and explained the forecasted need for each of the New Business budget categories.[915] SDG&E's New Business budgets are used to plan for and record capital expenditures associated with work performed to add new electric distribution system customers within SDG&E's service territory. Most of the expenditures associated with the New Business budgets are a direct result of customer requests, for example, for new services, upgraded services, new distribution systems for commercial and residential developments, system modifications to accommodate new customer load, customer requested relocations, rearrangements, removals, and the conversion of existing overhead lines to underground. All work and cost responsibilities are governed by applicable tariffs, which typically place the bulk of the cost on the utility. This category of work also has some budgets with collectible components.

SDG&E's OB described its use of the Construction Unit Forecast (CU forecast).[916] In its OB, ORA agrees with SDG&E that "to the extent that they can be interpreted and relied upon, the use of building permit activity, and the use of the most recent outlook on housing and land development (all of which are components of CUs), are leading indicators of eventual growth. ORA also agrees with SDG&E that the use of leading indicators is desirable when trying to forecast the installation of New Business projects, which must be in place before new utility customers can be added to the system,"[917] but argues that SDG&E's forecasts of CUs have

914 *Id.* at 39.
915 Ex. 74 SDG&E/Colton at 57-67.
916 SCG/SDG&E OB at 204.
917 ORA OB at 183.

proven to be a very poor predictor of actual CUs.[918] ORA believes they have developed a better forecasting methodology that does not rely on CUs, but rather meter set forecasts based on "using historical recorded data to develop a ratio of New Business costs to the number of new meter installations in the subsequent year, that ratio could be applied to new meter forecasts for the year X to determine a New Business forecast for the year X-1."[919]

As Mr. Colton testified, "The New Business budgeting process is based on an in-depth assessment that combines data on permit activity and the most current outlook on housing and land development, presented by a variety of economic forecasting entities," which is updated twice a year.[920] The forecast of New Business programs requires the insight of professional data service providers such as Moody's and Global Insight to generate the forecast of permits, which are relied upon by many in the construction industry. SDG&E believes the CU forecast model, which is based on the forecasted number of permits, is a superior model to the meter growth forecast model, given that it minimizes lag, is better correlated and fits better with budget timing. Despite ORA's argument that forecasted CUs have been a poor predictor of the actual number of CUs that eventually occur, we have seen actual CUs correlate better with forecasts in the near term years. SDG&E's actual 2017 recorded CUs came within approximately 7% of the CU forecast (10,253 actual CUs, compared to SDG&E's forecast of 11,023 CUs for 2017) and is also supported by the behavior of Budget Code 225 (Customer Requested Upgrades and Services), which spiked well above the 2017 forecast.[921]

ORA's forecast methodology used, as its basis, recorded 2017 New Business expenditures and argues that the recorded figure includes any and all collectible dollars.[922] This is not accurate. The recorded 2017 expenditures do not include collectible, third party funding that needs to be included in the forecasts to properly account for the distribution of overheads allocated to rate payers and the third parties through the RO model during the calculation of rate base, as discussed in section 22.1.4 (Franchise) of this reply brief.

TURN – TURN takes issue with only one of the capital forecast budget codes within the New Business category of projects, Budget Code 211 – Overhead to Underground Conversions.

[918] *Id.* at 185.
[919] *Id.* at 184.
[920] Ex. 74 SDG&E/Colton at 57.
[921] Ex. 76 SDG&E/Colton at 42.
[922] ORA OB at 185

TURN argues that the premise of SDG&E's estimate is flawed "because there is no indication that increased building development, even if it were to happen, results in increased overhead to underground conversions in a given year." TURN further states that "there is no positive correlation between residential or small commercial building growth and overhead to underground conversion – in fact, the correlation between meter growth and conversion cost is weak and negative."[923]

SDG&E's forecast of this budget code is based on an historical five-year average, with a 10% adder for each forecast year to account for development projections as discussed above. SDG&E's 2017 actuals are approximately 7% over forecast for overhead to underground conversions, and SDG&E does not expect this demand to decline over the next few years of the GRC period.[924]

Furthermore, similar to ORA, TURN's recommendation does not reflect collectible costs, which are included in SDG&E's direct forecasts and removed during the RO model process, as explained above in section C (Franchise). All of the New Business budget codes, except Budget Code 204 and 15258, include collectible costs in the forecast, and should appropriately remain in the forecast to avoid being removed a second time during the RO model process.

22.1.8 Overhead (OH) Pools

Table 22.1.I – OH Pools - Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	$85,103	$120,386	$162,491	**$367,980**	**-**
ORA	$85,634[925]	$86,855	$115,247	**$287,736**	**-$80,244**
TURN	$85,103[926]	$71,029	$71,029	**$227,161**	**-$140,819**
CUE	$85,103	$120,386	$162,491	**$367,980**	**$0**
FEA	$85,634	$86,855	$115,247	**$287,736**	**-$80,244**

SDG&E's direct testimony describes how it incurs Overhead (OH) Pools project costs originating from central activities, which are subsequently distributed to those capital projects based on one or more factors, such as project direct labor, contracted invoice amounts, or total

[923] Ex. 490 TURN/Borden at 11-12.
[924] Ex. 76 SDG&E/Colton at 42-43.
[925] It appears that ORA inadvertently understated 2017 actual expenditures for a budget code within Overhead Pools. This understatement adds up to approximately $0.415M and is included in Table 14 (Understated Budget Code BC904 = Understated by $0.415M). *Id.* at 43, n.137.
[926] TURN referenced actual expenditures in 2017, however, they made no recommendation regarding adjustments to SDG&E's 2017 forecast request in their testimony. Table 14 thus assumes TURN does not take issue with SDG&E's overall 2017 forecast request for this category. *Id.* at 43, n.138.

project direct costs.[927] Examples of costs included in this category are engineering capacity studies, reliability analysis, and preliminary design work, many of which cannot be attributed to a single capital project and are thus spread to those projects that are ultimately constructed and placed into service. These central activity costs are also called 'pooled' or 'indirect' costs, and consist of costs related to the Local Engineering - Electric Distribution (ED) Pool, the Department Overhead Pool (DOH), the Contract Administration Pool (CA) and the distribution portion of the Local Engineering - Substation Pool.

More recent regulatory and risk-reduction requirements have required increased levels of project engineering. The forecasts of the engineering pools are based on historical information with a trend applied to synchronize the pool forecasts with the overall increases in forecasted capital projected work.[928]

ORA – ORA takes issue with the capital forecast for the OH Pools, primarily Local Engineering Electric Distribution Pool Budget Code 901, and Local Engineering, Substation Pool Budget Code 904, recommending that the budget for those pools be based on SDG&E's model, with two adjustments: (1) updating the model inputs to use ORA program and project forecasts, and (2) reducing the number of programs that contribute to the Budget Code 904 forecast.[929]

Table 22.1.J shows the ORA recommendation for the OH Pools in comparison to SDG&E's request:

Table 22.1.J ORA OH Pool Proposal Compared to SDG&E			
Overhead Pool	**ORA Proposed 2017 - 2019**	**SDG&E 2017 - 2019**	**Variance 2017 - 2019**
Local Engineering ED Pool (BC901)	$208,427	$239,606	**-$31,179**
Local Engineering Substation Pool (BC904)	$47,631[930]	$88,218	**-$40,587**
Department Overhead Pool (BC905)	$12,079	$17,522	**-$5,443**
Contract Admin. Pool (BC906)	$19,600	$22,634	**-$3,034**

[927] Ex. 74 SDG&E/Colton at 68; Ex. 76 SDG&E/Colton at 45.
[928] *Id.*, Ex. 74 SDG&E/Colton at 68.
[929] *See* Ex. 76 SDG&E/Colton at 44.
[930] It appears that ORA inadvertently understated 2017 actual expenditures for this Local Engineering Substation Pool (BC904). This understatement adds up to approximately $0.415M and is included in the totals for Table 15 (Understated Budget Code BC904 = Understated by $0.415M). *Id.* at 44, n.141.

ORA also argues that SDG&E should use a direct-charging method and "scale back its use of engineering overhead pools."[931] But the pool method is more efficient than direct charging, while achieving the same basic result. It would be administratively burdensome, costly, and inefficient to require charging these types of costs directly to projects, while providing no appreciable benefit.[932]

As described in detail in rebuttal testimony, SDG&E's overhead pool methodology applies general accounting concepts, including the OH Pools procedure as stated in the Code of Federal Regulations.[933] SDG&E therefore does not agree with ORA's proposed reductions based on the overhead pool methodology described above, and recommends adoption of the requested funding for the OH Pools budget category in its entirety.

TURN – TURN takes issue with the capital forecast for the OH Pools category of capital projects, proposing they should be based on five-year historical averages for all four of the overhead pools.[934] While TURN made no recommended adjustments to SDG&E's 2017 forecast, it was assumed that TURN took no issue with SDG&E's 2017 forecast request.[935] TURN's proposed OH Pools forecasts for 2018 and 2019 are shown in Table 22.1.K:

Table 22.1.K – TURN OH Pools Proposal Compared to SDG&E			
Overhead Pool	**TURN Proposed 2018 - 2019**	**SDG&E Request 2018 – 2019**	**Variance 2018 - 2019**
Local Engineering ED Pool (BC901)	$109,110	$178,818	**-$69,708**
Local Engineering Substation Pool (BC904)	$18,020	$74,270	**-$56,250**
Department Overhead Pool (BC905)	$32,000	$13,027	**-$7,127**
Contract Admin. Pool (BC906	$9,030	$16,762	**-$7,732**

SDG&E believes its forecast methodology of calculating the growth in capital pool expenditures is the more accurate and appropriate methodology, compared to the use of historical averages alone. TURN's use of an historical average does not account for the forecasted changes

931 Ex. 401 ORA/Roberts at 55.
932 Ex. 76 SDG&E/Colton at 45.
933 *Id.* (citing Code of Federal Regulations, Title 18, Conservation of Power and Water Resources, Chapter I, Subchapter C, Part 101, Electric Plant Instructions, Paragraph 4, Overhead Construction Costs).
934 Ex. 490 TURN/Borden at 13.
935 Ex. 76 SDG&E/Colton at 46.

in the underlying capital work such as New Business, and the increased scope of regulatory requirements, risk mitigation and engineering work required.[936]

CUE – Although CUE does not propose specific increases or decreases to the OH Pools, CUE does propose increases to SDG&E's underlying electric-related capital expenditures for 2019 totaling $97.185 million, with associated pool and overhead loadings also added in later modeling.[937] SDG&E agrees that overhead loadings should be calculated consistently with authorized proposals.

FEA – FEA adopted ORA's position, and for the same reasons stated above, SDG&E supports its original recommendations.

22.1.9 Reliability/Improvements

SDG&E provided its forecasted expenditures and project descriptions for the Reliability/Improvements capital category in direct testimony.[938] This category consists of a variety of capital budgets aimed at improving distribution system reliability and integrity, including the major budgets Replacement of Underground Cables (Budget Code 230), Capital Restoration of Service (Budget Code 236) and 4KV Modernization (Budget Code 6260).[939] Several of the budget codes in this category support activities that mitigate SDG&E's Electric Infrastructure Integrity RAMP risk.[940]

Table 22.1.L – Reliability/Improvements - Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	$74,863	$108,418	$103,448	**$286,729**	**-**
ORA	$77,593	$51,479	$51,479	**$180,551**	**-$106,178**
TURN	$74,863	$103,262	$95,853	**$273,978**	**-$12,751**
CUE	$74,863	$108,418	$161,537	**$344,818**	**$58,089**
FEA	$77,593	$51,479	$51,479	**$180,551**	**-$106,178**

ORA – In its OB, ORA continues to propose the adoption SDG&E's 2017 actual expenditures for Reliability/Improvements and, based on the historical average of Reliability

936 *Id.*
937 *Id.* at 46-47 (citing Ex. 370 CUE/Marcus at 84).
938 Ex. 74 SDG&E/Colton at 75-109.
939 *Id.* at 76, Table AFC-11.
940 *See id.,* Appendix C at 2-3. The Electric Infrastructure Integrity RAMP Risk "addresses the occurrence of a safety, environmental, or reliability incident due to electric equipment failure," *Id.* at 4. For more information, *see* I.16-10-015, Risk Assessment and Mitigation Phase Report of San Diego Gas & Electric Company and Southern California Gas Company (November 30, 2016) (RAMP Report), Chapter SDG&E-12, Electric Infrastructure Integrity, *available at* http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M170/K705/170705141.PDF.

projects and programs from 2013 to 2017, reduce both 2018 and 2019 expenditures by approximately 50%.[941]

As in its testimony, ORA's OB continues to assert that SDG&E has a very reliable electric system, quoting from a CPUC report stating that SDG&E has maintained a consistently high level of reliability within its service territory.[942] Maintaining a high level of reliability does not mean that reliability will remain at a constant if spending remains constant. Rather, continued and potentially increased spending is needed to stay ahead of additional challenges to system reliability. In a sense this can be compared to Lewis Carroll's 'Through the Looking Glass,' while in the Red Queen's race Alice must run just to stay in place. To obtain additional improvements is potentially even more costly than to simply maintain a current reliability level. And, as noted above, many of the projects that improve system reliability and integrity also improve safety, and in many cases are intended to address serious RAMP risks.

ORA's recommended funding for the Reliability/Improvements category is lower than SDG&E's historical average, a result of eliminating historical project costs for projects completed prior to 2017. ORA asserts that "…given that ORA did not intentionally exclude any historic costs from its Reliability Portfolio forecast, ORA assumes this is a reference to SDG&E's overall concern regarding unclassified historic costs."[943] This assumption is correct. For the details related to the reductions to historical spend, refer to the *Arbitrary Reductions to Historical Costs* in section 22.1.1 of this brief, where SDG&E explains why these historical costs are warranted and why ORA's position to not include them is not consistent with law or Commission policy.

ORA points to a segment of SDG&E's ED Capital rebuttal testimony that states "…ORA's testimony does not support a reduction from SDG&E's historic spend."[944] From this, ORA states that "SDG&E mischaracterizes ORA's forecast, which is to provide the 2013-2017 historic spend for 2018 and 2019."[945] SDG&E would like to correct this statement from the rebuttal testimony, as the word "historic" was made in error. This statement should have read "…ORA's testimony does not support a reduction from SDG&E's *proposed* spend." SDG&E's

[941] Ex. 401 ORA/Roberts at 25.
[942] ORA OB at 221.
[943] ORA OB at 223.
[944] Ex. 76 SDG&E/Colton at 49.
[945] ORA OB at 224.

proposed 2017–2019 forecast for Reliability/Improvements is needed to ensure the delivery of safe and reliable service to our customers, which is why SDG&E disagrees with ORA's proposed funding reductions in its forecast.

ORA states that because "78% of the budgets within the Reliability/Improvements category have zero-based forecasts," SDG&E should have provided cost estimates that comport to the AACEI, DOE, or GAO cost estimating standards cited by ORA, or any other standards that would have provided robust estimates that could have potentially supported a request to double expenditures in a single GRC cycle."[946] SDG&E's forecasting methodology maintains a consistent presentation relative to prior rate cases, as stated earlier in this brief,[947] and nowhere has the Commission required the use of AACEI, DOE, or GAO methodologies as a part of GRC filings. Further, as Mr. Colton testified (and discussed in section 22.1 above), zero-based cost estimates applied several methodologies, including the following:

- An arithmetic method such as unit cost multiplied by expected volume;
- Referencing an RFP response, an invoice, or other reference document;
- Use of subject matter expert judgment;
- Reference to a like-kind project or activity performed elsewhere; and
- Reference to a similar project or work done in the past and updated for current conditions.[948]

Additionally, SDG&E disagrees with ORA's methodology for assessing RAMP projects within the Reliability/Improvements category, as discussed at length in Mr. Colton's rebuttal testimony, SDG&E's risk management testimony rebuttal, and SDG&E's OB.[949] Although the category title is "Reliability/Improvements," many of the projects in this category are RAMP-related and address mitigation of one or more RAMP risks, and are thus inherently related to safety improvements.[950] All of the risks included in SDG&E's RAMP Report addressed risk impacts scoring four (major) or more in the Safety, Health and Environment category, as described in the RAMP Report's "Overview and Approach" Chapter:[951]

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[946] *Id.* at 225.
[947] Section 4.1, Forecast Methodology, for additional description on forecast methodologies used including the zero-base method.
[948] *Id.* at 18.
[949] Ex. 76 SDG&E/Colton at 48-53; Ex. 4 SCG/SDG&E/Day/Flores/York at 12-14.
[950] *See* Ex. 76 SDG&E/Colton at 51, Table 18, for a complete listing of RAMP-related Reliability/Improvements projects.
[951] I.16-10-015, RAMP Report, Chapter RAMP-A, Overview and Approach at 4 (emphasis added).

> SoCalGas and SDG&E's risk framework uses a 7X7 matrix where the Safety, Health and Environment category is weighted at 40% as compared to 20% for each of the other three risk categories. For each of the categories, the utilities assigned a score ranging from one (1) ("Insignificant") to a seven (7) 2 ("Catastrophic"). *Since, in general, the primary focus of the Commission and, in particular, the RAMP is understanding and mitigating safety risks, SoCalGas and SDG&E selected for inclusion in the RAMP all risks that received a score of four (4) or more in the Safety, Health and Environment category.* The risks that qualified for inclusion in the RAMP are referred to as "RAMP Risks."

The Electric Infrastructure Integrity risk impact scored four (major) in 2015 and six (extensive) in 2016, "due to the fact that a fatality or serious injury also could occur as a result of inadvertent electrical contact involving an energized wire down."[952] Thus, it would be incorrect to dismiss RAMP-related projects tied to reliability as unrelated to safety, or otherwise unnecessary.

ORA's main arguments and SDG&E's rebuttal arguments are summarized below:

ORA's Claims Regarding Reliability Justification Based on RAMP

SDG&E's rebuttal testimony addresses ORA's suggestion that SDG&E's highest cost percentage increases due to RAMP risks do not match up with the risk scores assigned to the risk that the spend is intended to address; *i.e.*, that the risk score is not high enough to warrant a high percentage increase spend.[953]

SDG&E's risk management rebuttal testimony of Diana Day, Greg Flores, and Jamie York explains why funding decisions based on RAMP risk scoring is not appropriate, including the fact that many of SDG&E's risk mitigating activities, programs and projects may mitigate several different types of risks.[954] Mitigation efforts of different risks are not mutually exclusive, for example electric infrastructure integrity and wildfire risks are interrelated, and several mitigations that address infrastructure integrity would also help manage the wildfire risk. Vegetation management is such an effort. And the fact that a high level of reliability has been maintained in the past due to prudent vegetation management activities does not mean that activities could therefore cease, or be arbitrarily reduced, while maintaining the status quo. Moreover, as noted above, both the electric infrastructure integrity and wildfire RAMP risk-

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[952] *Id.* at Chapter SDG&E-12, Electric Infrastructure Integrity at 11.

[953] *See* Ex. 76 SDG&E/Colton at 50-52 (addressing Ex. 401 ORA/Roberts at 8-10).

[954] *Id.* at 52 (discussing Ex. 4 SCG/SDG&E/Day/Flores/York at 12-14).

related activities address SDG&E's key safety risks – *i.e.*, risks scoring four (major) and above – as detailed in SDG&E's RAMP Report.

ORA witness Neil Stannik agrees that "it is not appropriate to compare risk scores, expected results of mitigations, and funding of those mitigations between risks."[955] Rather, Mr. Stannik agrees that the information produced by RAMP and integrated into SDG&E's direct testimony presentation should be used "to inform funding decisions, but not to dictate these decisions or bypass the traditional review process in the GRC," as Ms. Day, Mr. Flores, and Ms. York discuss.[956]

TURN – In its OB, TURN restates its recommendation that SDG&E's planned 4kV modernization, Budget Code 6260, should proceed at a slower pace.[957] SDG&E has countered TURN's arguments in rebuttal.[958] SDG&E disagrees and believes this would be unwise, for the reasons that follow:[959]

- The 4kV Modernization program is based primarily on replacing obsolete and aging infrastructure of SDG&E's 4kV electric assets, not the capacity needs of customers.
- 4kV infrastructure is considered an antiquated technology industry wide and represents a far older portfolio of SDG&E assets when compared to 12kV assets. With the equipment being both end of life and considered an old technology, there are far fewer opportunities to replace the equipment in kind due to the availability of spare parts and vendors willing to craft what is now considered "one off" designs.
- TURN assumes that because training has become difficult on 4kV equipment that SDG&E is not training our workers to maintain the equipment.[960] This is an incorrect assumption. SDG&E does train its workforce to maintain the 4kV equipment. However, the one-off designs of packaged substations, tools, and parts to maintain the equipment is becoming far more scarce which makes the maintenance and training far more expensive and inefficient.
- SDG&E acknowledges it will take up to three decades to complete this work,[961] but also asserts it will start this work as soon as possible in order to one day rid its system of this antiquated technology.

CUE – CUE proposes expenditure increases above SDG&E's proposals for the following budgets: Budget Code 230 for Unjacketed Cable Replacement (increase by $48.699 million); Budget Code 11249 for SCADA Conversions (increase by $5.295 million); and Budget Code

[955] Ex. 398 ORA/Stannik at 12.
[956] Ex. 4 SCG/SDG&E/Day/Flores/York at 6-8 (quoting and discussing Ex. 398 ORA/Stannik at 15).
[957] TURN OB at 76-79.
[958] SDG&E OB at 213
[959] Ex. 74 SDG&E/Colton at 84:27 – 85:14, Ex.76 SDG&E/Colton at 54:9-11.
[960] TURN OB at 79.
[961] *Id*. at 79.

6260 for 4kV Substation Elimination (increase by $4.095 million).[962] CUE bases these proposed expenditure increases supporting the change-out of aging infrastructure and installation of newer technology on SDG&E's system at a faster pace than what is proposed by SDG&E in support of the continued reliability of the electric system. SDG&E acknowledges there may be value in accelerating the replacement of various aging infrastructure items or installation of newer technologies for this category as recommended by CUE, and SDG&E continues to support its proposed funding as an appropriate balance of process and resource constraints, while meeting reasonable infrastructure replacement rates.

FEA – FEA adopted ORA's position, and for the same reasons stated above, SDG&E supports its original recommendations.

22.1.10 Safety and Risk Management

SDG&E's forecasted capital investments requested in this category address the mitigation of safety and physical system security risks, including those identified in SDG&E's RAMP Report, such as the risk of wildfire.[963] Mr. Colton's direct testimony describes the portfolio of eleven Safety and Risk Management budgets.[964] The rebuttal summary party positions are shown in Table 22.1.M below:[965]

Table 22.1.M – Safety and Risk Management - Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	$83,747	$113,497	$184,333	**$381,577**	**-**
ORA	$69,634	$97,619	$157,883	**$325,136**	**-$56,441**
TURN	$83,747	$92,097	$124,287	**$300,131**	**-$81,446**
CUE	$83,747	$113,497	$211,917	**$409,161**	**$27,584**
FEA	$69,634	$97,619	$157,883	**$325,136**	**-$56,441**

ORA – ORA proposes to adopt recorded data for 2017, and make adjustments in 2018 and 2019 to the eight RAMP-driven projects in the Safety and Risk Management category, using ORA witness Mr. Wilson's RAMP methodology discussed *supra* in section 22.1.1. ORA did not adjust the three non-RAMP projects for 2018 and 2019.

While SDG&E agrees with ORA's determination to not adjust SDG&E's requested funding to the three non-RAMP driven capital projects, it does not make sense for ORA to

962 Ex. 370 CUE/Marcus at 60-64, 68-70, 71-73, 84, n.586.
963 Ex. 74 SDG&E/Colton at 110.
964 *Id.* at 110, Table AFC-12.
965 Ex. 76 SDG&E/Colton at 55.

support wholesale cuts to funding for a project simply because it addresses a RAMP risk. Mr. Colton has testified that the projects are justified by safety and risk management drivers that are established outside of RAMP.[966] Association with RAMP should not predispose a more critical recommendation that reduces funding, as Ms. Day, Mr. Flores, and Ms. York testified: "[I]t is not reasonable to reduce funding for RAMP projects merely because those projects have been identified as RAMP-related, or to otherwise ignore or mischaracterize RAMP-related testimony and information..."[967] The use of ORA's historical trend methodology is also flawed, as discussed *supra* in section 22.1.1, and should therefore be rejected for these budgets.[968]

Certain projects within this category were discussed in greater detail by the parties, as discussed below:

PRiME **–** ORA took issue with the capital forecast for the PRiME program, stating "SDG&E has not thoroughly explained how it intends to scale-up its resources to meet its ambitious expenditure forecasts in 2018 and 2019,"[969] in making an argument very similar to its position regarding the FiRM project in SDG&E's TY2016 GRC.[970]

SDG&E described the rationale behind the initial pilot phase of the PRiME program in its original testimony, excerpted below:

> The initial subset of poles will be made up of approximately 1,600 poles as a pilot phase spread across SDG&E's service territory. Appropriate conclusions can be drawn geographically to determine the differences in expected outcomes and population sizes that vary across SDG&E's service territory.[971]

And:

> PRiME is a nine-year program designed to address risks related to pole loading, specifically focused on wood poles. SDG&E will focus on the areas of highest risk first. During initial implementation years, SDG&E will aggressively analyze the poles based on a risk model where wood poles will be replaced and designed for known local wind conditions, and for all known attachments.[972]

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966 Ex. 74 SDG&E/Colton at 110-126; Ex. 76 SDG&E/Colton at 55.
967 Ex. 4 SCG/SDG&E/Day/Flores/York at 9-10.
968 *See also* Ex. 76 SDG&E/Colton at 21-22, 55.
969 Ex. 402 ORA/Wilson at 14.
970 Ex. 76 SDG&E/Colton at 56 (citing Ex. 401 ORA/Roberts at 34-37 and Application (A.) 14-11-003/-004 (cons.), ORA Report on Results of Operations for San Diego Gas & Electric Company and Southern California Gas Company Test Year 2016 General Rate Case, SDG&E – Electric Distribution Capital Expenditures, Part 1 of 2 (Greg Wilson), dated April 24, 2015).
971 Ex. 74 SDG&E/Colton at 125.
972 *Id.* at 126.

The PRiME program generated a significant amount of discovery. In response to ORA-SDGE-089-GAW question 5, part c, SDG&E re-iterated the rationale behind the scale-up approach:[973]

> The pilot phase of 1600 poles will allow SDG&E to achieve a higher confidence level to verify pole failure rates to further assist in project forecasting. SDG&E will ramp from 1600 poles in 2018 to 22,600 poles in 2019 in order to ensure SDG&E can complete pole analysis within SDG&E's Fire Threat Zone/Highest Risk Fire Areas by 2021.

SDG&E plans to conservatively develop a pilot program in 2018 to ensure that the overall program's approach and methodology is appropriate, then aggressively analyze and replace poles in high-risk areas of SDG&E's territory.

***Twin Engine Helicopter* –** ORA recommends that no additional funding beyond what was spent in 2017 be allowed for Budget Code 17242 – Twin Engine Helicopter. It was anticipated that the entire purchase would occur in 2017; however, due to fabrication constraints, final payment for the helicopter was delayed until 2018 (but has now occurred, an example of delays that can occur to various projects).[974] ORA did not take issue with the purchase of the twin engine helicopter itself, but only appears to dispute the timing of the purchase. ORA has presented no reason why this budget should not be fully funded, as proposed in direct testimony.[975]

TURN

***PRiME* –** TURN generally supports the scope of work for the PRiME program as a reasonable effort to mitigate risk posed by overloaded poles, however recommends adjustments to the cost forecast under a perception that PRiME overlaps other programs such as FiRM. TURN also recommends reductions to SDG&E's estimated pole replacement costs and replacement rates.[976]

TURN's assumption that PRiME overlaps other pole replacement efforts (FiRM and Budget Code 87232 – Pole Replacements) results in its recommended reduction of PRiME by approximately 12%. But, in designing the PRiME program, SDG&E incorporated a factor which would accommodate anticipated overlaps from other programs. The pole count estimated for the

[973] Ex. 76 SDG&E/Colton at 56-57 (citing discovery response ORA-SDG&E 089 Q5, Appx. A at 42).
[974] *Id.* at 57.
[975] Ex. 74 SDG&E/Colton at 121-22.
[976] Ex. 76 SDG&E/Colton at 57-58 (citing Ex. 490 TURN/Borden at 28-37).

PRiME program is 170,000 poles[977] of a total inventory of approximately 200,000[978] poles, or 85% of the total population. That difference of 15% was made as a conservative estimate to account for any potential future overlap from other programs (including Budget Code 87232). This 15% reduction is already 3% more than TURN is proposing to reduce the program. TURN's proposal, using the PRiME's approximate total pole count of 200,000 poles, would increase the scope of the program by approximately 6,000 poles. TURN's proposal would result, in effect, in a double-reduction: SDG&E's original 15% and then by TURN's 12%. SDG&E therefore supports its request as proposed.

TURN also claims that SDG&E fails to provide a reasonable basis for the replacement rate and cost for the PRiME program and recommends pole replacement costs be reduced from $25,000 to $22,706 per pole and the replacement rate reduced from 7% to 2.2%, based on assumptions taken from SDG&E's CMP.[979] The CMP is not a pole replacement program as defined by TURN, but is a visual configuration and maintenance inspection program conducted under the criteria of CPUC General Order (G.O.) 165, which may incidentally result in the need to replace or reinforce some poles. The distinctions of these two programs are discussed in greater detail in Mr. Colton's rebuttal testimony[980] and at hearings.[981] As described in rebuttal[982] and introduced at hearings,[983] SDG&E had utilized a $25,000 per-pole cost estimate based on its FiRM program, based on similar construction activities.

The PRiME program is being established to utilize new, known local wind data conditions gathered from SDG&E's fleet of anemometers and new 3-D modeling software that goes beyond the capability of the visual inspections, allowing for analysis of the structure at all reasonably known potential wind and conductor loading conditions, including worst case conditions not visible during a CMP inspection. The CMP plan addresses compliance with all applicable general orders, while PRiME will go further to mitigate the risks of a structure failure

[977] *Id.* at 58 (citing Ex. 74 SDG&E/Colton at 125).
[978] *Id.* (citing Ex. 74 SDG&E/Colton at 123).
[979] *Id.* (citing Ex. TURN/Borden at 31-35).
[980] *Id.* at 58-59.
[981] Tr. V13:996:6 – 997:16 (Colton).
[982] Ex. 76 SDG&E/Colton at 60:15.
[983] Ex. 78 (TURN) at 4 (SDG&E's response to Data Request TURN-SEU-077 Q2).

by analyzing structural performance under more strenuous environmental and loading conditions.[984]

With respect to the estimated pole replacement rate adopted for SDG&E's initial PRiME program pilot study, a heading in TURN's testimony states "SDG&E Provides No Reasonable Basis for the Replacement Rate and Cost of Replacement for the PRiME Program,"[985] and "TURN learned through discovery that the PRiME program cost forecasts include both analysis and pole replacement/rearrangement assumptions, shown in Table 14 below."[986]

SDG&E elaborated in rebuttal that, due to scope and similarities between programs, SDG&E utilized some initial assumptions from SCE's 2012 pole loading study to create initial baselines for the PRiME program. As described in rebuttal[987] and reiterated at hearings,[988] this is the only similar program of which SDG&E is aware; thus it made sense for SDG&E to take note of SCE's non-conformance rates in establishing preliminary assumptions for the PRiME Program's starting point.[989] SDG&E further described its adoption of a "one in 10" estimate of poles that would need to be changed out after consideration of initial assumptions with SCE's information.[990] For the initial non-conformance assumption, SCE's 2012 study resulted in a 9.8% non-conformance rate which SDG&E used as a basis to determine a baseline non-conformance rate for the PRiME program.

SDG&E's initial pole replacement rate may actually be higher, because the initial assessment will be located within SDG&E's Fire Threat Zone and High Risk Fire Area (FTZ/HRFA).[991] SDG&E's Pole Loading Risk Model will begin by identifying SDG&E's highest risk poles within the FTZ/HRFA where higher elevations and wind speeds are prominent, which is expected to result in higher non-conformance rates. This is expected to be determined and validated during the proposed pilot study.

TURN's OB states that Mr. Colton revealed a 'mid-hearing epiphany,' revealing for the first time that the CMP poles were evaluated to ensure there is no overlap between the CMP

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984 Ex. 76 SDG&E/Colton at 59.
985 Ex. 490 TURN/Borden at 31.
986 Ex. 490 TURN/Borden at 31-32.
987 Ex. 76 SDG&E/Colton at 59-60.
988 Tr. V13:1005:27 – 1006:15 (Colton).
989 Ex. 78 (TURN) at 2 (SDG&E's response to Data Request TURN-SEU-077 Q1b).
990 Tr. V13:1006:6-15 (Colton).
991 Ex. 76 SDG&E/Colton at 60.

work and PRiME work.[992] This is misleading. Mr. Colton's responses to the line of earlier questioning around the various programs under which poles might be replaced justified additional clarification, which is what this opportunity provided. That line of questioning is taken from the transcript:

> Q. So where you said on your direct testimony that 170,000 of the wood distribution poles are not included in the scope of the other projects, is it reasonable to infer that 30,000 of the poles are covered by FiRM and CNF?
>
> A. And other similar projects; that's correct.
>
> Q. Could you give me a sense of what, say, the next most substantial similar project would be?
>
> A. I don't have the information off the top of my head.[993]
>
> Later under redirect examination:
>
> Q. You were asked about the first sentence of this paragraph that states, "SCG owns and maintains approximately 200,000 work distribution poles, 170,000 of which are currently not included in the scope of other projects; *e.g.*, FiRM and CNF." Do you see that?
>
> A. Yes.
>
> Q. You were asked about which other projects were included within the scope of the other projects referenced in this statement. Do you remember that?
>
> A. Yes.
>
> Q. Do you have additional information to add about the other projects?
>
> A. The other projects did include the CMP, conversions, reliability, capacity. There are several other characteristics. And those projects could occur anywhere within our service territory.[994]

Thus, this information was provided as clarification to the earlier statement by Mr. Colton that "I don't have the information off the top of my head," rather than a 'mid-testimony epiphany.'

SF6 Switch Replacement (Budget Code 14249) – TURN agrees that SDG&E should monitor SF6 switches and replace them if they are leaking, but does not support proactive replacement if a switch has remaining useful life and evidences no leaks. Since there are no

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[992] TURN OB at 86.
[993] Tr. V13:994:22 (Colton).
[994] *Id.* at 1045:17 (Colton).

historical costs for this effort from 2012 to 2015, TURN recommends that the actual recorded expenditures in 2017 be utilized as the approved expenditures in 2018 and 2019, a reduction of $10.985 million from SDG&E's forecast in each year.[995]

SDG&E does not agree with this recommendation, because regulatory requirements from CARB and EPA require increased tracking of SF6 switches, while proactive removal and replacement of SF6 switches throughout SDG&E's distribution system will reduce the likelihood of SF6 emissions from leaking switches, thus reducing emission rates of SF6 gases.[996]

SDG&E is also working with CARB to identify this industry constraint within CARB's regulation on this topic, to potentially modify the CARB requirement for specific situations outlined above (*i.e.*, emergency situations). This budget should be fully funded as proposed.

Electric Integrity RAMP (Budget Code 16252) – TURN does not support the expenditure request in this budget as inconsistent with the preliminary state of the projects, instead recommending a figure that is 50% of the requested amount: $7.429 million in 2018 and $26.203 million in 2019. TURN also recommends a one-way balancing account, subject to an overall cost cap, and each activity's spending and unit costs to be tracked separately to inform future budgeting decisions.[997]

SDG&E disagrees with TURN's recommendations, having provided an appropriate estimate of costs for the proposed work in work papers and discovery responses.[998] SDG&E does not support the use of a one-way balancing account for the Electric Integrity RAMP program as it reduces SDG&E's ability to reprioritize and adjust funds to meet customer needs within an overall cost cap, as also discussed in SDG&E's rebuttal risk management testimony.[999] Additionally, the rebuttal risk management testimony chapter notes that arbitrarily limiting RAMP-related spending in this fashion would set a poor public policy precedent that is inconsistent with the Commission's directive to place "an emphasis on programs and activities

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[995] Ex. 490 TURN/Borden at 24-26.
[996] Ex. 76 SDG&E/Colton at 61 (citing Ex. 74 SDG&E/Colton at 113).
[997] Ex. 490 TURN/Borden at 28.
[998] Ex. 76 SDG&E/Colton at 62.
[999] *See* Ex. 4 SCG/SDG&E/Day/Flores/York at 12 (discussing how balancing of RAMP costs would be incompatible with the Commission's decisions D.14-12-025 and D.16-08-018, including accountability reporting requirements).

that enhance the safety and reliability of the Applicants' natural gas and electric power infrastructure and operations."[1000]

CUE – CUE recommends cost increases in addition to SDG&E's requests to the following budgets for 2019: Budget Code 14248 for SF6 switches for an increase of $17.610 million; and Budget Code 17249 for 600 Amp Tee Connectors for an increase of $9.974 million. CUE also proposes a two-way balancing account for Budget Code 17254 for PRiME due to the potential uncertainty of costs as the program begins to scale up.[1001]

SDG&E acknowledges there may be value in accelerating the replacement of various aging infrastructure items as recommended by CUE, and SDG&E believes the proposed plan balances the process and resource constraints, while meeting infrastructure replacement rates appropriately.[1002] Additionally, SDG&E does not agree with CUE's recommendation of using a two-way balancing account as suggested for the PRiME project, as it reduces SDG&E's ability to reprioritize and adjust funds to meet customer needs, as also discussed in SDG&E's rebuttal risk management testimony.[1003]

FEA – FEA adopted ORA's position, and for the same reasons discussed above, SDG&E supports its original recommendations.

22.1.11 Transmission/FERC-Driven Projects

SDG&E proposed funding for distribution capital work associated with a portfolio of FERC transmission projects, such as 12kV circuits mounted on 69kV transmission lines, and the distribution components of transmission substations.[1004] While the transmission costs are recovered through the FERC ratemaking process, the distribution component of transmission projects is included in the overall request in this GRC. Risks to key transmission/FERC facilities have been identified as part of the previously discussed RAMP Report. The CPUC jurisdictional costs of those risk-mitigation projects were translated from the RAMP Report into the Transmission/FERC-driven capital budgets. The positions of the parties on this category of funding are shown in Table 22.1.N below:

[1000] *Id.* at 8-10; D.16-06-054 at 37.
[1001] Ex. 370 CUE/Marcus at 60-85.
[1002] Ex. 76 SDG&E/Colton at 62.
[1003] Ex. 4 SCG/SDG&E/Day/Flores/York at 12.
[1004] Ex. 74 SDG&E/Colton at 138-154.

Table 22.1.N – Table Transmission/FERC Driven Projects - Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	$32,183	$57,576	$50,118	**$139,877**	**-**
ORA	$21,641	$50,694	$41,552	**$113,887**	**-$25,990**
TURN	$32,183	$57,576	$50,118	**$139,877**	**$0**
CUE	$32,183	$57,576	$50,118	**$139,877**	**$0**
FEA	$21,641	$50,694	$41,552	**$113,887**	**-$25,990**

ORA – ORA states that it "carefully reviewed various aspects of the RAMP-driven program, and developed a methodology to allocate an overall reduction among the various projects"[1005], these projects including six within the Transmission/FERC Driven category. ORA and SDG&E continue to disagree on the subject of recommended reductions to the six RAMP-related projects in this category. ORA has maintained that is has not recommended reductions based on their RAMP association,[1006] and SDG&E, reviewing the final recommended values, concludes that it has.[1007]

SDG&E reiterates in its reply the circumstances that lead to this apparent conclusion:[1008] ORA utilized recorded actual data for 2017, and made adjustments in 2018 and 2019 to the six RAMP-driven projects (Cleveland National Forest Powerline Replacements (8165), TL649 (9137), TL691 (10144), TL695/6971 (10146), TL697 (10147), and TL6912 (10149)) based on an historical RAMP trend methodology stemming from ORA's analysis of the 15 RAMP-driven projects.[1009] None of the non-RAMP-driven capital projects were adjusted by ORA. As with the previously-discussed Safety and Risk Management category of capital projects (section 22.1.10), SDG&E takes issue with ORA's treatment of those projects that are identified as supporting RAMP. ORA's focus on those projects appears to be based again on the premise that they are solely justified by RAMP. Association with RAMP should not result in a less favorable recommendation that reduces funding, as discussed in the Companies' risk management rebuttal testimony.[1010]

These projects are justified by other purposes and needs as determined through the CPUC G.O. 131d approval process and other Federal approval processes to meet the Transmission/FERC-

1005 ORA OB at 191.
1006 *Id*. at 194.
1007 SDG&E OB at 221.
1008 *Id*. at 221-222.
1009 Ex. 402 ORA/Wilson at 44-47.
1010 Ex. 76 SDG&E/Colton at 64 (citing Ex. 4 SCG/SDG&E/Day/Flores/York at 8-10).

Driven needs for the projects. In most cases, these projects have either already been approved or are undergoing the process of being approved by the CPUC through an Advice Letter or a Permit to Construct filing. Once the CPUC approves a transmission project, the associated distribution work required to be constructed needs to be fully funded through the GRC process. It would be inconsistent and problematic to approve the transmission component of the project and to not approve, or to reduce the funding for the companion distribution component.[1011]

FEA – FEA adopted ORA's position, and for the same reasons stated above, SDG&E supports its original recommendations.

22.1.12 IT-Sponsored Projects

SDG&E proposed a portfolio of IT-related projects in its ED Capital testimony.[1012] These projects are those driven by a business need within Electric Distribution and described within the ED Capital testimony, with the cost justification being discussed within the testimony and workpapers of Mr. Chris Olmsted.[1013]

Table 22.1.O – IT-Sponsored Projects - Constant 2016 ($000)[1014]					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	$36,811	$38,134	$33,071	**$108,016**	**-**
ORA	$23,578	$11,513	$11,513	**$46,604**	**-$61,412**
TURN	$36,811	$38,134	$33,071	**$108,016**	**$0**
CUE	$36,811	$38,134	$33,071	**$108,016**	**$0**
FEA	$23,578	$11,513	$11,513	**$46,604**	**-$61,412**

ORA – ORA takes issue with recorded data provided within SDG&E's response to data request "ORA-SDGE-159-MRL-IT,"[1015] specifically for "Electric GIS 2017 Enhancements". ORA states that the adjustment captured within the data request response for "Electric GIS 2017 Enhancements" was "unsupported and appeared unreasonable," and therefore was removed.[1016]

As discussed in detailed rebuttal regarding ORA's methodology[1017] and *supra* in section 22.1.1, SDG&E does not agree with ORA's use of reduced historical averages to predict

1011 Ex. 74 SDG&E/Colton at 138; Ex. 76 SDG&E/Colton at 65.
1012 Ex. 74 at 155-64; Ex. 76 SDG&E/Colton at 65.
1013 *See* Exs. 304-306 SDG&E/Olmsted.
1014 IT Project costs are addressed in section 28 *infra*, and Exs. 303 and 304 SDG&E/Olmsted. IT Projects sponsored by DER Policy is addressed in section 22.2 *infra* and Ex. 93 SDG&E/Reguly.
1015 Ex. 76 SDG&E/Colton at 65 and Appendix A at 61-62 (citing SDG&E's response to Data Request ORA-SDG&E 159-MRL-IT Q2).
1016 Ex. 401 ORA/Roberts at 82.
1017 Ex. 76 SDG&E/Colton at 20-29.

necessary funding for these projects. The initial requested funding for the projects submitted in this GRC in the IT-ED capital section was lower than the 2017 recorded actual costs. The increase in funding for this project was a result of accelerating the start date of the project from 2018 to 2017, based on a re-evaluation of priorities for business needs and scope enhancements, which occurred after finalizing testimony forecasts. As discussed in SDG&E's rebuttal regarding ORA's methodology,[1018] removal of the recorded value from the historical average is not justified.

FEA – FEA adopted ORA's position, and for the same reasons described above, SDG&E supports its original recommendations.

22.1.13 Conclusion

SDG&E's TY 2019 direct testimony showing offers the first-ever risk informed GRC presentation, in a manner the Commission has approved as being useful and informative in the context of this GRC proceeding.[1019] In the first RAMP phase of the GRC, the Companies filed a RAMP Report comprising over 900 pages of written descriptions and analyses of the Companies' key risks, and their baseline and proposed risk mitigation activities.[1020] The recent decision closing the Companies' RAMP proceedings noted the Commission's Safety and Enforcement Division (SED) observation that "the risks identified in the RAMP Report offer a complete description of risk scenarios and proposed mitigation measures and provides a reasonable basis for understanding the intent of the mitigations and how they might be able to reduce the impact or frequency of [RAMP risk-related] incidents."[1021] The decision further noted that "the risk rankings and proposed mitigations provide more data, information, and analysis regarding SDG&E's and SoCalGas' methodologies in assessing risks and how to mitigate those risks."[1022]

As SDG&E's risk management rebuttal testimony states:

> The "purpose of RAMP is 'to examine the utility's assessment of its ***key*** risks and its proposed programs for mitigating those risks.'" Thus, identifying a project or program as RAMP-related is a useful indicator that the project or program is intended to mitigate one of the Companies' key safety risks, and should be viewed in that light. The "RAMP" designation in the GRC alerts parties that more

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[1018] *Id.*
[1019] Ex. 4 SCG/SDG&E/Day/Flores/York at 7.
[1020] *Id.* at 8 (citing I.16-10-015/-016 (cons.)).
[1021] *Id.* at 9 (citing D.18-04-016 at 8).
[1022] *Id.* (citing D.18-04-016 at 9).

> information is also available in the RAMP Report, including information about risk mitigation activities that are ongoing (and may have been ongoing for some time), as well as risk mitigation activities that are newly proposed in this proceeding. Finally, the RAMP designation also alerts parties to the fact that *the Companies will be held accountable for risk spending and effectiveness through accountability reporting.*[1023]

Thus, while RAMP-related information in SDG&E's direct ED Capital testimony presentation *does not* provide sole justification for RAMP projects, it *does* provide more information to parties and the Commission than in any prior GRC about the key safety risks that each RAMP project is meant to address.

The principal parties that submitted proposals for SDG&E's ED Capital were ORA, TURN, CUE and FEA. ORA recommended adjustments to each budget category based on various forecasting methods, including historical averages, historic trends or an imputed RAMP trend, and generally ignoring zero-based forecasts. This is not appropriate, given that three-quarters of ED Capital budgets are not ongoing year after year with comparable historic costs (*e.g.*, cable replacements), but are associated with specific projects with set durations and in-service dates. The use of an historical average or trend does not account for the inherent variabilities of projects that are not ongoing. Additionally, ORA recommends adoption of reduced 2017 recorded capital expenditures, rather than the 2017 forecast. This casts a narrow year-to-year cost view of activities that were forecast over the span of three years, and ignores the broader spectrum of various projects' total costs and activities that were reasonably forecasted and whose schedules and/or scopes may have had to be adjusted to meet a variety of requirements. Capital projects not completed in a given year do not simply vanish, but very often add to the needed capital work forecasted for the following year. The capital forecasting for the GRC is performed for the multi-year period and should not be viewed simply as year-by-year increments.

For all of the reasons discussed above and throughout SDG&E's testimony presentation, SDG&E's ED Capital forecasts should be approved, as summarized in Table 22.1.P below.

Table 22.1.P – Total Capital - Constant 2016 ($000)			
	2017	**2018**	**2019**
Capital	$445,116	$588,317	$700,757

1023 Ex. 4 SCG/SDG&E/Day/Flores/York at 6-8.

22.2 Distributed Energy Resources (DER) Policy and Capital Projects

The ORA opening brief departs from the common briefing outline, devoting significant page count in its Section 22.2 to addressing a range of topics having nothing to do with DER policy and capital projects. The portions of ORA's Section 22.2 addressing the DER capital projects proposed in SDG&E's testimony[1024] (basically, subsections 22.2.4-5) generally attempt to create the appearance of deficiencies or inconsistencies in SDG&E's evidentiary showing as a pretext for dramatic reductions, or even completely zeroing out, SDG&E's proposed budgets. A favorite tactic of ORA, for example, is to assert that there is a lack of evidence in support of some factual proposition it wishes to dispute, apparently ignoring the fact that SDG&E provided written and oral testimony on the very points in dispute, with a witness made available for cross examination.[1025] ORA also repeatedly rationalizes slashing the capital project budgets proposed by SDG&E in this GRC on the ground that they fund engineering and other development activities as opposed to facility construction.[1026] ORA should understand that shortchanging project development work during this rate case cycle will in no way give ratepayers more value or lead to the deployment of better, more useful assets in the field.

The purpose of this section is to respond to the ORA claims that were properly within Section 22.2 of its opening brief, consistent with the common briefing outline. In the interest of brevity, SDG&E notes that it has not attempted to "unpack" every misleading statement by ORA relating to these proposed budgets, of which there are many. SDG&E's silence as to any particular statement is not, and should not be construed as, agreement thereto.

22.2.1 Borrego Springs Microgrid Projects

Borrego Springs is a remote desert community served by a single radial transmission line. Relative to other, less remote areas of SDG&E's service area, Borrego Springs is subject to heightened risk of outages due to extreme weather and other causes.[1027] Borrego Springs has been a real-life testing ground to determine whether a microgrid can be an effective solution to mitigating outage impacts. Through the Borrego Springs microgrid, SDG&E has answered that

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[1024] Ex. 93 SDG&E/Reguly; Ex. 74 SDG&E/Colton/Reguly (adopted by Reguly) at 127-137.

[1025] *See*, *e.g.*, ORA OB at 239 (asserting that "SDG&E has provided no evidence to support any of these claims" despite the preceding two sentences in fact quoting SDG&E testimony in this proceeding) (citing Ex. 93 SDG&E/Reguly at 14).

[1026] *See*, *e.g.*, ORA OB at 242 (citing Ex. 74 SDG&E/Colton/Reguly at 133).

[1027] Ex. 74 SDG&E/Colton/Reguly at 131.

question in the affirmative. Because the microgrid is now a deployed asset used to serve SDG&E customers, SDG&E believes it is appropriate and necessary to enhance the already-robust capabilities of the microgrid. Accordingly, in this GRC, SDG&E proposed budgets for two distinct capital projects to enhance the capabilities of the microgrid for the benefit of SDG&E's customers.

The forecasts for budget code 14243, the Borrego Springs Microgrid Enhancements, for 2017, 2018, and 2019 are $1,769, $515, and $0, respectively, in thousands of 2016 dollars.[1028] The forecasts for budget code 17246, the Borrego Microgrid 3.0, for 2017, 2018, and 2019 are $209, $5,230 and $0, respectively, in thousands of 2016 dollars.[1029] ORA's proposed changes to these funding levels are shown in the rebuttal testimony of SDG&E witness Mr. Reguly and also in SDG&E's opening brief.[1030] The ORA opening brief lumps these two Borrego microgrid-related projects for purposes of responding to the points in SDG&E's rebuttal testimony.[1031]

For reasons that are not entirely clear to SDG&E, ORA's opening brief repeatedly makes critical misrepresentations regarding SDG&E's use of the Borrego microgrid in a demonstration project in the Distributed Resources Plan proceedings. Given ORA's repetition on these points, the apparent purpose is to induce decisionmakers to draw inferences from such misrepresentations that would be adverse to SDG&E's position either on Borrego issues or on other issues on which ORA leverages its Borrego discussion. ORA's central, recurring factual misrepresentation relates to the fact that the Borrego Springs microgrid includes diesel generation and, to a lesser extent, also failing to acknowledge the energy storage components to the microgrid.[1032] As discussed below, ORA also misstates the applicable legal requirements governing the conduct of the demonstration project.

By way of background, on August 14, 2014, the Commission issued its Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution

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[1028] Ex. 93 SDG&E/Reguly at 3. *See also* Ex. 75 SDG&E/Colton at section 14243 – Borrego Springs Microgrid Enhancements.

[1029] Ex. 93 SDG&E/Reguly at 3. *See also* Ex. 75 SDG&E/Colton at section 17246 – Borrego Microgrid 3.0.

[1030] Ex. 93 SDG&E/Reguly at 3; SCG/SDG&E OB at 227.

[1031] *See generally* ORA OB at 236-242.

[1032] ORA OB at 237-238 (referencing as assumption that the Borrego Springs microgrid would be "renewably powered"); *id*. at 238 (referring to "convert[ing]" the microgrid from diesel to solar power); *id*. at 238-239 (representing that "it was understood that Demo E would test a renewably fueled microgrid, even though the Borrego microgrid includes diesel generators.").

Resources Plans Pursuant to Public Utilities Code Section 769 in Rulemaking ("R.") 14-08-013. The initial purpose of the R.14-08-013 proceeding, which is still ongoing, was to establish policies, procedures, and rules to guide California investor owned electric utilities in developing distribution resources plans ("DRP") proposals to be filed by July 1, 2015, as required by Assembly Bill ("AB") 327, subsequently enacted, in part, as Public Utilities Code §769. The Assigned Commissioner's Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resource Planning, issued in R.14-08-013 on February 6, 2015 (the "DRP ACR"), includes a document (the "Guidance Attachment") setting forth guidance for content and structure of SDG&E's and the other California electric utilities' DRP submissions required by the then-new Public Utilities Code §769. The DRP ACR states (at p. 2) that the DRPs "should be consistent with each other in structure and content so they may be more easily compared and analyzed." Among the matters required to be included in each DRP were a variety of demonstration project proposals.

The demonstration project that is relevant for our purposes was summarized in a paragraph located on page 7 of the Guidance Attachment, section 2.E, under the heading "Demonstrate DER Dispatch to Meet Reliability Needs."[1033] The resulting demonstration project is known variously as Demonstration Project E, or Demo E for short.

ORA quotes a portion of this paragraph in its opening brief at page 238, but without citing the source. To provide fuller context for consideration of ORA's characterizations regarding Demo E, the complete text of the Guidance Attachment, section 2.E, is included below:

> Develop a specification for a demonstration project where the Utility would serve as a distribution system operator of a microgrid where DERs (both third party- and Utility-owned) serve ***a significant portion of customer load*** and reliability services. This project shall also explicitly seek to demonstrate the operations of multiple DERs as managed by a dedicated control system, and as part of this component of the project shall explain how DER portfolios were constructed, as well as how they are being dispatched or otherwise managed. This demonstration shall define necessary operational functionalities. This demonstration shall employ some quantity of third party DERs, and may include Utility-owned DERs. This demonstration project shall be scoped to commence no later than 1 year after Commission approval of the DRP. (emphasis added)

[1033] The DRP ACR and its Guidance Attachment can be found on the Commission's website at the following address: http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M146/K374/146374514.PDF.

ORA alleges based on its selective quotation of the foregoing language, that "it was understood that Demo E would test a renewably fueled microgrid, even though the Borrego microgrid includes diesel generators."[1034] In couching its arguments, ORA repeatedly refers to the supposed failure of the Borrego microgrid to comply with this "requirement" due to the diesel generators included in the microgrid resource mix.[1035]

As an initial matter, to the extent ORA is alleging that SDG&E's Demonstration Project E was not designed to satisfy the requirements set forth in the DRP ACR or its Guidance Attachment, the proper forum for raising that allegation is in R.14-08-013, *et al*, not in this general rate case. While ORA characterizes the existence of Borrego diesel generation as some sort of surprise, the facts bely that characterization. Therefore, any claim by ORA about supposed infirmities with SDG&E's Demonstration Project E must be reconciled with the fact that not only did the Commission *approve* the project, but it did so with the knowledge that the Borrego microgrid includes diesel generators.[1036]

Going well and truly through the looking glass, ORA appears to be suggesting a theory that SDG&E somehow hoodwinked the Commission into an *ultra vires* act of approving a non-compliant Demo E proposal. ORA's theory relies on Pub. Util. Code § 769(a) for the proposition that "DERs include only renewable generation sources[.]"[1037] If this is where ORA is going, such a theory is problematic in multiple respects.

For one thing, Pub. Util. Code § 769 does not mandate that utility Distribution Resource Plans contain *any* proposed demonstration projects, let alone mandate that any such proposed demonstrations rely exclusively on particular resource types. Rather, the statute established certain required elements of utility "plan proposal[s] to identify optimal locations for the deployment of distributed resources"[1038] but otherwise afforded the Commission with considerable leeway concerning implementation of the filing requirement. The requirements for

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[1034] ORA OB at 238-239.
[1035] *Id*. at 237-238.
[1036] *See* "Overview of SDG&E's Proposed DRP Project E" at 4, presentation by Neal Bartek, Distributed Energy Resources Manager, San Diego Gas & Electric Company, before the Commission's Demonstration Projects C, D and E Workshop, June 28, 2016 (identifying two diesel 1.8 MW generators as among the utility-owed assets Borrego Springs). This presentation is located at the following address: http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=11859.
[1037] ORA OB at 238.
[1038] Pub. Util. Code § 769(b).

the demonstration projects, including Demo E, were not statutory but rather came from the DRP ACR and its Guidance Attachment, as noted above.

Second, the plain language of the very Guidance Attachment quoted without citation by ORA belies ORA's contention that the microgrid demonstration needed to run exclusively using DERs, which in turn would "include only renewable generation sources[.]"[1039] In fact, as highlighted above, all that the Guidance Attachment required in this respect is that DERs in a Demo E microgrid serve a "significant portion of customer load[.]" A "significant portion" obviously is not the same as all of it.

Then there is the inconvenient fact that the very code section on which ORA relies never actually uses the term ORA claims it does. In fact, the statute uses the term "distributed resources," not ORA's term "Distributed Energy Resources" or ORA's abbreviation of it, "DERs."[1040] The term actually used in the code section cited often by ORA, "distributed resources," is defined to mean "distributed renewable generation resources, energy efficiency, energy storage, electric vehicles, and demand response technologies."[1041] Thus, the statutory term "distributed resources" is significantly broader than the alternative term ORA would substitute in its place, because the term "distributed resources" includes a variety of resource types beyond merely distributed renewable generation resources. One of these is energy storage, which is a resource type that figures prominently in the Borrego microgrid and various of SDG&E's DER capital proposals in this proceeding.[1042]

Notably, the Commission itself has used the term "distributed energy resources," without capitalizing each word as ORA has done, and the Commission's term is not defined the same way as ORA's alternative term is defined. Rather, "distributed energy resources," according to the Commission's definition, are "distribution-connected distributed generation resources, energy efficiency, energy storage, electric vehicles, and demand response technologies[.]"[1043]

[1039] ORA OB at 238.
[1040] *Id*. at 233 (citing Pub. Util. Code § 769 as source of definition for the term "Distributed Energy Resources," despite such term not being defined in that code section).
[1041] Pub. Util. Code § 769(a).
[1042] SCG/SDG&E OB at 228-232 (discussing Advanced Energy Storage proposal); *id*. at 233-235 (discussing Microgrid for Energy Resilience proposal); *id*. at 237-238 (discussing Borrego Microgrid 3.0).
[1043] *See* California's Distributed Energy Resources Action Plan: Aligning Vision and Action (May 3, 2017) (defining the term "distributed energy resources" ("DER") "as distribution-connected distributed generation resources, energy efficiency, energy storage, electric vehicles, and demand response

The key difference to highlight between ORA's definition and the Commission's is that the latter is expressly limited to resources that are "distribution-connected" while ORA's definition has no such limitation.

The distinction is significant. By limiting the term "distributed energy resources" to distribution-connected resources, the CPUC's definition would exclude transmission-connected resources such as the NRG 26 MW solar array interconnected to the Borrego substation. In other words, the NRG resource, while certainly *renewable* generation, is not a "distributed energy resource" as the Commission defines that term. Nevertheless, the integration of this resource with the Borrego Springs microgrid was expressly within scope of SDG&E's Demonstration Project E, which the Commission approved.[1044]

The fact that the Commission approved SDG&E's proposal simply cannot be because the Commission failed to understand that it included a transmission-connected resource. The Commission must have known this fact. And if that is true with respect to the NRG resource, which it must be, it must also be true with respect to the microgrid's diesel generators. Thus, contrary to ORA's claims, the Commission expressly understood that the Borrego Springs microgrid used in Demo E would not be solely supplied by distributed renewable generation, but rather would include a diverse set of tools to serve the load when islanded—including resources that are not "distributed energy resources" as the Commission has defined that term. ORA's arguments here therefore amount to an improper collateral attack on rulings in R.14-08-013, *et al.*, and must be rejected.

Moreover, the fact that the Guidance Attachment summarized above only required microgrid-based DERs to serve a "significant portion" of the islanded load, not all of it, makes clear that the Commission's policy judgment was far more pragmatic and flexible than ORA now suggests. The Commission's pragmatism in establishing the requirements of Demonstration Project E and in approving SDG&E's proposal to use the Borrego microgrid for that purpose stands in sharp contrast to ORA's doctrinaire and counter-factual approach here. ORA's core rationale for sharply reducing the proposed budget for the Borrego Microgrid 3.0 work, budget code 17246, amounts to a question: because the microgrid configuration used in Demo E, ORA

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technologies[.]"), *available at*: http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/About_Us/Organization/Commissioners/Michael_J._Picker/DER%20Action%20Plan%20(5-3-17)%20CLEAN.pdf.

[1044] Ex. 95 (ORA), ORA Cross Examination – Exhibits Related to DER, at 55b.

alleges, *should* have been sourced with 100% renewable DERs, why should ratepayers pay more to accomplish the same thing? But the question misses the mark because it proceeds from a false premise, as discussed above.

Finally, SDG&E notes that ORA nitpicks out of context statements by SDG&E from written or oral testimony, apparently to create the appearance of inconsistencies in the evidentiary record. To cite just one example, consider SDG&E's statement that the Borrego microgrid is a deployed asset and, as such, it is appropriate to utilize GRC funds as opposed to research and development funds. ORA latches onto Mr. Reguly's hearing testimony that there are "aspects at Borrego that are still RD&D" as an inconsistency.[1045] But in context, Mr. Reguly's hearing testimony is clear and is consistent with his written rebuttal testimony: while the microgrid is being relied upon to serve customers, the work of enhancing its functionality continues.[1046] Some of that work, such as integrating the NRG solar resource into the microgrid and testing performance, can fairly be considered RD&D. Other work is the sort of engineering and capital improvement that utilities make to deployed assets all the time.

SDG&E maintains—and the evidence establishes—that the work under budget codes 14243, Borrego Springs Microgrid Enhancements, and 17246, Borrego Microgrid 3.0, are properly considered utility capital expenditures, the proposed budgets for which are reasonable and should be approved.[1047]

22.2.2 Advanced Energy Storage

SDG&E forecasts funding needs for budget code 11247, Advanced Energy Storage ("AES"), for 2017, 2018, and 2019 are $0, $5,154, and $10,000, respectively, in thousands of 2016 dollars.[1048] The AES program will provide value to ratepayers through the strategic deployment of energy storage devices on distribution circuits with an abundance of solar photovoltaic ("PV") penetration. Energy storage devices (a resource type that is expressly included within the definition of "distributed resources" in Pub. Util. Code § 769(a)) will be able to leverage excess renewable energy to charge during the day when the circuit is experiencing

[1045] ORA OB at 236-237.
[1046] Tr. V14:1111:2-17 (Reguly).
[1047] *See generally* Ex. 93 SDG&E/Reguly at 8-10 and 13-16 (rebuttal testimony concerning the Borrego Springs Microgrid Enhancements and Borrego Microgrid 3.0 projects).
[1048] Ex. 93 SDG&E/Reguly at 3. *See also* Ex. 75 SDG&E/Colton at section 11247 – Advanced Energy Storage.

lighter load levels, and discharge during times of higher loading. The AES program will allow for the increase of generation interconnection capacity, thus enabling more distributed resources to interconnect without reaching system limitations by mitigating power backflow from distributed generators.[1049]

Notwithstanding these program benefits, ORA would reduce SDG&E's requested funding by more than 65% in 2018 and 2019.[1050] ORA's opening brief consists of little more than a rehash of its testimony position, which SDG&E addressed thoroughly in its initial brief.[1051] ORA's sole new point in its opening brief is a contention that the AES program—contrary to claims in SDG&E's testimony—does not involve the installation of hardware.[1052]

ORA's support for this contention is a statement by SDG&E witness Mr. Reguly during the hearing about a *different* project—Borrego Microgrid 3.0—and a footnote purporting to derive unit costs.[1053] While ORA presents the cited excerpt of hearing testimony on another project as somehow revelatory as to this project, the facts bely such reliance. The purpose and benefits of the AES program are summarized in SDG&E's initial brief and will not be repeated here, except to reiterate that this is intended to be an *ongoing* program to achieve the stated objectives.

As ORA should well know, substantial engineering work is needed to design electric utility infrastructure. The timing of equipment installation depends in large part on the engineering work, business planning, and other work that precedes it. It is, therefore, entirely unremarkable that the development of a utility infrastructure project could continue beyond the current rate case cycle. ORA's reliance on supposed inconsistencies between, on the one hand,

[1049] Mr. Reguly explains that energy storage and renewable generation may not share the same point of common coupling when installed on a distribution circuit, necessitating further installation and analysis to determine the effectiveness of PV smoothing and voltage control for decoupled generation and storage. Ex. 93 SDG&E/Reguly at 5.

[1050] Ex. 93 SDG&E/Reguly at 3.

[1051] SCG/SDG&E OB at 228-231 (Section 22.2.2). SDG&E notes that p. 229 of its initial brief incorrectly states that "ORA recommends a 34% reduction of this budget item." The message SDG&E intended to convey is that the ORA recommends reducing this budget item *to* 34% of SDG&E's proposed funding level. SDG&E regrets any confusion this error might have caused.

[1052] ORA OB at 246.

[1053] *Id*. at 246, n. 790.

Mr. Reguly's testimony about another project, and, on the other, the long-term goals of the AES program well and truly is much ado about nothing.[1054]

In any event, ORA gets ahead of the record in presenting as a *fait accompli* that the budget requested here will not include the installation of any storage hardware. Because of the flexibility inherent in the budget process, that may well be the case, but circumstances could also arise such that SDG&E believes the best course is to install a battery. The point is, no definitive determination has yet been made.

But even assuming *arguendo* that hardware installation under the AES program will not occur until after this GRC window, it is very much the case that the AES program, as a whole, can and will provide benefits as described in SDG&E's testimony through the strategic development of energy storage devices. The unremarkable facts that hardware installation will follow engineering work and could occur beyond the current rate case window hardly suffices as a justification for ORA's proposal to slash the budget on this important project.

In sum, SDG&E's proposed budget for this important project is reasonable and should be adopted.

22.2.3 Microgrid for Energy Resilience

SDG&E's forecasts funding needs for Microgrid for Energy Resilience for 2017, 2018, and 2019 are $0, $5,894, and $7,916, respectively, in thousands of 2016 dollars.[1055] ORA would reduce this funding by more than 65% in 2018 and 2019.[1056] SDG&E addressed ORA's testimony on this issue.[1057] A few points in ORA's opening brief merit response.

ORA alleges that this project may be duplicative of the AES program.[1058] As SDG&E has explained previously, the AES program involves deploying energy storage for purposes of intermittency smoothing to maintain and enhance reliability on circuits with high solar PV penetration. This program, in contrast, is designed to provide microgrid resiliency benefits for customers located out in the backcountry and other wildfire prone areas.[1059] ORA makes a point

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[1054] *Id*. at 246 and n. 792-793 (citing Ex. 74 SDG&E/Colton/Reguly at p. 129 and Ex. 93 SDG&E/Reguly at p. 5).
[1055] Ex. 93 SDG&E/Reguly at 3. *See also* Ex. 75 SDG&E/Colton at section 16243 – Microgrid for Energy Resilience.
[1056] Ex. 93 SDG&E/Reguly at 3.
[1057] SDG&E OB at 233-235.
[1058] ORA OB at 244.
[1059] SCG/SDG&E OB at 234.

to surmise that this project will require "incremental distributed generators,"[1060] apparently seeking to create the impression that SDG&E is being less than forthcoming in not including costs of such resources in its budget. That impression is incorrect. In its testimony, in fact, SDG&E expressly highlighted that these microgrids could use "smaller or larger sources connected to the distribution feeder."[1061]

As with the AES project, ORA rationalizes gutting SDG&E's proposed budget for this project on the ground that the budget for this rate case cycle does not include all costs of this project.[1062] Respectfully, that cannot rationally be the standard. The development and deployment of utility infrastructure, whether it be a traditional wires project or a more novel technology such as a microgrid, routinely span beyond the near-term horizon of a current GRC.

Indeed, it is likely that every capital project will have associated costs that continue beyond the near-term horizon of a current GRC, whether they be operations and maintenance expenses or capital improvements to enhance an asset's capabilities. Thus, if the possibility of future costs were a basis for rejecting a proposed project, no projects would be approved. This project is no different. If anything, ORA's proposal is likely to hamper SDG&E's ability to engineer and deploy solutions under this budget code, thus delaying the deployment of needed infrastructure.

ORA's opening brief acknowledges the evidence presented in SDG&E's rebuttal case but seeks to dismiss it as consisting "primarily of unsupported claims."[1063] But in fact, SDG&E's rebuttal case on this project was sponsored by SDG&E witness Mr. Reguly, who the presiding ALJ recognized as an expert witness.[1064] Counsel for ORA cross-examined Mr. Reguly extensively[1065] and had every opportunity to probe the veracity of the purportedly "unsupported" positions set forth in his testimony. Thus, ORA's arguments about the purported lack of evidentiary support for SDG&E's positions should be disregarded.

Finally, ORA questions the propriety of SDG&E's customers generally being responsible for bearing the costs of microgrid investments that ORA avers benefit primarily the "small group

[1060] ORA OB at 242.
[1061] Ex. 74 SDG&E/Colton/Reguly at 133.
[1062] *See generally* SCG/SDG&E OB at 234.
[1063] ORA OB at 243.
[1064] Tr. V14:1112:19-20 (Reguly).
[1065] *See generally* Tr. Vol. 14.

of customers each microgrid serves[.]"[1066] But the issue for this GRC is whether the proposed costs are reasonable. ORA's issue, in contrast, is fundamentally a question of how such costs should be allocated. These are both important issues, but they should not be conflated. Indeed, not only are questions of cost allocation beyond the scope of this proceeding, but ORA's issue puts the cart before the horse. The possibility that questions, however legitimate, may arise about the appropriate method by which costs should be allocated does not in the first instance call into question the reasonableness of the proposed costs.

For the foregoing reasons, therefore, SDG&E's proposed budget for the Microgrid for Energy Resilience project should be adopted.

22.2.4 Distributed Energy Resources Management System (DERMS)

The forecasts for the DERMS project for 2017, 2018, and 2019 are $2,243, $3,627 and $3,678, respectively, in thousands of 2016 dollars.[1067] "One of SDG&E's objectives for DERMS is for it to become the enterprise solution to control DER, giving operators the ability to control resources regardless of DER manufacturer, integrator, or resources type."[1068] ORA's testimony proposed zeroing out funding in 2018 and 2019, largely on the ground that it believed SDG&E's evidentiary showing was wanting[1069]—a concern SDG&E was pleased to address in its rebuttal testimony and during the hearings.[1070]

ORA devotes more than seven pages critiquing limitations of the capabilities that are currently or planned to be built into DERMS in the near term.[1071] On this basis, ORA in its opening brief continues to recommend eliminating the requested funding for DERMS development. Not only are many of ORA's complaints about DERMS capability limitations misplaced, but ORA's recommended remedy would set back DERMS development significantly. Adopting ORA's remedy would thereby undermine SDG&E's efforts to implement in DERMS the very capabilities ORA purports to desire.

One of ORA's critiques relates to the NRG solar resource. According to ORA, "SDG&E's progress report showed that the attempt to control the microgrid while powered by

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[1066] ORA OB at 243.
[1067] Ex. 93 SDG&E/Reguly at 3.
[1068] Ex. 95 (ORA), ORA Cross Examination – Exhibits Related to DER, at 9b.
[1069] *Id*; SCG/SDG&E OB at 239 (citing Ex. 431 ORA/Roberts at 3-4).
[1070] *See generally* Ex. 93 SDG&E/Reguly at 17-19; Tr. V14:1078:16-1094:22 (Reguly).
[1071] ORA OB at 248-256.

NRG-owned Borrego Solar 1 resource was not successful."[1072] ORA is not entirely correct. In fact, DERMS successfully controlled that third-party owned solar resource prior to the Demo E islanding event and for a short time while islanded.[1073] The issues SDG&E experienced with controlling the microgrid were not due to DERMS, as SDG&E believes DERMS operated as expected. Rather, SDG&E believes the issues encountered during that particular microgrid operation would be resolved by modifying the operating procedure for this specific use case, including the utility having direct control of the PV system configuration, parameters and settings. These facts therefore actually support the development of utility-owned resources for the use case of serving SDG&E's customers as part of the Borrego Microgrid 3.0 project.[1074] On the other hand, ORA's use of these test results in advocating to completely zero out funding for DERMS amounts to throwing the baby out with the bathwater.

Later, ORA criticizes DERMS as lacking the capability to communicate with smart inverters.[1075] As a factual matter, ORA is correct, but the comment is lacking in context and perspective. It is true that DERMS does not currently have the capability to communicate with or control smart inverters.[1076] Eventually, consistent with SDG&E's goal for DERMS "to become the enterprise solution to control DER[,]" SDG&E fully intends to integrate DERMS with smart inverters. But the integration of potentially tens of thousands of small resources is no small effort. While ORA criticizes SDG&E's DERMS development path, nowhere does ORA demonstrate that the sort of uber-DERMS it envisions—in which the utility could communicate with and control thousands upon thousands of resources equipped with smart inverters—is even feasible at this time, let alone at what cost.

ORA protests in several locations that "DERMS is not a new SDG&E program,"[1077] yet concedes that "DERMS should be [a] key element of DER driven Grid Modernization,"[1078] and that DERMS is not a mature technology."[1079] To SDG&E, it would appear logical that as an

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[1072] *Id*. at 252.
[1073] Ex. 95 (ORA), ORA Cross Examination – Exhibits Related to DER, at 55b ("The project team successfully demonstrated control of [the NRG] third-party asset and successfully transitioned from parallel to island.").
[1074] Tr. V14:1120:27-1121:17 (Reguly).
[1075] ORA OB at p. 253.
[1076] Tr. V14:1100:21-27 (Reguly).
[1077] Ex. 431 ORA/Roberts at 110:1; ORA OB at 249.
[1078] Ex. 431 ORA/Roberts at 111:8-9.
[1079] *Id*. at 112:8, ORA OB at 249.

immature technology that is a key element of grid modernization, that facets of that technology will be new to the utility as they evolve, as indeed they are, as SDG&E has been doing.[1080] Thus SDG&E is faced with planning, staging and implementing a necessary new grid management environment even while its standards and protocols are being developed on a national basis.

SDG&E believes that its approach to DERMS development will enable it to integrate a substantial number of resources of diverse types in a relatively short period of time, while allowing time for lessons learned in a phased development approach. Such a phased development approach eventually will face the challenge of integrating smart inverter-equipped resources. SDG&E believes its approach strikes a reasonable balance and is the most prudent course at this time.

Where SDG&E strikes a reasonable balance, ORA delivers mixed messages. ORA states that it "wholeheartedly supports the objective of Pub. Util. Code § 769 to cost effectively integrate DER"[1081]—which, to do so safely and reliably, will require investments in DERMS or a DERMS-like system—yet ORA recommends no funding.[1082] ORA's proposed funding elimination will make it more difficult for SDG&E to implement ORA's hoped-for capabilities into DERMS, thus frustrating the very goals of cost effectively integrating distributed resources that ORA purports to support.[1083]

Perhaps that is why, after expounding at length about various functionalities ORA believes DERMS should, but does not yet have, ORA closes by searching for a way to have it both ways. ORA describes DERMS as potentially having so much "promise" to the Commission and as being "too important to implement incorrectly or incompletely[.]"[1084] On this basis, ORA in its opening brief's summary of recommendations regarding DERMS, includes a slew of new recommendations not found in its direct testimony, the hearings transcript, or elsewhere on the record.

SDG&E certainly agrees with the sentiment that DERMS is a tremendously promising platform. But SDG&E does not believe it is necessary to carve out DERMS and impose extra

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[1080] SCG/SDG&E OB at 239.
[1081] ORA OB at 256.
[1082] *Id*.
[1083] *Id*. ("ORA wholeheartedly supports the objective of Pub. Util. Code § 769 to cost effectively integrate DER.").
[1084] ORA OB at 256-257.

conditions that are not applicable to utility capital projects generally, such as a Memorandum Account and reasonableness review, as ORA proposes. Not only would these conditions be onerous, but they would limit SDG&E's flexibility to adapt to new DERMS requirements and capabilities as that environment develops. Being presented in ORA's opening brief for the first time has deprived SDG&E of a reasonable opportunity to evaluate those conditions and make reasoned comment or recommendations regarding their impact on DERMS development.

SDG&E believes the Commission and its Staff have ample tools with which to monitor activities of a utility in between rate cases, and of course SDG&E would welcome further opportunities for dialogue on DERMS development going forward. Therefore, SDG&E believes the conditions ORA proposes on page 257 of its opening brief are unnecessary and does not support them. SDG&E's proposed budget for this project is reasonable and should be adopted.

22.2.5 Other DER Capital Projects

ORA proposes substantial reductions to SDG&E budget requests for other DER capital projects. As highlighted below, the proposed budget reductions are either entirely or effectively unsupported in ORA's initial brief.

22.2.5.1 Smart Transformers

SDG&E's forecasts for budget code 11246, Smart Transformers, for 2017, 2018, and 2019 are $258, $0, and $0, respectively, in thousands of 2016 dollars. ORA would virtually eliminate this funding.[1085] However, ORA's brief contains no supporting argument or analysis and, indeed, does not even mention this budget code. Thus, SDG&E's budget request is reasonable and should be adopted.

22.2.5.2 Vanadium Flow Battery Project

The forecasts for budget code 14259B, Vanadium Flow Battery Project, for 2017, 2018, and 2019 are $539, $0, and $0, respectively, in thousands of 2016 dollars.[1086] ORA would reduce the 2017 funding by approximately 25%.[1087] However, ORA's brief contains no supporting argument or analysis and, indeed, does not even mention this budget code. Thus, SDG&E's budget request is reasonable and should be adopted.

1085 Ex. 93 SDG&E/Reguly at 3.
1086 *Id*. at 3. *See also* Ex. 75 SDG&E/Colton at section 14259 – Vanadium Flow Battery Project.
1087 Ex. 93 SDG&E/Reguly at 3.

22.2.5.3 Volt/VAR Optimization Transformer

The forecasts for budget code 17244A, the Volt/VAR Optimization Transformer, for 2017, 2018, and 2019 are $0, $500, and $100, respectively, in thousands of 2016 dollars.[1088] ORA recommends suspending investments on this budget item on the ground that the equipment manufacturer is no longer in business.[1089] In its initial brief, ORA acknowledges SDG&E's statements that 61 of the devices have already been deployed or are in inventory, and that SDG&E is aware of additional suppliers for these devices going forward.[1090] But in standing by its position on this project, ORA does not provide anything to engage substantively with the points SDG&E raised. Thus, ORA's position is simply *ipse dixit* and not a basis for the funding reduction advocated by ORA. SDG&E's proposed budget for this project is reasonable and should be adopted.

22.2.5.4 Integrated Test Facility (ITF)

SDG&E's forecasts for budget code 17245, ITF – Integrated Test Facility Improvements, for 2017, 2018, and 2019 are $523, $1,050 and $0, respectively, in thousands of 2016 dollars.[1091] ORA would eliminate this funding in 2017 and reduce it by two-thirds in 2018.[1092] However, ORA's brief contains no argument or analysis in support of any reduction in funding for this budget code, let alone any reductions of the magnitude proposed. Indeed, ORA only mentions the ITF in a single footnote addressing certain factual details with DERMS deployment, and not in any way that is an actual critique of the funding requested under this budget code. Therefore, there is no basis for the proposed reduction to SDG&E's budget request, and SDG&E's forecasts for budget code 17245 should be adopted.

22.2.6 Conclusion

This is a period of significant change for SDG&E. Widespread and growing customer adoption of distribution-connected resources show the success of the state's low carbon policy objectives. But this also creates new challenges for SDG&E in operating its distribution system consistent with its historical record of safety and reliability, as the utility and its stakeholders

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[1088] *Id*. at 3. *See also* Ex. 75 SDG&E/Colton at section 17244 – Volt/VAR Optimization Transformer.
[1089] Ex. 93 SDG&E/Reguly at 12-13 at n. 33 (citing Ex. 431 ORA/Roberts at 107).
[1090] ORA OB at 246.
[1091] Ex. 93 SDG&E/Reguly at 3. *See also* Ex. 75 SDG&E/Colton at section 17245 – ITF – Integrated Test Facility.
[1092] Ex. 93 SDG&E/Reguly at 3.

expect. SDG&E needs to make investments to ensure that the system and its capabilities continue to fulfill these expectations. The evidence in this case shows that the package of DER-related expenditures SDG&E has proposed is reasonable and reflects prudent utility decision-making to address changing circumstances. Therefore, SDG&E respectfully urges the Commission to reject ORA's proposals to reduce or eliminate the budget requests addressed in this Section 22.2.[1093]

22.3 Operations and Maintenance (O&M)

ORA, TURN, FEA, SDCAN, and CCUE addressed SDG&E's Electric Distribution Operations and Maintenance (ED O&M) testimony in their opening briefs. SDG&E's ED O&M proposals, supported by witness William Speer, describe and justify SDG&E's forecasted ED O&M activities from 2017-2019,[1094] as summarized in SDG&E's opening brief.[1095] SDG&E is requesting the Commission adopt SDG&E's ED O&M TY 2019 forecast of $168,184,000.[1096]

Mr. Speer's direct testimony presents the costs forecasted to operate and maintain the SDG&E electric distribution system in a safe and reliable manner, to comply with applicable laws and regulations, and to provide system integrity and reliability in accordance with our commitment to safety. The O&M electric distribution costs are broken down into 26 primary cost categories, four of which comprise the majority (68.1%) of the overall forecast. The four major categories are Construction Services (11.4%), Electric Distribution Operations (13.4%), Electric Regional Operations (27.7%), and Vegetation Management (15.7%). Each specific work category is described in greater detail in the testimony and workpapers.[1097]

In accordance with the Commission's risk-informed GRC framework, discussed *supra* in section 6 and in the Companies' risk management testimony presentation,[1098] Mr. Speer presented the risk and RAMP-related projects and programs included within SDG&E's ED O&M request, as summarized in Table 22.3.A below.[1099] Mr. Speer also provided a summary of

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[1093] The relevant budget codes are 11246 (Smart Transformers), 11247 (Advanced Energy Storage), 14243 (Borrego Springs Microgrid Enhancements), 14259B (Vanadium Flow Battery Project), 16243 (Microgrid for Energy Resilience), 17244A (Volt-Var Optimization Transformer), 17245 (Integrated Test Facility), 17246 (Borrego Microgrid 3.0), and 14860A (DERMS).
[1094] Exs. 68-71 SDG&E/Speer.
[1095] SDG&E OB at 240-263.
[1096] Ex. 71 SDG&E/Speer at 1.
[1097] Exs. 68, 69 SDG&E/Speer.
[1098] Exs. 3, 4 SCG/SDG&E/Day/Flores/York.
[1099] Ex. 68 SDG&E/Speer at 2-5, Table WS-2; *id.* at 6-16.

SDG&E's safety culture as related to its ED O&M request, as part of his risk-informed direct testimony presentation.[1100]

Table 22.3.A

RAMP Risk Chapter	2016 Embedded Base Costs (000s)	TY 2019 Estimated Incremental (000s)	Total (000s)
SDG&E-1 Wildfires Caused by SDG&E Equipment	34,919	5,807	40,726
SDG&E-3 Employee, Contractor and Public Safety	29,610	6,000	35,610
SDG&E-4 Distributed Energy Resources (DERs)	0	575	575
SDG&E-8 Aviation Incident	55	355	410
SDG&E-11 Unmanned Aircraft System (UAS) Incident	0	162	162
SDG&E-12 Electric Infrastructure Integrity	1,261	21,040	22,301
SDG&E-13 Records Management	4,855	1,281	6,136
SDG&E-14 Climate Change Adaptation	24	403	427
SDG&E-17 Workforce Planning	1,206	152	1,358
Total O&M	71,930	35,775	107,705

Mr. Speer testified how, in developing its request, SDG&E prioritized these key safety risks to determine funding for currently established risk-control measures and incremental efforts needed to further mitigate these risks. Mitigating the risk of wildfire threat, for example, has been one of SDG&E's top priorities since the 2007 wildfires and has become ingrained in the company's culture. SDG&E's company-wide, single-minded focus on addressing and minimizing wildfire-related risks is described in our Fire Prevention Plan (FPP)[1101] and RAMP Report. SDG&E takes a leadership role in addressing fire threats in the communities we serve by sharing our personnel, resources, information, communications facilities, and/or fire-defense assets to enhance the capabilities of our local communities to defend against any repeats of catastrophic wildfire events experienced in southern California. SDG&E spent approximately

[1100] *Id.* at 16-17.
[1101] Ex. 68 SDG&E/Speer at 7 (citing SDG&E's Oct. 31, 2016 FPP). SDG&E's 2017 FPP is *available at* http://webarchive.sdge.com/sites/default/files/documents/2021898396/SDGE_Fire_Prevention_Plan_for_2017.pdf).

$35 million in electric distribution O&M wildfire risk mitigation programs in 2016, including vegetation management, Capstone fire brigade crews, and the O&M component of the FiRM capital project. In addition, SDG&E is proposing $5.8 million in new mitigation programs, including year-round availability of the helitanker discussed in the supplemental direct testimony of David Geier,[1102] an expanded long span inspection and repair program, and new software and information management tools for improved emergency response.

SDG&E's ED O&M direct testimony forecasts are organized within the work categories listed in the chart below. Intervenor testimony recommending modifications to SDG&E's proposals were presented regarding the areas that are preceded by an asterisk in the list below, and are addressed in the sections that follow:

Reliability & Capacity	*Distribution and Engineering
*Construction Services	Troubleshooting
DistOps Enterprise Geographic Info Sys Standards	*Vegetation Management
*Electric Distribution Operations	*Regional Public Affairs
*Kearny Operations Services	Major Projects
Grid Operations	Technology Utilization
*Project Management	Compliance Management
*Electric Regional Operations	*Technology Solutions and Reliability
Officer	*Emergency Management
Skills & Compliance Training	*Strategic Planning and Business Optimization
Service Order Team (SOT)	Distributed Energy Resources
*Substation Construction and Operations	Asset Management
System Protection	*Performance Based Ratemaking

22.3.1 Summary of Proposals

Parties addressing SDG&E's ED O&M forecasts were ORA, FEA, CCUE, SDCAN and SBUA.[1103] In general, FEA adopted the recommendations of ORA with some exceptions. Not

[1102] Ex. 360 SDG&E/Geier, discussed in section 22.4 (Supplemental Year-Round Wildfire Risk Mitigation), *infra.*
[1103] Respectively, Ex. 400 ORA/Godfrey, Ex. 366 FEA/Smith, Ex. 370 CUE/Marcus, Ex. 220 SDCAN/Shames, Ex. 221 SDCAN/Conery, and Ex. 439 SBUA/Rafii.

all parties made recommendations on all portions of SDG&E's ED O&M forecasts, and several areas were not challenged. SDCAN, SBUA and CCUE, with a few exceptions, generally made non-financial recommendations; those are reflected in the appropriate sections following and are not shown in the summary table below:[1104]

TOTAL O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**122,467**	**168,184**	**46,159**
ORA	**122,467**	**133,019**	**10,552**
FEA	**122,467**	**134,915**	**12,448**

The major points are summarized in the sections following. In many instances in rebuttal, SDG&E provides data request responses received from the parties in support of the Company's position in the respective areas. Those data request responses are not repeated in this brief, but can be informative, and are found in SDG&E's ED O&M rebuttal testimony.[1105]

ORA's Methodology

ORA's analysis of SDG&E's TY 2019 forecasts was based on an arithmetic analysis of historical costs, apparently without consideration of the merits of the proposed activities for either customer value, system integrity, or risk mitigation. This technique is discussed in rebuttal in several locations.[1106] This also occurred within FEA's analysis.[1107] While analysis of historical costs is reasonable, it should not be relied upon as the exclusive and sole basis for justification of expected future costs and should be considered in context with the anticipated needs and risk-mitigation efforts of the utility in the future.

ORA (and most other parties) also did not take into account any of the RAMP or risk-related ED O&M direct testimony in their analyses.[1108] As Mr. Speer explained, "SDG&E expected other parties to discuss and evaluate these programs and provide explanation as to why they should or should not [be] funded in whole or in part," given the Commission's new risk-informed GRC framework and focus.[1109] As Ms. Day, Mr. Flores, and Ms. York testified in their risk management rebuttal testimony, "it is not reasonable to reduce funding for RAMP projects

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1104 Ex. 71 SDG&E/Speer at 1, reflecting errata corrections shown at 73-74.
1105 Ex. 71 SDG&E/Speer *passim*.
1106 *See, e.g., id.* at 24, 49, 50.
1107 *See, e.g., id.* at 40.
1108 *Id*. at 2-3.
1109 *Id.* at 2.

merely because those projects have been identified as RAMP-related, or to otherwise ignore or mischaracterize RAMP-related testimony and information ….”[1110] Further, “[r]ather than ignoring the RAMP information presented in this proceeding and evaluating safety risks consistent with prior GRCs, which were not subject to the new risk-based framework, the Commission should use the RAMP-related showing in this proceeding to inform funding decisions.”[1111]

Many of ORA’s arguments, while based on the simple arithmetic analysis, justify the recommended disallowances under the premise that the proposed costs are already included in rates, can be performed by existing personnel, or are costs for the same or similar projects that are ongoing. In these instances, SDG&E demonstrated in its rebuttal that ORA’s presumptions are incorrect, that the costs for the proposed programs are for incremental new or increased-scope activities.[1112]

<u>Common Issues</u>

Several issues were a common thread in proposed reductions to SDG&E’s requested funding. These were the O&M expenses associated with capital programs, the underspending of 2016 authorized expenses, program costs that are spread among more than one workgroup, and the perceived insufficiency of detailed cost estimates. SDG&E’s rebuttal[1113] discussed each of these issues at length, providing background, testimony citations, and context to these issues associated with particular activities and supporting SDG&E’s forecast methodologies and requests.[1114]

22.3.2 Construction Services

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**5,363**	**19,167**	**13,804**
ORA	**5,363**	**8,531**	**3,168**
FEA	**5,363**	**5,659**	**296**

1110 Ex. 4 SCG/SDG&E/Day/Flores/York at 10.

1111 *Id.* at 18. This is consistent with ORA witness Nils Stannik’s testimony: “The data produced by the RAMP and integrated into this GRC should be used to inform funding decisions, but not to dictate these decisions or bypass the traditional review process in the GRC.” Ex. 398 ORA/Stannik/Li at 2.

1112 Ex. 71 SDG&E/Speer, *passim.*

1113 *Id.*

1114 *Id.* at 8-18.

ORA and FEA – ORA and FEA both take issue with the test year O&M forecast for the Construction Services work group.[1115] However, ORA's opening brief appears to simply restate their testimony positions, which SDG&E addressed issue by issue in the rebuttal testimony of Mr. Will Speer[1116] and summarized in SDG&E's opening brief.[1117] ORA's opening brief fails to address the reasonable arguments presented in rebuttal. ORA's methodology involved subtracting SDG&E's TY 2016 GRC authorized amount for Construction Services from its TY 2019 GRC request and adding this incremental amount to the 2016 Base Year actual expenditures. FEA's methodology for its TY 2019 estimate is a two-year average. SDG&E disagrees with these approaches. SDG&E's 2016 authorized amount in the Construction Services work group has no direct bearing on future expenditures, as shown in detail in rebuttal.[1118] SDG&E has developed detailed cost estimates for its proposed programs, based on forecasting analysis and cost pressures that are described in Mr. Speer's direct testimony.[1119] Rather than analyzing this testimony, ORA and FEA simply substituted their own methodologies without describing any issues with SDG&E's chosen method or with the underlying justification for the program, and without analyzing the RAMP and risk mitigation testimony, in accordance with new Commission procedures.[1120]

22.3.3 Electric Distribution Operations

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**15,590**	**22,546**	**6,956**
ORA	**15,590**	**17,517**	**1,927**
FEA	**15,590**	**15,130**	**-460**

ORA and FEA – ORA and FEA take issue with SDGE's Electric Distribution Operations non-labor forecast, particularly the use of a three-year linear trend as SDG&E's base estimate methodology in their opening briefs.[1121] While ORA's opening brief appears to simply restate their position from original testimony, FEA's statement that Mr. Speer "admitted that

[1115] Ex. 400 ORA/Godfrey at 7-18; Ex. 366 FEA/Smith at 80-84.
[1116] Ex. 71 SDGE/Speer at 16-19.
[1117] SCG/SDG&E OB, Section 22.3 (ED O&M) at 7.
[1118] Ex. 71 SDG&E/Speer at 7-18.
[1119] Ex. 68 SDG&E/Speer at 21-29.
[1120] *See* discussion in section 6.4, *supra,* and Ex. 4 SCG/SDG&E/Day/Flores/York, *passim.*
[1121] ORA OB at 285-290; FEA OB at 33-34.

costs for both labor and non-labor declined from 2016 to 2017[1122] "fails to address the fact that Capital and O&M programs, and therefore hardware, software, and exempt materials, are expected to increase according to trend: "Given the anticipated increase in both Capital and O&M programs, increased expenses in hardware, software, and exempt materials is expected. While the 2017 non-labor actual did not fall on the trend line for the estimate, utilizing the 2017 non-labor actual value of $12.5 million and a four-year linear trend plus incremental requests projects to be $16.1 million, representing a $1.9 million increase over ORA's recommendation and a $4.3 million increase over FEA's recommendation."[1123] SDG&E's revised estimate from rebuttal recommends $19.4 million total for Electric Distribution Operations for the reasons stated in testimony and rebuttal.

SDG&E believes ORA's and FEA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Electric Distribution Operations.

22.3.4 Kearny Operations Services

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**1,350**	**2,133**	**783**
ORA	**1,350**	**1,721**	**371**

ORA – ORA takes issue with the test year O&M forecast for the Kearny Operations Services work group in their opening brief.[1124] ORA's opening brief simply restates their testimony positions, which SDG&E addressed issue by issue in Mr. Speer's rebuttal testimony[1125] and summarized in SDG&E's opening brief.[1126] SDG&E utilized a five-year average as a base estimate for labor and non-labor (including the declining years), which is a reasonable base estimate for a group that performs cyclical maintenance and testing functions. ORA's method does not justify disregarding the $0.412 million incremental request for the requested training program staffing. ORA's presumption that these costs are already embedded in historical expenses is incorrect, as the training program is new.

1122 FEA OB at 34.
1123 Ex. 71 SDG&E/Speer at 15.
1124 ORA OB at 289-291.
1125 Ex. 71 SDGE/Speer at 16-19.
1126 SCG/SDG&E OB, Section 22.3 at 7.

SDG&E believes its direct testimony presentation and the discussion and data response references provided in rebuttal[1127] provide the necessary background to adopt SDG&E's forecast for Kearny Operations Services over ORA's recommendations, which are derived from arithmetic means rather than an evaluation of the necessary training programs.

22.3.5 Project Management

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**660**	**1,347**	**687**
ORA	**660**	**822**	**162**

ORA – ORA's opening brief simply restates their testimony positions, which SDG&E addressed issue by issue in Mr. Speer's rebuttal testimony[1128] and summarized in SDG&E's opening brief.[1129] ORA takes issue with SDG&E's request to increase funding for increased staffing and training-related costs for the area of Project Management, based on its belief that the proposed training classes and support staffing are unnecessary. SDG&E provided the support for those expenses in discovery responses and discussion which can be found in rebuttal testimony.[1130]

In 2017, Project Management utilized significant contract labor to address a shortfall in staffing levels, which is evidenced in the increased non-labor spend in 2017. Ironically, ORA's recommendation would fund Project Management at a lower level than its 2017 spend. SDG&E believes ORA's recommendations should not be adopted, and recommends the Commission adopt SDG&E's forecasted expenses for Project Management.

SDCAN[1131] **–** In this area, SDCAN recommends a bill credit or direct payment to developers where SDG&E has either failed to reschedule an appointment for trench inspections and gas line installations at least 24 hours in advance or has taken more than 24 hours for a

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[1127] Ex. 68 SDG&E/Speer at 34-35; Ex. 71 SDG&E/Speer at 19-24.
[1128] Ex. 71 SDGE/Speer at 16-19.
[1129] SCG/SDG&E OB, Section 22.3 at 7.
[1130] Ex. 71 SDG&E/Speer at 24-27.
[1131] SDCAN's testimony and requested relief discussed here is unusual, in part because the Commission does not typically micromanage utilities' relationships with their contractors and doing so is not the focus of the GRC proceeding. Regardless, SDG&E's rebuttal testimony provided factual information that responded to SDCAN's claims.

rescheduled appointment for either inspection or installation services.[1132] SDCAN's assertions within its testimony and opening brief in support of this recommendation are subjective in nature, and in some cases are baseless and inflammatory. Many of SDCAN's claims are not supported by reliable evidence and should be disregarded or given no weight. Several claims are also outside the scope of the GRC and, if credible, would be more appropriately suited for a different proceeding. Despite the deficiency of SDCAN's claims, SDG&E presented rebuttal testimony showing that all trench inspection requests received prior to 2:00 p.m. are scheduled for the following day. While various conditions will necessitate rescheduling and impact when the rescheduled appointment takes place, SDG&E implemented a process change during the fourth quarter of 2017, whereby dedicated contract crews are now available for all service work in new subdivisions and tie-ins for applicant installations, thus alleviating the occurrence of missed appointments.[1133]

SDCAN also recommends that SDG&E should be ordered to pay customers or developers if installation of gas or electric lines exceeds five days after SDG&E inspectors release the project to the Construction Department.[1134] Mr. Speer's rebuttal testimony showed why requirements related to posting of safety notices and the coordination of any required permits and/or traffic control make this proposal unrealistic.[1135] Mr. Speer also provided data demonstrating significantly improved turnaround times for these services. Collectively, customer construction activity is both unpredictable in nature and is experiencing increased activity levels, as noted in SDG&E's ED Capital testimony.[1136] As a result, SDG&E must "...optimize the scheduling of the available workforce, both in-house and contracted."[1137]

SDCAN also argues that SDG&E's proposed increase in Project Management is excessive and should be reduced,[1138] while simultaneously maintaining that the Department must be adequately funded and staffed to better interface with third-party contractors.[1139] This includes funding to allow for the completion of Project Work Order packages in three to five

[1132] Ex. 220 SDCAN/Shames at 7; Ex. 221 SDCAN/Conery at 4.
[1133] Ex. 71 SDG&E/Speer at 27-30.
[1134] Ex. 220 SDCAN/Shames at 7; Ex. 221 SDCAN/Conery at 4.
[1135] Ex. 71 SDG&E/Speer at 27-30.
[1136] *See, e.g.,* Ex. 76 SDG&E/Colton at 42 (discussing trending increases in New Business budget codes).
[1137] Ex. 71 SDG&E/Speer at 29.
[1138] Ex. 220 SDCAN/Shames at 7.
[1139] Ex. 220 SDCAN/Conery at 4.

days.[1140] Mr. Speer's rebuttal demonstrates that, while SDG&E agrees that additional funding will allow Project Management to expand resources to better service customers, SDCAN's proposed three- to five-day turnaround for Project Work Order packages is simply not feasible, since the scope of those orders varies widely.

For all these reasons, SDCAN's proposals for SDG&E's Project Management should be disregarded. Furthermore, SDG&E does not believe this GRC proceeding is the appropriate forum to address SDCAN's concerns.

22.3.6 Electric Regional Operations

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E[1141]	**35,613**	**46,689**	**11,706**
ORA	**35,613**	**37,823**	**2,210**
FEA	**35,613**	**34,329**	**-1,284**

ORA – ORA takes issue with the test year O&M forecast for the Electric Regional Operations work group in their opening brief.[1142] However, ORA's opening brief simply restates their direct testimony positions, which SDG&E addressed issue by issue in Mr. Speer's rebuttal testimony and summarized in SDG&E's opening brief.[1143] ORA's opening brief fails to address SDG&E's testimonial evidence rebutting ORA's claims. ORA seeks to eliminate all incremental labor funding requests for Electric Regional Operations. ORA specifically takes issue with incremental costs for SDG&E's proposed Overhead/Underground Switch Inspection and High-Risk Switch Replacement projects, arguing that SDG&E is requesting TY 2019 funding twice for the same activities.[1144] SDG&E demonstrated in rebuttal testimony that these programs are being split amongst multiple workgroups and thus there is no duplication of its cost request.[1145]

ORA also takes issue with SDG&E's labor funding request for the proposed Long Span Inspection and Repair program, indicating that costs related to long span inspections are embedded in historical costs.[1146] There were no long span inspection and repair costs embedded

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[1140] *Id*.
[1141] Ex. 68 SDGE/Speer at 18.
[1142] ORA OB at 294-302.
[1143] SCG/SDG&E OB at 248-251.
[1144] Ex. 400 ORA/Godfrey at 31.
[1145] Ex. 71 SDG&E/Speer at 30.
[1146] ORA OB at 296.

in the 2016 base year on which SDG&E is basing its forecast; accordingly, there are no costs embedded in the request. These long span projects represent an integral part of reducing wildfire risk and are an important component of SDG&E's strategy in addressing our most important RAMP risk. Given the greater level of impact from high wind events and the need to ensure proper clearances, funding for these projects is a necessity.[1147]

ORA also objects to labor funding requests for a new EDO Project Management Organization, under the supposition that this activity could be performed with existing personnel. In response, SDG&E referenced an ORA data request response[1148] describing the proposed organizational structure and the need for the additional resources.

ORA also objects to labor funding requests for a new Permitting group, which would be responsible for the management of requesting, filing, and managing the many and increasing jurisdictional construction permits that are required for SDG&E's work throughout its service territory. ORA argued that the proposed activities are not new and have costs incurred for these same activities already included in rates.[1149]

The additional resources for a new permitting group will help to address the consistently changing and expanding requirements imposed by the government entities. Mr. Speer's rebuttal testimony provides an illustration of the increasing permitting requirements placed upon SDG&E to complete its needed work.[1150]

ORA also objects to SDG&E's request for additional linemen, which are intended to address outage response times and reliability. As explained in rebuttal testimony,[1151] ORA's recommendation rests upon an erroneous presumption that there are somehow sufficient "eliminated projects, maintenance costs from eliminated projects/programs, costs incurred for eliminated procedures and processes, and overtime costs" to absorb the necessary incremental funds for additional linemen. That is not the case, and SDG&E restates its request for the Commission to approve funding for the requested additional linemen.

[1147] Ex. 71 SDG&E/Speer at 32.
[1148] ORA OB at 296.
[1149] Ex. 400 ORA/Godfrey at 32.
[1150] Ex. 71 SDG&E/Speer at 33.
[1151] *Id*. at 35-36.

Finally, ORA opposes SDG&E's request for incremental non-labor funding for its proposed Customer Communication Safety program.[1152] This proposal is a result of RAMP analysis, during which SDG&E identified the Customer Communication Safety program as a risk mitigant.[1153] ORA agrees that outreach and education geared toward wire-down awareness and other electric safety issues are important[1154] yet disallows funding the entire program, under the premise that SDG&E has cost included in rates for the same or similar communications projects that are ongoing. SDG&E disagrees with this assertion. While SDG&E has undertaken many activities to reduce the public safety risks associated with the electric system, SDG&E has not had an outreach program like the one proposed through the RAMP filing and included in this rate case. The Customer Communication Safety program is new and specifically designed to provide customers with the education and tools to respond to electric emergencies and will also provide information on how to proactively avoid dangerous situations. SDG&E countered ORA's assertion that the program is already included in rates in a data request response provided in rebuttal testimony.[1155]

Mr. Speer also demonstrated the amount of detail SDG&E has provided in a table of more than 22 line items and descriptions of the activities and costs of the communications program, which were also included in Mr. Speer's direct testimony workpapers.[1156]

FEA – FEA takes issue with the test year O&M forecast for the Electric Regional Operations work group.[58] FEA disagrees with SDG&E's use of a 2016 Base Year estimate for its underlying forecast, and instead recommends a four-year average. SDG&E believes the 2016 Base Year is more appropriate because changes in 2016 included staffing levels for apprentice linemen, C&O planners and supervisors not reflected in previous years. The 2016 Base Year costs are $35.6 million, and the four-year average used by FEA is $34.3 million, or a reduction of $1.3 million. FEA does not address or take issue with any of the $7.2 million of incremental activities that SDG&E is proposing for TY 2019, only the underlying base forecast. These

[1152] *Id*. at 36-40 (addressing Ex. 400 ORA/Godfrey at 33).
[1153] *Id.* (citing I.16-10-015/-016, Risk Assessment and Mitigation Phase Report of [SDG&E and SoCalGas], Chapters SDG&E-3 (Employee, Contractor and Public Safety) and SDG&E-15 (Public Safety Events – Electric) (November 30, 2016), *available at* https://www.sdge.com/regulatory-filing/20016/risk-assessment-and-mitigation-phase-report-sdge-socalgas).
[1154] Ex. 400 ORA/Godfrey at 33.
[1155] Ex. 71 SDG&E/Speer at 36.
[1156] *Id*. at 38 (citing Ex. 69 SDG&E/Speer at 146).

incremental activities include RAMP-related risk-mitigation activities and programs, including the Customer Communication Safety Campaign. FEA states the Customer Communication Safety Campaign has not yet been adequately supported but does not address which specific activities it recommends reducing or removing to meet its proposed TY 2019 estimate.

SDG&E supports its 2016 Base Year forecasting methodology in this area, and requests that the Commission authorize its funding request for Electric Regional Operations.

22.3.7 Substation Construction and Operations

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**4,582**	**5,322**	**740**
ORA	**4,582**	**4,759**	**177**

ORA – ORA takes issue with the test year O&M forecast for the Substation Construction and Operations work group in their opening brief.[1157] ORA's opening brief simply restates their testimony positions, which SDG&E addressed issue by issue in Mr. Speer's rebuttal testimony[1158] and summarized in its opening brief.[1159] ORA's opening brief fails to address the reasonable arguments presented in rebuttal. While ORA does not oppose SDG&E's estimate for non-labor, which is based on a five-year average with adjustments for incremental programs, ORA finds SDG&E's five-year average forecast for labor unjustified.[1160] ORA argues that because SDG&E has shown decreasing recorded labor expenses, and is not proposing to add headcount, and also has not reported problems maintaining the distribution substation at the current expense levels, that the base year would be a better estimate.[1161]

SDG&E disagrees with this conclusion.[1162] The costs of substation maintenance activities are variable and can change from year to year. Significant preventative maintenance activities such as circuit breaker overhauls and Load Tap Changer (LTC) maintenance are dependent on time-based maintenance cycles that are not constant from year to year. In SDG&E's experience, substation maintenance is cyclical, and a return to a period of increased

[1157] ORA OB at 302-304.
[1158] Ex. 71 SDG&E/Speer at 27-28.
[1159] SCG/SDG&E OB, Section 22.3 at 12-13.
[1160] Ex. 400 ORA/Godfrey at 39.
[1161] *Id.* at 39-40.
[1162] Ex. 71 SDG&E/Speer at 40-42.

expenses is expected. SDG&E's use of a five-year average considers the recent low years as well as the previous high years, providing a reasonable estimate that accounts for the variability of the maintenance requirements. There have been no significant reductions to substation maintenance requirements; rather, there have been increased reporting requirements. General Order (GO) 174 has required additional accountability to substation inspection and maintenance programs through the addition of annual substation audits.[1163] SDG&E believes the five-year average methodology is correct for this area, as described in rebuttal testimony.

SDG&E believes ORA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Substation Construction and Operations.

22.3.8 Technology Solutions and Reliability

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**2,544**	**3,260**	**716**
ORA	**2,544**	**2,751**	**207**

ORA – ORA takes issue with the test year O&M forecast for the Technology Solutions and Reliability work group in their opening brief.[1164] ORA's opening brief simply restates their testimony positions, which SDG&E addressed issue by issue in Mr. Speer's rebuttal testimony[1165] and summarized in SDG&E's opening brief.[1166] ORA's opening brief fails to address the reasonable arguments presented in rebuttal. ORA takes issue with the funding requests for system enhancements and added functionality, as well as increased labor support, indicating that these costs represent "…routine and ongoing activities."[1167] SDG&E has stated that additional funding addresses needs related to both increased scope and an expanding volume of work.[1168]

ORA also contends that SDG&E's proposed consolidation of Technology Solutions and Reliability into the new Asset Management group should result in efficiencies and cost savings

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1163 *Id.* at 42 (citing California Public Utilities Commission, General Order 174, *Rules for Electric Utility Substations* (October 25, 2012)).
1164 ORA OB at 318-320.
1165 Ex. 71 SDG&E/Speer at 29-31.
1166 SCG/SDG&E OB, Section 22.3 at 13-14.
1167 Ex. 400 ORA/Godfrey at 60.
1168 Ex. 71 SDG&E/Speer at 43-44 (quoting its response to ORA-SDGE-095-TLG, Q1s, memorialized to ORA on February 9, 2018).

"… from the elimination of costs associated with employees performing duplicate functions in separate work groups."[1169] However, the establishment of the Asset Management group does not influence the historical costs or incremental requests related to Technology Solutions and Reliability. The requests identified within the Technology Solutions and Reliability workpaper are related solely to needs within the defined scope of this group. The funding request for the Asset Management group specifically addresses the costs to establish the ISO 55000-certified program, and is independently identified and explained within the Asset Management workpaper.[1170] Additional discussion regarding SDG&E's support for the creation of its comprehensive program for Asset Management and its relationship to SDG&E's Enterprise Risk Management organization, including the costs proposed by SDG&E and rejected by ORA, is shown in the rebuttal testimony of Mr. Kenneth J. Deremer.[1171]

For these reasons SDG&E believes ORA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Technology Solutions and Reliability.

22.3.9 Emergency Management

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**2,503**	**5,344**	**2,841**
ORA	**2,503**	**3,079**	**576**

ORA – ORA takes issue with the test year O&M forecast for the Emergency Management work group in their opening brief.[1172] As elsewhere, ORA's opening brief simply restates their testimony positions, which SDG&E addressed issue by issue in Mr. Speer's rebuttal testimony[1173] and summarized in its opening brief.[1174] ORA's opening brief fails to address the reasonable arguments presented in rebuttal. ORA takes issue with the test year O&M forecast for the Emergency Management work group, again stating that the incremental requested funding is not related to new, never-before performed or implemented programs.[1175] Specifically

[1169] Ex. 400 ORA/Godfrey at 61.
[1170] Ex. 71 SDG&E/Speer at 44-45; Ex. 68 SDG&E/Speer at 62; Ex. 69 SDG&E/Speer at 315.
[1171] Ex. 247 SDG&E/Deremer.
[1172] ORA OB at 304-309.
[1173] Ex. 71 SDG&E/Speer at 47-49.
[1174] SCG/SDG&E OB, Section 22.3 at 14-15.
[1175] Ex. 400 ORA/Godfrey at 63-69.

regarding SDG&E's weather stations, ORA takes issue with SDG&E's labor costs, because ORA believes SDG&E's historical expenses should already include costs incurred to maintain, repair and upgrade equipment for its weather network.[1176] SDG&E provided a breakdown of the various weather-related RAMP items, including the historical embedded costs; these are shown in the RAMP item workpapers for Emergency Management.[1177]

In its rebuttal, SDG&E also provided additional reference to cost breakdowns found in both workpapers[1178] and the RAMP report,[1179] in support of its proposed expenses to which ORA had stated lacked a cost breakdown.[1180] Again, in this area ORA's analysis appears to be an arithmetic exercise rather than a need-based critique of the merits of the proposed RAMP-related functions, as it should be in accordance with the Commission's new risk-informed GRC framework.[1181]

For these reasons, SDG&E believes ORA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Emergency Management.

22.3.10 Distribution and Engineering

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**2,341**	**4,297**	**1,956**
ORA	**2,341**	**2,867**	**526**

Both ORA and SBUA make recommendations regarding Distribution and Engineering. ORA makes a funding recommendation, SBUA makes a recommendation regarding the encouragement of small business to engage in energy solutions.

ORA – ORA takes issue with the test year O&M forecast for the Distribution and Engineering work group in their opening brief.[1182] ORA's opening brief simply restates their testimony positions, which SDG&E addressed issue by issue in Mr. Speer's rebuttal

[1176] Ex. 71 SDG&E/Speer at 46-49 (citing Ex. 400 ORA/Godfrey at 64-65).
[1177] *Id*. at 47 (citing Ex. 69 SDG&E/Speer at 278-296).
[1178] Ex. 69 SDG&E/Speer at 300.
[1179] *Id*. at 292.
[1180] Ex. 400 ORA/Godfrey at 64.
[1181] *See* discussion in section 6.4, *supra*, and Ex. 4 SCG/SDG&E/Day/Flores/York, *passim.*
[1182] ORA OB at 304-309.

testimony[1183] and summarized in SDG&E's opening brief.[1184] ORA's opening brief fails to address SDG&E's rebuttal testimony on this issue. ORA has not taken issue with the methodology contained within those incremental estimates but has simply substituted its own underlying base forecast without substantiating any perceived shortcomings of SDG&E's chosen method. ORA's methodology appears to be simply a means to choose a lower value. Given the Commission's direction to implement RAMP-related risk mitigation activities and programs, SDG&E expected ORA to demonstrate a more need-based critique for proposed RAMP-related activities.

SDG&E's rebuttal presentation provided support for its proposed expenses, citing data request responses to ORA.[1185]

PRiME

ORA took particular interest in the Pole Risk Mitigation and Engineering (PRiME) program, which consists of both capital and expense components. ORA recommended considerably inconsistent treatment for the capital and expense components, in part owing to the perception that PRiME was a duplicative program associated with two other pole-related activities at SDG&E: Fire Risk Mitigation (FiRM), and routine pole replacements performed under SDG&E's Corrective Maintenance Program (CMP), in compliance with G.O. 165 under capital budget code BC87232.[1186]

ORA took issue with costs for these programs being split amongst multiple work groups, stating that it appears SDG&E is requesting TY 2019 funding twice for the same activities.[1187] SDG&E demonstrated the differences in the work being performed by the two work groups, and that these are not overlapping activities, in a data request response discussed in rebuttal testimony.[1188]

Regarding SDG&E's incremental request for expenses related to PRiME, ORA appears to suggest funding this program at 25% of SDG&E's request. However, this is inconsistent with ORA's ED Capital testimony recommending 84.8% of SDG&E's capital request for the same

[1183] Ex. 71 SDG&E/Speer at 49-56.
[1184] SCG/SDG&E OB, Section 22.3 at 15-18.
[1185] Ex. 71 SDG&E/Speer at 49-56.
[1186] *Id.* at 51-55 (discussing Ex. 400 ORA/Godfrey). For a descriptive comparison of the PRiME, FiRM and CMP programs, *see* Ex. 71 SDG&E/Speer, Appendix A at 3-5.
[1187] Ex. 400 ORA/Godfrey at 45-46.
[1188] Ex. 71 SDG&E/Speer at 51-55.

program.[1189] It would be inconsistent to adopt ORA's 85% funding recommendation for the capital portion of the PRiME program without also adopting an equivalent amount of the related O&M expenses. SDG&E recommends that the O&M portion for PRiME should be adopted at the originally requested level of $2.142 million. Should the Commission adopt ORA's recommended capital portion, the equivalent O&M fraction would be $1.804 million.

SBUA – In its opening brief, SBUA addressed several of its direct testimony recommendations regarding Distributed Energy Resources (DER, SDG&E's reply to which can be found in Section 22.2 of this Reply Brief), along with several other SBUA customer-service-related recommendations and its call for SDG&E to "dedicate 25% of the total forecast of $4.299 million of Electric Distribution and Engineering for outreach to small businesses,"[1190] a funding request of $4.299 million.

SBUA's direct testimony recommendations were summarized and discussed in SDG&E's rebuttal[1191] and opening brief.[1192] SDG&E agrees with the importance of engaging every customer in energy solutions, and established a budget to assist all customers with interconnecting to the electric distribution grid safely and reliably.[1193] With regard to dedication of 25% of its Electric Distribution and Engineering budget for outreach to small businesses, "SDG&E believes it is infeasible to reallocate 25% of this request without additional incremental funding."[1194]

For these reasons, SDG&E believes ORA's and SBUA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Distribution and Engineering.

22.3.11 Strategic Planning and Business Optimization

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**1,630**	**2,390**	**760**
ORA	**1,630**	**1,630**	**0**

[1189] Ex. 402 ORA/Wilson at 43, Table 7-10. The values at line 11 for Budget Code 17254-PRiME for SDG&E for years 2019 are $40,430. The ORA recommended value is $34,269 for 2019, or 84.76% of SDG&E's request.
[1190] SDG&E OB at 256.
[1191] Ex. 71 SDG&E/Speer at 7, 56.
[1192] SDG&E OB at 255.
[1193] *Id.* at 255.
[1194] *Id.* at 256.

ORA – ORA takes issue with the TY 2019 O&M forecast for the Strategic Planning and Business Optimization work group.[1195] ORA disagrees with the use of a five-year historical average for future labor and non-labor expenses in this work group, due to declining expenses in recent years. SDG&E believes the five-year average estimating methodology is reasonable, as discussed in Mr. Speer's rebuttal testimony.[1196]

SDG&E utilized a five-year average forecasting methodology to account for historical variations, both high and low.[1197] In contrast, ORA's recommendation to use a base year methodology does not account for historical variances in spending and costs for this activity. SDG&E does not request additional incremental funding beyond a five-year average and finds this methodology to be the most appropriate to account for variances in costs experienced from year to year. Again, ORA has not argued the merits of the activities in Strategic Planning and Business Optimization, but has simply substituted its own forecast, appearing to be simply a means to choose a lower value.

SDG&E believes ORA's recommendations should be disregarded and recommends the Commission adopt SDG&E's forecasted expenses for Strategic Planning and Business Optimization.

22.3.12 Regional Public Affairs

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**1,630**	**2,390**	**760**
SDCAN	**1,630**	**683**	**-947**

SDCAN – SDCAN takes issue with the TY 2019 O&M forecast for the Regional Public Affairs (RPA) work group.[1198] SDCAN claims that SDG&E did not comply with the Commission's D.08-07-046 directive and proposes funding Regional Public Affairs at 2013 authorized levels.[1199]

1195 Ex. 400 ORA/Godfrey at 70.
1196 Ex. 71 SDG&E/Speer at 60-61.
1197 Ex. 69 SDG&E/Speer at 91-92.
1198 SDCAN OB at 26.
1199 *Id*.

SDG&E has addressed both of these items in rebuttal and opening briefs.[1200] SDG&E has provided detailed information on RPA's activities and how they serve our customers. As summarized from SDG&E's direct testimony and opening brief:

> RPA educates officials at the county and city levels about SDG&E issues that may have an impact on its customers, and serves as the point of contact in the communities that SDG&E serves, educating stakeholders about SDG&E activities, programs and services, resolving customer complaints and working with under-represented communities.
>
> RPA's primary function is to work with local government regarding existing or proposed operations, which include franchise compliance, energy efficiency program outreach, distribution underground conversions (Rule 20 A&C), street light process improvement, wood-to-steel projects, pipeline safety, substation relocation and enhancement, electric vehicles, emergency planning and response, major construction outreach, summer and winter preparedness, and vegetation management. RPA is the principal liaison between the utility and regional stakeholders, including elected officials, municipal staff, community organizations, and the general public, and is usually the first point of contact when stakeholders have questions or concerns on issues related to SDG&E.[1201]

SDCAN's forecast methodology for RPA is to use 2013 authorized funding levels, which is based on the flawed argument SDCAN utilized in the TY 2016 GRC, which SDG&E addressed and refuted. In this 2019 GRC, SDCAN again dusted off a data request from the TY 2016 GRC without updating the time period dates, and once again asked the same questions. As described in rebuttal, SDCAN's use of different organization structures at different times produce a seeming discrepancy, thereby deriving its recommended reductions.[1202] SDG&E's historical spending includes three cost centers: RPA, Regional Vice President (RVP), and Economic Development. The forecast was developed from historical spending at $1,687,000, which was also the actual spend in 2013.[1203]

SDCAN has not raised any new issues or arguments that were not refuted in previous GRC proceedings. Although the last general rate case (2016) produced a settled decision, the Commission did not address or specifically adopt SDCAN's proposals regarding Regional Public Affairs. SDCAN's arguments should therefore be disregarded, and SDG&E's proposals should be adopted.

[1200] *Id.* at 258.
[1201] *Id.* at 258-259; Ex. 71 SDG&E/Speer at 65-66.
[1202] Ex. 71 SDG&E/Speer at 62-66.
[1203] *Id*. at 65 (discussing Ex. 220 SDCAN/Shames at 46-47).

22.3.13 Vegetation Management (Tree Trimming)

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**23,005**	**22,674**	**-331**
FEA	**23,005**	**22,620**	**-385**

FEA – FEA takes issue with the Test Year O&M forecast for Tree Trimming in their opening brief.[1204] SDG&E recognizes FEA's methodology incorporating the 2017 actual expenses into its forecast. SDG&E had prepared its forecasts using five years of historical data (2012-2016) customarily available according to the Rate Case Plan in development of its detailed forecast estimates and continues to support adoption of those forecasts for TY 2019. Within those historical years, SDG&E noted that for the Vegetation Tree Trim activity, 2012 represented an unusually high cost year, and for that reason, SDG&E used a four-year average, omitting 2012.[1205]

ORA AND FEA – ***Two-way balancing account for Tree Trimming*** **–** ORA and FEA take issue with SDG&E's request for two-way balancing treatment and propose to continue the one-way balancing account of SDG&E's tree trimming workgroup in their opening briefs.[1206] Two-way balancing would provide flexibility and sufficient funding for work resulting from 2016 and 2017 winter storm events and tree mortality associated with the ongoing effects of drought and beetle infestation.[1207] Utility vegetation management involves some of the most hazardous work and requires a very high skill level when working in proximity to powerlines. SDG&E contractors have experienced a greater need for additional tree crews to perform the work, and SDG&E dedicates fire safety personnel and equipment such as water tenders when working in the highest fire threat zones. Lastly, SDG&E has continued to explore the use of even more advanced technology and use of Light Detection and Ranging (LiDAR) to help develop tools for inspections, patrols, and quality assurance. The application of a two-way balancing account will both permit the adoption of these measures and serve to protect customers.

[1204] FEA OB at 35-36

[1205] Ex. 71 SDG&E/Speer at 66.

[1206] FEA OB at 18-20; ORA OB at 316-317.

[1207] Ex. 71 SDG&E/Speer at 67.

For these reasons, the Commission should adopt SDG&E's proposal for two-way balancing treatment of Tree Trimming Vegetation Management.

22.3.14 Vegetation Management (Pole Brushing)

NON-SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**3,450**	**3,741**	**291**
FEA	**3,450**	**3,368**	**-82**

FEA – FEA takes issue with the TY 2019 O&M forecast for Pole Brushing in their opening brief.[1208] They use the same argument for Pole Brushing as for Tree Trimming,[1209] disagreeing with SDG&E's use of a five-year average for pole brushing and instead propose a four-year average that includes 2017 data. Specifically, FEA states: "As can be seen, historical costs were higher in 2012 and 2013 and have remained fairly constant in a four-year period from 2014-2017."[1210]

FEA disregarded two years of historical costs (2012 and 2013) apparently because they are the highest and second highest expense years, respectively, without providing a basis for doing so. SDG&E tested those values, finding that only 2012 could be considered a true outlier.[1211] FEA therefore misinterprets the historical data, and its proposal should not be adopted.

22.3.15 Reliability

SDCAN – SDCAN's opening brief claims that SDG&E's reliability data may be unreliable and misreported based on media outage reports and requests that $5 million of SDG&E's O&M or capital revenues be redirected to fund an independent analysis.[1212] SDG&E refutes the claim of unreliable data and disagrees with SDCAN's proposal. SDG&E's response is documented in "Reply to Protest of Advice Letter 3217-E: Distribution PBR Reliability Performance Incentives for 2017" filed with the CPUC on May 29, 2018 and can be found in rebuttal testimony.[1213]

[1208] FEA OB at 36-38.
[1209] Ex. 366 FEA/Smith at 84-87.
[1210] *Id*. at 85.
[1211] Ex. 71 SDG&E/Speer at 68.
[1212] SDCAN OB at 21-24.
[1213] Ex. 71 SDG&E/Speer at 68-70 (quoting Reply to Protest of Advice Letter 3217-E: Distribution PBR Reliability Performance Incentives for 2017).

SDG&E's data is audited and accurate, and a truthful representation of the reliability impacts for the outage events listed. SDCAN states that SDG&E only offered a general argument about its "rigorous quality control,"[1214] but SDG&E provided five bullet points in rebuttal that outlined in detail the quality control process. These steps include internal auditing from Sempra Energy's business controls department of the PBR results data that is submitted to the Commission with SDG&E's annual PBR advice letter.[1215]

Additionally, SDG&E has identified that SDCAN may have had errors in their analysis. SDCAN's opening brief only identifies the facts that "not all outages are represented in local media," "planned outages may still end up in media reports," and "SDG&E's Geographic Information System must be used to match circuit and affected device locations," may lead mistakes in their analysis.[1216] SDCAN failed to mention the other items that may lead to mistakes in their analysis, including, "Media reports often aggregate several individual outage records," and "a single outage event may sometimes be split into separate outage records" with overlapping durations, making it difficult to determine the total duration of the event documented by the media.[1217] These and other factors detailed in rebuttal illustrate that outage analysis based on media reports is unreliable and will likely lead to erroneous conclusions.[1218] SDG&E therefore recommends the Commission similarly disregard SDCAN's recommendation in its entirety.

22.3.16 Performance Based Ratemaking

CCUE – SDG&E has made no proposal for the continuance of Electric Reliability Performance rewards or penalties in this GRC from Performance Based Ratemaking (PBR). CCUE proposes the continuance of a PBR mechanism resulting from prior GRCs and negotiations with CCUE between GRC decisions, as stated in their opening briefs.[1219] CCUE does not address the arguments made in SDG&E's rebuttal[1220] (incorporated herein by reference) and instead restates their opening position from testimony. SDG&E opposes CCUE's recommendation.

1214 SDCAN OB at 23.
1215 Ex. 71 SDG&E/Speer at 69.
1216 SDCAN OB at 23.
1217 Ex. 71 SDG&E/Speer at 70.
1218 *Id.*
1219 CCUE OB at 154-160.
1220 Ex. 71 SDG&E/Speer at 70-73.

SDG&E's direct testimony described and supported SDG&E's decision not to propose an electric reliability performance-based ratemaking mechanism (PBR) in the TY 2019 GRC.[1221] ORA's Report on Electric Distribution Expenses took no issue with this testimony and made no recommendation regarding PBR.[1222] To the contrary, ORA's Report on Electric Distribution Capital argued against funding SDG&E's reliability-related projects, claiming that "SDG&E has a very reliable electric system and it has not demonstrated a need for increased reliability."[1223] Similarly, no party other than CCUE took issue with SDG&E's decision not to propose a PBR.

CUE mistakenly characterizes SDG&E's decision not to propose an electric reliability PBR mechanism in this proceeding as an "ask … to drop the existing PBR mechanisms completely."[1224] This is inaccurate because SDG&E is under no Commission requirement to propose a PBR. It is true that SDG&E has, in the past, proposed PBR incentive mechanisms as part of its GRC applications. However, these proposals were made voluntarily, and they were made with the understanding that the PBR would fairly provide a balancing of incentives for the improvement of electric distribution reliability. There is no CPUC requirement for electric utilities to propose PBRs, and they are unnecessary to providing safe and reliable service, as the Commission stated in SDG&E's TY 2008 decision:

> The Commission has the authority and discretion to adopt incentive mechanisms when it finds that by providing specific, measurable targets, the utility can intentionally improve performance and thereby increase customer satisfaction or employee safety. (Pub. Util. Code § 701.) <u>We are not required to approve incentive mechanisms because properly determined rates are sufficient to provide safe and reliable service.</u>[1225]

A variety of other argument points by CCUE are refuted in rebuttal, including discussion of the nature of incentive mechanisms, the potential unintended conflict with safety measures (particularly with respect to wildfire risk), other safety and risk-mitigation efforts, and comparison by CCUE of SDG&E's reliability and that of SCE and PG&E.[1226] For all of the reasons provided in testimony and herein, the Commission should disregard CCUE's PBR proposal for the TY 2019 GRC cycle.

1221 *Id.* at 70-73 (citing Ex. 68 SDG&E/Speer at 94-98).
1222 Ex. 400 ORA/Godfrey at 73.
1223 Ex. 401 ORA/Roberts at 28.
1224 Ex. 370 CUE/Marcus at 96.
1225 D.08-07-046 at 49 (emphasis added).
1226 Ex. 71 SDG&E/Speer at 70-73.

22.3.17 Conclusion

In summary, the parties submitting opening briefs on SDG&E's ED O&M proposals were ORA, FEA, CCUE, SDCAN, and SBUA. Several forecasted areas in SDG&E's direct testimony were unchallenged by intervenors. The largest proposed reductions between SDG&E's test year forecast and party forecasts were within the Construction Services and Electric Regional Operations work groups. ORA recommends a $10.6 million reduction and FEA recommends a $13.6 million reduction in the Construction Services work group, seemingly disregarding the justification for the incremental RAMP proposed programs.

SDG&E rebutted these proposals in its rebuttal testimony, providing testimony and data request responses refuting various claims. The funding levels of previous programs should not solely dictate the approval of new proposed risk reduction programs, particularly where O&M is tied to newly approved RAMP capital projects. In many cases, SDG&E developed its forecasts using discrete incremental adjustments to the underlying base year or averages and trends of historical costs. ORA's and other parties' methods that rely almost exclusively on historical averages neglect to consider the individual merits of important new and necessary programs. SDG&E recommends that the Commission disregard recommendations based solely on those methods.

SDG&E has provided a substantial amount of detail supporting its forecasts in testimony, workpapers, and data requests, including a new and significant amount of information regarding projects and programs that are proposed to address SDG&E's key safety risks, as presented in its RAMP Report. SDG&E respectfully requests its requested ED O&M funding be approved by the Commission.

22.4 Supplemental Year-Round Wildfire Risk Mitigation (O&M)

No parties submitted testimony or opening briefs on SDG&E's supplemental testimony supporting additional incremental funding for an annual lease of a helitanker to provide firefighting support for SDG&E's service territory, to reflect an expanded fire season.[1227] SDG&E's supplemental testimony showing included the testimony of David Geier, who testified to the importance of the helitanker as a regional firefighting asset and an important component of SDG&E's fire risk mitigation program, for the past eight years.[1228] Mr. Geier testified that the

[1227] SCG/SDG&E OB at 241, 263-266.
[1228] Ex. 360 SDG&E/Geier at 1.

helitanker can and has proven to help quickly suppress and contain fires when they occur, to reduce the potential of catastrophic damage, and testified regarding SDG&E's need to secure a year-round lease for the helitanker.

Mr. Speer's second revised direct testimony and supplemental workpapers requested O&M costs within the Electric Regional Operations (ERO) organization that reflect these changes, extending helitanker coverage to reflect a year-round lease.[1229] Mr. Speer's supplemental workpapers show costs for the year round helitanker lease of $3.897 million.[1230] However, Mr. Ryan Hom's update testimony shows no revenue requirement impact from the year-round proposal, as it was deducted from the offsetting adjustment reflecting SDG&E's Tax Cuts and Jobs Act (TCJA) impacts, consistent with Mr. Manzuk's testimony.[1231]

No party has opposed Mr. Geier's or Mr. Speer's Supplemental Year-Round Risk Mitigation testimony presentation in testimony or briefing. Because of the extreme weather events and the necessary efforts to mitigate fire hazard within its service territory, as described in Mr. Geier's and Mr. Speer's testimony, the requested funding for year-round lease of the helitanker (reflected in SDG&E's ERO forecasts) should be approved by the Commission.

22.5 Asset Management

In its opening brief, SDG&E described how it has newly formed an Asset Management group to create and develop a strategic asset management capability, in accordance with the world-class standard of ISO 55000.[1232] SDG&E's Electric Distribution (ED) O&M testimony and workpapers, supported by witness William Speer, describes and justifies SDG&E's forecasted ED O&M activities from 2017-19, including $4.6 million of incremental costs for a newly formed Asset Management organization.[1233] SDG&E witness Kenneth Deremer sponsored rebuttal testimony adopting Mr. Speer's direct testimony supporting the Asset

[1229] Ex. 68 SDG&E/Speer at 14 and 48; Ex. 70 SDG&E/Speer. The 365-day helitanker program requires additional functions and support beyond SDG&E's previous helitanker program, which costs are reflected in the testimony and workpapers. ERO costs are addressed in section 22.3, *supra*.
[1230] Ex. 70 SDG&E/Speer.
[1231] Ex. 514 SCG/SDG&E/Hom Update Testimony (UT) (August 2018) at 26; Ex. 253 SCG/SDG&E/Manzuk at 1-2.
[1232] SCG/SDG&E OB at 266-272.
[1233] Ex. 68 SDG&E/Speer at 62-65 (adopted by Deremer); Ex. 69 SDG&E/Speer (adopted by Deremer) at 315-327.

Management forecasts[1234] and rebutting issues raised regarding Asset Management in ORA's[1235] and OSA's[1236] direct testimony. Mr. Deremer also testified that the newly created Asset Management organization is consistent with SDG&E's commitment in their TY 2016 GRC to evolve and mature their risk, asset, and investment management practices, as shown in the testimony of Ms. Day.[1237] And, as a whole, the evidentiary showing supporting SDG&E's Asset Management organization demonstrated how its function is consistent with Commission guidance instructing SDG&E to implement strong risk management organizational practices and programs.

The opening briefs of ORA and OSA offer different (and directly opposing) viewpoints on SDG&E's Asset Management request, neither of which directly addresses SDG&E's Asset Management testimony supporting its proposals. On one hand, ORA argues no benefit to ratepayers for funding asset management and recommends denying SDG&E's request in toto, arguing that SDG&E should fund Asset Management within current funding levels and that the asset management function is routine and ongoing.[1238] On the other hand, OSA appears to suggest that SDG&E should be doing more than implementing ISO 55000 asset management standards, without recognizing the safety and reliability benefits of ISO 55000 implementation, or the important similarities between ISO 55000 and API 1173, as shown in Mr. Deremer's testimony. Both intervenors provide no direct analysis of SDG&E's funding request.

SDG&E's ISO 55000 funding request is consistent with Commission guidance. As Mr. Deremer testified, the Commission's Safety and Enforcement Division (SED) recommended ISO 55000 compliance in their March 2015 report, related to the Companies' TY 2016 GRC:

> Sempra should continue to evolve its Risk Management Program. Risk Management encompasses many interrelated programs and processes that cut across many different Business Functional Areas. Given constraints, an expedient way to validate the effectiveness of these processes in managing assets in a safe, reliable, and efficient manner, would be for Sempra to demonstrate accredited 3rd party certification of compliance with the ISO 550001 Asset Management Standard.[1239]

[1234] Ex. 68 SDG&E/Speer/Deremer at 62-65; Ex. 69 SDG&E/Speer/Deremer at 315-327.
[1235] Ex. 400 ORA/Godfrey at 48-55.
[1236] Ex. 442 OSA/Contreras/Au, *passim*.
[1237] Ex. 3 SCG/SDG&E/Day at 26-27.
[1238] ORA OB at 310.
[1239] A.14-11-003/-004 (cons.), March 27, 2015, *Safety and Enforcement Division, Risk Assessment Section, Staff Report on [SoCalGas' and SDG&E's] 2016-2018 Consolidated General Rate Case* at 43.

Both OSA's and ORA's arguments wholly ignore the fact that SDG&E's proposal supporting implementation of a new Asset Management organization was designed in conjunction with collaborative efforts involving SED and guidance from Commission decisions. For example, OSA's claim of "concern" and surprise regarding discussions between OSA and SDG&E regarding its new Asset Management organization[1240] ignores the fact that SDG&E's proposed Asset Management organization is consistent with the Commission's Risk Framework Decision,[1241] with its planned requirements to implement the S-MAP, RAMP, and annual accountability reporting as part of the GRC process, as well as being consistent with SED guidance.[1242] Laying aside the fact that OSA's claims are also based on hearsay and not a part of the evidentiary record (as noted in the concurrently filed motion), SDG&E's Asset Management proposal is also in accordance with SDG&E's continued commitment to evolving its Asset Management organization in furtherance of its safety goals, along the strategic planning trajectories shown in Ms. Day's TY 2016 and TY 2019 GRC testimony.[1243] SDG&E's Asset Management organization is fully consistent with its transparently stated plans to strengthen their risk, asset, and investment management processes, in their TY 2016 and TY 2019 GRC testimony presentations.[1244] OSA's claim that the Companies are "speaking different tongues"[1245] from Commission staff is inconsistent with the evidentiary record and Commission decisions in several different proceedings.[1246] To the contrary, OSA appears unwilling to discuss SDG&E's proposals within the context of the Commission's Risk Framework Decision and newly established RAMP process, with which SDG&E is obligated to comply.

On the opposite end of the spectrum, ORA argues that SDG&E's request for funding a newly created Asset Management organization and conformance with ISO 55000 offers no benefit to ratepayers[1247] and is simply an existing operational function in a different package.

[1240] OSA OB at 2.
[1241] *See* Ex. 3 SCG/SDG&E/Day at 3-9 (discussing the Risk Framework Decision, D.14-12-025, and SDG&E's GRC testimony presentation in conformance with D.14-12-025 and D.16-08-018).
[1242] Ex. 361 SDG&E/Deremer at 5.
[1243] *Id.* (citing Ex. 3 SCG/SDG&E/Day at 26-27).
[1244] Ex. 3 SCG/SDG&E/Day at 21-28.
[1245] OSA OB at 2.
[1246] *See generally, e.g.,* D.14-12-025, D.16-08-018, and *see* D.18-04-016 at 15 ("[W]e find that the final step in the RAMP process was completed upon integration of the RAMP filing and comments into SDG&E's and SoCalGas' TY2019 GRC applications, specifically, in the assessment of safety risks and proposed mitigations.").
[1247] ORA OB at 310.

ORA's conclusion is belied by the fact that SDG&E's efforts are consistent with SED and Commission guidance and recommendations for maturing and integrating SDG&E's risk, asset and investment management processes in promotion of its safety and reliability goals.[1248] As Mr. Speer testified (adopted by Mr. Deremer):

> This new group [the Asset Management organization] will be the program structure that assesses, leverages, and integrates the in-flight improvement work across all aspects of the business, and creates select new asset management capability . . . [t]his will benefit SDG&E's ratepayers and our employees by supporting our goals of safety, reliability, affordability, and customer satisfaction.[1249]

ORA's opening brief ignores Mr. Deremer's rebuttal testimony, which describes in detail the safety benefits to ratepayers of a comprehensive and systematic asset management program.[1250] Mr. Deremer's testimony also explains in detail why the Asset Management organization performs a new and unique function, distinct from historical activities, and thus requires incremental funding.[1251] Mr. Deremer further explains that this function was officially launched by SDG&E in late 2017. ORA's opening brief dismisses wholesale the entirety of Mr. Deremer's rebuttal evidence presentation.

OSA and ORA adopt of two diametrically opposing viewpoints – one suggesting no value in ISO 55000, while the other suggests that ISO 55000 does not go far enough. Both OSA and ORA are incorrect in their assertions, as shown in Mr. Deremer's rebuttal testimony and addressed in turn below.

22.5.1 OSA

OSA's opening brief continues to argue that SDG&E should adopt a safety management system (SMS) for its electric business that includes an asset management system that is certifiable under American Petroleum Institute (API) 1173,[1252] instead of ISO 55000, as SDG&E proposes. OSA recommends that SDG&E should develop a SMS framework to address electric operations, and present its proposal in the next GRC; and that SDG&E's SMS framework should leverage the API 1173 framework's emphasis on safety culture.[1253]

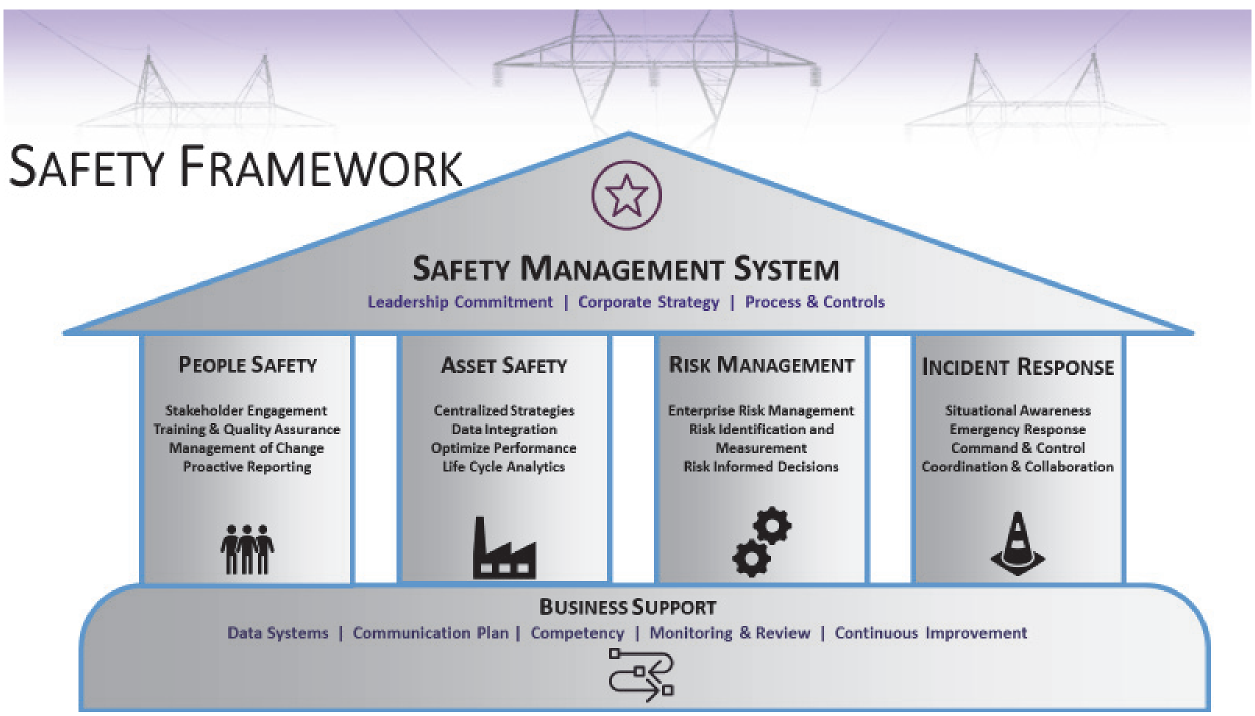
[1248] *See* Ex. 3 SCG/SDG&E/Day at 21-28.
[1249] Ex. 68 SDG&E/Speer/Deremer at 62 (adopted by Ex. 361 SDG&E/Deremer at 1).
[1250] *See, e.g.,* Ex. 361 SDG&E/Deremer at 15-17.
[1251] *Id.* at 17-21.
[1252] OSA OB at 12.
[1253] Ex. 442 OSA/Contreras/Au at 2-20 – 2-25.

With no citation to the record or other authority, OSA states:

> ISO 55000 is an asset management system standard that often looks at optimizing the use and life-cycle of assets to achieve value for *various business goals*, whereas SMS is specifically targeted at improving safety. So they have differing *lenses*. Often other business objectives can overshadow safety.[1254]

As Mr. Deremer explained in rebuttal testimony, SDG&E appreciates OSA's focus and attention on enhancing safety efforts at the utilities in a systematic way, shares this core belief, and is committed to addressing safety as its top priority.[1255] But, as Mr. Deremer testified, OSA's recommendations are consistent with the spirit and objectives of SDG&E's asset management initiative, newly formed organization, and planned conformance with ISO 55000 – even though OSA does not recognize this fact in its brief.

Mr. Deremer testified that asset safety is a critical pillar in the overall safety management framework SDG&E maintains and aligns directly with SDG&E's enterprise risk management platform, as demonstrated in the graphic below:[1256]



The implementation of a ISO 55000 asset program will be a critical enhancement in advancing the safe management and operation of SDG&E's electric assets. As Mr. Deremer

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1254 OSA OB at 12 (emphasis in original).
1255 Ex. 361 SDG&E/Deremer at 5.
1256 *Id.* at 6.

acknowledged, OSA is correct that ISO 55000 is an asset management system, and API 1173 is a safety management system for pipelines.[1257] However, OSA's OB continues not to appear to have a complete view of ISO 55000 as it relates to asset safety and risk and does not acknowledge the important similarities between ISO 55000 and API 1173 with respect to safety benefits. Interestingly, OSA's brief references several characteristics of an effective SMS – perhaps not understanding that those same characteristics are key tenets of ISO 55000, as it relates to managing assets. For example, OSA's OB discusses the following action items as necessary to implementing an effective SMS:

- to "evaluate the effectiveness of the improvement strategies that resulted from [a] safety culture assessment [and] . . . monitor[] the implementation of the improvement actions and the impact of the outcomes;"[1258]
- to develop systematic processes for improvement in "a deliberate effort to close the safety management gaps";[1259] and
- to develop and use quantitative risk-informed data.[1260]

All of the above items are key to developing processes in accordance with ISO 55000, which OSA's criticisms fail to recognize.

OSA's arguments promoting API 1173 also fail to recognize that SDG&E's electric distribution operations cannot be certified.[1261] Because API 1173 is specifically for entities that operate pipelines, SDG&E's electric business would not be able to receive certification under the standard, as Mr. Deremer stated in rebuttal testimony.[1262] ISO 55000 is a broader standard that incorporates key elements of API 1173 in managing assets and ultimately drives the mitigation of safety risk as the cornerstone of decision-making. It contains many of the key tenets of API 1173, but makes more practical sense for SDG&E's electric assets, since API 1173 is specifically geared for oil and gas pipeline operators.[1263]

Moreover, because SDG&E is largely an electric distribution company, its electric distribution assets form the basis of its core operations. Therefore, the safety of SDG&E's core operations directly depends upon safely and competently managing its assets. SDG&E's asset

[1257] *Id.* (citing Ex. 442 OSA/Contreras/Au at 2-21).
[1258] OSA OB at iv.
[1259] *Id.* at 13.
[1260] *Id.* at 34.
[1261] SCG/SDG&E OB at 269.
[1262] Ex. 361 SDG&E/Deremer at 6.
[1263] *Id.* at 6.

management initiative, which is outlined in further detail below, is directly aligned with and is a critical extension of SDG&E's enterprise risk management program (as described in Ms. Day's direct testimony),[1264] and is identified as a RAMP activity addressing critical risks categories, including wildfire mitigation, electric infrastructure integrity and records management, among others. As explained in SDG&E's direct testimony, the Commission has recognized the importance of establishing a comprehensive asset management program that comports with ISO 55000 in advancing and evolving risk management and asset safety across business functional areas.[1265]

Mr. Deremer estimated that about 80% of the key principles of API 1173 are included in ISO 55000.[1266] For example, a critical element to SDG&E's current and future asset management program (under ISO 55000) is the Corrective Maintenance Program (CMP), which is an asset safety process deployed to provide oversight and structure around SDG&E's inspection, maintenance, and repair of electric facilities in compliance with General Orders 95, 128 and 165.[1267] The fundamental provisions of SDG&E's CMP directly align with the safety and compliance objectives of API 1173.

For all of these reasons, although the details may differ, SDG&E's proposal should be considered consistent with the nature of OSA's proposals.

22.5.2 ORA

ORA's OB recommends denying SDG&E's request for incremental funding of $4.610 million to establish an Asset Management group in its entirety, based on the following arguments:

- ORA states that the funding for Asset Management should be done within current funding levels (*i.e.*, reallocating and utilizing embedded historical costs).
- SDG&E's asset records management and maintenance functions are routine and ongoing activities with historical costs already funded by ratepayers.
- Groups subsequently transferred into the new Asset Management organization (Compliance Management and Technology Solutions and Reliability) are overlapping functions with the proposed Asset Management group.
- SDG&E is not a start-up company and its historical expenses should include labor costs for several groups that have been performing the same or similar activities proposed for the Asset Management group.

[1264] *Id.* at 5 (citing Ex. 3 SDG&E/Day at 26-27).
[1265] *Id.* (citing Ex. 68 SDG&E/Speer/Deremer at 60).
[1266] *Id.* at 7.
[1267] *Id.* (citing Ex. 74 SDG&E/Colton at 46-47).

- SDG&E's testimony does not discuss or demonstrate the benefit to ratepayers for funding asset management.[1268]

ORA's OB ignores entirely Mr. Deremer's rebuttal testimony, which demonstrated the purpose, extensive effort, and ratepayer benefits of SDG&E's plan to implement a comprehensive and integrated asset management program that will enhance the safety, performance and utilization of SDG&E's electric assets.[1269] SDG&E's incremental cost request to establish a comprehensive and integrated Asset Management organization and program is critical to SDG&E's asset risk strategy, as described in Ms. Day's and Mr. Deremer's testimony. Moreover, SDG&E's plan to create a central asset management organization is consistent with key Commission objectives, including the emphasis on asset safety that is the subject of OSA's testimony in this GRC proceeding. ORA's recommendation not to fund SDG&E's new Asset Management organization is unwise and contrary to Commission policy and the evidence in this proceeding, as explained in testimony and summarized below.

First, ORA's OB wholly ignores Mr. Deremer's testimony describing the unique functions of the Asset Management organization and how those functions provide benefits to ratepayers, including safety benefits.[1270] For example, Mr. Deremer provided the following table demonstrating the distinction of the responsibilities of the incremental asset management team and that of the existing operating divisions, who will continue to maintain the responsibility of asset ownership, implementation of asset strategies and execution of asset plans.[1271]

Table 22.5.A – Asset Management Activities versus Existing Organizations

Asset Integrity Management (AIM) Activity	***Central AIM Organization (Incremental)***	***SDG&E Functional Organization (Non-incremental)***
Executive oversight of AIM program	<u>Steering Committee Chair</u>: Set priorities, allocate resources, oversee accountability for Asset Management safety and other objectives, providing long-term asset vision and promote culture change.	<u>Steering Committee</u> Operating Unit Vice Presidents (excluding Chair) who own, operate and maintain critical assets

[1268] ORA OB at 310-316; *see also* Ex. 361 SDG&E/Deremer at 8.
[1269] Ex. 361 SDG&E/Deremer at 8.
[1270] *Id.* at 7-21.
[1271] *Id.* at 20.

Asset Integrity Management (AIM) Activity	***Central AIM Organization (Incremental)***	***SDG&E Functional Organization (Non-incremental)***
Core Leadership – Strategy, governance, asset plan development, and management.	Provide program leadership, guidance and support in development, monitoring, integration and enhancement of asset plans that focus on asset safety and other corporate objectives. Asset plans leverage best practices in the company and across the industry to achieve the long-term objectives.	<u>Engineering Operations</u> Ownership, implementation and execution of asset plans for specific operating organizations
Asset Planning and management to support the leadership team in implementation	Align asset planning throughout asset lifecycle to optimize asset performance. Coordinate between critical asset operating organizations. Engage all stakeholders across lifecycle of asset. Align safety and other projects to achieve long-term objectives.	<u>Engineering Planning & Design</u> Execution and implementation of asset planning, design and configuration
	Ensure that asset construction aligns with engineering and design.	<u>Construction Services</u> Physical construction and installation of assets
	Provide direction on procurement strategy that aligns with the asset plans.	<u>Supply Management</u> Develop, implement and execute procurement strategy that aligns with asset plans
	Establish governance, analytics, monitoring and reporting of the asset maintenance plans.	<u>Field Operations/Crews</u> Execute maintenance plans in accordance with asset strategies
	Determine risk-based criteria for assets to appraise and prioritize investments based on lifecycle plans. Perform sensitivity analysis to identify costs/benefits	<u>Financial Planning</u> Oversee overall capital budget process and report out monthly results versus plan
Information Systems and Records Mgmt – Data integration and centralization	Maintain and enhance integrated system for managing asset data and records to provide data transparency and accessibility to enable asset strategies that mitigate highest risk and optimize asset value.	<u>Information Technology Teams</u> Provide business and technical support to asset management data systems to support user functionality, information system performance and application accessibility.
Asset Safety Risk and Performance Analysis and Metrics	Develop and evaluate asset plans and alternatives to mitigate risks using criteria consistent with Enterprise Risk Management. Analyze how to optimize asset performance.	<u>Enterprise Risk Management</u> Identify and prioritize key risks and develop criteria for measuring and evaluating risk

Asset Integrity Management (AIM) Activity	*Central AIM Organization (Incremental)*	*SDG&E Functional Organization (Non-incremental)*
Evaluation and Reporting – Continuous Improvement,	Monitor and manage effectiveness of asset management system and apply changes for continuous improvement. In partnership with other teams, develop accountability reports related to risk reduction on asset condition and performance.	<u>Asset Owners, Internal Audit</u> Support quality assurance and control function for each asset class.
Change Management and Communication	Implement change management to educate stakeholders and champion asset management culture across company through various communication forums.	

Mr. Deremer's rebuttal testimony also provided extensive additional narrative explaining the distinct functions of the organizations where ORA claims "overlap." In addition, Mr. Deremer's rebuttal testimony outlines what asset management efforts have been launched to date, which ones are in progress and what is planned for the future. None of Mr. Deremer's rebuttal testimony is addressed in ORA's OB.

Second, ORA's OB ignores the fact that, as a matter of policy, the Commission has endorsed and adopted funding for incremental programs and initiatives that focus on the prioritization and enhancement of safety and risk management, in particular following its adoption of the new risk-informed GRC framework and RAMP and S-MAP proceedings, in 2014.[1272] This is evident in the Commission's adoption of a settlement that included incremental funding for SDG&E to establish an Enterprise Risk Management organization in the TY 2016 proceeding[1273] and their funding for PG&E to implement various certifiable asset management programs.[1274] ORA's citation to a TY 2009 decision on an SCE request for funding deemed to be for "the same or similar activities"[1275] is thus inapposite, because it fails to account for more recently adopted Commission policy supporting RAMP risk mitigation activities, and because Mr. Deremer's rebuttal testimony provides ample evidence supporting the fact that the Asset

[1272] *See generally* D.14-12-025 and D.16-08-018.
[1273] D.16-06-054 at 144-145.
[1274] *Id.* at 137. *See also, e.g.,* D.14-08-032, *passim*, authorizing funding for various PG&E asset management initiatives to "bring[] PG&E's mapping and asset management into line with best industry practices."
[1275] ORA OB at 315-316.

Management organization's function provides benefits to ratepayers and is separate and distinct from SDG&E's historical activities,[1276] unlike the 2009 SCE case.

Moreover, as noted in SDG&E's OB, ORA, SDG&E, OSA, and numerous other parties recently jointly requested adoption of a settlement agreement adopting a risk management methodology that relies on assessing risk by groups of assets with like characteristics, in the S-MAP applications currently before the Commission.[1277] The settling parties, including ORA, noted that this approach is consistent with the Commission guidance to create and maintain asset-level risk models to provide the safe operation and management of utility assets:

> Moreover, the settlement is consistent with the Commission's conclusion that the utilities should "create risk models either at the asset level or structured by event and rolling up into higher levels," an effort that will "contribute to safety objectives over time."[1278]

As described in Mr. Speer's direct testimony and in Mr. Deremer's rebuttal, the implementation of ISO 55000 would accomplish this goal. OSA recognizes the importance of a comprehensive asset safety system in its testimony filed in this GRC; and SED recommended ISO 55000 compliance as part of SDG&E's plans for maturing its risk management program. By rejecting funding for the ISO 55000 asset management program, ORA fails to acknowledge these key policy objectives as well as the extensive and comprehensive effort needed to establish such an initiative.[1279]

For all of the reasons described above and in testimony, SDG&E's request for funding an Asset Management organization that comports with ISO 55000 should be approved.

23. Customer Service

23.1 Customer Services Field and Meter Reading

Approval of TY 2019 forecasts for SoCalGas' Customer Services – Field and Meter Reading and SDG&E's Customer Services – Field (collectively, CS-F) has been fully supported

[1276] Ex. 361 SDG&E/Deremer at 7-21.
[1277] A.15-05-002 (cons), Joint Motion for Approval of Settlement Agreement Plus Request for Receipt into the Record of Previously Served Documents and for Expedited Comment Period of Pacific Gas and Electric Company (U-39 E), Southern California Edison Company (U-338 E), Southern California Gas Company (U-904 G), San Diego Gas & Electric Company(U-902 M), The Office of Ratepayer Advocates, The Utility Reform Network, and Energy Producers and Users Coalition and Indicated Shippers (filed May 2, 2018) at 19-20.
[1278] *Id.* at 19-20 (quoting D.16-08-018, COL 15).
[1279] Ex. 361 SDG&E/Deremer at 10.

and justified through witness Gwen Marelli's testimony as well as SoCalGas' and SDG&E's collective opening brief.[1280] SoCalGas' CS-F organization is forecasting TY 2019 total shared and non-shared O&M expenses of $171.440 million or an increase of $4.239 million or 2.5% over 2016 BY adjusted recorded expenses for SoCalGas' CS-F activities.[1281] SDG&E's CS-F organization is forecasting TY 2019 total non-shared O&M estimated expenses of $23.723 million or an increase of $2.284 million. Except as detailed below, the parties' Opening Briefs did not raise any new issues, arguments or proposals that are substantially different than what the parties have presented in testimony, and SoCalGas and SDG&E have responded to each of the other party's proposals in its rebuttal testimony and Opening Brief.

23.1.1 SoCalGas

23.1.1.1 MSA Inspection Program

As noted in its Update Testimony and its Opening Brief, SoCalGas is requesting TY 2019 funding of $18.121 million for CS-F organization's MSA Inspection Program. TURN did not recognize but also did not oppose SoCalGas' updated request. Instead, TURN has proposed a reduction of $1.169 million from SoCalGas' initial forecast.[1282]

In support of its proposed reduction, TURN points to, among other things, SoCalGas' inability to complete 206,692 of the attempted 2,108,549 field inspections, due to access issues.[1283] TURN argues that "while SoCalGas would presumably reduce the rate of attempted inspections 'not completed due to access issues,' which as 9.6% in 2017, it would not reduce that rate to 0% in a steady state.… In other words, it's inaccurate to assume that SoCalGas needs the full $2.7 million incremental costs for 2019 to stay on top of remediation work."[1284]

However, TURN fails to acknowledge that SoCalGas would need funding to complete approximately 2.1 million year-after-year inspections at a steady state. These inspections are <u>in addition</u> to following up on the "can't get in" inspections, together with all remediation work

[1280] SCG/SDG&E OB at 272-360.
[1281] Ex. 119 SCG/Marelli at 1 (Table GRM-1 showed a total of $170.021 million which is an increase of $2.820 million or 1.7%). The updated amount of $171.440 million includes $1.419 million increase for CS-F MSA Inspection Program Cost Category as submitted in SoCalGas' Update Testimony on August 2018 for Customer Services – Field. Ex. 514 SCG/SDG&E/Marelli Update Testimony (UT) (August 2018) at 3 (Table GRM-1). No intervenor has opposed this updated forecast.
[1282] TURN OB at 95.
[1283] *Id.* at 97.
[1284] *Id.* at 98.

identified annually during the TY 2019 GRC.[1285] Collectively, the 2.1 million year-after-year inspections, combined with the "can't get in" inspections results in more work, not less, as suggested by TURN.[1286] Consequently, SoCalGas TY 2019 forecast expenses for MSA inspections is reasonable and should be adopted.

23.1.1.2 CS-F Meter Reading Operations

SoCalGas is requesting TY 2019 funding of $2.219 million for SoCalGas to conduct manual meter reading (SoCalGas estimates a total of 335,744 manual reads in TY 2019).[1287] TURN states that "SoCalGas expects the cost of meter reading to drop significantly as AMI installation is completed."[1288] TURN then points to SoCalGas' actual 2017 spending, which was lower than forecasted, as support for its argument that SoCalGas' TY 2019 forecast is too high. Consequently, TURN proposes "a 10% adjustment to labor costs…to $2.002 million."[1289]

SoCalGas, in fact, has forecasted fewer meters to read in 2019 than in 2017.[1290] But SoCalGas has pointed out that the comparison between SoCalGas' forecast and TURNs comparison between the 2017 forecast and 2017 actuals is incorrect because 2017 recorded costs exclude the costs of opt out meter reads, whereas the TY 2019 forecast includes opt-out meter reads. TURN, citing to Ms. Marelli's cross-examination, states that Ms. Marelli "acknowledged that both the utility's 2017 forecast…and 2017 recorded costs… exclude opt out meter reads, making a comparison between the two 'apples to apples.'"[1291] Witness Marelli agreed that actual 2017 manual metering costs were "significantly lower than SoCalGas' forecast for that year."[1292] But TURN's comparison of the 2017 adjusted recorded cost of $2.268 million to SoCalGas' 2017 forecast of $3.741 million is not correct in determining the reasonableness of SoCalGas' TY 2019 forecast of $2.219 million and is irrelevant to SoCalGas TY 2019 zero-based forecast.[1293]

There are other factors that influenced SoCalGas' forecast. Actual 2017 recorded meter reads reflect the pace of Advanced Meter (AM) deployment, including the resolution of escalated

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[1285] SCG/SDG&E OB at 273-74.
[1286] *See* Tr. V16:1358:5-17(Marelli).
[1287] SCG/SDG&E OB at 274.
[1288] TURN OB at 99.
[1289] *Id.* at 99-100.
[1290] Ex. 121 SCG/Marelli at 9-10.
[1291] TURN OB at 101.
[1292] *Id.*; Tr. V16:1373:6-10 (Marelli).
[1293] *See* Ex. 120 SCG/Marelli at 132.

jurisdiction issues and chronic access issues.[1294] Nevertheless, SoCalGas TY 2019 meter reading forecast assumes completed deployment of AM. Additionally, Table GRM-5 from witness Ms. Marelli's rebuttal testimony shows that SoCalGas TY 2019 meter reading expenses request is effectively 36% less than 2017 adjusted recorded expenses including Opt-Out meter reads.[1295] Consequently, SoCalGas meter reading TY 2019 requested expense is reasonable and should be adopted by the Commission.

23.1.1.3 CS-F Staff Cost Category

SoCalGas is requesting funding for TY 2019 forecasted expenses of $1.514 million for this cost category, an increase of $0.320 million from BY 2016 adjusted recorded costs.[1296] SoCalGas' TY 2019 forecast for the CS-F Staff category is based on a five-year average of 2012 to 2016 adjusted recorded costs. TURN states that this "five-year average is an unreasonable way to forecast this account," and instead proposes using a 4-year average, leaving out 2012 and 2013.[1297] TURN's four-year averaging results in a reduction of $0.157 million in this expense category.[1298]

In our Opening Brief, SoCalGas noted that TURN excluded a $225,000 adjustment to 2016 adjusted recorded costs to return CS-F Staff to normal operations following the Aliso Canyon incident.[1299] TURN states it relied on SoCalGas' workpapers, which "did not ever mention the $225,000 adjustment."[1300] SoCalGas would like to point out that the $225,000 adjustment was clearly identified in Direct Testimony.[1301]

[1294] *See* Ex. 119 SCG/Marelli at 5-7.
[1295] Ex. 121 SCG/Marelli at 10.
[1296] *Id.* at 11:15-16.
[1297] Ex. 494 TURN/Marcus at 8 (TURN argues total costs declined in each year from 2012-2016, and the earliest years, are statistically higher than the last 4 years (2014-2017)).
[1298] *Id.* at 8 (Table 5).
[1299] SCG/SDG&E OB at 276.
[1300] TURN OB at 104.
[1301] Ex. 119 SCG at 55-56 (Table GRM-43 summarizes the five-year average for CS-F Staff costs which includes the $0.225 million adjustment added back to return to normal operations after temporary assignments to support the Aliso incident.).

23.1.2 SDG&E

23.1.2.1 Service Guarantees

SDCAN proposes that service guarantees should be increased from $50 up to $100 per missed appointment.[1302] SDG&E has explained in its opening brief why SDCAN's proposal should be rejected. In its Opening Brief, SDCAN asserts, citing to Ms. Marelli's cross-examination, that SDG&E conceded "there are no other data anomalies in other years that might explain the steady increase in missed appointments."[1303] SDG&E makes no such concession. Indeed, Witness Marelli was simply responding directly to the questions being posed under cross-examination.[1304] As SDG&E has previously noted, SDCAN does not take into account the relationship between responding to emergency orders and missed appointments.[1305] Customers call SDG&E's Customer Contact Center to report emergency safety incidents such as when they smell gas or hear gas hissing. Based on the information provided by the customer, SDG&E classifies these customer requests as its highest priority gas emergency orders known as P1 orders. SDG&E's goal is to respond to all P1 orders within 60 minutes of a customer's call; therefore, it is sometimes necessary for SDG&E CS-F to divert field technicians from their prescheduled work appointments to respond to P1 orders. Additionally, SDG&E also explained in SDG&E Rebuttal Testimony Exhibit 124 the factors contributing to the significant increase in missed appointments during 2017.[1306] In summary, SDCAN's recommendation to increase the Service Guarantee credit from $50 to $100 should be rejected.

23.1.2.2 CS-F Operations Order Forecast Methodology

SDG&E proposed an increase of $.967 million due to the order forecast methodology. To create the forecast, SDG&E used a three-year (2014-2016) average orders-per-active meter for 47 of the 53 order types because this reflected the full effects of smart meter implementation in work order volume. For the other six order types which TURN has referenced as the "irregular" order types, an alternate forecast methodology was used.

[1302] SDCAN OB at 15. SDCAN also proposes that the service guarantee levels should be subject to downward revisions if SDG&E can provide evidence of significantly reduced missed appointments in the next GRC application.
[1303] *Id.* (citing Tr. V16:1345:1-5 and 1347:26 to 1348:1 (Marelli)).
[1304] *See* Tr. V16:1345:1-5 (Marelli).
[1305] Ex. 124 SDG&E/Marelli at 21-22.
[1306] *Id.* at 22:12-21.

TURN rejected SDG&E's proposed increase of $.967 million due to the order forecast methodology. TURN acknowledged in its Opening Brief that the 2014-2016 average works reasonably well for the 47 order types, but suggests that SDG&E's approach to forecasting the "irregular" order types is unreliable[1307] SDG&E has provided the forecast assumptions and methodologies for all 53 order types in both Direct and Rebuttal Testimonies to support its TY 2019 forecast. Therefore, SDG&E's request of $.967 million due to the order forecast methodology should be adopted by the Commission.

23.1.2.3 CS-F Operations Drive Time

SDG&E proposed an annual 1% increase in average drive time per CS-F order, resulting in an increase of $0.147 million in TY 2019 estimated expenses.[1308] TURN rejected SDG&E's 1% drive time increase. TURN compares the TY 2019 drive time forecast from the 2016 GRC cycle as the basis for its disallowance. TURN also points to successful internal measures SDG&E has put into place to help reduce drive time. Consequently, TURN recommends that the Commission reject SDG&E's TY2019 forecast by $147,000.

As noted in the opening brief, the BY 2016 actual drive time includes the effects of SDG&E's initiative to reduce drive time such as more efficient routing and clustering different types of work together to achieve drive time efficiencies, and therefore, minimize the impact of increased traffic congestion.[1309] SDG&E took an average of the five-year percentage change each year, which includes historical efficiency measures, and thus, proposed the 1% increase each year.[1310] "Moreover, the actual 2017 average drive time is 13.2 minutes which is a 1.8% increase over BY 2016 actual drive time; therefore, SDG&E's forecast of 1% increase is more than justified and a conservative forecast for increased drive time."[1311] Additionally, as provided in SDG&E Rebuttal Testimony, TomTom's Traffic Index information shows that San Diego's congestion level has been increasing since 2012.[1312] Based on the information presented on SDG&E's BY 2016, 2017 actual drive times and San Diego's congestion level history,

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[1307] TURN OB at 114.
[1308] Ex. 124 SDG&E/Marelli at 5 (Table GRM-3).
[1309] SCG/SDG&E OB at 279.
[1310] Ex. 124 SDG&E/Marelli at 12 (Table GRM-6).
[1311] *Id.* at 12:13-15.
[1312] *Id.* at 13.

SDG&E's asserts that its request for an annual 1% increase in drive time is appropriate and reasonable. Therefore, TURN's recommendation should be rejected.

23.1.2.4 CS-F Support

SDG&E is forecasting $2.517 million for the CS-F Support cost category, a reduction of $0.138 million.[1313]

TURN proposed a reduction to SDG&E's forecast of $0.102 million.[1314] As shown in SDG&E's Rebuttal Testimony, TURN's forecast methodology results in a 16.6% weighting for each year from 2014 to 2016 and a disproportionate 50% weighting to 2017.[1315] In its Opening Brief, TURN states that it weighted 2017 more heavily than the prior years "because the sudden drop in labor costs – to a degree not anticipated by SDG&E's forecast -- suggests that the Post [Smart Meter] Steady State may look different in the future than SDG&E's forecast would suggest."[1316]

TURN's weight of 50% to 2017 has no demonstrated analytical foundation. On the other hand, SDG&E demonstrates in witness Ms. Marelli's testimony that TURN's forecast methodology produces a lower forecast than SDG&E's 3-year average forecast (2014-2016). TURN essentially disregards the fact that 2015 and 2016 recorded expenses CS-F Support were greater than 2014 recorded expenditures. SDG&E has demonstrated in rebuttal testimony that the CS-F Support workgroup has shown historical fluctuations (pre and post Smart Meter deployment).[1317] Therefore, SDG&E's TY 2019 CS-F Support expense forecast is reasonable and should be adopted by the Commission.

23.2 Customer Service Office Operations

23.2.1 SoCalGas Office Operations Request

SoCalGas has justified approval of its reasonable TY 2019 Customer Services - Office Operations (CSOO) O&M and IT capital expense forecasts, as fully shown in testimony and in SoCalGas' Opening Brief. [1318] As stated in testimony and briefing, no party opposed SoCalGas' shared services requests for Payment Processing of $3,511,000 or Manager of Remittance

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1313 Ex. 122 SDG&E/Marelli at 23 (Table GRM-20).
1314 Ex. 494 TURN/Marcus at 37 (Table 26).
1315 Ex. 124 SDG&E/Marelli at 20:4-5 (Table GRM-11).
1316 TURN OB at 123.
1317 Ex. 124 SDG&E/Marelli at 20-21 (Figure GRM-3).
1318 SCG/SDG&E OB at 283-292.

Processing of $377,000, and no party opposed SoCalGas' IT Capital Project business justifications totaling $49,265,000.[1319] This reply addresses only the remaining issues contested by Intervenors.

TURN's Use of Varying Forecast Methodologies Ignores Key Data Supporting SoCalGas' BY 2016 Forecast Methodology and is Unreasonable.

Although ORA did not oppose the consistent BY forecasting methodology used by SoCalGas for its CSOO functions, TURN rejected that methodology in every instance. TURN argues that the Commission should instead utilize a varying range of forecast methodologies that TURN crafted to create what it suggests reflects a more representative forecast.[1320] Although "the use of more recent data by the parties is not prohibited by the Rate Case Plan," before this recent data can be used, the Commission needs to ensure that the recorded data is in a format "compatible with the other years of recorded data in order to derive trends and forecasts."[1321] Where the parties disagree on the appropriate methodology to be used, the Commission will use the following approach:

> As discussed in prior Commission decisions, there are a number of acceptable methodologies for forecasting test year costs.…Depending on circumstances, one method may be more appropriate than others. Under other circumstances, two or more methods may be equally appropriate. In general, the parties' testimony should explain: (1) why its proposed methodology is appropriate, (2) why it is better than methodologies proposed by other parties and (3) why the results are reasonable. The Commission must weigh this information in deciding which methodology should be used and how it should be used. [1322]

In every workgroup, SoCalGas used a BY methodology to forecast estimated 2017-2019 expenses. This approach was used because BY 2016 represented the most recently available adjusted recorded expenditures, transactions and activity levels, customer service policies, practices and procedures prior to the October 2017 filing of Mr. Baldwin's prepared direct testimony.[1323] SoCalGas neither utilized nor had 2017 recorded data available at the time it filed its TY 2019 GRC Application. SoCalGas provided Base Year + 1 recorded data (in this case 2017) to all interested parties. Since SoCalGas did not have BY+1 recorded data available when developing its TY 2019 forecast, the use of 2017 recorded data must be viewed in its proper

[1319] *Id*. at 285.
[1320] *See generally* TURN OB at 124-162.
[1321] D.13-05-010 at 19 citing D.08-07-046 at 9.
[1322] *Id*. at 19-20 citing D.06-05-016 at 10-11.
[1323] Ex. 130 SCG/Baldwin at 13 and SCG/SDG&E OB at 284.

context. Simply, BY+1 should not be cherry picked in specific cost centers or work groups when it is advantageous to an intervenor and ignored when it provides a higher starting value or forecast for SoCalGas.[1324]

TURN conveniently ignored the details provided in Mr. Baldwin's testimony and work papers that stated the specific basis for each CSOO workgroup forecast methodology, including the items and circumstances accounted for in deriving that forecast and the cost drivers leading to any forecast adjustments. Instead, TURN essentially argues that the Commission must reject the utility's best good faith estimate of future operations and needs in those instances where later actual recorded costs result in a lower number (for whatever the reason) than the utility's forecast (*e.g.*, 2017 forecast versus 2017 recorded). TURN's approach, which utilizes a combination of 2017 recorded actual costs and a different historical average period, for each workgroup it challenged, to craft an individual forecast methodology,[1325] is unprincipled and should be rejected by the Commission.

The underpinning for TURN's alternate forecast methodologies and recommended disallowances are infirm factually. SoCalGas addressed the underlying fallacies in rebuttal and opening briefing. TURN's opening brief fails to cure those infirmities.

23.2.1.1 Customer Contact Center

<u>SoCalGas Accounted for the Changes to the CCC Operations in its BY Forecast, Making Use of a 2017 Recorded Actual Forecast Unreasonable.</u>

TURN recommends a downward adjustment of $2,335,000 for labor expenses and a $27,000 reduction in non-labor expenses, reflecting its view that 2017 actuals establish the appropriate forecast floor arguing that 2017 reflects CSR call volumes lower than SoCalGas' 2017 forecast.[1326] Although TURN acknowledges that SoCalGas made a number of offsetting adjustments to its 2016 base forecast, its overall argument is that SoCalGas did not adjust enough when creating its forecast.[1327] TURN claims it has identified a "serious trend toward cost

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[1324] *See* SCG/SDG&E OB at 284.

[1325] Indeed, in some of the workgroup areas TURN even selected a different forecast methodology for each of the labor and nonlabor components. *See, e.g.,* TURN OB at 138-139, 142, and 155.

[1326] Ex. 494 TURN/Marcus at 14 and 16-17. SoCalGas' CCC Operations TY 2019 funding request is summarized in Mr. Baldwin's prepared direct testimony and supporting workpapers. Ex. 131 SCG/Baldwin at 14, Table MB-12 and Ex. 132 SCG/Baldwin at 10-12, 25-26. *See also* SCG/SDG&E OB at 285-87.

[1327] *See* TURN OB at 127-128.

reductions in SoCalGas' call center operations" that SoCalGas has not captured.[1328] Although TURN attempts to take credit for discovering a downward trend in Customer Service Representative (CSR) calls per meter, it ignores the significant downward trend in calls and upward trend in self-service that SoCalGas not only recognized in its CCC revenue request, but incentivized.[1329] SoCalGas' workpapers forecast a decline in calls each year; the decrease in 2017 recorded CSR calls beyond 2017 forecasted calls is due to the accelerated effort by SoCalGas, which was necessary to achieve an overall decline of 9.7% forecast for 2019. That there was a 4.5% decline in 2017, rather than the 3.3 % decline in SoCalGas' 2017 forecast, shows nothing more than SoCalGas is moving toward the 9.7 % decline in calls per active meter it forecast for 2019.[1330] There is nothing gained by TURN's use of 2017 recorded actuals, and its methodology should be rejected.

TURN next argues that SoCalGas' analysis is flawed in "its assumption that the call center would receive the same number of billing calls in 2017 as in 2016," and SoCalGas "elsewhere explains, '2015 and 2016 were not typical years in the customer call center.'"[1331] TURN goes on to explain at length that cold weather at the same time as a meter book realignment, and a billing backlog,[1332] make SoCalGas' BY 2016 forecast approach unreliable as compared to TURN's alternate forecast using 2017 recorded actuals. Again, TURN overlooks SoCalGas' testimony. For years 2017 through 2019, the baseline forecast for IVR, web and mobile self-service transactions was "arrived at using [the] slope of trendline of 2012-2016 actuals." [1333] The forecast (2017-2019) increases in IVR, web and mobile self-service transactions reduces CSR answered calls.[1334] As SoCalGas' testimony and briefing made clear, SoCalGas does not forecast CCC call volume by call type (*e.g.*, Billing calls) and does not

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[1328] TURN OB at 128.
[1329] *See, e.g.*, Ex. 130 SCG/Baldwin at 15 (discussing large reductions in call volumes and continuous improvement enhancements); Ex. 132 SCG/Baldwin at 25 (reflecting downward ratio trend).
[1330] *See* SCG/SDG&E OB at 286 ("For SoCalGas to achieve CCC Operations' TY 2019 expense reductions, 467,828 CSR calls must move to self-service from the BY level of 5,294,767. This means almost 9% of CSR-answered calls must move to self-service by TY 2019."). CSR calls per meter is only used to calculate increased calls from meter growth in 2017, 2018 and 2019. It cannot be considered in isolation from the larger picture.
[1331] TURN OB at 130, citing Ex. 135 (TURN), TURN DR-062, Question 4.
[1332] TURN indicates incorrectly that "SoCalGas experienced a 'billing backlog' from March 2016-December *2019*." *Id.* at 130 (emphasis added). The backlog TURN refers to ended in December *2016*. *See* Tr. V17:1437:15-23 (Baldwin).
[1333] Ex. 130 SCG/Baldwin at 13, Table MB-11*.
[1334] *Id.* at 13, Table MB-11, columns IVR calls and Web & Mobile Self-service.

incorporate weather as a variable. The CSR call volume forecast includes all incremental or decremental impacts related to call volume (*e.g.*, decreases as a result of FOF self-service, meter growth, AMI impacts, etc.). Specifically, forecasted call volume for 2017-2019 depends on factors (line items) that were identified in SoCalGas' workpapers.[1335] As stated in SoCalGas' Opening Brief at 284, "BY 2016 represented the most recently available adjusted recorded expenditures, transactions and activity levels, customer services policies, practices and procedures prior to the October 2017 filing of Mr. Baldwin's prepared direct testimony." Each factor contributing to incremental TY 2019 requests are identified by line items in Table MB-12 of witness Mr. Baldwin's direct testimony and supporting workpapers,[1336] and therefore should be adopted by the Commission as the appropriate forecast methodology.

TURN's further argument that "AHT is lower than forecast by SoCalGas, which undercuts SoCalGas' assumption regarding calls per CSR FTE"[1337] is likewise incorrect. Indeed, SoCalGas forecast average handle time (AHT) for 2017 is lower when the impact of RAMP initiatives to update customer information and paperless billing enrollment (as stated in SoCalGas' rebuttal testimony) are excluded from the 2017 forecast.[1338] The RAMP information update initiative has been deferred until late 2018/early 2019, and the paperless billing enrollment went live in early December 2017.[1339] In fact, actual CSR AHT in 2017 should be lower than forecasted AHT because RAMP implementation has not occurred, and paperless bill enrollment was delayed until December 2017. While TURN acknowledges these impacts in its Opening Brief, it improperly compares 2017 actuals with SoCalGas' forecast, which includes increases in AHT for paperless bill enrollment and RAMP customer information updates.[1340] What TURN failed to recognize is that the addition and subtraction for RAMP items and FOF efficiencies offset one another, and 2017 shows higher productivity because SoCalGas did not

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[1335] Ex. 132 SCG/Baldwin at 25, 26, SCG/SDG&E OB at 286.
[1336] *Id.*; Ex. 130 SCG/Baldwin at 14, Table MB-12.
[1337] TURN OB at 132.
[1338] Ex. 133 SCG/Baldwin at 9. TURN also missed other items that would factor into the forecast, such as the increased request of $103,000 in 2017 and the request for $1,126,000 in 2019 for 15.3 FTEs related to level of service (LOS). Ex. 132 SCG/Baldwin WP-R at 7, 11. TURN also failed to recognize $214,000 for other FOF ideas in 2019. TURN's recommended funding will negatively impact SoCalGas' LOS, which SoCalGas has sought to maintain through its TY 2019 revenue request. *See* SCG/SDG&E OB at 286 (discussing 60% LOS target and resources to maintain this balance of service for customers).
[1339] *See* Ex. 133 SCG/Baldwin at 9.
[1340] TURN OB at 133.

implement the RAMP information update and had a late start on the CSR paperless enrollment initiative.[1341] TURN's claim that "SoCalGas' forecast of AHT in 2019 is unreliable and high, and therefore so is its forecast of Calls per CSR"[1342] is disingenuous. To support this statement TURN claims "[t]he challenge here is that no one knows how temporary that [the increased productivity of CSR's due to the RAMP/FOF initiative delays] effect will be."[1343] This argument ignores SoCalGas' rebuttal testimony that the delay would be short.[1344] The reductions in AHT from FOF efficiency ideas are on-going and sustainable through CCC continuous improvement that is enabled by the CCC Operations Support staff, and the initiatives that would increase AHT that would have been implemented by 2019. Indeed, SoCalGas has already implemented one of the initiatives, with 2018 reflecting the full effect of the CSR paperless enrollment, and the time stamp improvement is in-flight for an early 2019 implementation. The SoCalGas adjustments to 2016 Calls per FTE are reliable, and reasonable.

TURN does not present an alternative call volume forecast for TY 2019, merely relying on the "actual 2017 Calls per CSR to calculate the number of CSR FTEs needed for the forecasted call volume."[1345] Yet, by its own calculations, CSR productivity as measured by AHT is approximately the same level as 2016 because of FOF efficiency gains and offsetting increases from RAMP and paperless enrollment initiatives. In fact, what TURN has asserted to be "flawed" in SoCalGas' CCC CSR productivity (calls per CSR FTE) is in fact exactly what SoCalGas has assumed for TY 2019. TURN's Opening Brief states:

> (b)ased on the utility's forecast, the net effect in 2017 of these initiatives should be an increase of 0.1 seconds in AHT, including a 10 second decrease through changes to scripts; a 2.6 second increase through CSR enrollment in paperless billing; and a 7.5 second increase from the RAMP initiative to collect/verify customer contact information.[1346]

Therefore, TURN is describing SoCalGas' forecast of 2017 AHT to be similar (0.1 second difference) to 2016. This offsetting effect from additions and subtractions outlined in TURN's Opening Brief is exactly SoCalGas' rationale for using recorded 2016 CSR productivity of 13,524 calls per CSR FTE in its workpaper calculations for TY 2019 CCC labor expense

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[1341] Ex. 132 SCG/Baldwin at 25-26.
[1342] TURN OB at 136.
[1343] *Id.*
[1344] Ex. 133 SCG/Baldwin at 9.
[1345] TURN OB at 137.
[1346] *Id.* at 133.

request.[1347] TURN's arguments do not support their conclusions for a lower CCC funding recommendation. Accordingly, SoCalGas' BY 2016 forecast methodology and resulting request should be adopted by the Commission.

CUE No Longer Seeks a Mandatory Level of Service Target for the Customer Contact Center.

SoCalGas demonstrated in its testimony and briefing that its current level of service target of 60% provides an appropriate "balance between cost and responsiveness and is consistent with recent historical CSR LOS levels."[1348] Although CUE took the position in its testimony that a mandatory LOS and additional FTEs were needed in the CCC, SoCalGas' proposal "to add 19.7 FTEs from 2017-2019 to meet this 60% target"[1349] went unchallenged by CUE in briefing. The Commission should adopt SoCalGas' proposed level of CCC resources needed to meet its LOS target as reasonable.

23.2.1.2 Customer Contact Center Support

SoCalGas has justified approval of its TY 2019 CCC Support expenses of $9,024,000, as demonstrated in testimony and in SoCalGas' Opening Brief.[1350]

ORA Fails to Refute the Demonstrated Need for Additional Customer Contact Center Support Resources.

SoCalGas has justified approval of its reasonable TY 2019 CCC Support expenses of $9,024,000, as demonstrated in testimony and in SoCalGas' Opening Brief. [1351] The sole area of SoCalGas' CSOO request that ORA disputed is $167,000 of the CCC Support request.[1352] ORA's Opening Brief contained no new basis for the generalized and unsupported reason previously stated in ORA witness Crystal Yeh's testimony. ORA notably offered no response to SoCalGas witness Michael Baldwin's rebuttal testimony, which provided compelling and unrefuted reasons why two additional Special Investigation Clerk FTEs were required to improve the level of service and response time on elevated customers complaints and inquires.[1353] ORA's recommended decrease looks merely at the historical average number of FTEs in that position

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[1347] Ex. 132 SCG/Baldwin at 26.
[1348] SCG/SDG&E OB at 286.
[1349] *Id*.
[1350] SCG/SDG&E OB at 287-288; Ex. 130 SCG/Baldwin at 20-27.
[1351] *Id*.
[1352] ORA OB at 330-332.
[1353] SCG/SDG&E OB at 287.

and concludes that because SoCalGas was "able to conduct its CCC support activities without having to add FTEs" in the past, there is no need for an increase.[1354] ORA's justification is not reasonable and should be rejected.

TURN concurs with ORA's recommended disallowance, and utilizes 2017 as a baseline for labor and again utilizes a modified two-year (2016/2017) average forecast for non-labor to recommend an overall decrease of $239,000 in labor expenses and a $232,000 reduction in non-labor expenses.[1355] SoCalGas addressed TURN's recommendations in its Opening Brief (at pages 287-288), and reiterates that TURN's analysis is flawed as it continues to ignore SoCalGas' testimony in two critical respects.[1356]

First, the 2017 data reflected unusual vacancies that cannot be treated as recurring as TURN suggests.[1357] The numerous Voluntary Retirement Enhancement Program (VREP)-related vacancies in 2017 for the CCC Support group were due to a one-time program, and not the ordinary ebb and flow of a business.[1358] Moreover, replacement of front line operations employees is essential, not discretionary.[1359] Partial vacancies remained in 2017 due to the skills required for the positions.[1360] Annualization of partial year hiring, the return of employees deployed to assist with Aliso, and replacement of employees who elected retirement under VREP occurred and were accounted for by SoCalGas in its BY 2016 forecast. It would be inappropriate to utilize 2017 actuals for these reasons.

Second, as SoCalGas also explained, TURN's nonlabor recommendation similarly failed to adjust for the one-time $270,000 vendor credit, thus understating the actual 2017 annual expenses.[1361] TURN continues to ignore this error in its Opening Brief. No reduction from

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[1354] ORA OB at 332.
[1355] TURN OB at 138-139.
[1356] In its Opening Brief, TURN claims that it does not ignore SoCalGas' position on 2017 vacancies, and instead assessed a 50% discount on its 2017 forecast. *Id*. at 140. As SoCalGas demonstrated, use of 2017 (modified or otherwise) is not reasonable for the CCC Support workgroup, and its BY 2016 forecast should be utilized.
[1357] *See* TURN OB at 139, 140-41 (suggesting the numerous partial vacancies in CCC Support were merely the regular course in a large business).
[1358] Ex. 255 SCG/Gevorkian at 7.
[1359] TURN's cautionary opinion (TURN OB at 141) that SoCalGas will fill these positions gradually and periodic vacancies will occur is unwarranted and unsupported here.
[1360]SCG/SDG&E OB at 289. *See also* Ex. 133 SCG/Baldwin at 16 and Appendices A and B (TURN-SEU-DR-062, Question 13).
[1361] SCG/SDG&E OB at 288. Ex. 133 SCG/Baldwin at 16.

SoCalGas' nonlabor forecast is warranted. SoCalGas' BY 2016 forecast for CCC Support is reasonable and should be adopted by the Commission.

23.2.1.3 Branch Offices

SoCalGas has justified approval of its TY 2019 Branch Offices expenses of $12,011,000 (labor and non-labor), as demonstrated in testimony and in SoCalGas' Opening Brief. [1362] TURN recommends a disallowance of $127,000 using separate forecasts of 2017 actuals for labor and an average of 2016/2017 for nonlabor.

Rather than discuss why either of its alternate forecasts are reasonable, TURN focuses its Opening Brief on a red herring—temporary Branch Office closures.[1363] Both TURN and SoCalGas agree, unforeseen, temporary Branch Office closures occur for a variety of reasons in the regular course of SoCalGas' business, and SoCalGas' BY 2016 forecast methodology accounts for such events.[1364] TURN completely ignores, however, SoCalGas' testimony that the lower 2017 actuals related to VREP retirement elections by represented employees who were at the highest pay progression within their job classification, and whose replacements started at the lowest pay step in the progression, and will achieve the highest pay level by 2019.[1365] As SoCalGas demonstrated in its discussion of the 2017 VREP-related vacancies in the CCC Support workgroup, the lower 2017 labor expenses are accounted for. Under these circumstances, use of 2017 actuals is not reasonable and SoCalGas' request should be adopted.

23.2.1.4 Billing Services

SoCalGas has justified approval of its TY 2019 Billing Services expenses of $6,265,000 (labor and non-labor), as demonstrated in testimony and in SoCalGas' Opening Brief. [1366] TURN recommends a disallowance of $323,000 using a base year 2017 forecast. [1367] While TURN considers the partial year impacts in 2017 from VREP-related retirements and the return from Aliso deployment, it questions the totality of those impacts and asks that the Commission "not shy away from considering 2017 cost data . . . simply because the utility points to partial vacancies that year."[1368] As with all other VREP-related retirement vacancies, TURN fails to

[1362] SCG/SDG&E OB at 288-289.
[1363] *See* TURN OB at 142-144.
[1364] Ex. 133 SCG/Baldwin at 17-18.
[1365] SCG/SDG&E OB at 289, citing Ex. 133 SCG/Baldwin at 17-18.
[1366] SCG/SDG&E OB at 289; Ex. 133 SCG/Baldwin at 19-20.
[1367] *See* TURN OB at 146.
[1368] *Id*. at 145.

recognize that the represented employees who retired had achieved the highest pay progression and the replacement positions were filled at the lowest pay step in the progression, but will achieve the highest pay level by 2019.[1369] Contrary to TURN's suggestion, the Commission should indeed ignore a 2017 forecast based on temporary impacts. To do otherwise here, would unreasonably penalize SoCalGas for short-term labor adjustments.[1370] The labor impacts are transient and SoCalGas' request should be adopted.

23.2.1.5 Credit and Collections Postage

SoCalGas addressed TURN's position in Applicants' Opening Brief at page 290.

23.2.1.6 Remittance Processing Postage

Utilizing the USPS' most recent rate increase, SoCalGas' justified its TY 2019 $14,027,000 request for remittance processing postage costs, which constitutes a decrease of $2,984,000 from the BY 2016 adjusted recorded costs, in its testimony and briefing.[1371] TURN failed to reflect the update testimony in its Opening Brief[1372] and continues to argue that its own projection of remittance processing reductions due to paperless adoption is more reasonable than SoCalGas' BY 2016 forecast. SoCalGas addressed TURN's lengthy, but erroneous arguments, in its Opening Brief (at 290) and testimony. An additional comment is warranted nonetheless.

TURN uses a forecast based on 2017 actuals and on data from SoCalGas showing paperless bill enrollment from January 2016 through May 2018.[1373] Claiming the "vast majority of reductions forecast by SoCalGas for 2017, 2018 and 2019 come from moving customers to paperless billing," TURN posits that SoCalGas is ahead of schedule by half a percent in 2017 and has "a similar positive outlook for 2018."[1374] TURN then lays out all of the FOF ideas related to paperless bill enrollment and insists SoCalGas will meet its goal and then some.[1375] TURN is mistaken.

[1369] *See* SCG/SDG&E OB at 289; Ex. 133 SCG/Baldwin at 17-19.
[1370] SCG/SDG&E OB at 290.
[1371] Ex. 514 Baldwin UT at 10-11 and Attachment F.
[1372] Surprisingly, TURN apparently did not see or take into consideration SoCalGas' Update Testimony, submitted on August 24, 2018. Compare TURN OB at 150, recommending a further 2% decline in postage costs at current rates and indicating "any changes to average postage rates will be captured in the update phase of this case" to Ex. 514 SCG/SDG&E Baldwin UT at 10 and Attachment F reflecting a half cent postage rate increase by USPS.
[1373] TURN OB at 151.
[1374] *Id*. at 150.
[1375] *Id*. at 153-154.

As reflected in its testimony, SoCalGas set a FOF goal of 1,000,000 new paperless bill enrollments by TY 2019. This goal is an accumulation of FOF paperless initiatives. TURN erroneously treats these initiatives as if they are additive to the CSR paperless bill enrollment. Said another way, the FOF initiatives were already in place and generating new paperless bill enrollments as of the end of 2017 and early 2018.[1376] Beginning with the enrollment level at year-end 2016, FOF initiatives must generate an additional 1,000,000 customers on paperless bills by TY 2019 to meet SoCalGas' forecast.[1377] Clearly from SoCalGas' testimony and Opening Brief, even with the 2017 through May 2018 actuals, SoCalGas is on pace to fall short of its TY 2019 1,000,000 incremental paperless enrollment goal (relative to 2016) by 46,271 customers.[1378] This makes TURN's recommended reduction of $276,000 beyond SoCalGas' proposed reduction of $2,984,000 unreasonable. The Commission should adopt SoCalGas' request.

23.2.1.7 Other Office Operations and Technology

SoCalGas has justified approval of its TY 2019 Other Office Operations and Technology expenses of $3,180,000 (labor and non-labor), as demonstrated in testimony and in SoCalGas' Opening Brief.[1379] TURN recommends a disallowance of $320,000 using a base year 2017 forecast for a labor decrease of $474,000 and a six-year average (2012-2017) with additional adjustments for a nonlabor increase of $154,000.[1380] While TURN considers the impacts in 2017 from partial year vacancies, it questions whether those vacancies should discount the adjustments TURN seeks, asking that the Commission again "not shy away from considering 2017 cost data . . . simply because the utility points to partial vacancies that year."[1381] As SoCalGas explained at length in its rebuttal, TURNs multi-faceted forecast methodology does not accurately reflect the group's costs due to short-term labor vacancies in 2017 and the extended hiring process to find

[1376] TURN's theory also assumes that all of the FOF initiatives will be implemented as forecast. Witness Baldwin noted however that "[m]any FOF ideas require additional Information Technology programming resources," which are finite resources and may require prioritization leading to delays. Ex. 133 SCG/Baldwin at 9. One such delay in a FOF paperless bill enrollment initiative was discussed previously in the CCC Operations discussion. *Supra* at 23.2.1.1.
[1377] *See* Ex. 133 SCG/Baldwin at 22; Ex. 132 SCG/Baldwin at 82-83 (line items for paperless FOF).
[1378] Ex. 133 SCG/Baldwin at 22-23 and Table MHB-13; SCG/SDG&E OB at 290.
[1379] SCG/SDG&E OB at 290-291; Ex. 133 SCG/Baldwin at 24-25.
[1380] TURN OB at 155.
[1381] *See id*. at 156.

replacement employee with the requisite skills.[1382] Full staffing "is required for TY 2019 to support the increasing number of customer technology application functions at SoCalGas."[1383] SoCalGas' TY 2019 request is reasonable and should be adopted.

23.2.1.8 Measurement Data Operations

SoCalGas addressed TURN's position in Applicants' Opening Brief at pages 291-292, and *supra* at 23.2.1.4 with respect to TURN's opinion on partial year vacancies.

23.2.1.9 Major Market Credit and Collections

SoCalGas has justified approval of its TY 2019 Major Market Credit and Collections expenses of $1,604,000 (labor and non-labor), as demonstrated in testimony and in SoCalGas' Opening Brief.[1384] TURN recommends a disallowance of $124,000 using a cherry-picked three-year average forecast (2015-2017) for labor.[1385] While TURN accepts SoCalGas' nonlabor forecast, since it was off by a *de minimus* amount, it questions whether partial year vacancies in 2017 should discount the adjustments TURN seeks, asking once more that the Commission "not shy away from considering 2017 cost data . . . simply because the utility points to partial vacancies that year."[1386] TURN's forecast is inappropriate here for two reasons. First, the average it cobbled together for its forecast is wholly inappropriate where, as here, there were partial year vacancies in both 2015 and 2017. Despite reflecting data lower than the 2016 base year used by SoCalGas in its forecast, those years are not accurately representative of labor costs.[1387] SoCalGas' proposal, adjusted base year 2016, reflects this work group at full staffing levels, and should be adopted as reasonable.[1388] Second, as SoCalGas demonstrated previously, the adjustments it took for BY 2016 resulting in a downward forecast based upon a full year staffing to "restore staff after temporary redeployment and FOF reductions"[1389] were reasonable. TURN's proposal is unreasonable and should be rejected by the Commission.

23.2.1.10 Uncollectible Rate

SoCalGas fully addressed TURN's recommendation in its Opening Brief at page 292.

[1382] *See* Ex. 133 SCG/Baldwin at 24-25.
[1383] *Id.*; SCG/SDG&E OB at 291.
[1384] SCG/SDG&E OB at 292; Ex. 133 SCG/Baldwin at 26-27.
[1385] TURN OB at 159.
[1386] *See id*. at 160.
[1387] *See* Ex. 133 SCG/Baldwin at 27 and Table MHB-16.
[1388] *Id.*; SCG/SDG&E OB at 292.
[1389] SCG/SDG&E OB at 292, citing Ex. 130 SCG/Baldwin at 50, Table MB-36.

23.2.2 SDG&E Office Operations Request

SDG&E has justified approval of its TY 2019 CSOO O&M and IT capital expense forecasts, as fully shown in testimony and in SDG&E's Opening Brief.[1390] SDG&E seeks $44,360,000[1391] for O&M expenses to support its nonshared services activities within CSOO, and IT Capital expenditures of $14,897,000 in 2017, $15,774,000 in 2018, and $16,332,000 in 2019.[1392] No party contested the reasonableness of the expenses recorded to the Residential Disconnection Memorandum Account (RDMA), Postage funding request of $3,904,000,[1393] or the justification for all but one of the IT Capital Project requests.[1394] Although ORA initially recommended reductions in only two of SDG&E's workgroups, it did not contest any portion of SDG&E's request in its Opening Brief. This reply addresses only the remaining issues contested by Intervenors.[1395]

TURN's Use of Varying Forecast Methodologies Ignores Key Data Supporting SDG&E's BY 2016 Forecast Methodology and is Unreasonable

While (with one exception) ORA did not oppose the consistent BY forecasting methodology used by SDG&E for its CSOO functions,[1396] TURN rejected that methodology in every instance it challenged. TURN argues that the Commission should instead utilize a varying range of forecast methodologies that TURN crafted to create what it suggests reflects a more "reliable" forecast.[1397] Although "the use of more recent data by the parties is not prohibited by the Rate Case Plan," before this recent data can be used, the Commission needs to ensure that the recorded data is in a format "compatible with the other years of recorded data in order to derive

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[1390] SCG/SDG&E OB at 293-315.
[1391] *Id.* at 293.
[1392] *Id.*
[1393] *See id*. at 297 and n. 1463.
[1394] SCG/SDG&E OB at 294, 296-297. *See also* Ex. 146 SDG&E/Stewart at 64, Table JS-35. UCAN initially contested portions of SDG&E's IT Capital Bill Redesign Capital funding request but indicated in its Opening Brief that "UCAN no comment." UCAN OB at 21.
[1395] SDCAN elected not to follow the joint party briefing format and expresses its overall disappointment with SDG&E's Customer Services organization. SDG&E CSOO will address the comments directed at its area in the workgroup that appears to be impacted by SDCAN's comments.
[1396] ORA initially objected to the use of a 2016 BY forecast in the Billing workgroup but did not contest SDG&E CSOO's area in its Opening Brief. *See* SCG/SDG&E OB at 294.
[1397] *See* TURN OB at 166, and *generally* at 162-185. *See also* SCG/SDG&E OB at 294-295, and Table 23.2.2.A (TURN Forecast Methodologies).

trends and forecasts."[1398] Where the parties disagree on the appropriate methodology to be used, the Commission will use the following approach:

> As discussed in prior Commission decisions, there are a number of acceptable methodologies for forecasting test year costs.…Depending on circumstances, one method may be more appropriate than others. Under other circumstances, two or more methods may be equally appropriate. In general, the parties' testimony should explain: (1) why its proposed methodology is appropriate, (2) why it is better than methodologies proposed by other parties and (3) why the results are reasonable. The Commission must weigh this information in deciding which methodology should be used and how it should be used.[1399]

In every workgroup, SDG&E used a BY methodology to forecast estimated 2017-2019 expenses. This approach was used because BY 2016 represented the most recently available adjusted recorded expenditures, transactions and activity levels, customer service policies, practices and procedures prior to the October 2017 filing of Mr. Stewart's prepared direct testimony.[1400] SDG&E neither utilized nor had 2017 recorded data available at the time it filed its TY 2019 GRC Application. SDG&E provided Base Year + 1 recorded data (in this case 2017) to all interested parties. Since SDG&E did not have BY+1 recorded data available when developing its TY 2019 forecast, the use of 2017 recorded data must be viewed in its proper context. Simply, BY+1 should not be cherry picked in specific cost centers or work groups when it is advantageous to an intervenor and ignored when it provides a higher starting value or forecast for SDG&E.[1401]

TURN conveniently ignored the details provided in Mr. Stewart's testimony and workpapers that stated the specific basis for each CSOO workgroup forecast methodology, including the items and circumstances accounted for in deriving that forecast and the cost drivers leading to any forecast adjustments. Instead, TURN essentially argues that the Commission must reject the utility's best good faith estimate of future operations and needs in those instances where later actual recorded costs result in a lower number (for whatever the reason) than the utility's forecast (*e.g.*, 2017 forecast versus 2017 recorded). TURN's approach, which utilizes a combination of 2017 recorded actual costs and a different historical average period, for each

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1398 2012 GRC Decision [D.13-05-010] at 19 citing D.08-07-046 at 9.
1399 2012 GRC Decision [D.13-05-010] at 19-20 citing D.06-05-016 at 10-11.
1400 Ex. 149 SCG/Stewart at 10:23 – 11:2; SCG/SDG&E OB at 293-294.
1401 *See* SCG/SDG&E OB at 293-294.

workgroup it challenged, to craft an individual forecast methodology,[1402] is unprincipled and should be rejected by the Commission.

The underpinning for TURN's alternate forecast methodologies and recommended disallowances are also infirm factually. SDG&E has addressed the underlying fallacies in each impacted workgroup's rebuttal and opening briefing. TURN's opening brief fails to cure those infirmities.

23.2.2.1 Advanced Metering Operations

TURN recommends a downward adjustment of $1,219,000 to SDG&E's $10,034,000 TY 2019 forecast based on TURN's use of adjusted 2017 recorded actuals.[1403] SDG&E addressed the positions taken by TURN, and formerly by ORA, in its Opening Brief at 297-98. To be abundantly clear, a solid foundation supports SDG&E's AMO TY 2019 forecast. As SDG&E explained in testimony and its Opening Brief, it knows the amount of resources necessary to successfully implement the Residential TOU Mass Default due to its historical experience with the small and medium business TOU default and residential TOU default pilot, which demonstrated the quantity and type of exceptions to be expected when 800,000 residential customers are defaulted to TOU interval rates beginning in 2019. In addition, SDG&E's Smart Meter system identifies the number of meters that do not communicate and, subsequently, fail to provide interval data on a daily basis. Since SDG&E does not expect to see any change in the average meter communication success or failure rate, it knows what to expect and plan for when it defaults approximately 800,000 more meters to time varying rates as part of Residential TOU Mass Default.[1404] SDG&E further demonstrated in testimony, with specific reasons, that "[t]he incremental spend that was forecasted for 2017 is still expected to occur, but has been delayed or moved to 2018 to not overburden the remaining staff."[1405] Its response to TURN's data requests also explained why recorded 2017 labor costs were lower than SDG&E's 2017 forecast, stating:

> There were several factors that contributed to AMO's 2017 labor spend being lower than forecast. The primary reason was the result of delays in backfilling labor vacancies in addition to the need for AMO resources to support capital and non-GRC projects. The work performed in AMO is highly specialized and

1402 Indeed, in some of the workgroup areas TURN even selected a different forecast methodology for each of the labor and nonlabor components. *See, e.g.,* TURN OB at 181-182.
1403 TURN OB at 165.
1404 *See* Ex. 149 SDG&E/Stewart at 9-10; SCG/SDG&E OB at 297-298.
1405 Ex. 149 SDG&E/Stewart at 11-12.

acquiring new resources with relevant experience can be difficult and time consuming due to the extensive training process.[1406]

TURN brushes off SDG&E's justification and asks the Commission to ignore SDG&E's proper management of its resources and quantifiable 2019 needs. Specifically, SDG&E stated the following in the rebuttal testimony of witness Mr. Stewart:

> It is important to note, labor increases associated with Commission Decision (D.) 15-07-001 (Decision on Residential Rate Reform for Pacific Gas and Electric Company, Southern California Edison Company and SDG&E and Transition to TOU Rates) account for 89% of the ($1.673 M) of AMO's incremental funding request for TY 2019.[1407]

TURN's approach is unreasonable, and its requested disallowance would not adequately support AMO operations' implementation of Residential TOU Mass Default. SDG&E has justified its TY 2019 AMO expenses, and the Commission should adopt SDG&E's request as reasonable.

23.2.2.2 Billing

SDG&E has justified its TY 2019 Billing expenses of $8,023,000, as demonstrated in testimony and SDG&E's Opening Brief.[1408] TURN recommends a disallowance of $1,767,000 using an adjusted 2017 base year forecast.[1409] Although SDG&E addressed Intervenors' positions in its Opening Brief at 298-301, an additional comment is warranted.

Similar to its position on AMO, TURN completely ignores SDG&E's robust evidentiary showing[1410] and pretends to misapprehend the resource need for the Billing Operations area. TURN claims it understands SDG&E's continuing need for some contract labor, but disingenuously fails to grasp the difference in complexity and time demand involved with interval billing coupled with an ever-growing number of rate structures, as compared to the current residential two-tier rate structure.[1411]

[1406] *See* Ex. 150 (SDG&E) Response of Sempra Utilities to TURN Data Request 66, Q. 1d.
[1407] Ex. 149 SDG&E/Stewart at 12.
[1408] SCG/SDG&E OB at 298-301.
[1409] ORA previously contested SDG&E's forecast methodology and incremental FTE request for this workgroup. Although ORA did not contest this area in its Opening Brief, TURN adopts a portion of ORA's rationale for its recommended disallowance. SDG&E fully addressed ORA's prior assertions in its Opening Brief at pages 299 and 300.
[1410] Ex. 146 SDG&E/Stewart 18-25; Ex. 149 SDG&E/Stewart at 13-21.
[1411] TURN OB at 170-172. For example, TURN wonders whether the new Billing System Analyst FTE SDG&E has requested will be doing work that is more complex than the current Billing System Analysts. TURN OB at 171-172. SDG&E clearly stated that the new FTE was requested because additional

Mr. Stewart painstakingly discussed in testimony the differences between the flat and two-tier rate structure still applicable to most of SDG&E's customers and the growth in interval billing to the current 18 different TOU rate structures, which involve the accumulation of recorded energy in hourly and 15-minute intervals for each billing period. He also detailed the difficulties experienced by SDG&E's legacy billing system, which has had trouble handling the complexity of the new TOU rate schedules, and the impact of that circumstance on billing exceptions, billing resources and the timeliness and accuracy of customer bills.[1412] Incredulously, TURN states it still needs more.[1413] TURN is mistaken. SDG&E provided all of the information that TURN (and ORA) requested, and more.[1414] Similar to the AMO request, resources necessary for Residential TOU Mass Default makes up 60% of Billings' incremental request, and the requested disallowance would not adequately support Billing operations' implementation of Residential TOU Mass Default.[1415] SDG&E demonstrated that its TY 2019 request is reasonable and should be adopted by the Commission.

23.2.2.3 Credit and Collections

SDG&E has justified its TY 2019 Credit and Collections expenses of $3,073,000 as demonstrated in testimony and SDG&E's Opening Brief.[1416] TURN recommends a disallowance of $297,000, using a two-year average of 2016 and 2017 actuals.[1417]

In its Opening Brief, TURN gives short shrift to SDG&E's rebuttal, which demonstrated both the need for incremental nonlabor dollars due to higher collection agencies fees, and also the need for an additional FTE to support the increased volume of credit and collection transactions and to decrease the 61% in aged accounts.[1418] TURN suggests that use of 2017 actuals tell a different story, with Credit and Collections activity fluctuating over time despite

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resources were needed to support the enlargement of manual rate schedule activities to implement the grandfathering of current TOU rate periods for existing non-residential solar customers that were established as part of SDG&E's TY 2016 GRC Phase 2. Moreover, these rate structures are more complex. *See* Ex. 146 at 24:16 - 25:21.

1412 *See* Ex. 146 SDG&E/Stewart at 19-22; Ex. 149 SDG&E/Stewart at 13-21.

1413 TURN OB at 170.

1414 *See* Ex. 149 SDG&E/Stewart at 16, Table JS-9 (Interval Data Exceptions, showing 2014 through 2019 Bill Exceptions Completed per Employee-IDR among other metrics) and 19, Table JS-11.

1415 *See* Ex. 146 SDG&E/Stewart at 21, Table JS-12 [2255/3760=60%]; Ex. 149 SDG&E/Stewart at 20-21.

1416 Ex. 146 SDG&E/Stewart at 26; SCG/SDG&E OB at 301-302.

1417 TURN OB at 173.

1418 *See* Ex. 149 SDG&E/Stewart at 24-26.

customer growth, and SDG&E making significant headway in the reduction of an aged account backlog when compared to 2014's 93% aged accounts.[1419] These arguments give no credence to the growth in number and size of credit and collection transactions SDG&E has experienced, and completely ignores the reason SDG&E experienced lower actuals in 2017.[1420] As demonstrated in testimony, SDG&E experienced labor vacancies, which were filled in 2018. TURN's forecast methodology does not accurately reflect the group's costs due to short-term labor vacancies in 2017, making reliance on a 2016/2017 average unrealistic.[1421] SDG&E's request is reasonable and should be adopted by the Commission.

23.2.2.4 Remittance Processing

SDG&E has justified its TY 2019 Remittance Processing expenses of $738,000[1422] as demonstrated in testimony and SDG&E's Opening Brief.[1423] SDG&E also seeks to modify Electric and Gas Rule 9, Rendering and Payment of Bills to authorize SDG&E to default SDG&E customers[1424] who have provided an email address or are enrolled in SDG&E's MyAccount® to receive electronic bills as their regular bill *starting January 1, 2021*. SDG&E justified this request in its testimony and Opening Brief.[1425] Initial objections to SDG&E's requests have now been resolved, and UCAN recommends the requested modification to Rule 9 be adopted.[1426] SDG&E's request is reasonable and should be adopted.

23.2.2.5 Branch Offices

SDG&E has justified its TY 2019 Branch Offices expenses of $2,209,000[1427] as demonstrated in testimony and SDG&E's Opening Brief.[1428] TURN recommends a disallowance of $182,000, using a 2017 base forecast.[1429] However, on page 177 in TURN's OB, they state their proposal as $2,042,000, which is only a disallowance of $167,000. While TURN considers the partial year impacts in 2017 from temporary vacancies, it questions the use of those impacts

[1419] TURN OB at 174-175.
[1420] *See* SCG/SDG&E OB at 302; Ex 149 SDG&E/Stewart at 24-26.
[1421] *See* Ex. 149 SDG&E/Stewart at 26.
[1422] *See* SCG/SDG&E OB at 302-303; Ex. 149 SDG&E/Stewart at 27; TURN OB at 176.
[1423] Ex. 146 SDG&E/Stewart at 31-34; SCG/SDG&E OB at 302-304.
[1424] Limitations to this proposal were described in SDG&E's Opening Brief at page 303.
[1425] Ex. 149 SDG&E/Stewart at 27-32; SCG/SDG&E OB at 303-304.
[1426] UCAN OB at 20-21.
[1427] SCG/SDG&E OB at 304.
[1428] *Id*. at 304-305; Ex. 146 SDG&E/Stewart at 35-39.
[1429] TURN OB at 177.

and asks that the Commission "not shy away from considering 2017 cost data . . . simply because the utility points to partial vacancies that year."[1430] SDG&E demonstrated in testimony and its Opening Brief, TURN's 2017 forecast did not account for unplanned labor vacancies, including a branch office manager position and temporary leaves of absence, which have since been re-filled.[1431] SDG&E's 2016 base year forecast methodology should be accepted because it represents a more accurate representation of labor and non-labor expenses at normal operating levels.[1432] SDG&E's request is reasonable and should be adopted.

23.2.2.6 Branch Office Closure

SDG&E has justified its request for approval to close two of its Branch Offices located at the Oceanside and Downtown locations, as demonstrated in its testimony and Opening Brief.[1433] As demonstrated by SDG&E in its Opening Brief, there is substantial evidence and analysis to determine that the closure of the Oceanside and Downtown locations are "in the public interest because it permits [SDG&E] to reduce costs . . . [at branches] with relatively few transactions while ensuring that customers affected by the closure receive reasonably comparable service through alternate means."[1434] Stating its concern that "customers could be adversely affected by SDG&E's proposed branch office closures," UCAN opposes this request on procedural and factual grounds.[1435] SDG&E has fully addressed in testimony and its Opening Brief most of the objections raised by UCAN and will not repeat them. UCAN is incorrect that SDG&E has not met its burden to show that the closure of its branch office "is reasonable and in the best interest of its customers and that such closure will not disproportionately impact vulnerable customers."[1436]

First, UCAN claims that procedurally, SDG&E was instructed to file "a separate application with [its] request."[1437] SDG&E did file an application in the form of its 2019 General

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[1430] *See* TURN OB at 178.
[1431] Ex. 149 SDG&E/Stewart at 34.
[1432] Ex. 149 SDG&E/Stewart at 34; Ex. 146 SDG&E/Stewart at 38-39.
[1433] Ex. 146 SDG&E/Stewart at 39-49; Ex. 149 SDG&E/Stewart at 34-41; SCG/SDG&E OB at 305-307.
[1434] *See* SCG/SDG&E OB at 305-307, citing D.07-05-058; D.18-04-031 (*In the Matter of the Application of SoCalGas Company for Approval of the Branch Office Optimization Process*, Order Modifying Decision 16-06-046 and Denying Rehearing of the Decision as Modified at 1 (May 1, 2018) citing D.16-06-046 at p. 56 [Conclusion of Law 5].).
[1435] UCAN OB at 15-20.
[1436] UCAN OB at 16, citing D.16-06-046 at 7.
[1437] *Id.* at 16.

Rate Case Application. The Commission previously determined that a separate application was unnecessary, and that the utilities "may separately apply to close individual offices in the future or revisit the issue in the next GRC."[1438]

Second, UCAN provides the wrong standard when it states SDG&E "has not demonstrated that [vulnerable and low-income] customers are unlikely to be impacted by SDG&E's proposal,"[1439] and noting that "these customers could be at risk from SDG&E's proposal." Recently, the Commission has reiterated the appropriate standard on branch closures. In D.16-06-046, the Commission considered "whether customers would have reasonably comparable alternatives to the level of service offered by a branch office and whether the impact of closing branch offices would fall disproportionately on customers who are low-income, elderly or who have disabilities."[1440] The Commission went on to find that "customers would have reasonably comparable alternatives to the level of service offered by a branch office because the need for access to a physical branch office is not as important today with the advancements in technology that provide 24/7 access to [the utilities'] Customer Contact Center, My Account and the interactive voice response system."[1441] The record clearly reflects that one or more of the same alternatives and access is available to SDG&E customers.[1442] To reiterate, the Commission has established a standard of "reasonably comparable alternatives to the level of service" and not identical alternatives for level of service. Moreover, no one can argue or did argue that 24/7 access to SDG&E via electronic and mobile channels is not at least "comparable" if not a better level of service. In addition, no party has disputed the fact that Authorized Payment Locations are in multiple locations (and often more convenient for the customer) within a 3-mile radius of the Oceanside and Downtown branch office locations.[1443] Moreover, SDG&E demonstrated that only roughly 4% of branch office transactions are non-payment transactions.[1444]

[1438] *See* 2008 GRC Decision [D.08-07-046] at 20. *See also*, 2016 GRC Decision [D.16-06-054] at 27 states SDG&E may file a separate application to seek closure of any currently existing branch offices during the 2016 GRC cycle.
[1439] UCAN OB at 16.
[1440] D.18-04-031 at 8-9, citing D.16-06-046.
[1441] *Id.* at 9, citing D.16-06-046 at 55 (Finding of Fact 15).
[1442] Ex. 149 SDG&E/Stewart at 35.
[1443] *Id*. at 35, 38-39.
[1444] Ex. 146 SDG&E/Stewart at 44.

SDG&E also demonstrated that "the impact of closing branch offices would [*not*] fall disproportionately on customers who are low-income, elderly or who have disabilities."[1445] There is no evidence that low-income or other vulnerable customers do not have access to or are unable to contact SDG&E. Even UCAN's analysis demonstrates that the vast majority of low-income customers own mobile phones (asserting 8% do not) or a smart phone (asserting only 37% do not).[1446] Given the percentage of CARE customers who used the Oceanside Branch Office and use the Downtown Branch Office, and the likelihood they have other means to transact with SDG&E as well as reasonable alternative Branch Offices or APLs in close proximity, it cannot be concluded that the impact of permanent closure of the Oceanside Branch Office and the Downtown location will fall disproportionately on vulnerable customers.[1447] Tellingly, no customers have expressed concerns or complaints to SDG&E since the closure of the Oceanside Branch Office location.[1448] SDG&E has met its burden of proof. The Commission should grant its request.

23.2.2.7 Customer Contact Center Operations

SDG&E has justified its TY 2019 CCC Operations expenses of $10,096,000, as demonstrated in testimony and SDG&E's Opening Brief.[1449] TURN and SDCAN recommend disallowances. TURN's proposal would disallow $195,000 for labor expenses under an adjusted BY 2016 forecast and disallow $88,000 in non-labor expenses utilizing a six-year average.[1450] SDCAN claims SDG&E's Customer Service is "deficient" and recommends that the Commission "reject" SDG&E's entire incremental request of $7.5 million and "require that in its next GRC application, SDG&E must show a reduction in customer complaints in order for revenue increases to be considered in future GRC applications."[1451] SDG&E addressed TURN's and SDCAN's positions in its testimony and Opening Brief.[1452]

1445 D.18-04-031 at 8-9 citing D.16-06-046; Ex. 146 SDG&E/Stewart at 41-42; Ex. 149 SDG&E/Stewart at 35-40.
1446 UCAN OB at 17.
1447 SCG/SDG&E OB at 306 and Ex. 149 SDG&E/Stewart at 38. UCAN continues to misread the import of the late payment notice information it requested. The evidence shows that the number of late notices has fallen since the Oceanside Branch Office closure. The analysis is based on total late notices and not unique accounts. A singular account can be late up to 12 times per year. Ex. 149 SDG&E/Stewart at 40.
1448 Ex. 149 SDG&E/Stewart at 41; Tr. V17:1541:18 – 1542:27 and 1544:27 – 1545:28 (Stewart).
1449 Ex. 146 SDG&E/Stewart at 49-56; Ex. 149 SDG&E/Stewart 41-45; SCG/SDG&E OB at 307-310.
1450 TURN OB at 181.
1451 SDCAN OB at 9, 32.
1452 SCG/SDG&E OB at 309-310; Ex. 149 SDG&E/Stewart at 45.

Both TURN's and SDCAN's recommended disallowances to SDG&E's CCC request are without merit. As stated in SDG&E's Opening Brief at page 308, TURN's methodology is flawed because SDG&E's use of historical performance to model future staffing requirements includes productivity of SDG&E's ESSs through average handle time (AHT) and utilization rates (known as occupancy) and TURN does not account for such key factors. Therefore, the comparison is not apples to apples.

As demonstrated in SDG&E's testimony and Opening Brief, SDCAN similarly has no support for its arbitrary expense reduction recommendation. SDCAN essentially asks the Commission to extrapolate one customer's unhappy experience and treat it as a trend or chronic problem. SDG&E apologized for a customer experience that did not meet its standard of service and took action to ensure future customers will not experience the same difficulties in receiving a prompt and complete response to their inquiries.[1453] That one experience and the small record of customer complaints do not, however, justify the action SDCAN proposes. As SDG&E also demonstrated in its testimony, informal complaints filed with Consumer Affairs Branch (CAB) have decreased, not increased as SDCAN claims in its comparison of 2009 with 2017 figures.[1454] Additionally, SDG&E continuously strives to improve its service, based upon the feedback it receives and the studies it conducts. It aspires to be a trusted energy advisor to all of its customers. SDCAN's punitive recommendation would be unreasonable, and counter-intuitive, based on the record before the Commission. The Commission should reject both TURN's and SDCAN's recommendations and adopt SDG&E's request for the CCC Operations.

23.2.2.8 Customer Contact Center Support

SDG&E has justified its TY 2019 CCC Support expenses of $2,679,000, as demonstrated in testimony and SDG&E's Opening Brief.[1455] TURN recommends a disallowance of $57,000 using an average of 2016-2017 as a base forecast.[1456] SDG&E fully addressed TURN's position in its testimony and Opening Brief.[1457] TURN fails to demonstrate that use of its average 2016-2017 forecast is reasonable, especially where, as here, lower expenses occurred only because there were partial year vacancies that have already been filled. As Mr. Stewart stated in rebuttal,

[1453] SCG/SDG&E OB at 300.
[1454] SCG/SDG&E OB at 309-310.
[1455] Ex. 146 SDG&E/Stewart at 56-57; Ex. 149 SDG&E/Stewart at 46-50 SCG/SDG&E OB at 310-311.
[1456] TURN OB at 183-184.
[1457] SCG/SDG&E OB at 310-311; Ex. 149 SDG&E/Stewart at 46.

the labor vacancies were filled by the end of 2017, labor expenses for 2018 and later are expected to be at forecast, thus TURN's forecast methodology would not be an accurate average baseline and fails to reflect the full year effect of 2017 hires.[1458] SDG&E's base forecast is reasonable and should be adopted by the Commission.

23.2.2.9 Customer Operations Support and Projects

SDG&E has justified its TY 2019 Customer Operations Support and Projects expenses of $3,604,000, as demonstrated in testimony and SDG&E's Opening Brief.[1459] TURN recommends a disallowance of $340,000 by selectively crafting a three-year average forecast (2015-2017), admittedly because 2015 and 2017 reflected lower labor costs and more nonlabor.[1460] In its Opening Brief, TURN claims *it has included* in its base forecast amounts reflecting "SDG&E's incremental 2018-2019 costs" in response to SDG&E's claim that TURN has arbitrarily crafted a forecast that "'is not representative of TY 2019 activity levels as detailed in [SDG&E's] direct testimony cost driver forecasts.'"[1461] This is inaccurate. What TURN does not acknowledge is that it failed to account for $142,000 for full-year salaries for employees that were hired during 2017,[1462] so the reduced 2017 actuals effectively depress the three-year average starting point utilized by TURN. Additionally, TURN's forecast appears to eliminate $20,000 for employee development training necessary for their roles to ensure SDG&E's employees keep abreast of rapidly advancing technology industry best practices.[1463] TURN's forecast methodology and proposal is unreasonable and should be rejected. The Commission should adopt SDG&E's request.

23.2.2.10 Uncollectable Rate

SDG&E justified its request for a static 10-year average for an uncollectable expense rate of 0.174%, maintaining the current authorized rate in its testimony and Opening Brief.[1464] While SDG&E fully addressed in its Opening Brief at pages 312 and 313, TURN's belief that the 10-year average SDG&E proposed should be calculated on an annual rolling basis, a further

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[1458] Ex. 149 SDG&E/Stewart at 46.
[1459] Ex. 146 SDG&E/Stewart at 57-61; Ex. 149 SDG&E/Stewart at 51-52; SCG/SDG&E OB at 311-312.
[1460] TURN OB at 185.
[1461] *Id*., citing Ex. 149 SDG&E/Stewart at 51-52.
[1462] TURN admits it knew these employees returned from disability leaves and/or were back-fill replacements yet TURN eliminates enumeration for these in-place staff. *See* TURN OB at 184.
[1463] Ex. 149 SDG&E/Stewart at 51-52.
[1464] Ex. 146 SDG&E/Stewart at 61-63; Ex. 149 SDG&E/Stewart at 52-54; SCG/SDG&E OB at 312-313.

comment is appropriate. The demographics and systems for each utility are unique. That two other utilities elect a rolling average approach for their particular uncollectible rate bears little weight on whether that approach is appropriate for SDG&E.[1465] The benefit to be gained by a 10-year rolling average versus the 10-year static average SDG&E has proposed is outweighed by the additional unnecessary expense to customers for an annual Advice Letter preparation and filing. Similarly, for the reasons expressed earlier with respect to TURN's forecast methodology approach, the 2007-2016 average proposed by SDG&E[1466] should be adopted by the Commission as reasonable.

23.2.2.11 IT Capital Proposals

SDG&E fully justified its revenue request for its IT Capital expenditures of $14,897,000 in 2017, $15,774,000 in 2018, and $16,332,000 in 2019 in its testimony and Opening Brief.[1467] The Commission should adopt its request as reasonable.

23.2.2.11.1 Branch Office Kiosk Replacement

SDG&E justified its revenue request of $.0150 million in 2017 and $1.837 million in 2018 for the Branch Office Kiosk Replacement in its testimony and Opening Brief.[1468] SDG&E fully addressed NDC's position in Applicants' Opening Brief at 313-314, but believes a clarification is warranted.

NDC incorrectly asserts that SDG&E has double-counted its labor savings for the Branch Office Kiosk Replacement project, which (according to NDC) deprives the project of any cost savings if approved.[1469] To reach this conclusion, NDC asserts that SDG&E has subtracted annual labor savings costs twice.[1470] NDC is incorrect. The cost table provided in Mr. Stewart's testimony,[1471] identifies the difference in the calculations when comparing annual costs. To calculate the total annual costs (pre-project vs. post project) the labor savings associated with the

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[1465] SDG&E notes that Southern California Edison Company does not utilize a 10-year rolling average for its uncollectible rate, nor did TURN suggest one in its pending TY 2018 GRC. A.16-09-001, Application of Southern California Edison Company (U338E) for Authority to Increase its Authorized Revenues for Electric Service in 2018, Among Other Things, and to Reflect That Increase in Rates (filed September 1, 2016), Ex. TURN-03 (Marcus) at 23-24, proposing a five-year average (2012-2016) which includes BY+1 year 2016.
[1466] Ex. 149 SDG&E/Stewart at 53-54.
[1467] SCG/SDG&E OB at 313-315 and n. 1553.
[1468] Ex. 146 SDG&E/Stewart at 71-72; Ex. SDG&E/Stewart at 55-59; SCG/SDG&E OB at 313-314.
[1469] *See* NDC OB at 6-7.
[1470] *Id.* at 8.
[1471] Ex. 149 SDG&E/Stewart at 57, Table JS-26.

kiosk project must be identified. SDG&E is comparing the total cost of the new kiosk project to the total annual cost of doing business with the existing kiosks.[1472] Thus, no double counting of labor savings has occurred.

SDG&E justified the reasonableness and need for the current Branch Office kiosks replacement.[1473] The Commission should adopt its request.

23.2.2.11.2 Bill Redesign Phase 2

SDG&E justified its revenue request of $1.110 million in 2017, $1.226 million in 2018 and $0.612 million in 2019 to complete the Bill Redesign Phase 2 project in its testimony and Opening Brief.[1474] UCAN was the only party to contest a portion of the funding request in its testimony. UCAN now states in its Opening Brief that it has "no comment" on this request.[1475] The Commission should accordingly adopt SDG&E's request.

23.3 Customer Service Information -- SoCalGas

SoCalGas has justified approval of its reasonable TY 2019 Customer Services – Information (CS-I) O&M and IT capital expense forecasts, as fully shown in testimony and in SoCalGas' Opening Brief.[1476] CS-I seeks $24,984,000[1477] for O&M costs for both non-shared and shared services associated with CS-I, as well as IT Capital expenditures of $4,464,000 in 2017, $6,510,000 in 2018 and $12,483,000 in 2019.[1478] No party opposed SoCalGas' shared services requests of $4,490,000,[1479] or its IT Capital Project business justifications.[1480]

23.3.1 ORA and SC-UCS Fail to Refute the Demonstrated Need for Additional Customer Strategy and Engagement Resources.

SoCalGas justified approval of its TY 2019 Customer Strategy and Engagement (CSE) expenses of $7,098,000, as demonstrated in testimony and in SoCalGas' Opening Brief.[1481] ORA merely restated its objections to the incremental full-time equivalent (FTE) resources

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1472 *See id. See also id.* at 56-58.
1473 *See id.* at 55:11 – 56:2, 58:14 – 59:7.
1474 Ex. 146 SDG&E/Stewart at 67; Ex. 149 SDG&E/Stewart at 59-60; SCG/SDG&E OB at 314-15.
1475 UCAN OB at 21.
1476 SCG/SDG&E OB at 315-323.
1477 In its Opening Brief, SoCalGas inadvertently reflected an uncorrected value for its TY 2019 request. The correct value is as stated above and as reflected in Ex. 514 SCG/SDG&E/Hom UT at Attachment A, A-8 and A-9 (Non-Shared Services (NSS) $20,514,000 + (Utility Shared Services (USS) $4,470,000).
1478 SCG/SDG&E OB at 315-316.
1479 Ex. 156 SCG/Cheung (adopted by Magana) at 35.
1480 SCG/SDG&E OB at 316.
1481 *Id*. at 316-322.

SoCalGas requested and its Opening Brief contained no new basis for the generalized and unsupported reasons contained in ORA witness Crystal Yeh's testimony.[1482] ORA ignored SoCalGas witness Rosalinda Magana's rebuttal testimony entirely, which provided compelling reasons and data demonstrating why additional FTEs were required to provide increased marketing and communications efforts across multiple channels and growing mediums to keep customers informed of the latest products, services and programs and to enhance the ability of SoCalGas' customers to understand and manage their energy usage.[1483] In addition, ORA's recommendation to disallow CSE funding, effectively eliminated all funding for incremental costs outside of FOF and Aliso adjustments. This recommendation however overlooked all of the incremental non-labor costs related to the migration of on-going maintenance and support from the Advanced Meter Project to the CS-I and Customer Services – Office Operations (CSOO) witness areas.[1484] SoCalGas fully addressed ORA's positions in the Applicants' Opening Brief and will not reargue them here.[1485]

Sierra Club and Union of Concerned Scientists (SC-UCS) presents the opposite situation. Even though SC-UCS had all of the data it cites in its Opening Brief and CS-I's request long before intervenor testimony was due, SC-UCS now argues, for the first time, that portions of SoCalGas' CSE request should be disallowed. SC-UCS' new positions should be stricken as improper litigation tactics and sandbagging.[1486] The Commission has granted motions to strike

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[1482] ORA OB at 333-336.
[1483] SCG/SDG&E OB at 316.
[1484] *Id*. at 321-322.
[1485] SCG/SDG&E OB at 315-323.
[1486] Specifically, the portions of SC-UCS' Opening Brief that should be stricken are contained at pages 8-16. All of the contentions contained within these pages are new. SC-UCS possessed all of the SoCalGas testimony and materials (and hence, contentions) it refers to in their Opening Brief as objectionable or misleading, prior to the time it filed its prepared direct testimony on May 14, 2018. While SC-UCS dumped all of SoCalGas' responses to the Data Requests SC-UCS had served into a catch-all Attachment 4, SC-UCS presented no argument or discussion about those materials in its testimony. Random questions were asked during cross examination of two SoCalGas witnesses on a few of the documents that are now featured in SC-UCS' Opening Brief, but not all of them. SoCalGas was not given proper notice of SC-UCS' testimony and contentions, and its argument in Section B at pages 8 through 16, and the following materials should now be stricken as improper gamesmanship. *See, e.g*., SC-UCS OB at 12, fn.42, citing Ex. 475 SC-UCS/O'Dea/Golden, Attach. 4, SoCalGas Response to Data Request Sierra Club/UCS-SCG-03, Q. 14, Attach. 2; *Id.* at 13, fns. 44-47 citing various SCG responses to SC-UCS Data Requests; *Id.* at 14, fn. 50, citing Ex. 159-R, SCG Response to Data Request Sierra Club/UCS-SCG-03, Q. 14, at 2; *Id.* at 14, fn. 53, citing Ex. 160, SCG Response to Sierra Club/UCS-SCG-02, Q. 19; *Id.* at 15, fns. 54 and 55, citing Ex. 162 SC-UCS, Energy Star Most Efficient Furnaces (July 17, 2018), Ex. 163 SC-UCS, 2015 Appliance Efficiency Regulations (July 2015), Ex. 164 SC-UCS, Energy Star Most Efficient

portions of briefing that essentially served as testimony, where recommendations are not part of testimony entered into the record and no party has had an opportunity to cross-examine sponsoring witnesses or present evidence on the proposals,[1487] as is the case here.

In the event the Commission considers SC-UCS' Opening Brief, its new arguments are without merit and should be disregarded for that reason as well.[1488] According to SC-UCS, there are three reasons to disallow incremental funding of $566,000 for the Customer Marketing and Communications, Creative Services and Digital Engagement activities in SoCalGas' request: (1) SoCalGas provided "vague and contradictory information" that does not meet its reasonableness burden; (2) information serving as "climate education" goes beyond SoCalGas' core function; and (3) SoCalGas' communications are biased toward fossil fuel technologies and it is "absurd" to "award[] ratepayer money to develop communications on climate and energy issues to an entity whose shareholder interest is in the sale of fossil fuels."[1489] Each of these arguments fails to withstand scrutiny.

23.3.1.1 SoCalGas Has Met its Burden on the Reasonableness of Communications Resources.

SC-UCS first asserts that in order for SoCalGas to meet it burden to establish the reasonableness of its request, it must "sufficiently explain[] the content of the communications to justify its request or to demonstrate that the communications will be in the customers interest.[1490]

Central Air Conditioners/Heat Pumps (July 18, 2018), and Ex. 160 SCG Response to Sierra Club-UCS-SCG-02, Q. 19; *Id.* at 16, fn. 57 citing Ex. 475 SC-UCS/O'Dea/Golden, Attach. 4, SCG Response to Data Request Sierra Club/UCS-SCG-03, Q. 14(a) (citing video).

[1487] *See, e.g.*, D.10-06-038 at 45 (striking portions of the City of Duarte's opening brief where recommendations were not part of testimony entered into the record, no party had an opportunity to cross-examine sponsoring witnesses or present evidence on the proposals, and no explanation was provided as to why the additional "testimony" in briefing could not have been served as prepared testimony, in accordance with Rule 13.8); D.02-08-064 at 36-38 (granting motion to strike a portion of reply briefing based on "untested new evidence"); D.92-06-065 at 61-62 (granting motion to strike portions of opening and reply briefing based on extra-record material, where parties had no opportunity to cross-examine any witness on it, and rejecting the contention that such briefing is "simply argument," stating, "If that is so, it is not proper argument. The material serves no useful purpose because it cannot be considered by the Commission, either as fact or argument.").

[1488] Given the compressed time frame for briefing and the impaired availability of evidence in the record to address SC-UCS arguments of which SoCalGas had no prior notice, the fact that SoCalGas may not have addressed every assertion made by SC-UCS in its Opening Brief does not suggest that SoCalGas agrees with the assertion or claim.

[1489] SC-UCS OB at 8. Although SC-UCS' appears to target and criticize only CSE communications related to climate-related issues, it indiscriminately seeks to eliminate communications funding for all purposes. This would negatively impact residential and commercial customers.

[1490] SC-UCS OB at 9.

It then faults SoCalGas for the inability to specify the exact content or the precise audience of the communications that will be developed in TY 2019 and attrition years.[1491] It also asserts that the information SoCalGas did provide on such future communications is "contradictory" – because the witness clarified in hearings what SC-UCS previously failed to grasp – that Customer Service-Information communications would "inform our customers on the *products and services that are available to them* in regards to renewable gas."[1492] The testimony of SoCalGas' witness Magana is clear, logical and reasonable. The majority of funding requested for climate change-related communications would occur in the future. Specific content and audience designation are developed in concert with third party communications agencies and extensive customer research and analysis. That is the reason for the requested funding.[1493] Moreover, SC-UCS has selectively ignored the numerous examples that SoCalGas provided in testimony, expressly reflecting that SoCalGas intends to provide content-targeted information to the appropriate customer segments and that "the format for the increased communications on climate change will be similar to SoCalGas' Safety messaging and Winter Demand messaging, which have the objective to provide information, education and outreach to all customers."[1494]

SC-UCS further indiscriminately recommends disallowing *all* incremental funding to support climate communications, both labor and nonlabor, but does not speak to the merits of the funding request beyond the mis-characterized and irrelevant examples they provide.[1495] Climate

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[1491] *Id.*

[1492] *Id.* at 9-10 (emphasis in original). *See, e.g.*, Tr. V18:1634:14 – 1635:24 (Magana).

[1493] *See* SCG/SDG&E OB at 318; *accord* Tr. V18:1645:4-7 (Magana).

[1494] Ex. 158 SCG/Magana at 11 and *see generally* 9-10 and Appendix C. *See also* Tr. V18:1634:18-28, 1637:6-12, 1638:16-20 (Magana).

[1495] As an example, SC-UCS attempts to ridicule the witness for her inability to identify which type of biomethane would be addressed in future communications on renewable gas. SC-UCS OB at 9-10. While the fact that customers may purchase renewable gas is of interest, the source and type of biomethane used is hardly relevant (if at all) to customers. In addition, SC-UCS is mis-informed about the availability of renewable gas for customers. SoCalGas' Advice Letter (AL) 5295-G, approved July 5, 2018 and effective June 17, 2018, approved the renewable gas (RG) procurement pilot, which allows RG purchases by the transportation sector at SoCalGas and SDG&E natural gas vehicle (NGV) refueling stations, and for use in Applicants' fleet vehicles. SC-UCS is further mistaken in its claim that SoCalGas does not have NGV products and services available to customers. Products and services offered by SoCalGas for NGVs include activities such as new business administration, customer outreach tools and materials, public access compressed natural gas (CNG) station management, and subject matter expertise to implement clean transportation mandates. Further, in accordance with D.16-12-043, which modified D.15-06-029, and the mandates of SB 840 and AB 2313, SoCalGas is required to offer a five-year monetary incentive program to encourage biomethane producers to design, construct, and operate change policies and imperatives will have impacts on new offerings that SoCalGas will need to support. For example, to best support biogas development objectives, as required by California Public Utilities Code Section 399.20(f)(2)(D), it will be necessary to increase communications to educate customers on SoCalGas services and products related to development of biogas. SoCalGas' testimony provided numerous examples of available products and services in line with climate change initiatives that require customer communications.[1496] SC-UCS' recommendation should be rejected.

23.3.1.2 SoCalGas' Communications Align with its Core Functions.

SC-UCS next asserts that "[p]roviding customers with purported 'climate education' stretches far beyond SoCalGas' core function to provide safe and reliable gas service" and constitutes institutional advertising.[1497] SC-UCS' true dissension, is not its concern that SoCalGas will be somehow bolstering its public image by providing information about products and services available to customers consistent with the state's climate objectives, but instead its view is that the future communications are intended to "alarmingly, foster customer complacency with the continued combustion of fossil fuels."[1498] SC-UCS is a special interest group, and all of its arguments must be read in that vein. Having played its true hand – the desire to stifle SoCalGas' voice (here with its own customers) on the availability of natural and renewable gas products and services – SC-UCS' assertion should be ignored.

SoCalGas' core function is the safe and reliable service of gas to its customers. As part of that service, SoCalGas' CSE team communicates with customers about existing and new energy solutions to enhance the ability of SoCalGas customers to understand and manage their energy usage.[1499] SoCalGas demonstrated in its testimony and Opening Brief that now more than ever, customers need to understand climate change imperatives and the linkage between

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biomethane projects that interconnect with the gas utilities' pipeline systems and facilitate the pipeline injection of biomethane that can be safely used at an end user's home or business. D.16-12-043 at 5.

[1496] Ex. 158 SCG/Magana at 9-10.

[1497] SC-UCS OB at 11.

[1498] *Id.* at 12.

[1499] For decades, SoCalGas has consistently communicated with customers different services and programs to help customers manage their energy costs, efficient operations of appliances (residential and commercial), new service offerings, bill payment options, customer contact, field services, safety, locate & mark, etc. Customer communications in support of and consistent with state policy objectives (*e.g.*, energy efficiency and now climate change) are included in the types of communications. Ex. 156 SCG/Cheung/Magana at 1. *See also supra* at fn. 1493 providing examples.

those state goals and the energy programs offered by the Company.[1500] The example SC-UCS cites as institutional advertising demonstrates SoCalGas' point in this regard.

SoCalGas created a flyer titled "Renewable Natural Gas: Part of California's Renewable Energy Future" to inform attendees at the World Agriculture Expo about a live demonstration of converting cattle manure to methane, a process that captures the methane that would otherwise be released into the atmosphere. The material clearly states it was for a demonstration.[1501] SC-UCS criticizes the flyer nonetheless, because it "neglects to mention that while methane may be captured" other criteria pollutants may be released when gas is burned, that biomethane, if leaked from a pipeline, has the same effect as natural gas, and that potentially available sources of biomethane are limited.[1502] SC-UCS' biased opinion on the content it believes should be included in a communication has little relevance to the question of what constitutes appropriate content in SoCalGas' communications to its customers. The information SC-UCS claims was missing (ostensibly to make the flyer less akin to advertising), would have been inappropriate for the audience.[1503] SoCalGas creates a broad range of marketing and education materials to suit the particular audience it seeks to inform. The flyer was appropriate to inform the audience of the advances in technology being demonstrated at the event they attended, and which will provide another option for safe and reliable gas in SoCalGas' system to serve its customers. Participants at this Expo would be particularly interested in the demonstration's related biogas pilot project that would be conducted pursuant to Senate Bill 1383, Section 4 (which SoCalGas is now administering through Rulemaking (R.)17-06-015), and could ask questions or contact SoCalGas for further information about the process and pilot program.

Nor do SoCalGas' communications on climate change imperatives constitute "institutional advertising." CS-I communications provide customers with information on products, programs and services (*e.g.*, gas safety messaging). The climate-related messaging is to help customers to be *informed* about the state laws, programs, and steps they can take to align

[1500] SCG/SDG&E OB at 317-18.
[1501] Ex. 159-R, SC-UCS DR-003, Question 14a and Attachment 2-Banner.pdf.
[1502] SC-UCS OB at 12.
[1503] This is no different than a consumer group claiming that soda and packaged food manufacturers are misleading the public if there is no warning on the package that the packaging (aluminum can or plastic packaging) is environmentally unfriendly because aluminum requires intensive energy usage or that plastics (low density polyethylene) are made from a fossil fuel (petroleum, oil).

with these policies.[1504] This type of messaging falls well within the categories of permitted communications in the decisions cited by SC-UCS.

In *City of Los Angeles v. Public Utilities Commission*,[1505] the Court distinguished institutional advertising from informative advertising, holding "in the absence of a showing that the amount allowed for informative advertising was primarily directed for other purposes, the allowance of the commission must be upheld."[1506] In its discussion on the topic, the Court indicated the Commission appropriately allowed informative advertising as an operating expense. In contrast to institutional advertising, informative advertising is one that "results in more than a mere fostering of goodwill" and "should result in reductions in operating costs and more efficient service to the ratepayer."[1507] Specifically, in the case of the telecom funding at issue, "informative" advertising "is designed to 'inform, advise, instruct and solicit the cooperation of telephone users in making the most efficient use of the telephone.'"[1508] Similarly, in D.88232, the Commission stated:

> We have previously made it clear that institutional advertising (which tends primarily to build the image of the company) will not be charged to the ratepayer. Several recent cases have explained our current policy on advertising. Staff witness Dade's testimony [] contains a fair summary of what these recent cases classify as *allowable advertising* (assuming a reasonable limit): (1) advertising that provides a net increase in revenue or net decrease in expenses; (2) advertising which instructs customers how to obtain or use their service more efficiently or economically, or advises them of legal or rate matters as required by this Commission, or promotes safety; and (3) advertising for recruiting employees or protecting utility property.[1509]

1504 *See* Ex. 156 SCG/Cheung/Magana at 1-4 and 19. Examples of climate-related messaging were provided in discovery. *See* Ex. 159-R SC-UCS DR-003, Question 14a.

1505 *City of Los Angeles v. Public Utilities Commission,* 7 Cal.3d 331 (1972).

1506 *Id.* at 351.

1507 *Id.*

1508 *Id.* at 360 (internal citations omitted). *See also* D.84902, 1975 Cal. PUC LEXIS 949 at *107-108 citing *City of Los Angeles v. PUC*, and discussing P.U. Code Section 796(b) and CPUC decisions, which allow "Advertising that advocates the conservation of energy by stimulating conservation practices through dissemination of factual data and advice," and "Advertising that is to facilitate an adequate future supply of electric energy through the factual discussion of plant siting, safety, and environmental impact." Citing D.81919, 1973 Cal. PUC LEXIS 840 at *65-66.

1509 D.88232 at 57-58 (emphasis added).

SoCalGas' requested funding, and the proposed types of communications fall firmly within the category of permissible informational materials that do more than foster goodwill toward SoCalGas.[1510] The examples SC-UCS cites are inapposite.[1511]

Other examples that SC-UCS provides as it attempts to show SoCalGas' communications with customers are merely an attempt to bolster its corporate image also miss the mark. SC-UCS initially asserts incorrectly that SoCalGas has no NGV products or services available to customers.[1512] It then admits in the next breath that SoCalGas offers the public NGV fueling stations.[1513] Nor does pointing to the Renewable Gas Tool Kit help SC-UCS' claim. The Tool Kit shows the breadth of services and products related to renewable gas. Products and services are promoted based on availability and based on customer segment, which includes commercial, industrial, and residential customers.[1514] Demonstrating a continued failure to understand SoCalGas' business, SC-UCS further claims that there could be no appropriate use of ratepayer funds for SoCalGas to produce a video discussing the availability for fleet services of a heavy duty low emissions vehicle engine that meets California Air Resources Board (CARB) Low Carbon Fuel Standards (LCFS) and runs on renewable gas.[1515] SC-UCS' assertion is disingenuous. The video was produced to inform the relevant NGV customer audience about

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[1510] *See supra* at fn. 1494, which provides the objectives of SoCalGas' climate change communications to help customers to be informed about the state laws, programs, and steps they can take to align with these policies. SoCalGas further provided examples of existing communications that reflect the format intended to communicate this climate change messaging. Ex. 158 SCG/Magana at Appendix C; Ex. 159-R SC-UCS DR-003, Question 14a.

[1511] *See, e.g.*, D.15-11-021 at 362 (determining that expenses for utility's annual Corporate Responsibility Report, which highlights for public consumption the company's stewardship in environmental, safety and ethics could not be recovered in rates); D.84-06-111, 1984 Cal. PUC LEXIS 1363 at *39-40 (authorizing funding for advertising after considering campaign as a whole and as part of a larger intent to promote service, despite materials specifically identifying purpose of advertisement to "Enhance image of PacBell as a stand-alone company, financially sound, aggressive, forward-looking and well equipped to provide services enabling business customers to take advantage of new business opportunities.").

[1512] *See* SC-UCS OB at 10 ("While SoCalGas asserted in oral testimony that the communications would inform customers about biomethane and NGV products and services available to them, these products and services do not exist.").

[1513] *Id.* at 11.

[1514] *See* Tr. V18:1634:22-28 (Magana) ("And as far as renewable gas and providing communication on that is to provide education and outreach on the available products and services to the extent that there is a product available to our residential customers or any customer, we would provide that information."). To that end, the Tool Kit's Forward statement identifies its targeted audience: "We created this tool kit to assist producers with information and technical guidance to support the interconnection process." Ex. 159R SC-UCS, DR-003, Question 14 at PDF p. 5.

[1515] SC-UCS OB at 13.

available products in the market for NGV customers. Also manufactured is SC-UCS' claim that SoCalGas' lacks concern or understanding of disadvantaged community (DAC) needs, as it allegedly fails to heed community concerns voiced at the Riverside Public Participation hearing for this proceeding.[1516] Questionably, SC-UCS cites to a convenient mobilization of environmentally concerned speakers at that hearing.[1517] SC-UCS' thinly-veiled attempts to deprive SoCalGas of funding for its legitimate customer activities and communications should not be countenanced. Specifically, SoCalGas provides customer information, education, training, and refueling products and services to customers operating NGVs and should not be restricted or prevented from communicating to customers about beneficial NGV technologies, products and services as well as NGV refueling locations throughout Southern California. The Commission should adopt SoCalGas' CSE request as reasonable.

23.3.1.3 CSE Climate-related Communications Do Not Mislead Customers

Continuing on its theme that SoCalGas is not an honest broker on climate-related subjects, SC-UCS next claims that a portion of CSE funding should be disallowed because SoCalGas is incurably biased on climate-related topics.[1518] SoCalGas has fully addressed SC-UCS' assertion about SoCalGas' business motives and a purported mis-alignment with its customers' interests in its testimony and Opening Brief, and will not repeat itself here.[1519]

However, SC-UCS' new claim, that information provided by CSE to customers "not only fails to be impartial, but also is inaccurate,"[1520] warrants a response. To support its assertion, SC-UCS points to two communications that it claims misleads customers. The first communication is one article contained in a newsletter sent to Commercial and Industrial (C&I)

[1516] *Id.*

[1517] *See, e.g.*, Tr. V7:289:24-25 (Kavezade) ("So I'm here with my advocacy friends."); *Id.* at 290:11-13 (Parks) (describing self as a "16-year-old youth activist"); *Id.* at 291:19-23 (Arana) (college student stating her belief that her utility bills should not fund "further debt and investments in fossil fuels and advocacy against clean energy."). Ms. Arana also expressed her disappointment in learning SoCalGas spent the money she pays on its bills to "write editorials in the paper opposing building electrification." *Id.* at 291:25 – 292:1 (Arana). The evening Riverside County hearing was the only Public Participation event containing speakers who parroted the identical themes SC-UCS has espoused throughout this GRC proceeding.

[1518] SC-UCS OB at 14-16.

[1519] SCG/SDG&E OB at 345-348.

[1520] SC-UCS OB at 14.

customers.[1521] That article, entitled "The Value of Natural Gas" contains information sourced from the U.S. Department of Energy (DOE) and the national American Gas Association (AGA), and included conversion tools to allow customers to conduct their own fuel cost comparison. SC-UCS objects to this document because it claims that the portion of the newsletter sourced from the AGA, entitled the Annual Energy Costs of Heating, provides an inaccurate comparison of eight types of equipment that run on different fuel types.[1522] SoCalGas intends to provide accurate and relevant information to customers.[1523] In this case, SoCalGas provided published information from an industry organization, AGA. Nevertheless, SC-UCS misses the point of SoCalGas's newsletter and the referenced article. That is, to provide representative information on the options available to C&I customers as they make their energy appliance decisions. It is unreasonable to assume, as SC-UCS suggests, that sophisticated C&I customers would take the data in this chart at face value and not conduct their own comparison of heating efficiencies on available equipment to suit their business needs prior to making a purchase. For similar reasons, SC-UCS takes issue with a video discussing a new heavy duty near-zero emission engine that can run on renewable gas, claiming that the statement that "'most electric vehicles are actually charged using electricity generated by natural gas power plants' . . . is highly misleading."[1524] Although SC-UCS points to the California Energy Commission (CEC) website for a renewable energy mix in 2017, that data does not support SC-UCS' claim as it provides no more than a gross percentage of generation over a year by select resources.[1525] Clear from its Opening Brief,

[1521] Ex. 160 SC-UCS, DR-002, Question 19c.
[1522] SC-UCS OB at 14-15 and Figure 1.
[1523] As Ms. Magana testified, often times, third-party services are contracted to help create messages for customers. As such, the CSE teams collaborate with internal and external subject matter experts to help ensure content and material is relevant to customer interests and approved for communication to customers. SCG/SDG&E OB at 317; Tr. V18:1644:27 – 1645:1-7 (Magana).
[1524] SC-UCS OB at 16.
[1525] Most electric vehicles are charged over night, when natural gas and other fossil fuel plants are operating, and most renewable resources are offline. *See* Union of Concerned Scientists, *Electric Vehicle Charging: Types, Time, Cost and Savings* (revised March 9, 2018), *available at* https://www.ucsusa.org/clean-vehicles/electric-vehicles/car-charging-time-type-cost#.W7eXGWhKh3g) (touting benefits of charging electric vehicles at night, stating "A TOU plan gives cheaper electric rates during off-peak periods (often late at night), with higher rates for using electricity during high-demand times. Because most EVs are parked at home overnight, TOU rates are a good fit for most EV drivers."); *accord* U.S. Department of Energy, *Charging at Home*, *available at* https://www.energy.gov/eere/electricvehicles/charging-home) ("Because residential charging is convenient and inexpensive, most plug-in electric vehicle (also known as electric cars or EVs) drivers do more than 80% of their charging at home.").

SC-UCS' singular goal is to deprive SoCalGas of the ability to speak to its customers about natural and renewable gas sources, products and services. Its recommendation and the justification it provides for it are unreasonable. SoCalGas has met its burden and the Commission should adopt its request.

23.3.1.4 Customer Insights and Analytics

SoCalGas justified approval of its TY 2019 Customer Insights and Analytics expenses of $246,000 (labor and nonlabor), as demonstrated in testimony and in SoCalGas' Opening Brief.[1526] SoCalGas fully addressed the contentions of ORA and NDC in its Opening Brief and will not repeat them here. The Commission should adopt SoCalGas' request.

23.3.2 Small Business Customer Service

Apart from the comments below, SoCalGas believes that all of the issues raised in SBUA's Opening Brief section regarding CS-I are addressed in the SCG/SDG&E Opening Brief and thus will not be reiterated here.[1527] Comments are warranted, however, on two of the assertions raised by SBUA in its Opening Brief.[1528]

SoCalGas believes it adequately addressed SBUA's misapprehension about the panel sessions involving 500-600 small and medium business customers monthly in its Opening Brief. These panels and the information surveyed are quite comprehensive, and the results are utilized to adjust service and communications to meet the needs of this customer class.[1529] SBUA remarks that notwithstanding this panel program, "[g]aps in program participation appear broadly," and references the SoCalGas restaurant program.[1530] SoCalGas understands SBUA's concern, which is being addressed in the appropriate proceeding. The restaurant program relates to SoCalGas' Energy Efficiency (EE) Business Plan in A.17-01-016. The EE Business Plan addresses gaps and provides intervention strategies to solve those gaps through the other proceeding.

[1526] SCG/SDG&E OB at 320-321.
[1527] *Id.* at 322-323.
[1528] In it testimony, SBUA originally requested SDG&E create a department of at least ten FTEs focused exclusively on serving small business customer needs. *See* Ex. 158 SCG/Magana at 23-24. In its Opening Brief, SBUA appears to adjust its request to two FTEs. SBUA OB at 23. Regardless of number, as SoCalGas demonstrated in testimony and briefing, it is adequately staffed to meet small commercial customer needs and additional FTEs are unnecessary. SCG/SDG&E OB at 322.
[1529] SCG/SDG&E OB at 322-323.
[1530] SBUA OB at 24-25.

SBUA also miscomprehends SoCalGas' point, when it states:

> In addition, instead of focusing outreach campaigns specifically targeted to small businesses SoCalGas explains that their programs 'either target, or are specific to small business customers across multiple [sic] non-GRCs proceedings. If the programs are being funded by the current GRC, then the utility is able to make a profit from the cost and at least an element is included in this proceeding.[1531]

SoCalGas was referring to programs across various CPUC proceedings to its broad customer base, such programs include, but are not limited to, Energy Efficiency, California Solar Initiative (CSI)-Thermal, and the Self-Generation Incentive Program. These programs provide small and medium business customers, with access to clean energy resources and energy solutions for renewable energy use and energy efficiency.

Lastly, SBUA's new request, that SoCalGas be required to track barriers to small customer use and their participation in non-GRC programs is similarly unnecessary. Ms. Magana described the panels and other means provided to small business customers to understand their service needs and to educate them on programs.[1532] SoCalGas also provided responses to SBUA in discovery describing and listing numerous surveys conducted to gather small business customer insights.[1533] SBUA refers to the small and medium business customer panels in its Opening Brief, making SoCalGas' point that surveys are already conducted by the company to assess small business customer needs and insights, and SoCalGas incorporates those insights into its communications and programs.[1534] Additional studies and reporting requirements are redundant and unnecessary. SBUA's proposal should not be adopted by the Commission, and instead, the Commission should adopt SoCalGas' recommendation.

23.4 Customer Service Information and Technologies -- SDG&E

SDG&E has justified approval of its TY 2019 Customer Services Information and Technologies (CSIN) O&M and IT capital expense forecasts, as fully shown in testimony and in SDG&E's Opening Brief.[1535] SDG&E seeks $26,401,000 for O&M costs for both non-shared and shared services associated with CSIN, as well as (1) IT Capital expenditures of $20,583,000 in 2017, $21,109,000 in 2018 and $1,818,000 in 2019, and (2) $1,850,000 in future capital

[1531] *Id*. at 25 (internal citations omitted).
[1532] Tr. V18:1659-1664 (Magana).
[1533] *See* Ex. 439 SBUA/Rafii at Appendix 6 (SoCalGas Response to SBUA DR-02, Q 9) and Appendix 7 (SoCalGas Response to SBUA DR-03, Qs. 14 and Attachments and Q. 17 and Attachments).
[1534] *See* SBUA OB at 23 and Tr. V18:1662:19 – 1664:18 (Magana).
[1535] SCG/SDG&E OB at 323-329.

improvement costs associated with the Energy Innovation Center.[1536] No parties contested the CSIN shared service request of $343,000,[1537] the IT capital or facilities capital requests, or SDG&E's justification for the recovery of recorded costs in the Rate Reform Memorandum Account (RRMA), the recovery of recorded costs and closure of the Alternative Vehicle Fuel Memorandum Account (AFVMA), the Energy Data Request Memorandum Account (EDRMA), and the AB802 Commercial Benchmarking Memorandum Account.[1538] This reply addresses only the areas contested by Intervenors.

23.4.1 Residential Customer Services – Expansion of Clean Transportation

SDG&E fully addressed ORA's position in Applicants' Opening Brief at 324-325.

23.4.2 Marketing, Research & Analytics – Rate Education and Outreach

Several Intervenors (ORA, UCAN, and NDC) continue to argue that the Commission should deny or reduce the $1,700,000 in non-labor above BY 2016 expenses requested to educate business and residential customers about changes in energy pricing and new rate options.[1539] SDG&E fully addressed ORA's recommended reduction and forecast methodology in Applicants' Opening Brief at 325-327. While the overlap and "double-counting" arguments were fully addressed in Applicants' Opening Brief (at 326-327), there are a few statements made by UCAN and NDC in their Opening Briefs deserving of comment.

First, UCAN and NDC continue to miss the point on the timing and content of marketing, rate education and outreach (ME&O) messaging. Rate reform encompasses numerous changes that have and continue to require communication and education to SDG&E ratepayers.[1540] As changes to rates have been implemented, ME&O efforts have occurred specific to those changes and specific to the particular customer segments impacted by the changes. Revenue expenses in BY 2016, and now requests in TY 2019, relate to ME&O activities for the numerous rate reform initiatives that have occurred in SDG&E's territory and statewide. Some of those activities

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[1536] *Id*. at 323-324.
[1537] Ex. 151 SDG&E/Davidson, Table LD-20 at 50.
[1538] *Id.* at 18-20, 25-26, 39-44.
[1539] SCG/SDG&E OB at 325.
[1540] *See, e.g.,* UCAN OB at 23 (referring to Witness Davidson "confirmation" that the phrase "rate education and outreach" refers to "marketing activities addressing residential rate reform.") Rate education and outreach encompasses a number of different topics targeted to both business and residential customers and the narrow answer provided to the narrow question asked at hearing was not an exhaustive list. Tr. V18:1562:19-26; Ex. 153 SDG&E/Davidson at 13:4-25.

moved forward in BY 2016 and beyond as aspects of rate reform were implemented; other activities are moving forward now as rate reform changes continue to be advanced by the Commission. NDC is mistaken that the delays in rate reform discussed by SDG&E are only related to the mass default to time of use (TOU) rates anticipated to commence in 2019.[1541] Introduction of the high usage charge (HUC) and changes in the on-peak TOU period for business and residential customers both occurred in the fourth quarter of 2017.[1542] Furthermore, certain changes, such as the HUC, require continuing outreach and education during the times of year most likely to impact customers.[1543]

UCAN's suggestion that "SDG&E's required rate education and outreach spending is unlikely to escalate after 2018,"[1544] is incorrect and unsupported. SDG&E demonstrated in its testimony and briefing that it "now expects that marketing, education & outreach (ME&O) efforts around rate reform will begin to accelerate again through 2020, with targeted and frequent customer communications to better prepare customers for changes, such as TOU peak period changes, rate changes for NEM customers and education about High Usage Charges (HUC), and the available rate options. SDG&E has planned for numerous activities to provide education and encourage customer behavioral changes through multiple direct and mass communications."[1545] While statewide rate reform has not progressed at the pace originally anticipated, it continues to move forward, with further changes anticipated.[1546]

Similarly, NDC's assertion that the majority of education efforts "have now already been implemented"[1547] makes no sense and is contradicted by the testimony NDC elicited on this subject. As Ms. Davidson stated, SDG&E times its messaging campaigns to educate customers on changes to rates during periods likely to be most impactful for customers. This messaging

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1541 *See* NDC OB at 12:11-13. As stated in Ex.153 SDG&E/Davidson at 18, overall rate reform has progressed at a slower pace than originally anticipated and 2016 spending was an anomaly.
1542 *See* Tr. V18:1565:7-12.
1543 *Id.* at 1577:13 – 1578:10; 1583:3 – 1585:14.
1544 UCAN OB at 22.
1545 SCG/SDG&E OB at 325-326.
1546 *See* Tr. V18:1586:21 – 1587:19 (Witness Davidson testifying, *e.g.*, "I believe that there will be another phase of net energy metering rate reform. . .").
1547 NDC OB at 12-13.

may be ongoing, and includes messaging in advance of the initial rate change, during implementation, as well as any later periods or seasons where a reminder is warranted.[1548]

The further notion that SDG&E should have spent customer funds preparing and printing materials in advance of actual implementation of rate changes is troubling. Claiming SDG&E should have used "the available [TY 2016 authorized] funds to proactively prepare for the anticipated educational campaigns,"[1549] NDC makes the remarkable observation that SDG&E "squandered" ratepayer funds by failing to design, prepare and print rate education materials in advance "[e]ven if these expenditures did not ultimately turn out to be as useful as anticipated."[1550] NDC's suggestion is absurd. Until the specifics of rate reform were defined and authorized by the Commission, which occurred later than anticipated, SDG&E did not need to spend the funds, and it would have been imprudent to do so.[1551] Had NDC's suggestion (to continue spending authorized funds on rate reform materials even if they later proved to be unnecessary) been implemented, ratepayer funds truly would have been squandered, *i.e.,* to "[w]aste (something, especially money or time) in a reckless and foolish manner."[1552]

Second, SDG&E clearly demonstrated through testimony and briefing that it is not double-collecting, either through amounts authorized in the TY 2016 GRC (Applicants' Opening Brief at 326-327) or through the recent Commission Resolution E-4910 (February 8, 2018) authorizing $19.4 million spending through the RRMA for incremental ME&O costs associated with residential rate reform, including customer mass default to TOU pricing plans in 2019.[1553] SDG&E demonstrated in testimony and briefing that the funds in the RRMA are separate from the ME&O request in this GRC. Specifically, education and outreach that falls outside of residential customer mass TOU default will be funded through GRC authorized funding.[1554]

1548 Tr. V18:1585-1588 ("Q. Was most of the GRC authorized spending for rate education purposes spent in anticipation of that before December 2017 then? A. I wouldn't characterize it that way."). *Id.* at 1585:26 – 1586:3. And, providing examples of timing and considerations for communications on rate changes.

1549 NDC OB at 15:7-8.

1550 *Id.* at 15-16.

1551 SCG/SDG&E OB at 327.

1552 Squander. Oxford Living Dictionaries (2018). Available at https://en.oxforddictionaries.com/definition/squander.

1553 SCG/SDG&E OB at 326.

1554 *See* Ex. 153 SDG&E/Davidson at 13-14; SCG/SDG&E OB at 326 ("there are numerous changes related to rate education and outreach that fall outside of the residential customer mass default and cannot be funded through the RRMA. Those will be covered by SDG&E's TY 2019 request").

Contrary to UCAN's assertion, there is no "substantial overlap" between the RRMA funding, the TY 2016 authorized funding or TY 2019 request, nor is SDG&E "obfuscating" the funding sources for its rate education requests.[1555] Ms. Davidson provided a clear delineation on this subject:

> A. So, you know, one thing that I think might be helpful is just to clarify a little bit because there are a couple of different funding sources for rate reform ME&O activities. . . .And those are described in detail on pages LDC-13 and 14 of my rebuttal testimony. . . .So I am not going to read it, but I'm going to paraphrase that essentially the transition of residential customers to default time-of-use rates, what we call the "mass Default" that is going to take place. . . .That effort, the ME&O associated with defaulting of customers to time-of-use is funded through the rate reform memorandum account. So we actually have a separate budget authorization for that purpose.
>
> In contrast, the GRC rate education outreach budget is separate and distinct from the communications that are specifically related to defaulting customers to time-of-use. And that is to . . .educate customers around the high use charge, the shift, and the on-peak period. We also have [] rate education and outreach plan for net energy metering customers. There is some complexities there we want to make sure we educate customers about. And we have a summer preparedness campaign that is going to be launching that is encouraging customers to sign up for alerts if they are on critical peak pricing with event days, and so forth. . . . So those are the types of communications that are being funded through the GRC request that I have here.[1556]

No obfuscation has occurred. SDG&E has been clear and transparent on the subject. Moreover, sufficient controls, which include quarterly reports to the Commission, are in place to ensure customers are not paying twice for the same rate education and outreach.[1557] The UCAN and NDC recommendations to deny SDG&E's incremental GRC ME&O funding or to reduce it,[1558] will harm customers by depriving them of necessary education and outreach to help them navigate multi-faceted rate reform. SDG&E has met its burden here and, rather than punish customers, the Commission should adopt SDG&E's request.

[1555] *See* UCAN OB at 24.
[1556] *See* Tr. V18:1579:4 – 1580:28, *citing* Ex. 153 SDG&E/Davidson at 13-14.
[1557] SCG/SDG&E OB at 326.
[1558] UCAN OB at 25; NDC OB at 13-14.

23.4.3 Customer Programs, Pricing and Other Office – Customer Pricing Regulatory Compliance

SDG&E proposed $332,000 in labor and $9,000 in associated non-labor above the BY 2016 expenses for Customer Pricing to support expanding workload due to increasing legislative and regulatory requirements regarding the analysis and development of rate options, and the necessity for additional analysis to better understand impacts and needs due to changes in customer energy usage and the utility grid.[1559] ORA recommends denial of SDG&E's incremental request.[1560] ORA ignored SDG&E's rebuttal in its Opening Brief. Because SDG&E fully addressed ORA's position in Applicants' Opening Brief at 327-328, it will not repeat its arguments.

23.4.4 Small Business Customer Service

SDG&E addressed the majority of SBUA's arguments in Applicants' Opening Brief at 328-329. Two items warrant an additional response. First, in its opening brief, SBUA recommends that the Commission disallow all of SDG&E's incremental funding request unless small business customers "are further supported by [SDG&E's] requested funds and programs."[1561] Yet SBUA offers little response to SDG&E's testimony showing how SDG&E already targets and assists small business customer needs.[1562] Setting aside SDG&E's demonstration that small commercial customers are appropriately served, SBUA's recommendation is counter-intuitive—asking the Commission to reject any additional funding to serve customers unless SDG&E serves the small business customer segment in the specific fashion SBUA demands. SBUA's request is unsupported and should be rejected. Second, SBUA's additional request that SDG&E should be required to track barriers to small customer use and their participation in non-GRC programs are similarly unnecessary. Ms. Davidson described various surveys and other means provided to small business customers to understand their service needs and to educate them on programs.[1563] SDG&E also provided responses to SBUA in discovery, describing and listing numerous surveys conducted to gather small business

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1559 Ex. 151 SDG&E/Davidson at 48; Ex. 153 SDG&E/Davidson at 10-11.
1560 ORA OB at 340-341.
1561 SBUA OB at 20.
1562 *See* Ex. 153 SDG&E/Davidson at 19-22; SCG/SDG&E OB at 328-329.
1563 Tr. V18:1589-1599.

customer insights.[1564] SBUA refers to one such survey in its Opening Brief, which effectively makes SDG&E's point—surveys are already conducted by the company to assess small business customer needs and insights, and SDG&E incorporates those insights into its communications and programs.[1565] Additional studies and reporting requirements are redundant and unnecessary.

SDG&E's request is reasonable and should be adopted by the Commission.

23.5 Customer Service Technologies, Policies, and Solutions - SoCalGas

SoCalGas has justified approval of its TY 2019 Customer Service Technologies, Policies and Solutions (CSTP&S) O&M forecast, as fully shown in testimony and in SoCalGas' Opening Brief.[1566] SoCalGas seeks $19,234,000 for TY 2019 O&M costs associated with Research Development and Demonstration (RD&D); Policy and Environmental Solutions (P&ES); and Business Strategy and Development. No parties contested the Business Strategy and Development shared service request of $1,500,000.[1567] The Commission should adopt this request as reasonable. This reply brief will only address those matters contested by Intervenors.

As a preliminary matter, Sierra Club-Union of Concerned Scientists (SC-UCS) cites the wrong standard applicable to the Applicant's burden of proof in a General Rate Case. SC-UCS asserts that SoCalGas must demonstrate "by clear and convincing evidence that it is entitled to the relief it is seeking."[1568] However, as SoCalGas and other practitioners at the Commission agree, the proper evidentiary standard that applies to ratemaking proceedings is one of a preponderance of the evidence.[1569] SoCalGas has met that standard in its demonstration of the reasonableness of its revenue request under California Public Utilities Code Section (§) 454(a).

1564 *See* Ex. 439 SBUA/Rafii, Appendix 6 at 11 (SDG&E Response to SBUA-SEU-DR-002, Q. 10); Appendix 7 at 11, 17-18 (SDG&E's Responses to SBUA-SEU-DR-003, Q. 11 and Q. 17 and Attachments).

1565 *See* SBUA OB at 30-31; Tr. V18:1592:27 – 1593:2 ("one of the main reasons why we conduct those types of surveys is so that we can get feedback and figure out ways that we can improve").

1566 Ex. 137 SCG/Alexander (adopted by Tomkins); Ex. 139 SCG/Tomkins; SCG/SDG&E OB at 329-360.

1567 Ex. 137 SCG/Alexander/Tomkins at 35-37, Table LLA-15; SCG/SDG&E OB at 330.

1568 SC-UCS OB at 5 (internal citation omitted).

1569 SCG/SDG&E OB at 4, citing D.14-12-025 at 20-21 (The Commission affirmed, "[i]t is clear . . . that the standard of proof that a utility has to meet in a GRC is one of preponderance of the evidence."). *Accord* TURN OB at 3, citing D.14-12-025 at 21 ("The Commission currently requires utilities to meet the 'preponderance of the evidence' standard of proof in GRC proceedings.").

23.5.1 Non-Shared Costs

23.5.1.1 Research Development and Demonstration

ORA and SC-UCS Fail to Refute the Demonstrated Need and Funding for a Research, Development and Demonstration Program Administered by SoCalGas.

SoCalGas justified approval of its TY 2019 RD&D program expenses of $14,329,000, as demonstrated in testimony and in SoCalGas' Opening Brief. [1570] ORA merely restated its objections to the forecast methodology SoCalGas used and questioned whether the program needs to increase its funding due to ORA's view that the California Energy Commission (CEC) and other "private and public entities [ ] perform Natural Gas RD&D." Its Opening Brief contained no new basis for the generalized and unsupported reasons contained in ORA witness Crystal Yeh's testimony.[1571] ORA ignored SoCalGas witness Sharon Tomkins' rebuttal testimony entirely, which provided compelling reasons and data demonstrating why a five-year average forecast methodology (rather than the zero-based forecast methodology SoCalGas used) is not appropriate for the RD&D group.[1572] And, ORA had no response to substantial evidence that the SoCalGas RD&D program compliments and supplements other RD&D programs, and that SoCalGas' collaboration with other programs avoids redundancy.[1573] SoCalGas fully addressed ORA's positions in the Applicants' Opening Brief will not reargue them here.[1574]

Similarly, SC-UCS' Opening Brief fails to support its recommendation that SoCalGas' RD&D program be entirely unfunded, with administration of all natural gas RD&D activities performed instead by the CEC.[1575] SoCalGas addressed SC-UCS' unfounded claims about SoCalGas' RD&D program and its continuing need in Applicants' Opening Brief [1576] and will not repeat those arguments here. Several further comments are warranted nonetheless.

[1570] Ex. 137 SCG/Alexander/Tomkins at 9-19, Table LLA-5; Ex. 139 SCG/Tomkins at 4-13; SCG/SDG&E OB at 330-340.

[1571] ORA OB at 342.

[1572] Ex. 139 SCG/Tomkins at 6-7.

[1573] *Compare* ORA OB at 342 and SCG/SDG&E OB at 333-335.

[1574] SCG/SDG&E OB at 330, 333-335.

[1575] As noted in SoCalGas' Opening Brief, SC-UCS made varying statements about the type of relief it was seeking. SCG/SDG&E OB at 334, n. 1660. In its Opening Brief, SC-UCS now recommends that the Commission completely defund SoCalGas' RD&D program. SC-UCS's recommendation is extraordinary and entirely unwarranted. SC-UCS OB at 22-23. In its testimony, SC-UCS focused its attacks on only the relatively small portion of SoCalGas' RD&D program that involve climate-related technologies. The RD&D program is vastly broader in scope. *See* SCG/SDG&E OB at 335, n. 1668; Ex. 137 SCG/Alexander/Tomkins at 11-13, Appendix B.

[1576] SCG/SDG&E OB at 330-340.

As SoCalGas demonstrated throughout its Opening Brief, the positions advanced by SC-UCS in testimony are comprised of exaggeration and misinformation. Scratching beneath the surface of each statement, revealed an untruth or facts taken out of context. SC-UCS' Opening Brief is no different.[1577] For example, to support its contention that the CEC's approach to R&D stakeholder engagement provides more transparency and meaningful opportunities for stakeholder engagement, SC-UCS claims SoCalGas is "hostile" and "aggressively attacks public concerns over its administration of ratepayer R&D money to keep them from Commission consideration."[1578] As evidence of this assertion, SC-UCS says SoCalGas was (1) hostile and unresponsive to public questions and concerns on its R&D funding in this GRC (pointing to a portion of a data request response), and (2) sought to exclude the entirety of its Testimony raising concerns over proposed funding of a power-to-gas project (P2G).[1579] These assertions are not only untrue, but are built upon statements in SC-UCS' testimony that were stricken from the record and attempt to disparage a party for exercising its right to assert legitimate evidentiary objections, which were appropriately granted.[1580] SoCalGas only responded to SC-UCS' data requests on subjects that were fairly and appropriately within the scope of this GRC, and did not

[1577] Indeed, SC-UCS does not believe the Commission's rules and proceeding decorum apply to it. By oral ruling on August 28, 2018, portions of SC-UCS' testimony were stricken from the record based on legitimate evidentiary objections. Tr. V30:2765:18 – 2766:7 (ALJ Lirag). SC-UCS moved for reconsideration of that Order, and rather than wait for a ruling on its motion, filed its opening brief arguing and citing to the same evidence that had been stricken. On October 3, 2018, SC-UCS' motion for reconsideration was denied. Arguments in SC-UCS' Opening Brief based on that stricken evidence should now be stricken or disregarded by the Commission. This would include, for example, SC-UCS' argument at 24 and footnotes 102 and 103, which attempt to disparage SoCalGas for exercising its right to assert legitimate evidentiary objections.

[1578] SC-UCS OB at 23 and 24. SC-UCS also invites the Commission to increase the CEC's natural gas R&D budget, which the CEC has not itself requested. SoCalGas' support for such an increase was in response to the CEC's budget remaining static since 2009, while legislative mandates related to low and zero-carbon fuels have increased dramatically since that time, warranting prioritization of additional funding for the CEC natural gas R&D program in concert with SoCalGas' own RD&D program. *See* SC-UCS OB at 23; SCG/SDG&E OB at 336 and n. 1676. Even with an increase in the CEC's budget, however, SoCalGas' RD&D program is still necessary due to restrictions and limitations in the CEC's natural gas R&D program. *See* Ex. 139 SCG/Tomkins at 8, n. 23, n. 25.

[1579] SC-UCS OB at 24, n. 102 and n. 103.

[1580] *See* oral ruling on August 28, 2018, striking a portion of Ex. 475 SC-UCS/O'Dea/Golden at 43:12 – 44:18 (relating SC-UCS' position opposing power-to-gas and making identical argument about SoCalGas discovery response objection). Tr. V30:2765:18 – 2766:7 (ALJ Lirag); Order Denying SC-UCS Motion for Reconsideration of Evidentiary Ruling Striking Testimony (October 3, 2018).

attempt to "exclude [the] entirety of [SC-UCS'] Testimony. . . on funding of power-to-gas."[1581] Indeed, Ms. Tomkins effectively rebutted SC-UCS' erroneous assertions on the appropriateness of funding P2G in her rebuttal testimony.[1582] SC-UCS' contentions are built on falsehoods and the Commission should give its assertions zero weight due to SC-UCS' demonstrated lack of credibility.

Substantively, SoCalGas' Opening Brief demonstrates in detail SCG's careful approach in selecting appropriate RD&D projects to fund, collaboration and open discourse with public and private entities on areas of need for RD&D and the RD&D projects themselves, and the effective oversight and controls by SoCalGas and public entities, including this Commission, for the projects SoCalGas selects for funding.[1583] SC-UCS' opinion that opening up SoCalGas' RD&D program for broad public review and comment, in the manner the CEC conducts its program, would ostensibly provide necessary protections such that only "appropriate" projects will be funded is incorrect for at least three reasons.

First, SoCalGas collaborates with national, state, and local agencies to understand those public bodies' views on the need for RD&D in particular areas and to identify appropriate RD&D projects for funding, and it participates in these agencies' public proceedings and provides public comments on the RD&D projects that are under consideration and underway. Interested members of the public, like SC-UCS, likewise participate in these public proceedings and take advantage of the opportunity to comment on the need and viability of RD&D efforts discussed in those proceedings.[1584] Second, SoCalGas' RD&D projects involve the needs identified by many agencies other than the CEC, such as the U.S. Department of Energy (DOE), California Air Resources Board (CARB), regional air districts (South Coast Air Quality

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[1581] *See* Ex. 475 SC-UCS/O'Dea/Golden at Attachment 4, PDF p. 163, SCG Response to SC-UCS Data Request 06, Q. 2 (responding to P2G related questions arguably relating to SCG's request for RD&D funding of P2G, and objecting to post-RD&D stage commercial application question asking "How will SoCalGas ensure only excess renewable power will be used to generate methane?"); Applicants' Opening Brief on Evidentiary Objections to Ex. 475 (August 13, 2018) at 2, n.3 ("Applicants do not object to the entirety of SC-UCS' testimony. Those portions that appear to be within the ambit of issues for decision in this GRC were not objected to unless the supporting evidence cited by SC-UCS was infirm for evidentiary reasons. Applicants' testimony and post-hearing briefs will address those matters falling within the scope of this proceeding."). *See also* Ex. 139 SCG/Tomkins at 9-13; SCG/SDG&E OB at 337-338.

[1582] Ex. 139 SCG/Tomkins at 9-13 ("SC-UCS made numerous erroneous claims regarding power-to-gas technology").

[1583] SCG/SDG&E OB at 331-333, 335-336.

[1584] *See, e.g.*, Ex. 475 at 7, n. 24; 18, n. 65.

Management District (SCAQMD) and the San Joaquin Valley Air Pollution Control District (SJVAPCD)), as well as public universities and research institutions, and provide co-funding on projects that have already been publicly vetted by the CEC and other governmental agencies through funding award processes.[1585] Third, while public engagement can be useful, most RD&D efforts require flexible, deft management. Like SoCalGas, organizations such as the DOE, the National Aeronautics and Space Administration (NASA), Caltech and Stanford University precisely target industry, academic, and government research centers for expertise and partnerships, rather than engage in broad, formal public outreach processes. To suggest the only legitimate way to run a RD&D program is through public workshops and engagement is a red herring and designed to stifle RD&D efforts that SC-UCS does not support.[1586]

SC-UCS has further failed to support its assertion that SoCalGas' purported bias requires the CEC's "[s]ole implementation of natural gas R&D [] to ensure objective analysis" and "funding [] consistent with California's decarbonization efforts."[1587] The two examples used, do not support SC-UCS' position. As SoCalGas demonstrated in its Opening Brief, the Zero-Net Energy Home (ZNE) study performed by Navigant was identified and consistent with SoCalGas' request in the 2016 GRC.[1588] That ZNE study was performed using the assumptions and analytical approach used by the CEC and the governing Title 24 code standards.[1589]

Similarly, SC-UCS fails to show that SoCalGas' RD&D program is not aligned with California's climate objectives. For this assertion, SC-UCS again points to P2G (and testimony that was stricken)[1590] as its example, and asserts there is a purported mis-alignment with state

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[1585] SCG/SDG&E OB at 334-335.

[1586] SC-UCS' asserted barrier to participation in GRC proceedings is also a red herring. *See* SC-UCS OB at 24. The public can participate and engage in SoCalGas' RD&D program request (and the other aspects of its Application) without the full-blown party status and challenges SC-UCS suggests. Public Participation Hearings are one such alternative avenue.

[1587] SC-UCS OB at 25-27.

[1588] SCG/SDG&E OB at 339-340.

[1589] *See id*. Navigant provided details on their methodology and assumptions in the study. As noted in Navigant's report, their analysis uses 2019 TDV values released July 20, 2016, which were the most recent public values available at the time of the analysis. Ex. 475 SC-UCS/O'Dea/Golden at Attachment 4, DR-05, Question 2, Navigant *Strategy and Impact Evaluation of Zero-Net Energy Regulations on Gas-Fired Appliances* (March 7, 2017) at PDF p. 94.

[1590] SC-UCS admits portions of its argument and authority were stricken but cites to them anyway because at the time that Opening Briefs were filed, their motion for reconsideration was pending. Its motion for reconsideration was since denied (*see supra*, at n. 1577). Accordingly, the Commission should disregard and strike portions of SC-UCS' opening brief at 27 (the sentence beginning with the words "For example" through and including the words "otherwise exist," and footnote 108).

goals because the CEC did not include P2G within its electricity-centric Electric Program Investment Charge (EPIC) R&D budget, and instead deferred it for consideration in a later Public Interest Energy Research (PIER) natural gas R&D budget, which has not been submitted for Commission approval.[1591] A citation to the Commission's decision not to "classify [P2G] as eligible to count toward energy storage projects,"[1592] likewise is of little consequence. The Commission recently issued a Scoping Memorandum[1593] that marks a pathway for consideration of P2G, and recently enacted Senate Bill 1369, which requires the Commission and CARB to consider green electrolytic hydrogen (an example of P2G) as energy storage.[1594] Other newly enacted legislation (SB 1440, AB 3187)[1595] further solidify the need and expected utilization of renewable gas sources in the state. Contrary to SC-UCS' opinion, California recognizes that renewable and alternate forms of zero or negative-carbon gas technologies are part of California's environmental efforts, and SoCalGas' RD&D program is in full alignment with the state's objectives.[1596]

Finally, after undertaking a substantial, but unsuccessful, attempt to discredit SoCalGas and its administration of its RD&D program, SC-UCS makes one last plea for administration of the program to be stripped away.[1597] SC-UCS argues that SoCalGas unfairly has "two bites at the apple" since it determines its own funding and then has the ability to comment on the CEC selection process.[1598] It claims the Commission should reduce natural gas R&D to just the CEC program and that SoCalGas can be just as effective as a member of the public commenting on

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1591 *See* SC-UCS OB at 27; SCG/SDG&E OB at 337-338, n. 1682. As Ms. Tomkins explained, P2G is a "unique technology that bridges the gap between the electric grid and natural gas system, [and] does not fit neatly into either the CEC's Natural Gas R&D program nor its Electric Program Investment Charge (EPIC) R&D program." Ex. 139 SCG/Tomkins at 5.

1592 *See* SC-UCS at 27 (internal citation omitted).

1593 R.13-02-008 Scoping Memo dated July 5, 2018 (adding to scope of proceeding Issue 6 concerning injection of renewable methane topics).

1594 *See* SB 1369 (Skinner) (requiring CPUC and CARB to consider green electrolytic hydrogen as energy storage).

1595 SB 1440 (Hueso) (requiring CPUC and CARB to "consider additional policies to support the development and use in the state of renewable gas that reduce short-lived climate pollutants in the state."). *See also* AB 3187 (Grayson), which directs the CPUC to open a proceeding by July 1, 2019 to determine ratebase eligibility for biomethane project interconnection facilities to the interstate natural gas pipeline.).

1596 SCG/SDG&E OB at 337-339.

1597 The other arguments raised by SC-UCS in its Opening Brief were fully addressed by SoCalGas in Applicants Opening Brief at pages 334-340.

1598 SC-UCS OB at 28.

CEC R&D proposals because it already actively comments in CEC proceedings.[1599] This argument ignores entirely the substantial evidence in the record that SoCalGas has been a good steward of its customers' funds, not only in the thoughtful and robust selection and administration of RD&D projects likely to move the needle on meeting the state's climate-related objectives, but with its own customers' needs in mind – targeting, for example, the need to drastically reduce transportation emissions given the reality that Southern California contains the busiest transportation corridor in the state, and those emissions negatively impact the disadvantaged communities adjacent to those roadways. The RD&D program's funding led to the development of the widely-acclaimed Cummins-Westport ultra-low emissions engine, which serves the medium duty truck and transit market, and delivers 90 percent (or greater) reductions in NO_x emissions, and when run on Renewable Natural Gas (RNG) will provide deep greenhouse gas (GHG) reductions (80 percent or greater), due to the very low (and in some cases negative) carbon intensity values of various RNG production pathways.[1600]

The record is replete with evidence of SoCalGas' well-run RD&D program, the separate need for that program and how, under SoCalGas' administration, the RD&D program makes and has made a difference in meeting the state's and its customers' objectives. The guidelines for the Commission to approve a utility RD&D program under California Public Utilities Code Sections 740 and 740.1 are more than met. Neither the program nor its funding is redundant. SC-UCS' asserted justifications for eliminating or diminishing SoCalGas' RD&D program funding and turning its administration over to the CEC are not compelling and should be disregarded. SoCalGas has demonstrated its good stewardship of its RD&D program, and its effectiveness in advancing new technologies to meet the State's climate objectives. A lauded and robust RD&D program,[1601] administered by SoCalGas, remains in its ratepayers' best interests. The Commission should approve SoCalGas' request as reasonable.

[1599] *See id*. SC-UCS conveniently neglects to mention that it also proposes defunding SoCalGas' participation at the CEC, perhaps hoping that the Commission will not notice this attempt to sideline any SoCalGas activities on climate and other issues related to its business. *See, e.g., id*. at 16-17, 22 (asking Commission to disallow funding for the SoCalGas Policy and Environmental Solutions (P&ES) group).

[1600] SCG/SDG&E OB at 331, n. 1643 and Ex. 137 SCG/Alexander/Tomkins at Appendix D, generally and at D-2. *See also Next Generation Heavy-Duty Natural Gas Engines Fueled by Renewable Natural Gas,"* Gladstein, Neandross & Associates (GNA) at 9-10 (May, 2016).

[1601] *See, e.g.*, SCG/SDG&E OB at 331, n. 1643; 337, 340, n. 1697; Ex. 139 SCG/Tomkins, Appendix A at A-2 (DOE recognition for SoCalGas RD&D work with Pacific Northwest National Laboratory leading to a 2018 Award for Excellence in Technology Transfer by the Federal Laboratory Consortium).

23.5.1.2 Policy and Environmental Solutions (P&ES)[1602]

SoCalGas justified approval of its P&ES TY 2019 program expenses of $897,000 for nonshared services and $2,508,000 for shared services, as demonstrated in testimony and in SoCalGas' Opening Brief.[1603] In its Opening Brief, SoCalGas also addressed the majority of SC-UCS' contentions and will not restate them here. SC-UCS raises new arguments for the first time in its Opening Brief, and SoCalGas will address those new arguments and a few issues that warrant additional comment.

23.5.1.2.1 SC-UCS Mischaracterizes P&ES Activities

23.5.1.2.1.1 P&ES Does Not Function as a Lobbyist

Confusing the P&ES group with a legislative affairs organization, SC-UCS makes a new and unsupported assertion that P&ES "is effectively a SoCalGas lobbying arm advocating in service of its shareholder interest to maintain California's reliance on natural gas."[1604] To make this argument, SC-UCS appears to conflate legitimate engagement and education of state regulatory bodies and local governments about SoCalGas customer interests, and the potential impacts on those customers and SoCalGas operations, by proposed regulatory pathways with lobbying state legislative bodies. To stop SoCalGas' discourse on behalf of its customers, SC-UCS recommends that the Commission defund half of the P&ES nonshared service function and all of the P&ES shared service function.[1605] SoCalGas disagrees with SC-UCS' characterization and its recommendation.

SC-UCS argues that the P&ES group "effectively" functions as a lobbyist and therefore its expenses are not recoverable from ratepayers.[1606] SC-UCS' assertion regarding lobbying

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[1602] Policy and Environmental Solutions performs both non-shared and shared service functions. For purposes of addressing the arguments made by SC-UCS, SoCalGas will refer singularly to the P&ES group, and not distinguish between areas that constitute nonshared or shared services unless that distinction is relevant to the issue.

[1603] Ex. 137 SCG/Alexander/Tomkins at 20-35; Ex. 139 SCG/Tomkins at 14-19; SCG/SDG&E OB at 341-360.

[1604] SC-UCS OB at 16. SoCalGas fully responded to SC-UCS' misunderstanding about SoCalGas' business in Applicants' Opening Brief. SCG/SDG&E OB at 345-348. As SoCalGas indicated, SoCalGas is focused on decarbonizing the pipeline. *Id.* at 347, n. 1729. SoCalGas' intention to deliver clean renewable gas and carbon-neutral hydrogen through the existing grid, in order to advance state GHG reduction goals, is underscored by projects selected by its RD&D program.

[1605] SC-UCS OB at 16-17.

[1606] Specifically, SC-UCS' argues that the Commission should recognize the P&ES group as a "lobbying arm that acts to further its shareholder interest in maintaining California's dangerous reliance on fossil appears to be based upon a misunderstanding of the function and activities of the P&ES work groups. SC-UCS' position appears to be that all participation and engagement in state regulatory body proceedings (such as the CEC, CARB, regional air districts, and local governments), legislative and policy analysis, compliance, and outreach is impermissible lobbying, done for the benefit of shareholders. SC-UCS' position, however, is inconsistent with the Commission's definition of lobbying and the purpose of the P&ES group.

In prior Commission decisions, the Commission has defined lobbying based on the definition contained in FERC Account 424.6(a):

> This account must include expenditures for the purpose of influencing public opinion with respect to the election or appointment of public officials, referenda, legislation, or ordinances (either with respect to the possible adoption of new referenda, legislation or ordinances or repeal or modification of existing referenda, legislation or ordinances) or approval, modification, or revocation of franchises; or for the purpose of influencing the decisions of public officials.[1607]

Subpart b does, however, provide relevant exceptions:

> This account must not include expenditures that are directly related to appearances before regulatory or other governmental bodies in connection with an associate utility company's existing or proposed operations.[1608]

Despite the above language, SC-UCS has challenged the activities of the P&ES department – which involve legislative and policy analysis, compliance, and outreach – as lobbying. In so doing, SC-UCS is challenging the provision of funding for activities needed for SoCalGas operations, used to provide valuable customer outreach and assistance, and have been funded in previous GRCs.

Abundantly clear from the record evidence in this proceeding, SC-UCS' assertions are unfounded, and its recommended disallowance is unwarranted. The P&ES group was formed in 2013, and expanded its role in 2015 to address significant increases in the volume of new and proposed policies and regulations by agencies regulating SoCalGas that impact SoCalGas operations, rates, and customers.[1609] As explained in SoCalGas' testimony, the nonshared services portion of this group monitors, analyzes, and determines how the broad range of

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fuels" and that "SoCalGas' actions are a profound disservice to California and the customers it purports to serve." *Id*. at 2-3; *see also e.g.*, 16-17, n. 64, and 22.

[1607] 18 CFR § 367.4264(a).

[1608] 18 CFR § 367.4264(b).

[1609] Ex. 137 SCG/Alexander/Tomkins at 24-35. *See also* SCG/SDG&E OB at 341-344.

relevant policy and legislative issues will affect SoCalGas' customers and operations.[1610] The group helps protect the interests of natural gas customers on safety, reliability, and affordability issues by developing potential policy alternatives. In addition, the group leads analysis, strategy development, and implementation on local and regional planning initiatives."[1611] The shared services portion of the P&ES group incurs labor and non-labor costs for the purpose of state and federal agency policy analysis, engagement, outreach, and customer support related to existing and proposed state and federal policies, laws and regulations concerning natural gas utilization and environmental policy.[1612] The majority of SoCalGas' customers do not have environmental policy teams to address specific issues impacting their operations with the state and local regulatory agencies. The P&ES group represents the interests of its residential and commercial customers in these bodies' proceedings and planning efforts.[1613] Within the P&ES shared services group there are three distinct subgroups that focus on different activities: Energy and Environmental Policy; Environmental Affairs; and Planning and Legislative Analysis.

Energy and Environmental Policy supports the analysis, development and implementation of policies affecting the distribution and use of natural and renewable gas. Primary activities include analysis of and development of SoCalGas' responses to policy proposals and regulatory proceedings at the CEC, CARB, and federal matters of importance to SoCalGas customers.[1614] There is no basis for SC-UCS' assertion that all, or even a substantial amount of labor time, is spent on education and or outreach activities that might be construed as lobbying. In this GRC, SoCalGas is requesting TY 2019 funding of $1,640,000 (labor and nonlabor) for Energy and Environmental Policy.[1615]

Environmental Affairs is responsible for all regulatory proceedings originating from the ten local air districts in SoCalGas' and SDG&E's service territories, and supporting customers' compliance needs.[1616] Members of this group work with local air regulatory entities to

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[1610] *Id.* at 21.

[1611] SCG/SDG&E OB at 341. The group is further charged with "developing franchise strategies and leading timely negotiations of franchise agreements with municipalities within SoCalGas' service territory." *Id.* SC-UCS des not challenge the franchise functions of the P&ES group. SC-UCS OB at 17, n. 63.

[1612] SCG/SDG&E OB at 342-343; Ex. 137 SCG/Alexander/Tomkins at 26-35.

[1613] SCG/SDG&E OB at 343.

[1614] Ex. 137 SCG/Alexander/Tomkins at 26-30.

[1615] *Id.* at 26, Table LLA-14.

[1616] *Id.* at 30-33.

contribute expertise, address operational impacts on SoCalGas, and assist in developing cost-effective means to achieve air quality requirements, and also provide education and support to large non-residential customers to help them comply with increasingly complex air quality rules and regulations.[1617] In this GRC, SoCalGas is requesting TY 2019 funding of $648,000 (labor and nonlabor) for Environmental Affairs.[1618]

The Planning and Legislative Analysis group engages in similar activities to the Energy and Environmental Policy group, but it focuses on analysis of the impact of proposed legislation on SoCalGas operations, rates, and customers in their utilization of gas.[1619] The group also deals with various other matters related to local issues such as the Dig Alert program, pipeline safety, natural gas storage and other matters that do not fall within the purview of the Energy and Environmental Policy group.[1620] In this GRC, SoCalGas is requesting TY 2019 funding of $220,000 for Planning and Legislative Analysis.[1621]

These groups engage in activities to analyze policy and regulation impacting SoCalGas, support customers and engage with stakeholders in support of ratepayer interests. The TY 2019 request includes no lobbying activities and SoCalGas' funding request of $897,000 for nonshared services and $2,508,000 for shared services is reasonable, fully supported in testimony and should be adopted as proposed. Furthermore, SC-UCS' alternative revenue requirement of $448,000 to support solely a franchise-related portion of the P&ES nonshared services function should be rejected as well. SC-UCS failed to provide any support or rationale for this alternative, which merely splits SoCalGas' nonshared services request in half, aside from noting that SoCalGas does not track its spending for the franchise-related functions.[1622] In contrast, SoCalGas has provided full detail on its forecast and cost drivers for the nonshared services workgroup, including a detailed staffing breakdown and back-up for the non-labor forecast.[1623]

[1617] *See id.* at 31-32.
[1618] *Id.* at 26, Table LLA-14.
[1619] *Id.* at 33-34.
[1620] *Id.* at 33.
[1621] *Id.*
[1622] SC-UCS OB at 17 n. 63.
[1623] Ex. 137 SCG/Alexander/Tomkins at 20-23, Table LLA-11.

23.5.1.2.1.2 P&ES Activities Do Not Impede State Policy Objectives or Mislead Stakeholders

As thoroughly demonstrated in SoCalGas' Opening Brief, the contentions made by SC-UCS that SoCalGas has undertaken a ratepayer-funded attack on state climate goals by activities and communications designed to mislead stakeholders lacks any substance.[1624] This refrain continues in SC-UCS' opening brief. While SoCalGas will not repeat the arguments in its Opening Brief, a few claims by SC-UCS warrant a response.

To support its request to disallow "SoCalGas' policy activities," SC-UCS asserts that P&ES engages in a "misuse of ratepayer funds,"[1625] similar to what SC-UCS claims the Commission determined in an energy efficiency proceeding. SC-UCS asserts:

> Moreover, as the Commission recently recognized, SoCalGas' shareholder interest in maintaining gas demand creates an incentive to act against its ratepayers' interests in reducing gas consumption. Thus, the Commission stripped SoCalGas of its "role in statewide code and standards advocacy" due to the "potential for SoCalGas to misuse ratepayer funds" following the discovery of "internal emails among SoCalGas managers discussing the potential for the proposed standards to raise the cost of some gas furnaces and thereby encourage fuel switching away from natural gas."[1626]

SC-UCS is incorrect, and the behavior it attempts to ascribe to the P&ES group is inapplicable.

First, the group and activities involved in the energy efficiency proceeding are outside the scope of SoCalGas' TY 2019 request in this proceeding and SC-UCS has no basis to draw a parallel here with any evidence of conduct at issue in the other proceeding. Second, the Commission did not rule as SC-UCS suggests. In D.18-05-041, the Commission found it had no rules prohibiting a utility from using ratepayer funds to conduct any activity that does not result in adoption of more stringent codes and standards,[1627] and saw "no reason to now consider what constitutes a reasonable basis for taking a position other than in support of more stringent standards."[1628] Instead, the Commission determined it would "establish[] a governance structure for the statewide programs that minimizes potential for any one IOU program administrator to obstruct those efforts" and, based on the record in that proceeding, found "it reasonable to limit

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[1624] *See generally* SCG/SDG&E OB at 345-360.
[1625] SC-UCS OB at 17.
[1626] *Id.*, citing D. 18-05-041 at 139, 141-44.
[1627] D.18-05-041 at 143.
[1628] *Id.* at 144.

SoCalGas's involvement in codes and standards advocacy [to the transfer of funds to the statewide codes and standards program lead for program implementation]."[1629] SC-UCS' rhetoric to support a broader conclusion for that Decision and for its use as an analogy in this GRC proceeding, should be disregarded.[1630]

Although SoCalGas continues to believe that this GRC is not the proper forum to argue technical beliefs or positions,[1631] SC-UCS claims SoCalGas is misleading stakeholders with the technical data it has presented in other proceedings. For this reason, SoCalGas believes it necessary to address some of the incorrect data SC-UCS has placed into this proceeding.[1632]

First, SC-UCS' Opening Brief discussion on the ICF biomethane potential study illustrates its desire to inexplicably limit the low or zero carbon options available to customers.[1633] In this case SC-UCS seeks to artificially minimize renewable gas available from municipal, forest, and agricultural waste resources by eliminating the use of gasification and pyrolysis conversion technologies. The legislation SC-UCS cites is likely to be changed in the wake of California's massive dead tree and fire prevention challenges. In fact, CARB has certified Low Carbon Fuel Standard Pathways for Fulcrum Sierra BioFuels, Fisher-Tropsch (FT)

[1629] *Id.*

[1630] SoCalGas fully refuted SC-UCS' assertions that SoCalGas is acting on behalf of its shareholder interests and not its customers' interest in its Opening Brief. SCG/SDG&E OB at 345-348. The examples SC-UCS discusses, at pages 17 through 22 of its Opening Brief, in an attempt to support its claim that SoCalGas misuses ratepayer funds to block decarbonization efforts and mislead policymakers are again refuted in SoCalGas' Opening Brief. *Id.* at 348-360. As thoroughly demonstrated by the record in this proceeding, SoCalGas' activities and positions align with the state's climate objectives, as further evidenced by the passage of legislation requiring additional efforts to develop the burgeoning renewable gas pathway. *See, e.g.*, SB 1383, SB 1440 (requiring CPUC and CARB to "consider additional policies to support the development and use in the state of renewable gas that reduce short-lived climate pollutants in the state."), AB 3187 (directing the CPUC to open a proceeding by July 1, 2019 to determine ratebase eligibility for biomethane project interconnection facilities to the interstate natural gas pipeline), SB 1369 (requiring CPUC and CARB to consider green electrolytic hydrogen (an example of P2G) as energy storage); SCG/SDG&E OB at 348. SC-UCS is mistaken that SoCalGas is inappropriately causing delay by voicing a caution that regulators should reflect on state laws directing multiple fuel pathways to meet climate goals. That SC-UCS disagrees with existing state law is no basis to stifle SoCalGas' speech on the subject.

[1631] SCG/SDG&E OB at 344-345.

[1632] Oddly, SC-UCS suggests that SoCalGas has "misrepresented the requirements of state laws to reduce methane emissions when it testified that the 'state's goals require capture of 40 percent of methane emissions.'" SC-UCS OB at 19, n. 75. Ms. Tomkins was asked about that law's (SB 1383) reference to "a reduction in the statewide emissions" in cross-examination. She clearly testified, consistent with a reading of SB 1383, "One way to reduce methane emissions would be to capture methane emissions." Tr. V17:1462:17 – 1463:7 (Tomkins).

[1633] SC-UCS OB at 18-19, n. 72.

Diesel via Gasification and FT Synthesis of Municipal Solid Waste (MSW) and Ensyn Technologies Inc. for renewable gasoline from forest residues via pyrolysis and co-processing of bio oil by rail to California.[1634]

Second, also regarding the ICF study and the renewable gas potential from biomass, SC-UCS cites its own unvetted study to minimize the potential of renewable gas from biomass.[1635] In contrast, the ICF study on renewable gas potential relies on fully vetted studies by leading research centers, including those produced by UC Davis and the DOE. The ICF study clearly shows that the potential of renewable gas from biomass, estimated by UC Davis for example, is 323 Bcf annually, about 15 percent of California's natural gas consumption. ICF reviewed multiple studies and their assumptions on feedstock availability to estimate in-state resources in the range of 105-208 billion cubic feet (Bcf) annually.[1636] The ICF study also shows that, according to the DOE, the national renewable gas potential ranges over 9 trillion cubic feet (Tcf) annually, approximately five times California's natural gas consumption.[1637]

Third, SC-UCS further asserts that SoCalGas actively attempts to impede procurement of electric transit over natural gas alternatives.[1638] Providing a variety of examples for what it claims are misrepresentations to stakeholders, SC-UCS either misunderstands or intentionally overlooks the context for SoCalGas' position on transit alternatives and mischaracterizes both the Ramboll study and SoCalGas' comments related to that study.

As SoCalGas noted in its Opening Brief,[1639] SoCalGas had no involvement in the development of the Ramboll study. The study was commissioned by LA Metro staff to inform their Board on the options for clean transit. Ramboll used LA Metro's fleet characteristics to determine the GHG and NO_x emissions over the next 40 years, as well as the cost to deploy different technologies – Compressed Natural Gas (CNG), RNG, Low NO_x CNG with RNG, electric buses and hydrogen fuel cell buses. Based on Ramboll's analysis, transitioning to a Low

[1634] *See* CARB https://www.arb.ca.gov/fuels/lcfs/fuelpathways/current-pathways_all.xlsx
[1635] SC-UCS OB at 18-19, n. 72, n. 73.
[1636] 109-216 tBtu (trillion British thermal unit) or 105-208 Bcf/yr, assuming a heating value of 1.037 Btu/cf.
[1637] *See* SCG/SDG&E OB at 350-351 and n. 1744-1745; *See also* Ex. 145R (SCG and SC-UCS) SC-UCS DR-09, Questions 9 and 10 at 20, 30-33, 36-54, Table 3 at 41 (ICF RNG Resource Assessment, California), Table 8 at 50 (Overview of RNG Feedstock/Resource Assessment, United States).
[1638] SC-UCS OB at 20-22. SoCalGas addressed SC-UCS's transportation-related issues in Applicants' Opening Brief at 358-360 and will not repeat that portion of its response here.
[1639] SCG/SDG&E OB at 359.

NO_x CNG with RNG fleet would have minimal increased costs and provided greater NO_x and GHG benefits over the analyzed timeframe, 2015-2055.[1640]

Ramboll did an extensive analysis of LA Metro's fleet requirements and assumed natural replacement of vehicles over the analyzed timeframe 2015-2055. They assumed there would be improvements in battery life and electric vehicle range, based on input from stakeholders in the electric vehicle (EV) industry. The conclusion of Ramboll's study demonstrates that LA Metro could quickly transition to RNG for their entire fleet, which was 100% CNG at the time of the study. And, they could transition to a low NO_x CNG fleet. With respect to EV buses, they noted the current buses have limited range compared to CNG buses. So, LA Metro would have to reconfigure routes and deploy more buses during peak hours to maintain the same service level. They noted that over time EV buses could achieve near parity with CNG buses in terms of range.[1641]

Ramboll's study is not an "arbitrary selection of scenarios looking at cumulative emissions over the next 40 years" as suggested by SC-UCS.[1642] It was an analysis of converting LA Metro's fleet to renewable fuels as alternative fuel vehicle technologies progress. The study was conducted at the direction of the LA Metro staff to reflect their fleet characteristics. An interesting note in the discussion of GHG emissions in the study is that it would take until 2099 to achieve the same cumulative GHG as an RNG fleet. Ramboll depicts lower GHG emissions for an all EV fleet in the later years. But, the ability to achieve immediate GHG reductions by purchasing RNG has an advantage through this century.[1643]

[1640] *See*, M.J. Bradley & Associates and Ramboll Environ., Zero Emission Bus Options: Analysis of 2015-2055 Fleet Costs and Emissions (Sept. 29, 2016) (Ramboll Study), available at http://docketpublic.energy.ca.gov/PublicDocuments/17-IEPR-10/TN220202_20170714T152616_SoCalGas_Comments_Zero_Emission_Bus_Options_Analysis_of_2015205.pdf; *see also*, SoCalGas' Comments on Proposed Final 2017 IEPR 17-IEPR-01 – General Scope (Feb. 7, 2017) available at https://www.energy.ca.gov/2017_energypolicy/documents/2018-02-21_business_meeting/2018-02-21_adoption_2017_iepr_comments.php. The Ramboll Study was provided in SC-UCS' Opening Brief (at 21, n. 82). SoCalGas submitted a copy of the Ramboll study into the IEPR docket without comment.

[1641] *Id.*at 15 (Table 4).

[1642] Ex. 475 SC-UCS/O'Dea/Golden at 19:23-24.

[1643] Ramboll Study at 48 "Despite higher annual emissions after 2055, total cumulative GHG emissions would be lower from the transition to RNG and LNO_x buses than from the transition to electric buses through 2099 due to lower emissions between 2015 and 2055. After 2099 electric buses would start to accrue net GHG reductions relative to RNG and LNOx buses."

SC-UCS again gives a false impression of SoCalGas' comments before state and local agencies. It incorrectly claims in both their testimony and opening brief that SoCalGas referenced the Ramboll study in written comments for the CEC's 2017 Integrated Energy Policy Report (IEPR). SC-UCS attached six comment letters written by SoCalGas for the 2017 IEPR to its testimony.[1644] None of these letters referenced the Ramboll study. Only one letter mentioned transit buses. In SoCalGas' February 7, 2017 comment letter on the final IEPR draft, SoCalGas asked for a few changes in how the CEC was characterizing CARB's on-going rule development for transit buses. When the letter was submitted there was still on-going workshops at CARB on the proposed rule and differences of opinion on the cost of electric buses.[1645]

The language cited in SC-UCS' brief to support its argument,[1646] is actually an isolated excerpt from SoCalGas' February 2016 letter to the Southern California Association of Governments (SCAG). The main focus of that section of the letter was the commercialization of the first low NO_x engine for transit fleets. As noted in the letter, the Cummins Westport Innovations (CWI) 8.9L engine had recently been certified by CARB. Transit buses with low NO_x engines became commercially available in the spring of 2016. The section was indicating that the immediate deployment of low NO_x engines could achieve immediate emissions reduction, noting in one sentence (out of a three paragraph discussion), "Further, with the use of increasing volumes of renewable natural gas (RNG), the transit sector has the potential to drive the carbon intensity of its emissions *below* electric buses."[1647] The record clearly shows that SC-UCS has repeatedly mischaracterized SoCalGas' comment letters to state and local agencies. The Commission should disregard these attempts to selectively quote and misrepresent the positions of SoCalGas.

[1644] SC-UCS OB at 21 (citing to incorrect document as authority in n. 84); Ex. 475 SC-UCS/O'Dea/Golden at Attachment 6, PDF pp. 2-7.

[1645] "We believe it is important to note that many stakeholders in the Innovative Clean Transit (ICT) workshops disagree with the CARB staff's position and believe mandating the use of electric buses in lieu of other alternate fuels and technologies will be extremely expensive. Notably, the California Transit Association recently published their concerns regarding the high cost and adverse operational impacts of electric buses." Ex. 475 SC-UCS/O'Dea/Golden at Attachment 6, PDF p. 106.

[1646] SC-UCS OB at 21, n. 84, citing Ex. 475 SC-UCS/O'Dea/Golden at Attachment 6, PDF p. 4 ("SoCalGas claims that transitioning natural gas buses is preferable because the state can switch to natural gas 'in the next several years and not wait 20 years – a generation – before we begin to realize these emission reductions.'"). The description of the letter in the footnote, correctly identifies it as a letter to the Southern California Association of Governments (SCAG), not the CEC.

[1647] Ex. 475 SC-UCS/O'Dea/Golden at Attachment 6, PDF p. 4 (emphasis in original).

SC-UCS' further assertion that "the use of RNG and low-NO_x CNG engines is more effective at reducing GHGs than battery electric or fuel cell powered buses...is false" is similarly incorrect.[1648] This statement relies upon SC-UCS' prepared testimony, which uses the "...volume-weighted average lower carbon intensity of biomethane used in California in 2016 (36 g CO2e/MJ)..." to perform the comparison.[1649] However, since renewable gas has different carbon intensities depending on the source and some renewable gas sources (for example, food and green waste or dairies) have far lower carbon intensities than landfill renewable gas, there are cases where buses operating on renewable gas will have lower life cycle GHG emissions than electric buses.[1650] Thus, renewable gas has the potential to produce less GHG emissions than electricity even if the grid was 100% renewable (a carbon intensity of 0 g CO2e/MJ). This is a fact that SC-UCS is well aware of and chooses to ignore.[1651]

The record in this GRC does not support any of SC-UCS' contentions. As demonstrated in SoCalGas' testimony and Opening Brief, the P&ES group appropriately engages with stakeholders on behalf of SoCalGas ratepayers to protect their interests in a changing policy landscape, and P&ES' funding request (both nonshared and shared services) should be adopted by the Commission as proposed.

23.5.1.2.2 SC-UCS' Request for an Express Finding and Certification that SoCalGas Cannot Recover Costs related to Opposing Electrification of End-Uses is Unwarranted and Unconstitutional.

SC-UCS requests further relief as an "Other Issue" that is not tied to the O&M request of the CSTPS workgroup.[1652] The underlying activities of which SC-UCS complains were discussed in the CSTPS Opening Brief Chapter, and a response to SC-UCS' new request for relief will be addressed here (rather than in the Chapter 50—Other Issues reply).[1653]

[1648] SC-UCS OB at 20.
[1649] Ex. 475 SC-UCS/O'Dea/Golden at 19.
[1650] It should be noted that there are current LCFS certified carbon intensity pathways (https://www.arb.ca.gov/fuels/lcfs/fuelpathways/pathwaytable.htm) for renewable gas that are actually carbon negative (FPC "CNGDD201" for "dairy RNG" is -254.94 g CO2e/MJ, FPC "CNG005_1" for "food and green waste renewable gas" is -22.93 g CO2e/MJ).
[1651] SoCalGas addressed SC-UCS' other transportation-related contentions in its Opening Brief at pages 358-360.
[1652] SC-UCS OB at 39-41.
[1653] SoCalGas addressed the underlying activities about which SC-UCS complains at pages 356-358 of its Opening Brief and will not restate them here.

Clear from the full record in this GRC proceeding, SoCalGas' comments and activities cannot legitimately be construed as "anti-electrification," as SC-UCS contends[1654]--not through the P&ES group, RD&D group and marketing and communications group, or through SC-UCS' unspecified O&M Op-Ed reference.[1655] For this reason, SC-UCS' request that the "Commission should also expressly find that SoCalGas may not use ratepayer funds to undertake activities related to the opposition to electrification of natural gas end-uses and require attestation by a SoCalGas corporate officer that no ratepayer funds were used for this purpose in subsequent GRCs"[1656] is unsupported and should be denied. At bottom, SC-UCS has an interest in preventing SoCalGas from informing stakeholders or expressing a position that is different from SC-UCS' view. It has intervened in SoCalGas' and SDG&E's general rate case proceeding solely to deprive Applicants of funding and to limit the Applicants ability to represent their customer and business interests in the federal and state regulatory and local government proceedings and RD&D efforts where Applicants have been an effective voice on behalf of customers.

Action of the nature requested by SC-UCS is unsupported by the record, and unnecessary. An "express finding that SoCalGas may not use ratepayer funds for *activities related to the opposition to electrification of natural gas end-uses*" [1657] is also constitutionally suspect under the First Amendment to the U.S. Constitution, impinging on SoCalGas' right to free speech and its right to petition the Government. As Ms. Tomkins aptly testified: "It is appropriate for SoCalGas to present our and our customers' view with respect to measures being discussed. Such discussion allows state agencies and local governments to take them into consideration in making informed and balanced decisions."[1658] The Commission should reject SC-UCS' attempts to eliminate a healthy discussion of diverse views and balanced decision-making, and adopt SoCalGas' TY 2019 request for the CSTP&S programs, activities and expenses as reasonable.

[1654] *See* SC-UCS OB at 39.
[1655] *See id.*
[1656] *Id.* at 5, 39, 41.
[1657] SC-UCS OB at 5 (emphasis added). SC-UCS' request is also irreparably vague and ambiguous as to what may constitute "activities related to the opposition to electrification of natural gas end-uses." SC-UCS OB at 5, 39, 41.
[1658] Ex. 139 SCG/Tomkins at 16.

24. Supply Management & Logistics and Supplier Diversity

24.1 Introduction

ORA, CFC, NDC and SBUA filed opening briefs addressing various aspects of SoCalGas' and SDG&E's TY 2019 forecasts for O&M costs for both non-shared and shared services associated with the Supply Management & Logistics department, which includes supplier diversity. Because parties' opening briefs largely track the positions they set forth in their testimony – which SoCalGas and SDG&E addressed in their rebuttal testimony and opening brief[1659] - SoCalGas and SDG&E will simply summarize the key points of differences below.

The following table, based on SoCalGas and SDG&E's rebuttal testimony, summarizes the differences between SoCalGas' and SDG&E's TY 2019 forecasted costs and other parties' recommendations, as slightly revised to reflect a $100,000 reduction in SoCalGas' and SDG&E's supplier diversity department forecasts to correct an error and NDC's revised position with respect to its forecast for SoCalGas' supplier diversity department, discussed in more detail below.

REVISED **SUMMARY OF DIFFERENCES**

TOTAL O&M (SoCalGas) - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SOCALGAS	**17,551**	**16,623**[1660]	**-928**
ORA	**17,551**	**15,456**	**-2,095**
NDC	**17,551**	**16,543**[1661]	**-1,008**
CFC	**17,551**	**15,533**	**-2,018**

[1659] Ex. 294 SCG/SDG&E/Chow/Furbush and SoCalGas' and SDG&E's opening brief at 360-370.
[1660] SoCalGas' original request was for $16.723 million, but during the course of discovery, SoCalGas identified a $100,000 error in its supplier diversity forecast. As such, SoCalGas has reduced its request by $100,000 to $16.623 million.
[1661] In its testimony (Ex. 437 NDC/Bautista at 32), NDC had proposed to reduce SoCalGas' supplier diversity department funding to $730,000, however in its opening brief (at 19), NDC revised its recommended funding to $970,800.

TOTAL O&M (SDG&E) - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	**13,930**	**13,669**[1662]	**-261**
ORA	**13,930**	**13,669**	**-261**
NDC	**13,930**	**13,481**	**-449**
SBUA	**13,930**	**12,543**	**-1,387**

24.2 Response to Other Parties' Supply Management and Supplier Diversity Recommendations

24.2.1 Response to ORA

In its opening brief (at 344), ORA summarizes its position with respect to SDG&E's forecasted 2019 Supply Management & Logistics expenses: "SDG&E requests $9.080 million for TY 2019 for Non-Shared expenses, and $4.688 million for Shared expenses. Cal PA has no dispute with either forecast."

In contrast, ORA continues to propose reductions to two aspects of SoCalGas' Supply Management & Logistics request, which SoCalGas discusses below.

24.2.1.1 SoCalGas' Proposed Logistics Warehouse

In its opening brief (at 359), ORA states that it "toured [SoCalGas'] current facility, noting that, although old, it appeared adequate and functional." ORA then states (*id.*) that "Given the adequacy of SCG's current facilities, the fact that SoCalGas is meeting CPUC requirements, the delayed timeline for completion, and the fact that no cost savings are contained in this rate case, Cal PA recommends the Commission exclude this project from the revenue requirement for this GRC."

For the reasons set forth in SoCalGas' rebuttal testimony[1663] and summarized in SoCalGas' opening brief (at 363-365), the Commission should reject ORA's recommendation. ORA's recommendation fails to properly weigh the following important considerations set forth in SoCalGas' testimony and opening brief:

- Although SoCalGas' existing facilities meet current requirements, they are not optimized for logistics because the current documentation process lacks automation and centralized integration;

[1662] SDG&E's original request was for $13.769 million, but during the course of discovery, SDG&E identified a $100,000 error in its supplier diversity forecast. As such, SDG&E has reduced its request by $100,000 to $13.669 million.
[1663] Ex. 294 SCG/SDG&E/Chow/Furbush at 4-6.

- SoCalGas' current facility is inadequate for materials above 12 inches in diameter and the Pico facility is at capacity;
- Because SoCalGas' current facility is inadequate for materials above 12 inches in diameter, SoCalGas has had to contract with a third-party warehouse firm to manage inventory above 12 inches in diameter. The agreement with this third party is in place as a temporary remediation effort to allow time to build the warehouse described in direct testimony;
- Notwithstanding ORA's understanding to the contrary, the amount of materials that will flow through the *centralized* warehouse will increase from current levels (and beyond the capacity of the current Pico warehouse); and
- This capital investment will be cheaper for ratepayers in the long run because once the warehouse is operational, SoCalGas will realize savings of approximately $2 million per year by eliminating the need to continue with the third-party contracted storage solution.

In summary, for the reasons set forth above, SoCalGas believes that additional warehousing storage space (and the personnel to operate it) is needed to accommodate large diameter materials. Materials are currently physically located at other SoCalGas facilities, third-party logistics provider warehouses, and various lay down yards across our service territory with no systematic visibility. Currently those facilities are at full capacity; therefore, new space is required. Thus, the Commission should approve the O&M request set forth in this testimony (totaling $0.783 million) and the capital forecast of $18.75 million identified in the Fleet and Facilities testimony of Carmen Herrera.[1664]

24.2.1.2 SoCalGas' Office Services

In its opening brief (at 344), ORA continues to propose a reduction of $484,000 of SoCalGas' Office Services forecast, from $2.910 million to $2.486 million. ORA asserts there has been a downward trend in spending in Office Services, so the Commission should use SoCalGas' 2016 recorded costs as the basis for the 2019 forecast, not the five-year average SoCalGas employed.[1665]

For the reasons set forth in SoCalGas' rebuttal testimony[1666] and summarized in SoCalGas's opening brief (at 365), SoCalGas opposes ORA's proposal. In summary, SoCalGas believes that its 2019 forecast based on a five-year average of costs more accurately captures the costs necessary to maintain this group's important operational functions, not the forecast ORA is proposing based on a single year.

[1664] *See, e.g.*, Ex. 188 SCG/Herrera at 45.
[1665] Ex. 414 ORA/Waterworth at 8.
[1666] Ex. 294 SCG/SDG&E/Chow/Furbush at 6-7.

In summary, the Commission should reject ORA's proposal to reduce SoCalGas' reasonable forecast for Office Services.

24.2.2 SoCalGas Response to CFC

In its opening brief (at 57-60), CFC also maintains its proposal from testimony that the Commission reduce SoCalGas' 2019 forecast for Office Services (by $1.19 million, from $2.91 million to $1.72 million).[1667] CFC argues that its proposed reduction better reflects a slight downward trend in Office Services expenditures and anticipated reductions in spending for paper copies.[1668]

SoCalGas disagrees with CFC's recommendation and underlying assumptions, particularly that efficiencies in printing costs would result in a significant reduction of Office Services as a whole. As SoCalGas explained in its rebuttal testimony[1669] and summarized in its opening brief (at 365-366), printing and copy services account for less than 5% of the overall Office Services budget. Any assumed efficiencies presented by CFC would apply only to this small portion of the budget.[1670] Approximately 90% of Office Services funds are spent on courier and mail services, which continue to see upward pressures in significant part due to fuel charges, tied to the U.S. Energy Information Administration, which have increased year over year by 21.4%. In addition, Office Services continues to experience upward pressures of 3% per year in contracted labor, impacting service costs. These upward pressures greatly outweigh any small efficiencies in copy and print costs. In summary, the Commission should reject CFC's proposal and adopt SoCalGas' $2.9 million Office Services forecast, which more reasonably reflects a five-year average of expenditures.

24.2.3 SoCalGas and SDG&E Response to NDC

In its opening brief,[1671] NDC continues to propose reductions to both SoCalGas' and SDG&E's supplier diversity departments. NDC argues that the Companies' 2019 forecasts

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[1667] Ex. 486 CFC/Roberts at 4.
[1668] *Id*. at 3-4.
[1669] Ex. 294 SCG/SDG&E/Chow/Furbush at 8-9.
[1670] SoCalGas also notes that since late 2016, costs associated with multi-function printers have been pushed out to director and department-level cost centers. This decentralization resulted in a 20% decrease in Office Services multi-function printer spend, but merely shifted the costs to other areas of the company, providing no overall company-wide reduction. Ex. 294 SCG/SDG&E/Chow/Furbush at 8, n. 20.
[1671] NDC OB at 2, 16-19.

should largely be based on 2016 recorded costs. As such, NDC proposes to reduce SoCalGas' 2019 forecast to $970, 800[1672] (from SoCalGas revised requested amount of $1.051 million)[1673] and to reduce SDG&E's 2019 forecast to $.854 million[1674] (from SDG&E's revised amount of $1.042 million).[1675]

SoCalGas appreciates NDC's revision in its opening brief of its recommendation to properly account for the return of several supplier diversity employees who had worked on other matters in 2016.[1676] However, SoCalGas and SDG&E continue to believe that their consistent use of a five-year average of historical costs more reasonably reflects the funding they will require in 2019, instead of NDC's forecasting approach that is largely based on 2016 recorded costs. NDC argues that because SoCalGas and SDG&E are "retaining the same goals for supplier diversity performance that they met in 2016, it is appropriate that they retain their supplier diversity budget from 2016."[1677] However, the fact that SoCalGas' and SDG&E's supplier diversity goals have not changed does not mean they are easy to achieve or that our costs to achieve them do not increase over time. As such, SoCalGas and SDG&E respectfully request that the Commission approve their revised supplier diversity forecasts ($1.051 million for SoCalGas and $1.042 million for SDG&E).

24.2.4 SoCalGas and SDG&E Response to SBUA

24.2.4.1 SBUA's Recommendation to Have SoCalGas and SDG&E Track and Report on Their Spending on Non-Diverse Small Businesses is Outside the Scope of this GRC Proceeding

In its opening brief, SBUA continues to argue that the Commission should order SoCalGas and SDG&E to track and report on their spending on non-diverse "small businesses."[1678] For the reasons set forth in SoCalGas' and SDG&E's rebuttal testimony[1679] and summarized in SoCalGas' and SDG&E's opening brief (at 367-368), SoCalGas and SDG&E

1672 *Id*. at 19.
1673 Ex. 294 SCG/SDG&E/Chow/Furbush at 7.
1674 *Id.*
1675 *Id.*
1676 In its opening brief (at 19), NDC revised its recommended TY 2019 funding for SoCalGas to $970,800 to "reflect[] the return of employees that were diverted from supplier diversity to work on the Aliso Canyon Incident in 2016."
1677 *Id*. at 17.
1678 SBUA OB at 34.
1679 Ex. 294 SCG/SDG&E/Chow/Furbush at 9.

believe SBUA's proposal is outside the scope of this GRC proceeding. In its testimony, SBUA appears to acknowledge this fact when it states that "[t]he most appropriate venue for this change would be a change to GO 156."[1680] General Order (GO) 156 is the general order titled "Rules Governing the Development of Programs to Increase Participation of Women, Minority, Disabled Veteran and Lesbian, Gay, Bisexual and Transgender (LGBT) Business Enterprises in Procurement of Contracts from Utilities As Required by Public Utilities Code Sections 8281-8286." For this reason, the Commission should reject SBUA's tracking and reporting proposal.

24.2.4.2 The Commission Should Reject SBUA's Baseless Proposal to "Defund" SDG&E's Supply Management & Logistics Department Because SDG&E Allegedly Does Not Purchase Enough from its Non-Diverse Small Business Suppliers

In its opening brief (at 31-34), SBUA continues to propose significant reductions to its 2019 forecast for SDG&E's Supply Management & Logistics department. SBUA asserts that certain of SDG&E's Supply Management & Logistics' activities should be "defunded" because SDG&E allegedly does not procure enough of its supplies from non-diverse small businesses. In addition, SBUA asserts that SDG&E has an "obligation to its ratepayers, including small business customers, to ensure revenue spend on contracting opportunities is fairly administered."[1681]

SDG&E strongly disagrees with SBUA's baseless assertions. SDG&E's first obligation to its customers is to provide safe and reliable electric and natural gas service at just and reasonable rates. SDG&E also strongly supports funding Commission-approved programs, such as GO 156 supplier diversity programs. SBUA is correct that "GO 156 does not encourage or mandate contracting with the small business community *as a whole*, which includes non-diverse businesses,"[1682] but SBUA acknowledges in its testimony that "GO 156 *does* include many types of businesses which may be small businesses (Women-owned business, Minority-owned business, Disabled veteran-owned business, LGBT-owned business)"[1683]

SDG&E does not believe that this GRC proceeding is the appropriate proceeding in which to address SBUA's concerns regarding about "[i]ncentiviz[ing] more small businesses directly contracting with [SDG&E]" or "[i]ncentiviz[ing] [SDG&E's] Tier 1 supplies to further

[1680] Ex. 438 SBUA/Brown at 16.
[1681] SBUA OB at 33.
[1682] Ex. 438 SBUA/Brown at 18 (emphasis added).
[1683] *Id*. (emphasis added).

engage small businesses in contracting with [SDG&E]."[1684] In addition, there is no basis to "defund" SDG&E's Supply Management & Logistics department on the vague grounds that it is somehow improper for SDG&E to attempt to achieve efficiencies in its contracting by promoting vendor competition, while at the same time continuing to use a diverse base of suppliers.

In summary, for the reasons summarized above and set forth in SDG&E's rebuttal testimony and opening brief,[1685] the Commission should reject SBUA's proposed reductions to SDG&E's supply management department.

25. Fleet Services (& SoCalGas Facility Operations)

Three intervenors addressed the SoCalGas and SDG&E Fleet (and SoCalGas Facility Operations) GRC request: ORA, TURN, and Sierra Club. By and large, SoCalGas and SDG&E's Opening Brief addressed these intervenors' arguments, which generally had been raised in their testimony. For simplicity sake, SoCalGas and SDG&E will address each argument using the same outline section from its Opening Brief.

25.1 Common Issues (SoCalGas / SDG&E) – Non-Shared Services

As noted in SoCalGas and SDG&E's Opening Brief, its Fleet Services (and SoCalGas Facility Operations) testimony and workpapers, supported by witness Carmen Herrera, describes and justifies SoCalGas and SDG&E's forecasted activities from 2017-19.[1686]

25.1.1 Non-Shared Services O&M

25.1.1.1 Ownership Costs

<u>Forecasting Method</u>

Both ORA and TURN take issue the Utilities' proposed fleet ownership costs. SoCalGas forecasts $45.561 million for TY 2019. ORA and TURN recommend $23.319 million for SoCalGas. SDG&E forecasts $24.489 million. ORA and TURN recommend $11.188 million for SDG&E. The primary driver of these different estimates seems to be in how ORA and TURN derive their forecasts versus how the utilities derive the forecast. SoCalGas and SDG&E have historically used a "Cash Flow Forecasting Model." As stated in our Opening Brief, the reason we use it is because when leasing vehicles, we must account for: "(1) annual repayment of principal (amortization); (2) interest; and (3) license fees and use sales tax, less the amounts

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[1684] SBUA OB at 32.
[1685] Ex. 294 SCG/SDG&E/Chow/Furbush at 10-11; SCG/SDG&E OB at 368-370.
[1686] Exs. 188-192C, SoCalGas/Herrera and Exs. 193-196C, SDG&E/Herrera.

recovered from (4) salvage.[1687] Because the Ownership Costs are incurred for individual vehicles with varying lease terms and payments, Fleet Services uses a cash-flow forecasting model.[1688] This model best enables Fleet Services to account for the lease payments, interest rates, and license fees over a lease term net of salvage.[1689]"

In contesting the Fleet Services' forecast of Ownership Costs, ORA and TURN assert that the Commission should use "2017 actual recorded ownership costs" because the 2017 recorded costs are putatively closest to "actual" costs.[1690] As SoCalGas and SDG&E explained, this approach is not realistic because it does not account for or consider the actual business and operational realities that Fleet Services must address in 2019.[1691] The multiple problems with this recommendation are fully briefed in SoCalGas and SDG&E's Opening Brief

One other argument raised by ORA is its contention that SoCalGas and SDG&E compound their 2017 forecast to arrive at TY2019 Ownership Costs forecast.[1692] SoCalGas and SDG&E do not compound 2017 costs, rather they use straight line amortization (equal monthly payments of principal and applicable interest over each accounting period) to forecast costs from the purchase year through the lease term for each vehicle.[1693] SoCalGas' forecasted ownership expenses have no compounding effect.[1694] Each year of ownership expense (historical or forecast) represents the straight-line amortization value of the vehicle's remaining economic life.[1695]

Similarly, ORA's claim of overcollection fails to account for a host of costs, as discussed in Ms. Herrera's Rebuttal Testimony:

> SoCalGas disagrees with ORA's recommendations because ORA's approach does not account for SoCalGas' forecast for (1) existing vehicles already under lease, (2) State mandated heavy-duty vehicle replacements (*i.e.* ATCM), (3) replacements on order or scheduled to be purchased in the 2017 through 2019

[1687] Ex. 188, SCG/Herrera at 18-19; Ex. 193, SDGE/Herrera at 6-7.
[1688] *Id* at 18; *Id.* at 6.
[1689] Ex. 192, SCG/Herrera at 9 ("uses straight line amortization (equal monthly payments of principal and applicable interest over each accounting period) to forecast costs from the purchase year through the lease term for each vehicle"); Ex. 196, SDGE/Herrera at 10.
[1690] ORA Opening Brief at 345-346; TURN Opening Brief at 192. Ex. 413, ORA/Waterworth at 10; Ex. 414, ORA/Waterworth at 8; Ex. 498, TURN/Jones & Marcus at 32.
[1691] SoCalGas/SDG&E Opening Brief at 372.
[1692] ORA Brief at 345.
[1693] October 2017, Workpapers to Prepared Direct Testimony of Carmen L. Herrera on Behalf of Southern California Gas Company, Exhibit SCG-23-WP (Herrera) at 5.
[1694] Ex. 192/192C, SCG/Herrera at 8-9; Ex. 196/196C, SDG&E/Herrera at 9-10.
[1695] *Id.*

period, (4) greening of the Fleet through Alternative Fuel Vehicles ("AFV"), (5) incremental vehicles to meet business needs, and (6) increased fees for vehicle registrations.[1696]

The table provided as CLH-3 explains the various current and ongoing (*e.g.*, year to year) costs that make reliance on a single year's costs impractical.[1697]

TURN claims that the forecasting model is flawed, using a series of fruit and dessert references,[1698] which are colorful, but establish TURN's lack of understanding of how fleet services incurs lease-related costs from year-to-year. Pages 372-373 of SoCalGas and SDG&E's Opening Brief demonstrated that the TY 2019 forecast of SoCalGas and SDG&E vehicle ownership costs are more accurate because SoCalGas and SDG&E consider the *actual* business context, including current and future commitments and obligations, state and federal requirements (such as CARB mandated ATCM replacements and greening of the fleet goals with EPAct compliant Alternative-Fuel Vehicle (AFV)), incremental vehicles to meet business needs, vehicle replacements, sales tax, increased state fees for vehicle registrations, and salvage value. SoCalGas and SDG&E's forecast also allows each of them to mitigate against potential future costs, like costs for rental vehicles.

Another of TURN's more colorful objections relates to the Total Cost of Ownership (TCO) concept discussed in the rebuttal testimony. SoCalGas and SDG&E referred to a Utilimarc 2016 Industry Replacement Summary and attached it as Appendix A in our Rebuttal Testimony.[1699] TURN did not object to its admission when it was introduced as an appendix to Ms. Herrera's rebuttal testimony and admitted into the record during the hearings. Yet, in its Opening Brief, TURN decries this as new material, new argument, or new support. Those are all incorrect claims. SoCalGas and SDG&E more than supported their vehicle ownership cost commitments and obligations.[1700] Reference to the Utilimarc study was simply in response to TURN's alternative recommendation which only accounted for the ATCM mandate but failed to account for: 1) vehicles that need to be replaced due to age; 2) new vehicles for incremental business need; and 3) the EPAct mandate for AFV and the premium cost for AFVs.[1701] Table

[1696] Ex. 192 SCG/Herrera at 6-7.
[1697] *Id.*
[1698] TURN Opening Brief at 193-195.
[1699] Ex. 192 SCG/Herrera at 16.
[1700] Ex. 188 SCG/Herrera at 17-22; Ex. 192 SCG/Herrera at 15-19.
[1701] Ex. 192 SCG/Herrera at 17.

CLH-16 below outlines the number of vehicle replacements (8.9% of total Fleet) which is consistent with industry standards for Fleet turnover as illustrated in Figure CLH-17 below. The purpose of SoCalGas' reference to the Utilimarc study was simply to convey our alignment with industry standards in response to TURN's claims and to show that SoCalGas vehicle lifecycle replacements achieve optimal total cost of ownership (TCO).[1702]

Table CLH-16
SoCalGas Forecasted Fleet Replacements

Replacements	2017	2018	2019	Total Units
New Fleet Units for Replacement	225	119	427	771
Alternative Fuel Vehicles (AFV)	300	322	269	891
Total Replacement Units	525	441	696	1662
Annual Replacement	8.8%	7.1%	10.8%	
3-Year Average Replacement	8.9%			

Incremental Fleet Vehicles

ORA takes issue with SoCalGas' request for $284,000 and SDG&E's request of $144,000 to add new vehicles to its fleet, referring to it as discretionary.[1703] As explained in our Opening Brief, "SoCalGas and SDG&E disagree because these costs are expected to be incurred for incremental vehicles (213 incremental vehicles for SoCalGas and 40 incremental vehicles for SDG&E) that ORA did not contest in other witness areas.[1704]

TURN claims that SoCalGas and SDG&E's request to add incremental vehicles to the fleet is unsupported. This is plain wrong, as we explained in our Opening Brief:

> SoCalGas and SDG&E's operating witnesses propose incremental O&M, whether they are FTEs, programs and projects (O&M request). In some instances, an operating unit's FTEs, programs and projects request are tied to an incremental vehicle request.[1705] These incremental vehicle requests are not always visible because Fleet Services represents the aggregate of additional vehicles associated with incremental FTEs forecasted by organizations and reflected in testimony of other respective witnesses. For example, Fleet Services incremental vehicle O&M expenses include incremental costs associated with vehicles needed for incremental FTEs requested from Customer Services Field (CSF) that are undisputed by ORA. Specifically, CSF witness (Ms. Gwen Marelli, Ex. 119-124)

1702 Ex. 192/192C, SCG/Herrera at 16; Ex. 196/196C, SDG&E/Herrera at 18.
1703 ORA Opening Brief at 348 and 363.
1704 SCG Opening Brief at 380.
1705 Ex. 189, SCG/Herrera at 12; Ex. 194, SDGE/Herrera at 12.

justifies the direct labor and non-labor costs associated with incremental FTEs for SoCalGas and SDG&E CSF. The undisputed incremental CSF FTEs are then translated into incremental vehicle needs as reflected in Table CLH-3 (column g) in Ms. Herrera's rebuttal testimony.[1706] The same is true in SoCalGas Gas Distribution where Ms. Orozco-Mejia testified that in order for Gas Distribution to perform its required incremental work, incremental vehicles are required.[1707] TURN argues that because there is no break out, the cost is not justified. However, SoCalGas's Table CLH-3 in Ex. 192/192C reflects the vehicle needs resulting from undisputed incremental FTEs requested, documented and justified in other witness testimonies. TURN further asserts that the utilities provided "no analysis of the basis for such [incremental vehicle] increases, such as an analysis of the ratio of vehicles-to-employees for a given business unit or employee category."[1708] TURN is effectively demanding a *clear and convincing* level of proof. This is not the standard of proof required.[1709] The standard is *preponderance of the evidence* and the utilities have met their respective burdens.[1710]

25.1.2 Maintenance Operations

SoCalGas and SDG&E's TY O&M forecast for Maintenance Operations are separated into two categories: (i) Maintenance Operations and (ii) Automotive Fuels.[1711] SoCalGas forecast a total of $25.845 million---- and SDG&E forecast a total of $18.802 million---- for SoCalGas and SDG&E to plan, manage, and operate their respective fleets in compliance with applicable laws and regulations.[1712] ORA and TURN propose lower costs. The difference seems to draw from ORA and TURN's use of a three-year average to forecast, versus SoCalGas and SDG&E's five-year forecasting method. As we pointed out in our Opening Brief, "This narrow view of the last 3 years – *the years which conveniently contain the lowest two in the past six* – does not accommodate SoCalGas' and SDG&E's forecasted activities." Furthermore, the shortened forecasting period provides no consideration for historical market volatility recorded in the recent 6-year period. We explained that "because SoCalGas cannot predict changes in

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1706 Ex. 192/192C at 7, Table CLH-3.
1707 Ex. 07 [GOM p. 12, line 25 to p.13 at 4].
1708 Ex. 498, TURN/Jones & Marcus at 40:3-5.
1709 D.14-12-025 at 20-21 ("It is clear from a review of D.12-11-051, D.11-05-018, and D.09-03-025 that the standard of proof that a utility has to meet in a GRC is one of preponderance of the evidence.")
1710 SCG Opening Brief at 376.
1711 Ex. 188, SCG/Herrera at 26-28; Ex. 193, SDGE/Herrera at 13-14.
1712 *Id.*

commodity prices, such as tires, vehicle parts, and lubricants, SoCalGas must rely on a 5-year average to arrive at a reasonable cost estimate."[1713]

Backfilling FTEs

ORA opposes SoCalGas' estimated costs for backfilling.[1714] It appears the grumble is with what ORA believes is a disparity between a data response and our workpapers. However, as explained in our Opening Brief, there is no disparity. This is simply a misunderstanding of the impact based on different terminology with the same effect of adding incremental FTEs from base year 2016.[1715] Further, SoCalGas' need is based on required work to meet requirements of the revised BIT program and SMOG inspections, and to repair an aging Fleet.[1716] In fact, from 2017 to approximately June 2018, SoCalGas has hired 8 FTEs, consistent with the forecasted seven FTE adjustment net of Fueling our Future savings.[1717]

Similarly, ORA and TURN oppose SDG&E's request for 1.7 FTEs or $0.148 million because ORA and TURN contend that SDG&E has operated for the last five years at current staffing levels so SDG&E does need the incremental FTEs.[1718] However, SDG&E's request for incremental FTE is based on the level of work SDG&E will need to perform, including work due to the revised BIT program and an aging Fleet requiring more repairs.[1719]

ORA takes issue with our forecast for Fleet Management. SoCalGas uses a five-year average and added $411,000 primarily to backfill three supervisor positions. ORA proposes to use a three-year average (2014-2016) claiming expenses are trending downward and the last three years of expense are purportedly more current and consistent.[1720] This narrow view of the last three years – *the years which conveniently contain the lowest two in the past six* – does not

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[1713] *Id*. ORA and TURN may argue that a 3-year average is more appropriate because SoCalGas and SDG&E used a 3-year average in TY2016 GRC. SoCalGas and SDG&E acknowledge that they selected a 3-year average in TY2016 but the selection of the 3-year average must be viewed in context. For TY2016, a three-year average was selected because SoCalGas and SDG&E determined that the costs in 2009 were an anomaly as the nation recovered from a recession. *See* Ex. 192/192C, SCG/Herrera at 31; Ex. 196/196C, SDGE/Herrera at 21. This is not the case for TY2019. Accordingly, a 3-year average is not appropriate.

[1714] ORA Opening Brief at 347.

[1715] SCG Opening Brief at 380.

[1716] *Id.*

[1717] *Id.*

[1718] Ex. 413, ORA/Waterworth (SDGE) at 11. Ex. 498 TURN/Jones & Marcus at 46-48.

[1719] Ex. 196/196C, SDGE/Herrera at 24.

[1720] ORA Opening Brief at 349.

accommodate SoCalGas' and SDG&E's forecasted activities. The narrow 3-year view fails to account for historical market volatility, to accommodate economic trends, and to meet and comply with regulatory requirements (such as compliance with California Highway Patrol's BIT program).[1721] SoCalGas' need is based on required work to meet requirements of the revised BIT program and SMOG inspections, and to repair an aging Fleet. In fact, from 2017 to approximately June 2018, SoCalGas has hired eight FTEs, consistent with the forecasted seven FTE adjustment net of Fueling our Future savings.[1722]

TURN criticizes our rebuttal testimony claiming it contains a new argument on rental cars that "appears to be nothing more than the product of utility recognition of the weakness of their direct showing on this topic."[1723] However, as explained in rebuttal testimony, Fleet has temporarily provided vehicle rentals to meet current operational needs, and therefore reduced recent historical replacements for 2015-2017.[1724] This is another reason that recent lower historical replacements should not be the basis for TY 2019 Ownership Costs forecasts. Indefinite use of rental vehicles is not a sustainable business practice because 1) rental vehicles are more expensive compared to SoCalGas ownership costs; 2) vehicle configurations do not meet operational needs; and 3) fuel cost (retail pricing) for rental vehicles is more expensive compared to bulked price fuel all of which is incurred by SoCalGas operating groups. SoCalGas proposes to replace rental vehicles with owned vehicles.[1725]

25.1.2.1 Maintenance Operations: Maintenance Operations

ORA and TURN propose to lower SoCalGas' forecast by $1.743 million to $11.599 million and to lower SDG&E's forecast by $883.000 to $11.179 million.[1726] To support their recommendations, ORA and TURN propose to use a 3-year average (2014-2016) because expenses are trending downward and the last 3 years of expense are purportedly more current and consistent.[1727]

As discussed in our Opening Brief, this "narrow view of the last 3 years – *the years which conveniently contain the lowest two in the past six* – does not accommodate SoCalGas'

[1721] Ex. 192 SCG/Herrera at 30-31.
[1722] SoCalGas Opening Brief at 380.
[1723] TURN opening brief at 199.
[1724] Ex. 192 SCG/Herrera at 11.
[1725] *Id.*
[1726] Ex. 498, TURN/Jones & Marcus at 46-48.
[1727] Ex. 498, TURN/Jones & Marcus at 47.

and SDG&E's forecasted activities."[1728] The narrow 3-year view fails to add a sufficient buffer against market volatility, to accommodate economic trends, and to meet and comply with regulatory requirements (such as compliance with California Highway Patrol's BIT program).[1729] For example, because SoCalGas cannot predict changes in commodity prices, such as tires, vehicle parts, and lubricants, SoCalGas must rely on a 5-year average to arrive at a reasonable cost estimate.[1730] Further, repair and parts costs continue to increase, especially to repair their aging fleet; and SoCalGas has seen a 29% rise in repairs and services compared to 2017 and SDG&E a 19% rise.[1731] SoCalGas and SDG&E forecast Maintenance Operations using a 5-year average and maintain that it is more appropriate.

Similarly, ORA and TURN oppose SDG&E's request for 1.7 FTEs or $0.148 million because ORA and TURN contend that SDG&E has operated for the last five years at current staffing levels so SDG&E does need the incremental FTEs.[1732] SDG&E's request for incremental FTE is based on the level of work SDG&E will need to perform, including, work due to the revised BIT program, and an aging Fleet requiring more repairs.[1733]

25.1.2.2 Maintenance Operations: Automotive Fuels

With regard to the Automotive Fuel component of SoCalGas and SDGE's Maintenance Operations Expense forecast, ORA and TURN contends that the Company should use a three year, as opposed to a five-year average to forecast. As more fully explained in our Opening Brief, "SoCalGas disagrees with ORA's and TURN's methodology of a 3-year forecast to calculate automotive fuel expense because it does not account for fuel price fluctuations over the last six years.[1734]" As we discussed in our Opening Brief, a perfect example of the kind of

[1728] SCG/SDGE Opening Brief at 380.
[1729] Ex. 192/192C, SCG/Herrera at 30-31; Ex. 196/196C, SDGE/Herrera at 22.
[1730] *Id*. ORA and TURN may argue that a 3-year average is more appropriate because SoCalGas and SDG&E used a 3-year average in TY2016 GRC. SoCalGas and SDG&E acknowledge that they selected a 3-year average in TY2016 but the selection of the 3-year average must be viewed in context. For TY2016, a three-year average was selected because SoCalGas and SDG&E determined that the costs in 2009 were an anomaly as the nation recovered from a recession. *See* Ex. 192/192C, SCG/Herrera at 31; Ex. 196/196C, SDGE/Herrera at 21. This is not the case for TY2019. Accordingly, a 3-year average is not appropriate.
[1731] Ex. 192/192C, SCG/Herrera at 30; Ex. 196/196C, SDGE/Herrera at 21-23.
[1732] Ex. 413, ORA/Waterworth (SDGE) at 11. Ex. 498 TURN/Jones & Marcus at 46-48.
[1733] Ex. 196/196C, SDGE/Herrera at 24.
[1734] SCG Opening Brief at 382.

volatility that a three-year average would miss pertains to the Brent crude oil spot prices.[1735] In April 2018, Brent crude oil spot prices averaged $72 per barrel (b), an increase of $6/b from the March 2018 level, and the first time monthly Brent crude oil prices have averaged more than $70/b since November 2014.[1736] As described in the Table below, the cost of diesel has fluctuated by as much as of 26% year-to-year 2014-2015 and gasoline has fluctuated by as much as 18% year-to-year 2014-2015.[1737] The 3-year average methodology sponsored by ORA and TURN could not account for these types of fluctuations that occur over a 4-5 year period. Therefore, SoCalGas' and SDG&E's five-year historical average is the most appropriate methodology.

While ORA and TURN accept SoCalGas' and SDG&E's incremental increase in fuel costs to account for the new fuel tax,[1738] ORA and TURN do not agree with the increase in fuel due to incremental vehicles.[1739] As discussed above, ORA and TURN did not contest the 213 incremental vehicles requested by SoCalGas at the respective operating witness level and the 40 incremental vehicles requested by SDG&E at the respective operating witness level.[1740] Therefore, ORA and TURN should accept the associated fuel costs of the uncontested incremental vehicles. As such, SoCalGas request that the Commission approve SoCalGas' TY 2019 forecast of fuel costs of $12,504 million and SDG&E request that the Commission approve SDG&E' TY 2019 forecast of fuel costs of $6,740 million.

25.2 SoCalGas Issues

25.2.1 Sierra Club/UCS – Ownership Costs

With regard to Ownership Costs, Sierra Club/UCS takes issue with SoCalGas' procurement of NGVs that are powered by Compressed Natural Gas (CNG).[1741] Sierra Club/UCS presents various arguments and comparisons between NGVs, electric vehicles, diesel vehicles, and gasoline powered vehicles and makes the assertion that SoCalGas can currently

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1735 *Id.*
1736 *Id.*
1737 Ex. 192/192C, SCG/Herrera at 35, fn 91; Ex. 196/196c, SDGE/Herrera at 26, fn. 54. *See Weekly Retail Gasoline and Diesel Prices*, U.S. Energy Information Administration, Petroleum & Other Liquids (Sept. 18, 2017), *available at* http://www.eia.gov/dnav/pet/pet_pri_gnd_dcus_r50_a.htm
1738 Ex. 414, ORA/Waterworth (SCG) at 15; Ex. 413, ORA/Waterworth (SDGE) at 12. Ex. 498 TURN/Jones & Marcus at 48.
1739 *Id*.
1740 Ex. 192/192C, SCG/Herrera at 18-19; Ex. 196/196c, SDGE/Herrera at 20-21,
1741 Sierra Club OB at 29-39.

procure electric or electric hybrid vehicles that meet the work requirements of SoCalGas operations.[1742] Sierra Club/UCS's assertions are meritless.

First, Sierra Club/UCS continue to peddle a single vision for greenhouse gas reductions: electrify everything. While these policy decisions are outside the scope of this GRC, we address them briefly. Indeed, Sierra Club/UCS frequently cite from legislation *designed to encourage, rather than mandate* transportation electrification, claiming "California law is clear that it is "widespread transportation electrification" that is required to meet California's greenhouse gas objectives."[1743] The law is not what Sierra Club/UCS claim: California law does not require a single solution and electrifying transportation is merely encouraged as part of the solution.[1744] California actually incentivize natural gas vehicles through other laws, including the California Energy Commission's Alternative and Renewable Fuel Vehicle Technology Program (ARFVTP), that provides incentives for businesses to develop and deploy AFVs.[1745] Under this mandate, California makes clear its intent to encourage a variety of Alternative Fuel Vehicles, including natural gas vehicles, and not to simply focus on battery vehicles … as Sierra Club/UCS imply.[1746] According to CEC's website, "The statute, … authorizes the Energy Commission to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change policies. *** $100 million to support projects that: Develop and improve alternative and renewable low-carbon fuels. **** Expand fuel infrastructure, fueling stations, and equipment … Retrofit medium- and heavy-duty on-road vehicle fleets."[1747]

The point to be made is that Sierra Club/UCS base their case against AFVs on a false claim that California law somehow supports only the use of electric cars and battery-based technology and that is simply not the case. SoCalGas' natural gas vehicles play an important role in GHG reductions and our GRC request to increase our fleet by adding "EPAct-compliant

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[1742] *Id*.
[1743] Sierra Club/UCS OB at 32.
[1744] Cal. Pub. Util. Code 740.12(a)(2) ("It is the policy of the state and the intent of the Legislature to encourage transportation electrification as a means to achieve ambient air quality standards and the state's climate goals.") (emphasis added).
[1745] California Health and Safety Code 44270-44274.7 and California Code of Regulations, Title 13, Chapter 8.1.
[1746] http://www.energy.ca.gov/altfuels/documents/ab_109_bill_20080926_chaptered.pdf.
[1747] *See also*, http://www.energy.ca.gov/altfuels/.

AFVs that support State GHG emission reduction mandates," is well-supported.[1748] As Ms. Herrera testified:

> SoCalGas is supporting California's state initiatives to reduce California's petroleum use by up to 50 percent by 2030, and achieve greenhouse gas (GHG) emission reduction targets of 40 percent below 1990 levels by 2030, with continued progress towards an 80 percent reduction by 2050. SoCalGas proposes to support the state initiative by replacing traditional petroleum and diesel vehicles with AFVs. SoCalGas expects to reduce approximately 29,500 metric tons of greenhouse gases over 5 years which is equivalent to reducing greenhouse gas emissions from 6,200 passenger vehicles driven over one year. For this reason, SoCalGas' forecasted request is reasonable and necessary.[1749]

Sierra Club/UCS's assertions that SoCalGas should not recover costs to meet ATCM compliance in our 2019 rate case because the CARB regulations do not go into effect until 2023[1750] is both wrong and rather disingenuous for an organization all too eager to tout California's other climate change requirements, such as the State's GHG reduction targets extending to 2030 and 2050.[1751] If SoCalGas is to meet 2023 targets, how can it wait until the next GRC? It simply does not make sense.

In summary, Sierra Club/UCS fail to demonstrate the relevant scope of the climate and public health issues for this GRC, and with regard to the ratepayer benefit argument,[1752] apply an unreasonable standard of proof for general rate cases. In every instance, Sierra Club/UCS' arguments fail. SoCalGas requests that Sierra Club/UCS' arguments be rejected.

25.2.2 Non-Shared O&M Facility Operations

SoCalGas' Facilities Operations' request is $18.245 million, an increase of $3.075 million above 2016 adjusted-recorded costs. ORA and TURN contested certain aspects of this request.[1753] While ORA agrees with SoCalGas use of a 5-year average, TURN does not and recommends a three-year average.[1754] As discussed in our Opening Brief, SoCalGas established

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[1748] Ex. 192 SCG/Herrera at 19-29.
[1749] Ex. 192 SCG/Herrera at 19.
[1750] Sierra Club/UCS OB at 33-34.
[1751] Ex. 475 Sierra Club/UCS/O'Dea & Golden at 3.
[1752] Sierra Club/UCS OB at 33.
[1753] ORA does not contest the director and support staff cost of $0.115 million. Ex. 414, ORA/Waterworth (SCG) at 17; TURN did not oppose the funding request for Facilities Director. Ex. 498, TURN/Jones & Marcus at 12.
[1754] TURN Opening Brief at 211. Ex. 414, ORA/Waterworth (SCG) at 17 ("ORA agrees with the use of a 5-year average as costs 6 fluctuate…")

that its 5-year average forecasting methodology in this GRC is justified and appropriate.[1755] SoCalGas used a 3-year average in the TY2016 GRC because 2009 was an anomaly as the nation recovered from the recession.[1756] For the reasons ORA agreed with SoCalGas' use of a 5-year average, TURN's proposal should be rejected.

TURN also takes issue with the incremental O&M related to NGV Refueling Stations arguing it should be "commensurate with the funding authorized for that capital expansion project."[1757] However, as discussed in our Opening Brief, "the incremental request under Facilities Operations are not just for utility costs related to NGV stations. In fact, the expenses related to NGV Refueling Stations constitute only $0.500 million of the total $1.574 million."[1758]

Finally, TURN recommends reducing the utilities' forecast to remove $1.074 million associated with a variety of elements, such as deferred maintenance, branding, and other activities TURN claims we should have done in 2016 or 2017.[1759] As discussed in our Opening Brief, this request includes $0.604 million in labor for backfilling retirements and three new resources; and $1.574 million includes upgrades on lighting, electrical panels and equipment replacement and two planning resources.[1760] The request is much more than "deferred" projects.[1761]

NGV Stations

ORA disagrees with our $1.574 million incremental increase related to expenses for new NGV stations.[1762] As explained in our Opening Brief, "the incremental request under Facilities Operations are not just for utility costs related to NGV stations. In fact, the expenses related to NGV Refueling Stations constitute only $0.500 million of the total $1.574 million."[1763]

[1755] *Id.* at 41.
[1756] *Id.* at 41, fn. 112.
[1757] TURN Opening Brief at 211.
[1758] SCG Opening Brief at 387.
[1759] TURN Opening Brief at 212.
[1760] Ex. 192/192C, SCG/Herrera at 41.
[1761] SCG Opening Brief at 387.
[1762] ORA Opening Brief at 350.
[1763] SCG Opening Brief at 387 (internal citation omitted).

25.3 Capital – Fleet and Facilities

Facility Operations Forecasting Method

With regard to our request for Facility Operations, ORA agrees with our use of a five-year average as costs fluctuate and agrees with incremental RAMP costs for security, but does not agree with the costs associated with our Real Estate Planning study, noting it is a one-time cost.[1764] We agree and already asserted in our Opening Brief (a fact acknowledged by TURN), we agreed to remove two thirds of the cost of that study from our TY 2019 forecast.[1765]

25.3.1 NGV Refueling Stations

SoCalGas' NGV Refueling Station request is $7.175 million in 2017, $15.937 million in 2018, and $18.799 million in 2019, as summarized on Table CLH 43 below, to upgrade existing NGV stations and plan, design, and build eight new NGV refueling stations.[1766] ORA, TURN, and Sierra Club/UCS contested the NGV Refueling Stations request. As this is extensively covered in our Opening Brief, we refer the Commission to our previously submitted well-reasoned explanation as to why our NGV Refueling Station request is reasonable and justified.[1767] Additionally, despite Sierra Club/UCS' arguments against NGV infrastructure, on June 17, 2018 and June 18, 2018, the Commission approved Advice Letters filed by SoCalGas and SDG&E, respectively, to request authority to purchase renewable natural gas (RNG) at all utility owned CNG stations.[1768] In support of statewide climate change goals, the procurement of RNG will further reduce GHG emissions for all utility and customers' vehicles that refuel at utility owned CNG stations. Finally, to the extent Sierra Club/UCS rely on stricken materials, such as on pages 37-38 of their Opening Brief, the arguments should be disregarded entirely.[1769]

[1764] ORA Opening Brief at 350.
[1765] SCG Opening Brief at 386. TURN Opening Brief at 211.
[1766] Ex. 188, SCG/Herrera at 53-54.
[1767] SCG Opening Brief at 388-390.
[1768] SoCalGas Advice Letter 5295 - "Balancing Account and Rate Schedule Modifications Supporting a Voluntary Renewable Natural Gas Procurement Pilot", SDG&E Advice Letter 2674-G - "Balancing Account and Rate Schedule Modifications Supporting a Voluntary Renewable Natural Gas Procurement Pilot"
[1769] Sierra Club/UCS cited to testimony the ALJ ruled was out of scope. Nonetheless, Sierra Club/UCS cited it claiming they were waiting for a ruling on their Motion for Reconsideration. This is improper as it places facts into their brief that they were told were not be cited. D.96-03-020 ("In its opening brief, GTEC references material … that was stricken from the record by the ALJ during evidentiary hearings. Use of the stricken material is completely inappropriate and may constitute a violation of Rule 1 of the Commission's Rules of Practice and Procedure. We will disregard the stricken material since it has no evidentiary value.")

25.3.2 Facilities Capital

With regard to the Fleet and Facility Operations Capital expenses, ORA opposes much of SoCalGas' forecast for facilities renovations.[1770] The primary reason seems to be ORA's belief that facility renovations are not a priority and may be delayed, citing past experiences.[1771] TURN seeks a reduction, claiming the Company engaged in 'bait and switch' tactics by proposing renovations to some facilities then altering or replacing the facilities to be renovated.[1772]

First, SoCalGas' original request included improvements for Pico Rivera, Anaheim, Chatsworth, and Compton.[1773] SoCalGas' original request also included a real estate study, referenced above.[1774] SoCalGas moved forward with this real estate study and this resulted in a delay to the Compton and Chatsworth renovations.[1775] Throughout the discovery process and in rebuttal, SoCalGas remained transparent about the real estate study, the status of the study, potential impacts of the study results, and the related delays to Compton and Chatsworth.[1776] As a result of a real estate study,[1777] SoCalGas refocused its facility renovations to upgrading and expanding the multi-building campuses at Pico Rivera and Monterey Park.[1778]

Second, as SoCalGas explained in great detail in its Opening Brief, the renovations at issue are necessary and are in fact a priority.[1779] The Company already conducted a Real Estate Planning Study and "proceeded with implementation of phase one of real estate planning study and has already reallocated funding and resources that were planned for Compton, Anaheim and Chatsworth to the redesign, renovations and development of Pico Rivera and Monterey Park multi-building and multi-use campuses. SoCalGas has been transparent about its efforts."[1780]

TURN also claims funding should be denied because SoCalGas' request is not adequately supported. However, as covered in our Opening Brief, SoCalGas has shown that even though

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1770 ORA Opening Brief at 352.
1771 *Id.*
1772 TURN Opening Brief at 202.
1773 *Id.*
1774 Ex. 189, SCG/Herrera at 69-72; *see* FN. 110.
1775 Ex. 414, ORA/Waterworth at 23-24; *see also,* ORA-SCG-122-LMW Q1.a and Q1.f.
1776 *Id.*
1777 Ex. 192/192C, SCG/Herrera at 47.
1778 *Id.*
1779 SCG Opening Brief at 393.
1780 *Id.*

funding for Compton, Anaheim and Chatsworth have been refocused and reallocated into the multi-building campuses at Pico Rivera and Monterey Park and that these renovations will exceed the amount forecast for Facility Renovations, SoCalGas is only seeking its original capital forecast.[1781] Similarly, TURN argues that the cost support for the Pico Rivera project is not supported.[1782] However, once again SoCalGas has demonstrated that its capital funding forecast was carefully developed, supported by a comprehensive study, and the requested funding is essential for the continuation of SoCalGas' commitment to public and employee safety. SoCalGas has also established that the forecast is reasonable and justified given the work that is already underway.[1783] Therefore, SoCalGas requests that the Commission adopt its forecast in its entirety.

ORA also recommends that the in-service date for Compton and Chatsworth be moved out, claiming the projects will be delayed.[1784] However, as discussed in our Opening Brief, SoCalGas refocused its facility renovations to upgrading and expanding the multi-building campuses at Pico Rivera and Monterey Park and that the renovation projects are, in fact, accelerated and underway, so "renovations that will be completed in late 2018 and early 2019."[1785]

<u>Gas Control Facility</u>

While ORA does not contest the need to upgrade the Gas Control Facility, it does take issue with the expected completion date, which it believes is well beyond the 2019 forecast by SoCalGas.[1786] As discussed in our Opening Brief, "the timing for the development of the Gas Control Facility has been accelerated due to its critical need … work is underway…the location has been finalized …an architect hired for the initial analysis / scoping in September 2017 … a project management firm hired in May 2018; and in process of finalizing a site-specific architect."[1787] Accordingly, the costs should be in TY 2019.

[1781] *Id.*
[1782] TURN Opening Brief at 214.
[1783] SoCalGas Opening Brief at 394.
[1784] ORA Opening Brief at 354.
[1785] SCG Opening Brief at 393-394.
[1786] ORA Opening Brief at 354-355.
[1787] SCG Opening Brief at 394.

Logistics Warehouse

With regard to SoCalGas' request for its Logistics Warehouse, ORA recommends zero funding for 2017-2019. SoCalGas addressed ORA's position in Section 24 of the Opening Brief.

26. Real Estate, Land Services, and Facilities

26.1 SoCalGas Issues

26.1.1 Operations and Maintenance

No party other than ORA has contested SoCalGas' O&M Real Estate request in testimony or opening briefs.

ORA recommends lower O&M shared expense forecasts for 2017-2019 relating to the Gas Company Tower (GCT) rents because SoCalGas' 2017 rents forecast was higher than actuals.[1788] ORA's position—the same as in its direct testimony[1789]— ignores SoCalGas' rebuttal testimony regarding its revised, zero-based GCT rents forecast,[1790] and would fail to adequately fund the estimated GCT costs for contractual rents, operation expenses, parking, property taxes, storage, and janitorial services.[1791] SoCalGas' revised O&M Real Estate forecast is reasonable and should be adopted.

26.2 SDG&E Issues

26.2.1 O&M

No party other than TURN has contested SDG&E's O&M Real Estate, Land Services, and Facilities request in testimony or opening briefs.

TURN continues to recommend an arbitrary 50% (or $379,000) reduction to the TY 2019 forecast for the RB Data Center & Annex based on the RB Annex decommissioning—without providing any record support justifying such a substantial cut. As SDG&E explained in rebuttal, SDG&E has already accounted for the decommissioning by removing the rents and routine operation costs for the RB Annex from workpaper group 1RE003.000 – SDG&E Rents.[1792]

1788 ORA OB at 364-365.
1789 Ex. 414 ORA/Waterworth at 2, Table 19-1, 39.
1790 Ex. 168 SoCalGas/Tattersall at 4:19-20, Appendix A.
1791 *Id*. at 2:18-20, 5:21-6:1.
1792 Ex. 172 SDG&E/Tattersall at 7:13-20. TURN now contends this was insufficient because it does not address the "separate and distinct category of facility operations costs." TURN OB at 205 (emphasis in original). However, to the extent that any facility operations costs were not identified and cut from other cost centers, they would be nominal, and certainly no justification for a 50% reduction to the entire forecast for the RB Data Center & Annex.

TURN has presented no record basis for its $379,000 proposed reduction. SDG&E continues to occupy the RB Data Center, a critical 50,000 square foot facility that requires 24/7, year-round staffing that has neither been reduced from 2017 nor forecasted to be reduced. SDG&E's TY 2019 request for the RB Data Center should be adopted in full.[1793]

26.2.2 Capital

(1) 2017 Actual Recorded Capital Expenditures

ORA and TURN both recommend that 2017 actual recorded expenditures for SDG&E Real Estate and Facilities be adopted as the 2017 authorized forecast.[1794] However, in their opening briefs, ORA and TURN fail to address or dispute SDG&E's rebuttal testimony that, taking into account SDG&E's inadvertent removal of the electric transmission (FERC) component in its original historical capital data provided to ORA, the 2017 SDG&E Real Estate and Facilities actual recorded capital expenditure level inclusive of FERC costs is $59,501,000.[1795] Thus, ORA and TURN's 2017 recommendation for capital expenditures should be $59,501,000, not $51,600,000.[1796]

(2) Blanket Budget Codes

ORA's Opening Brief rehashes its proposed blanket budget cuts and criticisms from its testimony, without addressing SDG&E's rebuttal testimony counter-arguments.[1797] As explained in SDG&E's rebuttal testimony and Opening Brief, SDG&E has thoroughly supported its blanket budget forecasts, including forecasts for both planned *and* unplanned, unspecified projects.[1798] ORA ignores SDGE&E's record of historically meeting or exceeding its GRC Real Estate and Facilities capital forecasts, accurately assessing its facility capital improvement needs, and closely managing its spending to deliver upon those needs.[1799] Contrary to ORA's assertion,

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1793 TURN also recommends the Commission adopt its forecast for HQ Rent and Facilities Maintenance, based on a four-year average, which is $422,000 below SDG&E's forecast, based on a three-year average. TURN OB at 206. As SDG&E stated in its rebuttal testimony, SDG&E does not dispute TURN's proposal. Ex. 172 SDG&E/Tattersall at 8:9-13.

1794 Ex. 413 ORA/Waterworth at 17; ORA OB at 367; Ex. 498 TURN/Jones at 4 (agreeing with ORA recommendation for 2017 capital expenditures).

1795 Ex. 172 SDG&E/Tattersall at 1, n.1; *see also* SDG&E OB at 400, n.2032.

1796 *See* ORA OB at 366.

1797 *Compare* ORA OB at 366-373 *with* Ex. 413 ORA/Waterworth at 16-27.

1798 Ex. 172 SDG&E/Tattersall at 8-14, 18-19, 22-23; SDG&E OB at 400-401, 404.

1799 Ex. 172 SDG&E/Tattersall at 9:6-13, Table RDT-1.

SDG&E is not inflating or double-counting by using historical averages to determine certain blanket budgets.

ORA is correct that SDG&E exercises discretion (as it must) to manage its overall Real Estate and Facilities capital investments and adjust to customer, market, statutory, and regulatory requirements and conditions that may evolve between GRCs.[1800] ORA is incorrect to suggest that SDG&E can: (1) complete its substantial planned projects, (2) complete inevitable unplanned projects, and (3) stay within its historic capital expenditures.[1801] As SDG&E explained in detail in its direct and rebuttal testimony and workpapers, SDG&E needs to make significant changes and tenant improvements that have not been contemplated in the past and require an increase in anticipated spend that is larger than previous GRCs.[1802]

(3) Network Operations Center and Emergency Operations Center

TURN argues that SDG&E has failed to demonstrate the reasonableness of the Network Operations Center (NOC) and Emergency Operations Center (EOC) remodel projects (forecasted at $2.015 million and $2.664 million, respectively), and that the entire cost for both projects be disallowed in this GRC.[1803] TURN complains that the remodels are unneeded because these facilities will serve as "back-up" to the Mission Critical Facility Consolidation & Expansion (MCFC&E) facility, if that facility is approved.[1804]

SDG&E has made clear that the proposed improvements to the NOC and EOC are needed regardless of whether they function in a primary or back-up capacity.[1805] "Without the proposed investments in the NOC and EOC, they would be left in a compromised position to serve as response centers for critical or emergency situations."[1806] This is hardly the right place—*i.e.*, safety and reliability—to cut corners for this GRC (or the next, as TURN proposes SDG&E could resubmit these projects with further reasonableness showings in the next GRC).

[1800] ORA OB at 367; Ex. 172 SDG&E/Tattersall at 3:28 – 4:2.
[1801] *See* ORA OB at 366.
[1802] Ex. 172 SDG&E/Tattersall at 2:21 – 3:2.
[1803] TURN OB at 206-207.
[1804] *Id*. at 207.
[1805] Ex. 172 SDG&E/Tattersall at 15:15-23.
[1806] Ex. 172 SDG&E/Tattersall at 16:1-3.

(4) CP-4 & CP-5 Refresh

ORA repeats its testimony contesting SDG&E's proposed budget forecasts for the Century Park (CP) -4 and CP-5 Refresh projects,[1807] and ignores SDG&E's rebuttal counter-arguments, summarized in SDG&E's Opening Brief.[1808] The forecasted costs for CP-4 and CP-5 are reasonable and should be approved.

(5) Kearny Master Plan Phase 1, MCFC&E and Ramona C&O Expansion

As TURN acknowledges, SDG&E has removed the costs for SDG&E's proposed Kearny Master Plan Phase 1, MCFC&E and Ramona C&O expansion projects because they will not be completed in this GRC cycle.[1809] However, SDG&E renews its request, which has been overlooked by both TURN and ORA, that the Commission recognize that SDG&E will be spending capital on these three projects in this GRC cycle as required to progress them through TY 2019 and beyond.[1810]

(6) Kearny Master Plan Strategy

TURN faults SDG&E for the "failure to present the Kearny consolidation strategy for the Commission's review and assessment."[1811] However, SDG&E is not aware of any Commission requirement or precedent that would have obligated it to present its Kearny Master Plan strategy. Rather, TURN admittedly seeks to create new precedent that would be applicable not only to SDG&E's Kearny Master Plan, but any "significant strategies or policies" that SDG&E and SoCalGas adopt between GRCs. TURN's requests, both Kearny Master Plan-specific and utility-wide, should be rejected.

TURN's Kearny-specific requests for the next GRC include requiring SDG&E to present evidence regarding: (1) the reasonableness of the "overarching" consolidation strategy, (2) the "full range of projects and the total price tag" to implement the strategy, and (3) the "most accurate quantification available for any ratepayer benefits attributed to the project."[1812] These requests would be unduly burdensome for SDG&E to comply with, given the strategy's span over multiple GRCs, its evolving nature due to changes in business, economic, and legal

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[1807] *Compare* Ex. 413 ORA/Waterworth at 23-24 with ORA OB at 370-371.
[1808] SDG&E OB at 402-403.
[1809] TURN OB at 208, n.870; SDG&E OB at 403-404. ORA continues to oppose funding for these projects in the current GRC, even though SDG&E has removed the costs. ORA OB at 371-372.
[1810] *See* Ex. 172 SDG&E/Tattersall at 19:16-19, 21:15-18, 22:4-7.
[1811] TURN OB at 210.
[1812] *Id*.

conditions, and the confidential, sensitive, and proprietary company and market information that is intertwined with the strategy.

SDG&E embraces its duty to present in this and future GRCs the anticipated, discreet projects associated with strategies such as the Kearny Master Plan, and to demonstrate the reasonableness of each project. However, SDG&E should not be forced to lose valuable tactical flexibility in developing its strategies and policies by disclosing and dissecting them for the Commission and stakeholders in each GRC. Moreover, requiring SDG&E to identify quantitative benefits relating to an evolving, long-term strategic plan with no detailed plans for discreet projects in future rate cycles would be a time-consuming exercise wrought with false precision.

TURN's more general recommendations encompassing both utilities are to require SDG&E and SoCalGas to identify in their 2022 GRC testimony: (1) "any significant strategies or policies that have been adopted or substantially modified since the utility prepared its previous GRC showing," and (2) "the reasonableness of such strategies or policies, in addition to the reasonableness of any specific project or program being proposed pursuant to the strategy or policy."[1813] These broad requests suffer from the same flaws as the Kearny-specific requests. Moreover, there is an insufficient record for the Commission to decide such an all-encompassing policy issue based on the Kearny Master Plan alone.

27. Environmental Services

Except for ORA's proposal for the SoCalGas New Environmental Regulatory Balancing Account (NERBA) LDAR Impact Program for TY2019, no party opposed SoCalGas' and SDG&E's O&M forecasts for Environmental Services. In its Opening Brief, ORA repeats its original positions and only cited back to its direct testimony. SoCalGas has responded in Rebuttal Testimony[1814] and the Opening Brief[1815] to ORA's proposal and as to why it should be rejected. Accordingly, SoCalGas' forecast for Environmental Services activities should be adopted as reasonable for the reasons stated in SoCalGas' Opening Brief.

[1813] *Id.*
[1814] Ex. 297 p.DJ-2 line 17 – p.DJ-4 line 4
[1815] SoCalGas / SDG&E Opening Brief p. 405

28. Information Technology

28.1 Introduction

In their opening briefs, ORA, CFC and UCAN challenge various aspects of SoCalGas' and SDG&E's O&M forecasts for the 2019 TY and capital estimates for 2017, 2018, and 2019 associated with the Information Technology (IT) area. Because ORA's, CFC's and UCAN's recommendations in their opening briefs largely track the recommendations in their testimony – which SoCalGas and SDG&E addressed in their rebuttal testimony and opening brief,[1816] – SoCalGas and SDG&E only summarize the key issues below.

The tables below – adopted from SoCalGas' and SDG&E's rebuttal testimony – summarize the differences between SoCalGas' and SDG&E's IT forecasts versus other parties' recommendations.

SoCalGas Summary of Differences Tables[1817]

TOTAL O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**2019 Variance**
SoCalGas	24,588	32,927	N/A
ORA	24,588	25,791	(7,136)

TOTAL CAPITAL - Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SoCalGas	122,653	148,498	176,169	447,320	N/A
ORA	120,118	132,204	142,629	394,951	(52,369)
					2019 Variance
CFC	122,653	133,400	162,269	418,322	(28,998)

SDG&E Summary of Differences Tables[1818]

TOTAL O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**2019 Variance**
SDG&E	73,378	88,449	N/A
ORA	73,378	76,398	(12,051)
UCAN	73,378	75,182[1819]	(13,267)

[1816] Ex. 303 SCG/Olmsted; Ex. 307 SDG&E/Olmsted; SCG/SDG&E OB at 407-424.
[1817] Ex. 303 SCG/Olmsted at 1.
[1818] Ex. 307 SDG&E/Olmsted at 1.
[1819] UCAN did not provide a TY 2019 O&M amount in testimony; the amount in the table is based on UCAN's proposed 15% reduction.

TOTAL CAPITAL - Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	119,566	130,371	139,777	389,714	N/A
ORA	121,072	105,724	121,756	348,552	(41,162)
					2019 Variance
UCAN	No Recommendation	No Recommendation	127,638[1820]	127,638	(12,139)
CFC	No Recommendation	No Recommendation	109,577	109,577	(30,200)

For the reasons set forth in the sections below, and in SoCalGas' and SDG&E's testimony and opening brief, the Commission should reject other parties' IT recommendations and adopt SoCalGas' and SDG&E's reasonable forecasts as proposed. In the following sections, SoCalGas and SDG&E further summarize their IT O&M and capital proposals and respond, in order, to ORA's, CFC's and UCAN's recommendations.

28.2 SoCalGas' and SDG&E's Response to ORA

28.2.1 Response to ORA's O&M Recommendations

In its opening brief, ORA continues to recommend reductions to SoCalGas' and SDG&E's 2019 test year IT O&M forecasts based exclusively on a ratio calculated by dividing SoCalGas' and SDG&E's 2017 adjusted recorded IT O&M expenses by SoCalGas' and SDG&E's 2017 forecasted expenses. Using this formula, ORA recommends the following O&M reductions for SoCalGas and SDG&E:

- <u>SoCalGas Non-Shared O&M</u>: ORA recommends a non-shared O&M forecast of $14.491 million, which is $6.586 million lower than [SoCalGas'] forecast of $21.077 million.[1821] The basis for the reduction is [SoCalGas'] "2017 forecast exceeding the 2017 adjusted, recorded."[1822] ORA "reduced SCG's 2018 and 2019 forecast dollars by 68.75%, the 2017 adjusted, recorded expense divided by SCG's 2017 forecast" to develop their recommendation.[1823]
- <u>SoCalGas Shared O&M</u>: ORA recommends a shared services O&M forecast of $11.300 million, which is $550,000 lower than [SoCalGas'] forecast of $11.850 million.[1824] The

[1820] UCAN did not provide a TY 2019 Capital amount in testimony; the amount in the table is based on UCAN's proposed 15% reduction.
[1821] Ex. 415 ORA/Loy at 14 (SoCalGas assumes the mention of "SDG&E's Shared O&M" was meant to read "SoCalGas' Non-Shared O&M.").
[1822] *Id.* (SoCalGas assumes the mention of "SDG&E's" here was meant to read "SoCalGas'").
[1823] *Id.* at 16.
[1824] *Id.*

basis for the reduction is [SoCalGas'] "2017 forecast exceeding the 2017 adjusted."[1825] ORA "derived its forecast by multiplying SCG's 2018 and 2019 forecast dollars by 95.36%, its 2017 adjusted, recorded expense divided by its 2017 forecast" to develop their recommendation.[1826]

- SDG&E Non-Shared O&M: ORA recommends a forecast of $19.235 million which is $10.506 million lower than SDG&E's forecast of $29.741 million.[1827] The basis for the reduction is "the inaccuracy of SDG&E's 2017 forecast."[1828] ORA "developed its 2019 forecast by multiplying SDG&E's 2019 forecast by 64.67%, its 2017 adjusted, recorded expense divided by its 2017 forecast."[1829]
- SDG&E Shared O&M: ORA recommends a forecast of $57.163 million which is $1.555 million lower than SDG&E's forecast of $58.718 million.[1830] The basis for the reduction is SDG&E's "2017 forecast exceeding the 2017 adjusted, recorded."[1831] ORA "developed its 2019 forecast by multiplying SDG&E's 2019 forecast down by 97.35%, its 2017 adjusted, recorded expense divided by its 2017 forecast."[1832]

ORA asserts that its "'macro' or aggregate data method" approach is appropriate not only because SoCalGas' and SDG&E's 2017 adjusted, recorded expenses were below 2017 forecasted expenses, but because SoCalGas' and SDG&E's workpapers lack sufficient detail and "verifiable information."[1833]

SoCalGas and SDG&E strongly disagree that the use of a single year's results – 2017 adjusted recorded – is a more reliable method of forecasting 2019 expenses than the reasonable approach taken by SoCalGas and SDG&E. The forecast methodology SoCalGas and SDG&E developed for IT O&M costs is the base year (2016) recorded, plus adjustments. As SoCalGas and SDG&E explained in their testimony and opening brief, SoCalGas's and SDG&E's forecasting approach reflects the constantly changing nature of IT-related costs:

- The pace of change in the technology industry continues to accelerate when compared to prior years;
- The growth in computing power at the hardware level;
- The number and diversity of applications at the software level;
- Emerging computing trends, such as cloud computing and the increasing commercialization of IT capabilities; and

[1825] *Id.* (SoCalGas assumes the mention of "SDG&E's" was meant to read "SoCalGas.'").
[1826] *Id.* at 18.
[1827] *Id.* at 8.
[1828] *Id.*
[1829] *Id.* at 10.
[1830] *Id*.
[1831] *Id.*
[1832] *Id.* at 12.
[1833] *Id.*; *see also* ORA OB at 378 and 383.

- "Black swan" events like the IT outages encountered in 2017.[1834]

SoCalGas and SDG&E also strongly disagree that they failed to provide sufficient and verifiable information in their testimony and workpapers in support of their requests of incremental TY 2019 expenses. SoCalGas' IT O&M workpapers (Ex. 301 SCG/Olmsted) are approximately 200 pages and SDG&E's IT O&M workpapers (Ex. 306 SDG&E/Olmsted) are over 300 pages. In addition, SoCalGas and SDG&E responded to multiple data requests promulgated by ORA.

In summary, the basis for ORA's IT O&M reductions is flawed and should be rejected.

28.2.2 Response to ORA's Capital Recommendations

In its opening brief, ORA continues to recommend reductions to SoCalGas' IT capital forecasts based on ORA's "ordinary least squares trend" approach.[1835] ORA addresses its proposed reductions to SDG&E's IT capital forecasts in ORA's electric distribution testimony and section of the brief.[1836]

In its opening brief, ORA does not explain the basis for its use of its "ordinary least squares trend" approach, but it appears to be based on differences between SoCalGas' 2017 IT capital forecast and SoCalGas' 2017 IT capital spend.[1837] ORA also asserts that its use of a "macro or aggregate forecasting method" is "consistent" with how SoCalGas' executive management budgets and plans IT capital at the "enterprise" level.[1838]

The Commission should reject ORA's arguments. As SoCalGas explained in rebuttal testimony and opening brief, ORA's reliance on historical data fails to properly consider the rapidly changing IT environment SoCalGas (and SDG&E) face. The pace of change in the technology industry continues to accelerate when compared to prior years. Factoring in emerging trends required the Companies to use current data rather than relying on historical averages that do not include these types of trends in the environment.

[1834] Ex. 303 SCG/Olmsted at 3; Ex. 307 SDG&E/Olmsted at 4. A black swan event is a random event or occurrence that deviates beyond what is normally expected of a situation and is extremely difficult to predict.
[1835] ORA OB at 375.
[1836] *Id.* at 382. "These recommendations are described in more detail . . . in Section 22 of this Opening Brief." *Id.*
[1837] Ex. 415 ORA/Loy at 20. *See also* ORA OB at 377: "Cal PA challenged the merits of SCG's forecast because SCG's individual project approach proved to be unreliable when compared to SCG's actual spending."
[1838] ORA OB at 376-377.

ORA also wrongly asserts that its proposed forecasting method is "consistent" with how SoCalGas (and SDG&E) budget and plan IT capital. While it is true that IT capital budgets are set at the aggregate level, these budgets are built from the ground up, project by project, based on current and projected needs, not strictly based on historical trends. The forecast methodology developed for IT capital costs is zero-based and is based upon the accumulation of individual projects that start as concepts and will eventually move through a rigorous approval process, which is documented below. Each project estimate is formulated from the ground up and will use various methods based on applicability (*e.g.*, request for proposals (RFP), vendor quotes, existing contracts, internal subject matter judgment and expertise, prior implementations).

Finally, SoCalGas' 2017-2019 IT capital request is well-supported by project-by-project information.[1839] SoCalGas has provided approximately 900 pages of detailed capital workpapers, representing 127 projects. SoCalGas' capital workpapers specifically identify the types of investments needed for the forecast period.[1840] SoCalGas also forecasted in-service dates for each project listed in the SoCalGas IT 2017-2019 capital forecasts. In addition, SoCalGas' direct testimony includes narratives in support of the SoCalGas IT-sponsored capital projects.[1841]

For the reasons set forth below, the Commission should reject ORA's flawed IT capital recommendations and adopt SoCalGas' reasonable proposals.

28.3 SoCalGas' and SDG&E's Response to CFC

In its opening brief, CFC continues to advocate for the reduction of SoCalGas' and SDG&E's forecasted IT capital additions on the grounds set forth in its testimony, *e.g.*, "due to the absence of guidance on the actual returns Sempra realizes on IT capital spending"[1842] and that CFC's proposed reductions are "based on limiting the 2019 IT Division capital spending to a 15% annual growth rate,"[1843] which CFC contends is an "observed IT capital investment growth generally reported by other large corporations."[1844]

[1839] Ex. 300 SCG/Olmsted at 17-39.
[1840] Ex. 302 SCG/Olmsted.
[1841] Ex. 300 SCG/Olmsted at 21-39.
[1842] Ex. 483 CFC/Roberts at 1. *See also* CFC OB at 6 ("Sempra has not yet developed an indicative, let alone robust, way of demonstrating the actual return on those investments") and 26 ("the benefits and payback/returns on the IT-Division projects are not quantified in the application.").
[1843] Ex. 483 CFC/Roberts at 2. *See also* CFC OB at 26-27.
[1844] Ex. 483 CFC/Roberts at 2. *See also* CFC OB at 26.

The Commission should reject CFC's recommendation. CFC "acknowledges that Sempra's IT capital investments certainly generate benefits for the company and ratepayers."[1845] In addition, as explained in their testimony, SoCalGas' and SDG&E's forecasts appropriately reflect their *particular* circumstances, not necessarily what is "generally reported by other large corporations."[1846]

In its opening brief, CFC also continues to challenge a portion of the costs associated with SoCalGas' proposed Business Continuity Enhancement Project (BCEP).[1847] While CFC "acknowledges the supporting narratives of the expected benefits," CFC continues to assert that the benefits of the proposed project should be quantified.[1848] However, as SoCalGas explained in its rebuttal testimony and summarized in its opening brief, as a result of the 2017 data center outages, significant investments are planned in 2018 and 2019 to stabilize and modernize our data center operations to prevent similar events from occurring again.[1849] A majority of these improvements are included in the Business Continuity Enhancement project, which is forecasted to spend $23.795 million in 2018 and $33.609 million in 2019.[1850] Removing this IT capital project, and other projects in the IT portfolio, would put IT's ability to provide safe, reliable service to our employees and customers at risk.

In summary, SoCalGas and SDG&E urge the Commission to support their proposed IT capital forecasts.

28.4 SDG&E's Response to UCAN

In its opening brief, UCAN continues to propose to reduce SDG&E's forecasted expenses by 15% and to "levelize" SDG&E's proposed IT capital investments, in particular, SDG&E's proposed Long-Term Evolution (LTE) Communications Network capital project.[1851] Among other things, UCAN asserts that "SDG&E's application is notably lacking in the requisite level of detail that would justify the level of spending it is seeking."[1852]

[1845] CFC OB at 6.
[1846] SCG/SDG&E OB at 423-424.
[1847] CFC OB at 28-29.
[1848] *Id*. at 28.
[1849] Ex. 300 SCG/Olmsted at 7. *See also* SCG/SDG&E OB at 421.
[1850] Ex. 300 SCG/Olmsted at 35.
[1851] UCAN OB at 9, 25-29.
[1852] *Id*. at 26.

UCAN provides no specific justification as to how it arrived at its proposed 15% reduction. In addition, UCAN's assertion regarding a lack of detail flies in the face of the evidentiary record of this proceeding, in which SDG&E produced detailed testimony and hundreds of pages of workpapers. SDG&E's IT O&M workpapers (Ex. 305 SDG&E/Olmsted) are over 300 pages. SDG&E's IT capital workpapers (Ex. 306 SDG&E/Olmsted) are over 500 pages, representing 82 projects.

With respect to SDG&E's proposed LTE project, the costs of which UCAN proposes to levelize, UCAN acknowledges that the "capabilities" that SDG&E hopes to achieve from the LTE project "are likely to become more important as SDG&E's transmission and distribution network evolves over the years" and that "[i]mproving SDG&E's ability to communicate with all locations in its large service territory is likely to improve the utility's ability to respond to natural disasters and may serve to improve service reliability along its rural circuits."[1853]

In its testimony, UCAN also acknowledged that for purposes of evaluating the LTE project, SDG&E had "retained an outside engineering firms to perform a total cost of ownership analysis over 20 years given its various communication needs," and that "several alternative technologies and solutions were considered besides the LTE deployment including discussions with solution providers."[1854]

Notwithstanding UCAN's acknowledgments, UCAN continues to assert that the need for this important capital project is "poorly documented," that "[l]ess expensive alternative means of enhancing SDG&E's communications capabilities should have been explored" and that there was an "apparent lack of competitive bidding in the selection process."[1855]

UCAN's assertions ignore SDG&E's rebuttal testimony, which addressed UCAN's concerns directly:

> SDG&E outlines requirements in requests for information and proposals, which are sent to multiple systems and solutions vendors for their response. All vendors are treated equitably, and SDG&E evaluates each vendor's response against a pre-established set of criteria developed with SDG&E's Supply Management organization. Time and resources were committed to understanding the implications of staying with existing technology when compared to moving to a new LTE technology. SDG&E uses both in-house and outside experts to evaluate business strategy to provide an ideal mix of focused, domain-specific knowledge

[1853] *Id*. at 27.
[1854] Ex. 510 UCAN/Zeller at 5.
[1855] UCAN OB at 27-28.

> and broader, cross-industry insight to provide overall guidance. SDG&E uses internal expertise in addition to consulting with utility peers, industry experts, technical experts as well as well-regarded research institutes in order to provide cost estimates for IT initiatives. SDG&E asserts that by deploying an industry standard solution, which may be more expensive in the near term, the overall solution costs will be lower in the long run.
>
> With respect to SDG&E's plans to deploy a privately owned and operated, licensed, LTE network, SDG&E has deployed a number of wireless networks. As technology has advanced, it now gives SDG&E the opportunity to consolidate many of these networks into a single network with standards recognized worldwide. Using this network provides efficiencies in terms of deployment and management and offers more security. Using an industry standard, such as LTE, provides significant benefits to SDG&E and its customers. The broader telecommunications market has provided more alternatives, which in turn has driven prices down for equipment and engineering resources.[1856]

In summary, contrary to UCAN's assertions, SDG&E went through a robust process to scope and price this initiative. SDG&E has thoroughly vetted this solution and it warrants being funded at the requested levels, rather than the reductions proposed by UCAN.

29. Cybersecurity

29.1 Introduction

ORA was the only party to address SoCalGas' and SDG&E's GRC cybersecurity requests in testimony or in opening briefs. Because ORA's recommendations in its opening brief largely track the recommendations in their testimony – which SoCalGas and SDG&E addressed in their rebuttal testimony and opening brief[1857] – SoCalGas and SDG&E only summarize the key issues below.

As described in SoCalGas' and SDG&E's direct testimony (Ex. 308 SCG/Worden at 2-18 and Ex. 311 SDG&E/Worden at 2-18), the costs sponsored by SoCalGas and SDG&E in their cybersecurity testimony are for managing cybersecurity risk, which is a top safety risk that was identified in the RAMP Report and is further described in the table below:

1856 Ex. 307 SDG&E/Olmsted at 10.
1857 Ex. 314 SCG/SDG&E/Worden; SCG/SDG&E OB at 424-438.

TABLE GW-4[1858]
RAMP Risks Associated with this Testimony

RAMP Risk	Description
Cybersecurity	This risk is a major cybersecurity incident that causes disruptions to electric or gas operations (*e.g.*, SCADA system) or results in damage or disruption to company operations, reputation, or disclosure of sensitive data.

In developing SoCalGas' and SDG&E's cybersecurity GRC request, priority was given to this key safety risk to determine which currently established risk control measures were important to continue and what incremental efforts were needed to further mitigate these risks. The Cybersecurity Program continually reassesses current mitigating control activities versus best practices to address continually evolving threat actor capabilities, ultimately increasing the use of innovative technologies within the business.

SoCalGas and SDG&E summarize their response to ORA's cybersecurity O&M and capital recommendations in the sections below.

29.2 Response to ORA's Proposed Cybersecurity O&M Recommendations

29.2.1 SoCalGas' Response to ORA's Proposed O&M Reductions

In its opening brief, ORA continues to dispute SoCalGas' proposed cybersecurity O&M request.[1859] ORA argues that because SoCalGas' 2017 forecast exceeded SoCalGas' 2017 adjusted, recorded expense by 20.5%, SoCalGas' 2019 forecast should be reduced to equal the 2017 adjusted, recorded expense.[1860] Put another way, ORA asserts that because SoCalGas only spent $588,000 in 2017 O&M, the Commission should only authorize $588,000 for 2019 O&M versus the $708,000 requested.

The table below, adopted from SoCalGas' rebuttal testimony,[1861] summarizes the differences between SoCalGas' and ORA's cybersecurity O&M recommendations.

1858 Ex. 308 SCG/Worden at 4.
1859 ORA OB at 388.
1860 *Id*.
1861 Ex. 314 SCG/SDG&E/Worden at 1.

TABLE GW- 1- SoCalGas Total Shared O&M

TOTAL SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SoCalGas	239	708	469
ORA	239	588	349

SoCalGas disagrees with ORA's assessment that because SoCalGas spent slightly less than it had forecasted in 2017, the Commission should reduce SoCalGas' forecast for 2019 to the exact same amount as 2017 actuals.

With respect to SoCalGas' slight underspending in 2017, ORA ignores SoCalGas' valid explanation that due to the limited supply of qualified cybersecurity personnel, SoCalGas was not able to fill some of its vacant positions until midway through 2017; as such, SoCalGas did not utilize all funding forecasted for 2017.[1862] ORA's recommendation to use the 2017 adjusted recorded expense does not provide sufficient funds to staff the fully functional cybersecurity team required in 2019 and subsequent attrition years to mitigate and address the risks identified within the RAMP Report.

In addition, ORA's recommendation to use a single year as the basis for its forecast does not make sense in the context of the cybersecurity operational environment, which does not remain static. As explained in Exhibit 308,[1863] the forecast methodology utilized by SoCalGas is derived from base year (BY) 2016 recorded costs, plus adjustments. The funding requirements relate directly to the number of systems and activities requiring support. When the operational environment has an increase in the number of supported systems and processes, there needs to be a corresponding increase in the number of personnel to support these systems and processes. ORA's recommendation also does not consider the fact that prior capital projects require O&M funding to support ongoing operations.

[1862] *Id*. at 4.
[1863] Ex. 308 SCG/Worden at 25:2-4.

29.2.2 SDG&E's Response to ORA's O&M Recommendation

In its testimony[1864] and opening brief, ORA does not propose any adjustments to SDG&E's 2019 cybersecurity O&M request, as set forth in the table below from SDG&E's rebuttal testimony.[1865]

TABLE GW- 2- SDG&E Total Shared O&M

TOTAL SHARED O&M - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change**
SDG&E	6,568	7,906	1,338
ORA	6,568	7,906	1,338

ORA's recommendation appears to be based on the fact that SDG&E's 2017 adjusted recorded cybersecurity O&M expenses ($8.329 million) *exceeded* SDG&E's 2017 forecast ($7.120 million).[1866] The Commission should approve SDG&E's cybersecurity O&M request as reasonable.

29.3 Response to ORA's Proposed Cybersecurity Capital Reductions

In its opening brief, ORA continues to recommend drastic reductions to SoCalGas' and SDG&E's proposed cybersecurity capital forecasts.[1867] ORA argues that because SoCalGas' and SDG&E's 2017 estimates were higher than the 2017 adjusted recorded amount, the 2018 and 2019 capital forecasts should be adjusted utilizing "an ordinary least squares time trend."[1868] ORA also asserts that its "ordinary least squares time trend" approach is "like that" or "the same" as the "enterprise" or "aggregate" approach that SoCalGas' and SDG&E's Executive Management use in their budgeting process.[1869] Finally, ORA also alleges that SoCalGas and SDG&E underspent their cybersecurity budgets in 2014-2016, thus the Commission should disregard SoCalGas' and SDG&E's 2017-2019 forecasts.[1870] ORA's proposed reductions are set forth in the tables below, which are taken from SoCalGas' and SDG&E's rebuttal testimony.[1871]

[1864] Ex. 415 ORA/Loy at 21.
[1865] Ex. 314 SCG/SDG&E/Worden at 1.
[1866] Ex. 415 ORA/Loy at 21, Table 20-15.
[1867] ORA OB at 385-390. ORA's recommendations with respect to SoCalGas' capital forecasts are set forth at 385-387; ORA's recommendations with respect to SDG&E's capital forecasts are set forth at 388-390.
[1868] *See, e.g.*, *id.* at 385, 389. *See also* Ex. 415 ORA/Loy at 21:15-16, 25:1-3.
[1869] ORA OB at 386-387, 389.
[1870] *Id*. at 387, 389.
[1871] Ex. 314 SCG/SDG&E/Worden at 5.

TABLE GW- 8 - SoCalGas GRC Capital Proposals

TOTAL CAPITAL - Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SoCalGas	17,844	19,476	22,731	60,051	
ORA	6,882	7,201	7,896	21,979	38,072

TABLE GW- 9 – SDG&E GRC Capital Proposals

TOTAL CAPITAL - Constant 2016 ($000)					
	2017	**2018**	**2019**	**Total**	**Variance**
SDG&E	6,146	7,232	5,618	18,996	
ORA	1,631	1,815	1,887	5,333	13,663

For the reasons set forth in SoCalGas' and SDG&E's testimony and opening brief and summarized below, the Commission should reject ORA's recommendations to drastically cut the funding for SoCalGas' and SDG&E's proposed cybersecurity capital projects, which are needed to address key safety risks.[1872]

First, as a threshold matter, SoCalGas and SDG&E disagree with the methodology employed by ORA in determining forecast years based upon actuals from a single year, or from trending across multiple historical years. SoCalGas and SDG&E utilize a zero-based forecast methodology for Cybersecurity capital costs.[1873] Due to the rapidly changing cybersecurity threat environment, this method is most appropriate as these estimates are based upon specific projects, assets, and tasks needed for cybersecurity risk management and mitigation.

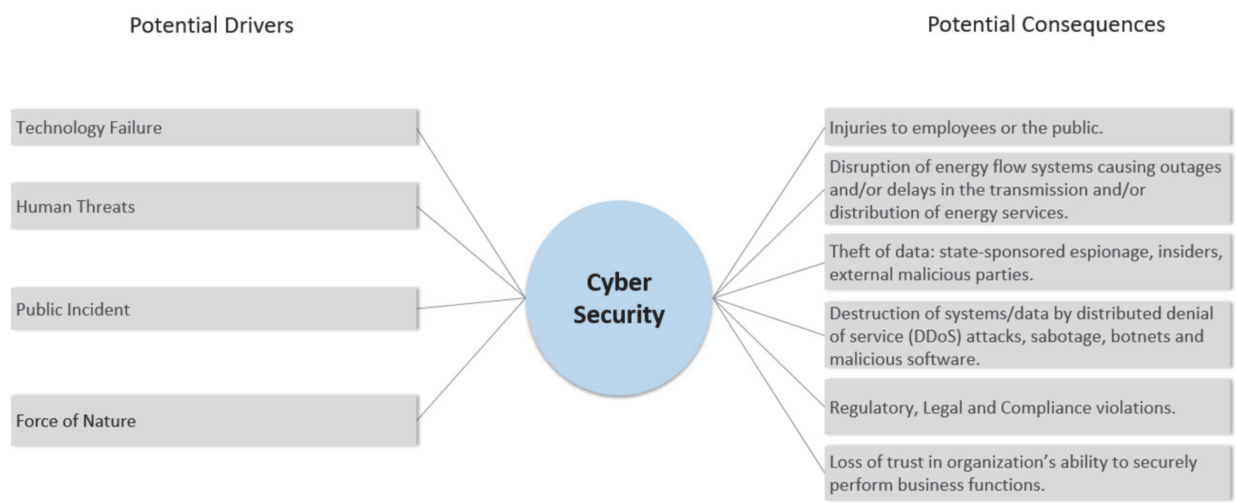
ORA's use of a multi-year trend analysis to determine capital expenses is not a logical approach to funding cybersecurity capital projects, especially as it relates to necessary expenditures to directly address cybersecurity risks that have been identified via RAMP and on-going risk assessments. Historical expenditures are not sufficient to address increasing cybersecurity threats, which are constantly emerging in a dynamic environment.

Second, SoCalGas and SDG&E also disagree with ORA that its "ordinary least squares time trend" approach is anything like how SoCalGas and SDG&E perform their cybersecurity capital budgeting process. While it is true that capital budgets are set at the aggregate level, these budgets are built from the ground up, project by project, based on current and projected needs, not strictly based on historical trends.

[1872] *See, e.g.*, Ex. 314 SCG/SDG&E/Worden at 5-8 and SCG/SDG&E OB at 432-438.
[1873] Ex. 314 SCG/SDG&E/Worden at 5.

Third, in terms of ORA's allegation that SoCalGas' and SDG&E's 2014-2016 actual cybersecurity capital expenditures were below forecasted, SoCalGas and SDG&E are not aware of any evidence in the record that supports this contention. ORA's only support for this contention is that SoCalGas' and SDG&E's 2014-2016 actual expenditures for three unrelated programs – DIMP, SIMP and TIMP – were below forecasted.[1874] However, DIMP, SIMP and TIMP have nothing to do with cybersecurity. As such, the Commission should disregard ORA's recommendation.

Finally, ORA's recommendations are not consistent with the Commission's directive to incorporate a risk-based framework into the current GRC request. As identified within the RAMP Report,[1875] cybersecurity risk is a top safety risk for the Companies. The RAMP Report was the starting point for consideration of the cybersecurity risk mitigation efforts identified in this GRC. The RAMP Report presented an assessment of the key safety risks of SoCalGas and SDG&E, including the potential drivers that could lead to a risk event and the potential consequences of a risk event, as shown below.



As stated in the RAMP Report, company subject matter experts used empirical data to the extent available and/or their expertise to determine the likelihood and impact of a cybersecurity incident. The likelihood score was determined as being at least a 4 (Occasional), which is defined in the Risk Evaluation Framework as the possibility of a cybersecurity-related event occurring.[1876] The impact scores of SoCalGas' and SDG&E's cybersecurity risks, however,

[1874] ORA OB at 387, 389-390.
[1875] RAMP Report, RAMP-A, Overview and Approach at 1.
[1876] Ex. 314 SCG/SDG&E/Worden at 6.

were determined to be even higher, at least a 5 (Extensive) to a 6 (Severe), with the Operational and Reliability area deemed the highest risk (6/Severe).[1877]

In the RAMP Report, SoCalGas and SDG&E proposed plans for mitigating these cybersecurity risks, then did their best to reasonably forecast the costs of these mitigation efforts. ORA's cybersecurity capital recommendations fail to properly account for these cybersecurity risks. As such, for all of the reasons set forth above, and in SoCalGas' and SDG&E's testimony and opening brief, the Commission should adopt SoCalGas' and SDG&E's reasonable cybersecurity capital forecasts.

30. Corporate Center – General Administration

30.1 Introduction

In their opening briefs, ORA and TURN raise several issues regarding SoCalGas' and SDG&E's TY 2019 forecasts for allocations of Shared General Administration costs from Sempra Energy's Corporate Center to SoCalGas and SDG&E. Because ORA's and TURN's opening briefs largely track the testimony they had submitted - which SoCalGas and SDG&E addressed in their rebuttal testimony (Ex. 317) and in their opening brief (at 439-458) - SoCalGas' and SDG&E's discussion below only summarizes the key issues.

As ORA indicated in its opening brief (at 390), ORA "did not take issue with many of Sempra's forecast[s] for Corporate Costs." However, ORA did propose the following reductions (at 390-394):

- A reduction to reflect Sempra Energy's March 9, 2018 acquisition of its indirect interest in Texas-based Oncor Electric Delivery Company LLC (Oncor), which SoCalGas and SDG&E had not addressed in their direct testimony because the direct testimony was submitted before the March 9, 2018 acquisition;
- A reduction in Finance Division costs associated with the preparation of certain internal audits;
- A reduction in Human Resources & Administration Division costs associated with the proposed hiring of one Learning Module Advisor position; and
- A reduction in Pensions & Benefits Division costs to reflect reductions that ORA's pension and benefits' witnesses had proposed in their testimony.

In its testimony and opening brief (217-219), TURN also proposes a reduction in corporate center costs, but clarified in its opening brief that it does not oppose the hypothetical

[1877] *Id.* at 6-7.

multifactor basic percentages included in SoCalGas' and SDG&E's rebuttal testimony[1878] (which results in a reduction of $2.4 million) to reflect the Oncor acquisition, among other events.

The following two tables are from SoCalGas' and SDG&E's rebuttal testimony (Ex. 317 at 8). The first table (Table MLD-2B) sets forth the TY 2019 forecasts that SoCalGas and SDG&E propose that the Commission adopt. The second table (Table MLD-2A) sets forth the TY 2019 forecasts that identify the relatively minor impacts in Corporate Center allocations – a reduction of $2.4 million - in the event the Commission were to order SoCalGas and SDG&E to update their forecasts to reflect the Oncor investment.

TABLE MLD-2B
SoCalGas/SDG&E Proposed TY 2019 Summary of Total Costs (Without Oncor)

(2016 $ - 000's)	Corporate Center			Utility Allocations		
Services Provided	Base Year 2016	2016-2019 Incr/(Decr)	Forecast 2019	Base Year 2016	2016-2019 Incr/(Decr)	Forecast 2019
A Finance	90,913	(31,356)	59,556	32,161	(3,590)	28,571
B Legal, Compliance and Governance	50,929	11,414	62,344	25,162	(1,634)	23,528
C Human Resources & Administration	18,030	6,668	24,698	15,413	6,287	21,700
D Corporate Strategy & External Affairs	8,110	6,310	14,420	3,542	349	3,890
E Facilities and Assets	25,379	4,547	29,926	12,533	3,354	15,886
F Pension & Benefits	87,431	6,618	94,048	30,662	4,748	35,409
Total	$280,792	$4,201	$284,992	$119,472	$9,512	$128,984
Allocations						Escalated 2019
SDG&E	59,202	(1,120)	58,082			60,922
So Cal Gas	60,270	10,632	70,902			74,446
Total Utility	119,472	9,512	128,984			$135,368
Global / Retained	161,320	(5,311)	156,008			
Total	$280,792	$4,201	$284,992			

[1878] Ex. 317 SCG/SDG&E/DeMontigny at 9 (Table MLD-3A).

TABLE MLD-2A
Hypothetical Test Year 2019 Summary of Total Costs (With Oncor)

(2016 $ - 000's)	Corporate Center			Utility Allocations		
Services Provided	Base Year 2016	2016-2019 Incr/(Decr)	Forecast 2019	Base Year 2016	2016-2019 Incr/(Decr)	Forecast 2019
A Finance	90,913	(31,356)	59,556	32,161	(4,271)	27,890
B Legal, Compliance and Governance	50,929	11,414	62,344	25,162	(1,976)	23,187
C Human Resources & Administration	18,030	6,668	24,698	15,413	6,205	21,617
D Corporate Strategy & External Affairs	8,110	6,310	14,420	3,542	203	3,744
E Facilities and Assets	25,379	4,547	29,926	12,533	2,768	15,300
F Pension & Benefits	87,431	6,618	94,048	30,662	4,134	34,795
Total	$280,792	$4,201	$284,992	$119,472	$7,063	$126,534
						Escalated 2019
Allocations						
SDG&E	59,202	(2,725)	56,477			59,252
So Cal Gas	60,270	9,787	70,057			73,551
Total Utility	119,472	7,063	126,534			$132,803
Global / Retained	161,320	(2,862)	158,458			
Total	$280,792	$4,201	$284,992			

As SDG&E and SoCalGas explained in Exhibit 317 (at 9), incorporating Oncor would result in a reduction in allocations to SDG&E and SoCalGas by $1.6 million and $0.8 million, respectively (for a total of $2.4 million). For 2019, these changes would result in a 2.0% lower Multi-Factor allocation for SDG&E and a 1.6% lower Multi-Factor allocation for SoCalGas, with a corresponding increase of 3.6% in the Multi-Factor allocation for Global/Retained.

In Table MLD-2 below, SoCalGas and SDG&E further summarize the differences between their proposed Corporate Center allocations and ORA's recommendations. The dollar impact of these proposed reductions is set forth in Table MLD-2 below, which is adopted from Table 21-1 in ORA's testimony (Ex. 416), but includes modifications made by SoCalGas and SDG&E to reflect ORA's alternative proposal regarding Oncor (a reduction in allocations of $2.4 million).[1879] This alternate proposal only represents ORA's recommendation, adjusted for the impact of Oncor. It does not represent SoCalGas and SDG&E's recommended proposal, which is included in the far right three columns below (and in Table MLD-2B above):

[1879] ORA OB at 392.

TABLE MLD-2
Summary of Differences Between ORA and SoCalGas/SDG&E - TY 2019 Corporate Center Expenses
(in Thousands of 2016 Dollars)

	ORA Recommended[1880]					**SoCalGas and SDG&E Proposed**[1881]		
Division	Total Corporate Center	Utility Allocation w/o Oncor	Utility Allocation w/ Oncor	Alternative Proposal: Utility Allocation w/ Oncor		Total Corporate Center	Utility Allocation	Total
Finance	$59,114	$28,127	$21,714	$27,446		$59,556	$28,571	
Legal, Compliance, & Governance	$62,344	$23,528	$18,164	$23,187		$62,344	$23,528	
Human Resources & Administration	$24,611	$21,612	$16,681	$21,529		$24,698	$21,700	
Corporate Strategy & External Affairs	$14,420	$3,890	$3,004	$3,744		$14,420	$3,890	
Facilities & Assets	$30,155	$16,031	$12,376	$15,445		$29,926	$15,886	
Pensions & Benefits	$26,202	$16,080	$12,413	$15,466		$94,048	$35,409	
Total	$216,839	$109,265	$84,351	$106,817		$284,992	$128,984	
SDG&E Allocation w/o Oncor		$49,209						$58,082
SCG Allocation w/o Oncor		$60,054						$70,902

[1880] ORA's Table 21-1 appears to be based on the original October 6, 2017 version of SoCalGas' and SDG&E's Corporate Center General Administration testimony, not the revised version that was submitted in December 2017 (which ultimately was entered into the record as Ex. 315). ORA's Table 21-1 therefore does not reflect a reduction in SoCalGas' and SDG&E's Facilities & Assets from $16.031 million to $15.886 million (a reduction of $.145 million), which also reduced SoCalGas' and SDG&E's overall request from $129.129 million to $128.984.

[1881] Ex. 317 SCG/SDG&E/DeMontigny at 8 (Table MLD-2B). This also includes the hypothetical Test Year 2019 SDG&E and SoCalGas allocations *with* Oncor, as shown in Table MLD-2A above (although, as previously stated, SoCalGas' and SDG&E's proposal is for the Commission to adopt the forecasts set forth in Table MLD-2B, not Table MLD-2A).

Total w/o Oncor		$109,263						$128,984
SDG&E Allocation with Oncor			$37,990	$47,606				$56,477
SCG Allocation with Oncor			$46,362	$59,211				$70,057
Total with Oncor			$84,351	$106,817				$126,534

30.2 SoCalGas' and SDG&E's Response to ORA's and TURN's Oncor Proposals

30.2.1 Response to ORA's Proposed Oncor Adjustment

As discussed above, in its opening brief (at 390-392), ORA continues to propose an adjustment to allocations to SoCalGas and SDG&E from the Corporate Center to recognize and incorporate Sempra Energy's March 9, 2018 acquisition of its indirect interest in Oncor. Alternatively, ORA argues that the Commission could adopt the alternate hypothetical proposal that SoCalGas and SDG&E calculated and presented in their rebuttal testimony – a $2.4 million reduction. For the reasons set forth below, the Commission should reject ORA's arguments, but, in any event, the Commission should reduce the Corporate Center allocations by no more than the $2.4 million amount (as noted above, TURN stated in its opening brief it does not oppose the hypothetical multifactor basic percentages included in SoCalGas' and SDG&E's rebuttal testimony, which result in the same $2.4 million reduction).

ORA asserts in its opening brief (at 391) that SoCalGas and SDG&E "did not provide any evidence that would suggest that Oncor does not share in the Utility Costs." But contrary to ORA's assertion, SoCalGas and SDG&E provided detailed "evidence' in the form of their rebuttal testimony (Ex. 317), as summarized in SoCalGas' and SDG&E's opening brief (at 454-455), that the acquisition of Oncor would result in only "relatively minor impacts"[1882] – a reduction of $2.4 million - in Corporate Center allocations to SoCalGas and SDG&E:

- "Certain existing governance mechanisms and restrictions are in place around Oncor Holdings and Oncor, that limit Sempra Energy's ability to direct the management, policies and operations of Oncor Holdings and Oncor . . . "[1883]

[1882] Ex. 317 SCG/SDG&E/DeMontigny at 7.
[1883] *Id*. at 6.

- "The resulting independence and separateness of Oncor from its owners results in an expectation of limited sharing of any operational or financial resources and support by and between Sempra Energy and Oncor . . . "[1884]
- "To the extent that Sempra Energy provides any specific services to Oncor, it will directly assign and bill Oncor the associated costs. Because Oncor operates independently (*e.g.*, it has its own finance, accounting, and human resources functions), allocations under the Causal/Beneficial methods are not currently anticipated."[1885]
- "Because Oncor is not consolidated by Sempra Energy . . . and given its independent operations and separateness, Oncor's revenues, operating expenses and employees are not included in the Multi-Factor calculation. However, the investment in Oncor recorded on Sempra Energy's consolidated balance sheet will be included in the Gross Plant Assets and Investments component of the calculation, resulting in a reduced allocation of Corporate Center costs to all of Sempra Energy's business units, including the Utilities, and an increase in costs retained by the Corporate Center."[1886]

ORA also asserts (at 392) that "D.98-03-073, issued in 1998, did not address Sempra's acquisition of Oncor in 2018" and "[t]herefore, D.98-03-073 is inapplicable to how shared costs with Oncor should be allocated and does not foreclose making future allocation changes in order to include new acquisitions." Contrary to ORA's assertion, the application of this cost allocation methodology is consistent with previous CPUC decisions. Each year, Corporate Center analyzes and updates the Multi-Factor to account for any business reorganizations or other changes that impact business unit revenues, operating expenses, gross plant assets and investments, and full-time employees.

Finally, ORA questions how SoCalGas and SDG&E were able to calculate the potential $2.4 million reduction in Corporate Center allocations to the utilities "if Oncor does not in fact share some [of] Sempra's utility Costs and operates separately" (at 391). In the case of the Oncor transaction, because Oncor operates separately, only the Multi-Factor methodology will apply to the allocation of Sempra Energy's Corporate Center Costs (other than direct charges for specific services if applicable). The Multi-Factor methodology is calculated based on the four factors described (*i.e.*, revenues, operating expenses, gross assets and investments, and full-time employees) as reflected in Sempra's consolidated financial statements and not based on the level of services a business unit receives.

[1884] *Id.*
[1885] *Id.*
[1886] *Id.*

30.2.2 Response to TURN'S Proposed Oncor Adjustment

In its testimony, TURN recommended a slight reduction (3.42%) in the corporate center allocations to SoCalGas and SDG&E, primarily based on Sempra Energy's acquisition of Oncor.[1887] As explained above, in SoCalGas' and SDG&E's rebuttal testimony, SoCalGas and SDG&E calculated an illustrative 3.6% reduction in the corporate center allocations to SoCalGas and SDG&E based on the acquisition of Oncor. In its opening brief (at 218-219), TURN states: "While TURN does not necessarily agree with the utilities' rebuttal testimony's critique of the recommendations of ORA and TURN on this topic, the difference between the utilities' revised factors and those proposed by TURN is sufficiently small that TURN does not oppose adoption of those revised factors." As such, if the Commission were to adopt any reduction in corporate center allocations to SoCalGas and SDG&E as a result of the acquisition of Oncor, SoCalGas and SDG&E believe it should be no more than the 3.6% ($2.4 million) reduction detailed above.

30.3 SoCalGas' and SDG&E's Response to ORA's Other (Non-Oncor) Recommendations

As noted above, ORA did not oppose SoCalGas' and SDG&E's proposed forecasts for the following Corporate Center divisions: Legal, Compliance and Governance; Corporate Strategy and External Affairs; and Facilities/Assets. However, ORA did oppose certain costs in the Finance, Human Resources & Administration and Pension and Benefits divisions. SoCalGas and SDG&E discuss these issues below.

30.3.1 Finance

In its opening brief (at 392-393), ORA continues to recommend the removal of the costs associated with the preparation of audits that were conducted under the attorney-client or attorney work product privileges. ORA contends that:

> Cal PA and the Commission cannot assess whether the audits were necessary and whether the costs are reasonable without evaluating the audit reports. Furthermore, Cal PA is obligated under GO 66-C, as modified by GO 66-D, and Public Utilities Code §583 to maintain the confidentiality of the information. Therefore, Sempra has no legitimate reason to prevent Cal PA from reviewing the audit reports. Since Cal PA did not receive the audit reports, the expenses related to these audits are unjustified.

[1887] Ex. 494 TURN/Marcus at 67-68.

ORA suggests that SoCalGas and SDG&E could share these privileged audit reports with ORA and the Commission without waiving the attorney-client privilege or attorney work product privilege, but this is not an accurate statement of the law. Although these reports are protected from disclosure, the cost to prepare them is still a legitimate expense for purposes of recovery in this GRC. The CPUC has long recognized the validity of these privileges and there should be no automatic penalty to a regulated entity for exercising its legal rights. The Commission should reject ORA's proposed disallowance.

30.3.2 Human Resources and Administration

In its opening brief (at 393-394), ORA continues to oppose Sempra Energy's request for one proposed new position, the Learning Module Advisor position, to assist with the MyInfo Human Resources online learning and certification programs (MyInfo Services is part of the CIO, Corporate Systems and Security department within the Human Resources and Administration division). ORA argues that "Sempra did not conduct a workload study or a cost benefit analysis to justify the need for this new position, nor did Sempra demonstrate that this new position would benefit ratepayers." As such, ORA "recommends that the Commission adjust Sempra's forecast of MyInfo Services by $95,000 as a proxy for the confidential salary rate associated with this position" (at 394, citing Ex. 416 ORA/Laserson).

As SoCalGas and SDG&E explained in their rebuttal testimony,[1888] this position was added because there are additional learning and certification programs that have been, or will need to be, added that require an additional FTE to appropriately manage these programs and the additional data generated from them. This includes the evaluation, design, and implementation of new programs and enhancements to existing programs. Accordingly, SDG&E and SoCalGas dispute ORA's claim that these costs should be removed.

30.3.3 Pension & Benefits

In its opening brief (at 392), ORA continues to propose significant reductions in the amount of pension and benefits costs allocated to SoCalGas and SDG&E from the Corporate Center. ORA's recommended adjustments in this area – summarized in SoCalGas' and SDG&E's opening brief at 451-452 – are based upon recommendations contained in Exhibit 417.[1889] SoCalGas and SDG&E strongly oppose ORA's proposed disallowance of these pension

[1888] Ex. 317 SCG/SDG&E/DeMontigny at 11.
[1889] Ex. 417 ORA/Hunter.

and benefits costs for the reasons summarized in Sections 32 and 33 of SoCalGas' and SDG&E's opening brief and this reply brief.[1890]

31. Insurance

31.1 Introduction

In their opening briefs, ORA, CFC, FEA, TURN and UCAN address various issues regarding SoCalGas' and SDG&E's TY 2019 forecast for insurance costs. Because the opening briefs largely track the testimony these parties had submitted – which SoCalGas and SDG&E addressed in their rebuttal testimony and in their opening brief [1891] – SoCalGas' and SDG&E's discussion below only summarizes the key issues. Table NKC-1 below, from SoCalGas' and SDG&E's direct testimony, Ex. 238 SCG/SDG&E/Cayabyab at 1, summarizes the costs for which SoCalGas and SDG&E seek approval.

TABLE NKC-1
Insurance
Test Year 2019 General Rate Case
Testimony Table

(2016 $ - 000's)	Corporate Center			Utility Allocations		
Services Provided	Base Year 2016	2016-2019 Incr/(Decr)	Forecast 2019	Base Year 2016	2016-2019 Incr/(Decr)	Forecast 2019
A Property	12,160	8,144	20,304	10,117	5,959	16,076
B Liability	151,148	15,817	166,965	133,330	15,232	148,562
C Surety Bonds	199	120	319	98	93	192
Total	$163,506	$24,082	$187,588	$143,545	$21,285	$164,830
Allocations						
SDG&E	107,362	18,908	126,270			
So Cal Gas	36,183	2,377	38,560			
Total Utility	143,545	21,285	164,830			
Global / Retained	19,961	2,797	22,758			
Total	$163,506	$24,082	$187,588			

The following additional tables summarize the differences between SoCalGas' and SDG&E's TY 2019 forecasted insurance costs and other parties' recommendations, as reflected in parties' testimony and opening briefs:

[1890] *See, e.g.*, SCG/SDG&E OB at 493-494.
[1891] Ex. 240 SCG/SDG&E/Cayabyab; SCG/SDG&E OB at 458-473.

REVISED SUMMARY OF DIFFERENCES TABLES[1892]

Total O&M (Shared) - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change from SCG/SDG&E Test Year**
SOCALGAS/SDG&E	143,545	164,830	-
ORA	143,545	164,830	-
TURN	143,545	162,100	(2,730)
CFC	143,545	163,050	(1,780)
UCAN	143,545	164,830	(8,985)-
FEA	143,545	151,380	(13,450)

Total O&M (Shared) - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change from SCG/SDG&E Test Year**
SOCALGAS	36,183	38,560	-
ORA	36,183	38,560	-
TURN	36,183	36,995	(1,565)
CFC	36,183	36,780	(1,780)
UCAN	36,183	38,560	-
FEA	36,183	38,560	-

Total O&M (Shared) - Constant 2016 ($000)			
	Base Year 2016	**Test Year 2019**	**Change from SCG/SDG&E Test Year**
SDG&E	107,362	126,270	-
ORA	107,362	126,270	-
TURN	107,362	125,105	(1,165)
CFC	107,362	126,270	-
UCAN	107,362	126,270	(8,985)
FEA	107,362	112,820	(13,450)

[1892] These *revised* summary of differences tables, based on parties' positions in their opening briefs, supersede the summary of differences tables set forth in SoCalGas' and SDG&E's rebuttal testimony and opening brief, which erred in characterizing FEA's positions.

For the reasons set forth in SoCalGas' and SDG&E's testimony, opening brief and summarized below, SoCalGas and SDG&E urge the Commission to adopt their forecasts and proposals.

31.2 SDG&E and SoCalGas Response to Other Parties' Recommendations

31.2.1 Liability Insurance Cost Forecasts and the Proposed Liability Insurance Premium Balancing Account (LIPBA)

In light of the challenges SoCalGas and SDG&E are facing in procuring liability insurance and because of the market fluctuations in the cost of this insurance, SoCalGas and SDG&E are proposing a new two-way balancing account for liability insurance premiums. SoCalGas and SDG&E describe their LIPBA proposal in more detail in their insurance[1893] and regulatory accounts testimony[1894] as well as their opening brief.[1895] SoCalGas and SDG&E respond to other parties' recommendations with respect to SoCalGas' and SDG&E's liability insurance forecasts and the LIPBA in the section below.

31.2.1.1 ORA

In its opening brief, ORA states that it "does not take issue with Sempra's insurance costs nor Sempra's request for a two-way balancing account for liability insurance premiums."[1896] However, ORA also states that "Sempra should not be allowed to exceed the amount of insurance coverage Sempra has forecasted in this GRC nor be permitted to include the costs of obtaining additional insurance which were not authorized by the Commission into the LIPBA."[1897] ORA argues that it "has accepted Sempra's forecast for its insurance costs which should include any foreseeable insurance needs."[1898] ORA also asserts that "Any insurance costs beyond what has currently been forecasted are speculative at best."[1899] Thus, "In the event that Sempra requires additional coverage, it is important that the Commission be made aware prior to Sempra obtaining additional insurance coverage by requiring Sempra to file a formal application.

[1893] Ex. 238 SCG/SDG&E/Cayabyab at 16-17; Ex. 240 SCG/SDG&E/Cayabyab at 5-12.
[1894] Ex. 184 SDG&E/Jasso at 13-14; Ex. 186 SDG&E/Jasso at 6-7; Ex. 181 SCG/Yu at 19.
[1895] SCG/SDG&E OB at 467-470, 595-596.
[1896] ORA OB at 394.
[1897] *Id.*
[1898] *Id.*
[1899] *Id.*

This will ensure that the Commission is made aware of the circumstances in advance, and to ensure that any potential rate impacts will be fully evaluated prior to impacting ratepayers."[1900]

SoCalGas and SDG&E appreciate ORA's support for the Companies' insurance cost forecasts and for the proposed LIPBA. However, SoCalGas and SDG&E remain concerned about being exposed to increased risk during the significant period of time it could take to pursue Commission approval of additional coverage through a new application, which can take 12 – 18 months to process. The Commission and parties will have the ability to review and scrutinize all entries to the balancing account. In addition, SoCalGas and SDG&E need to have the flexibility and agility to actively participate in the insurance markets.

ORA is also incorrect when it states that "Any insurance costs beyond what has currently been forecasted are speculative at best."[1901] By way of an example, SoCalGas and SDG&E had forecasted 2017, 2018, and 2019 wildfire liability premiums to be approximately $80 million, $85 million, and $89 million, respectively,[1902] but in light of the 2017 California wildfires, which occurred after SoCalGas and SDG&E submitted their direct testimony, our wildfire liability premiums increased in June 2018 by approximately 30% in relation to 2017 forecasted.[1903] Thus, the increase above forecasted that SoCalGas and SDG&E already have incurred in 2018 is not "speculative," but a matter of fact as set forth in this evidentiary record.

[1900] *Id*. at 394-395.
[1901] *Id.* at 394.
[1902] *See* Ex. 238 SCG/SDG&E/Cayabyab at 17, Table NKC-17.
[1903] *See* Ex. 240 SCG/SDG&E/Cayabyab at 6 ("As noted above, the Companies' general excess/wildfire liability insurance premiums renew on June 26, 2018. At this point, the insurance department is finalizing its renewal discussions/negotiations with retail and reinsurance insurers, but the feedback we have received from insurers is that they have been re-evaluating their positions due to the overall financial landscape in California and in particular loss concerns related to the 2017 California wildfires. Based on this feedback, the Companies are expecting liability insurance costs to exceed the forecasted amounts. For example, we anticipate SDG&E's 2018 wildfire liability insurance premiums to increase by approximately 30% to 35%, which may also impact SDG&E's future 2019 wildfire liability insurance premiums." *See also* Tr. V23:2299:5-7 (Cayabyab), in which the Companies' witness, Mr. Cayabyab, confirmed that the amount of the 2018 wildfire liability premium increase from the June 26, 2018 renewal was a "30 percent increase from our 2017 forecasts . . ."

31.2.1.2 UCAN

In its opening brief, UCAN states that "UCAN recommends that the Commission *adopt* the [LIPBA] proposed by SDG&E with modifications."[1904] The modifications that UCAN proposes[1905] are that:

- The LIPBA apply only to SDG&E (but not to SoCalGas);
- The LIPBA apply only to wildfire liability insurance costs; and that
- The Commission adopt a tiered review process in which:
    - A 5-year average of SDG&E's recorded wildfire liability and property reinsurance costs (approximately $80 million) would be used as SDG&E's TY 2019 revenue requirement in lieu of SDG&E's forecast;
    - Balances between 0-25% greater than authorized revenue requirement would be subject to a Tier 3 advice letter;
    - Balances greater than 25% of authorized revenue requirement would be subject to an application; and
    - All balances would be subject to a reasonableness review addressing the extent to which SDG&E has demonstrated that it considered alternatives to conventional insurance.

SDG&E appreciates UCAN's general support for the LIPBA, but disagrees with UCAN's multiple proposed modifications. Limiting the LIPBA to just SDG&E and wildfires fails to recognize that the liability insurance premiums affect both companies.

In addition, SoCalGas and SDG&E strongly disagree with UCAN's proposal to use as the baseline amount for the LIPBA a five-year historical average of our wildfire liability and reinsurance costs. UCAN continues to assert that use of a five-year historical average is necessary because "the actual impact of the 2017 wildfires on insurance market conditions remains unknown until [SoCalGas' and SDG&E's] June, 2018 renewal."[1906] However, now that the Companies have the results from their June 2018 wildfire liability renewals – an approximate 30% increase over 2017 forecasted[1907] – there is no basis for UCAN's proposal to use an unrealistic historical average for going-forward purposes.

SoCalGas and SDG&E also oppose UCAN's proposed tiered review process. As discussed above in the context of ORA's recommendation, SoCalGas and SDG&E remain

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[1904] UCAN OB at 7 (emphasis added).
[1905] *Id.* at 6-7, 29-32.
[1906] *Id.* at 31.
[1907] Tr. V23:2299:5-7 (Cayabyab), in which the Companies' witness, Mr. Cayabyab, confirmed that the amount of the 2018 wildfire liability premium increase from the June 26, 2018 renewal was a "30 percent increase from our 2017 forecasts. . ."

concerned about being exposed to increased risk during the significant period of time it could take to pursue Commission approval of additional coverage through either a Tier 3 advice letter or a new application. The Commission and parties will have the ability to review and scrutinize all entries to the balancing account. In addition, SoCalGas and SDG&E need to have the flexibility and agility to actively participate in the insurance markets. Finally, UCAN's proposal to condition approval of balancing account entries on a showing that alternatives to conventional insurance have been considered is unnecessary because SoCalGas and SDG&E already have demonstrated that this is something they do on a regular basis.[1908] For these reasons, and the reasons set forth in the rebuttal testimony of SDG&E's regulatory accounts witness, Norma Jasso,[1909] and summarized in SoCalGas' and SDG&E's opening brief,[1910] the Commission should reject UCAN's proposed modifications to the LIPBA.

31.2.1.3 FEA

SDG&E Opposes FEA's LIPBA Recommendation

In its opening brief, FEA continues to oppose the Companies' proposed LIPBA.[1911] FEA seems to suggest that it is business as usual in the California liability insurance marketplace, when nothing could be further from the truth, particularly after the 2017 California wildfires.

SDG&E strongly disagrees with FEA's recommendation. As SDG&E explained in its testimony, and summarized in its opening brief, there is nothing "normal" about the environment in which we currently operate with prolonged drought, climate change, an increasingly longer fire season, and insurers reducing coverage, increasing costs and/or getting out of the market entirely.[1912]

As evidenced by the increase in our June 2018 wildfire liability premiums, it is reasonable to assume that our insurance premiums and needed levels of coverage will continue to be impacted due to factors beyond our control, which supports our request for a LIPBA. The unanticipated increase in our June 2018 premiums – after the Companies had already submitted

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[1908] In rebuttal testimony, Ex. 240 SCG/SDG&E/Cayabyab at 9-12, SoCalGas and SDG&E summarized some of the activities our insurance department has pursued over the last several years in an effort to lower our premiums, such as blind bid pricing strategy, alternative risk transfer mechanisms (captives and Insurance Linked Securities), and use of multi-year insurance products.
[1909] Ex. 186 SDG&E/Jasso at 6-7.
[1910] SCG/SDG&E OB at 467-470 and 595-596.
[1911] FEA OB at 13-14.
[1912] *See, e.g.,* Ex. 240 SCG/SDG&E/Cayayab at 6-8 and Appendices A, B, C and D.

their forecasts in their direct testimony – also demonstrates the problem of regulatory lag, contrary to FEA's assertions. Finally, contrary to FEA's assertion, the fact that insurance premiums could go down as well as up simply reinforces the need for and wisdom of the LIPBA.[1913] As SDG&E's witness testified during the hearings, if costs were to go down, the savings would be returned to ratepayers.[1914] In summary, the LIPBA represents a reasonable solution to address a variety of scenarios. The Commission should reject FEA's proposal.

SDG&E Opposes FEA's Proposed Liability Insurance Premium Reductions

In its opening brief, FEA continues to recommend reducing SDG&E's 2019 test year forecasts for liability insurance, including wildfire insurance, to the 2017 recorded amounts.[1915] FEA asserts that such an approach is appropriate because the 2017 recorded amounts are "the most recent known and measurable amount[s] in the record."[1916]

SDG&E strongly disagrees with FEA's forecasting recommendation. In this instance, adoption of such an approach would be punitive. As discussed above, we already have confirmed that SDG&E's June 2018 wildfire liability premiums *exceeded* our 2017 forecast by approximately 30% due to the devastating fires in California that took place after we submitted our application and testimony on October 6, 2017. As such, FEA's recommendation for the Commission to adopt a revenue requirement significantly *below* forecasted is very problematic, particularly when, to use FEA's words, the "most recent known and measurable amount in the record" is what the Companies paid for their 2018 wildfire liability insurance premiums. The

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[1913] *See, e.g.*, FEA OB at 14. In support of its opposition to the LIPBA, FEA also points to a statement by one of SDG&E's electric distribution witnesses to the effect that SDG&E's purchase of a helitanker potentially could reduce SDG&E's insurance costs. *Id.* On redirect examination, the witness explained that he is not an insurance expert and does not know how the purchase of the helitanker could impact insurance costs. Tr. V13:980:6-15 (Speer). In any event, FEA misses the larger point that if liability insurance costs go down as compared with forecasted, they would be refunded to ratepayers under the LIPBA.

[1914] *See, e.g.*, "Q. Ms. Liotta asked you a question about whether premiums potentially could go down. Do you recall that question?" A. "Yes, I do." Q: "If that were to happen under SDG&E's proposed balancing account what would happen?" A: "In that scenario under a two-way balancing account, that savings would be passed on to ratepayers." Tr. V23:2300:25 – 2301:6 (Cayabyab).

[1915] FEA OB at 38-44. In summary, FEA recommends liability insurance reductions to SDG&E of $13.45 million, broken down as follows: General excess insurance ($5.393 million), wildfire liability insurance ($7.765 million), directors and officers insurance ($.024 million), fiduciary insurance ($.026 million) and workers compensation insurance ($.242 million). *Id.*

[1916] *Id*. at 39 and 41.

Commission should reject FEA's proposal to use 2017 actuals as a proxy for SDG&E's 2019 test year request.

31.2.2 Response to TURN'S and CFC's Insurance Recommendations

31.2.2.1 TURN

31.2.2.1.1 Allocation of D&O Insurance Premiums

In its opening brief, TURN continues to challenge the percentage of the allocation of Director and Officer (D&O) insurance premiums to SoCalGas and SDG&E.[1917] TURN does not dispute that D&O insurance is a standard cost of doing business that should be recovered in a GRC revenue requirement, but challenges the methodology by which allocations are made.

As explained in SoCalGas' and SDG&E's rebuttal testimony and opening brief, contrary to TURN's assertion, our current methodology accurately assigns 50% of the D&O costs to the shareholders (non-regulated businesses and retained), and 50% to the utilities.[1918] Under TURN's approach, 62% would be allocated to shareholders, not 50%.[1919] The Commission should reject TURN's proposed D&O insurance reallocation.

31.2.2.1.2 Modification of Insurance Allocation Factors

In its testimony, TURN had proposed to reduce SoCalGas' test year insurance costs from $38,560,000 to $36,994,000 (a reduction of $1.565 million) and to reduce SDG&E's test year insurance costs from $126,270,000 to $125,105,000 (a reduction of $1.165 million) – a total of $2.73 million - based on a revised set of allocation percentages primarily attributable to the acquisition of Oncor.[1920]

In its opening brief, TURN correctly states that SoCalGas, SDG&E and TURN are in general agreement as to the amount of the reduction in general administration corporate center allocations (which excludes insurance) to SoCalGas and SDG&E ($2.4 million) attributable to Oncor *if* the Commission were to order SoCalGas and SDG&E to make this reduction.[1921] In its opening brief, however, TURN continues to argue that the Commission should apply the same

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[1917] TURN OB at 219-221.
[1918] Ex. 240 SCG/SDG&E/Cayabyab at 12; SCG/SDG&E OB at 470.
[1919] SCG/SDG&E OB at 470-471.
[1920] *See* Ex. 494 TURN/Marcus at 69-72. Table 53 shows the breakdown of the $2.73 million proposed reduction in insurance - $2.401 million for excess liability insurance, $.211 million for D&O insurance (discussed above) and $.119 million for an undefined "All Other Insurance" category. *Id.* at 72.
[1921] TURN OB at 217-219, 221-222.

percentage of reductions in corporate center allocations to SoCalGas' and SDG&E's insurance costs. TURN's recommendation is based on the assumption that Sempra Energy's excess liability insurance program provides coverage for Oncor, but this is not correct because the corporate center insurance policy explicitly excludes coverage for Oncor, as SoCalGas and SDG&E explained in their rebuttal testimony and opening brief.[1922] TURN also proposes a $50,000 reduced allocation to SDG&E and $69,000 reduction to SoCal Gas for "All Other Insurance." TURN offers no explanation as to the basis for the reduced allocation to the "All Other Insurance." Based on the above, SoCalGas and SDG&E recommend that the Commission reject TURN's insurance premium reallocation proposals.

31.2.2.2 CFC

In its opening brief, CFC continues to recommend decreasing SoCalGas' excess property insurance forecast by $1.78 million, asserting that SoCalGas' excess property insurance forecast is partially driven by the Aliso Canyon incident.[1923] In the course of making this recommendation, CFC relies on many of the arguments that it had set forth in its testimony, but CFC also improperly makes new arguments based on facts not in the record, which should be disregarded. As such, the Commission should reject CFC's recommendation.

CFC first suggests that our insurance carrier's (OIL) change in its "experience modification factor" designation for [SoCalGas and SDG&E] (from 1.0 to 1.25) "directly translates" into an increase in premiums.[1924] This is not an accurate assumption.

As explained in the Companies' rebuttal testimony, Ex. 240 SCG/SDG&E Cayabyab at 13-14, OIL uses a formula to calculate individual member premiums that includes a *variety* of factors (in addition to the experience modification factor) such as business sector assets, deductible levels, insurance program structure, and overall OIL membership losses. Many of these factors are dependent on overall OIL membership performance, in addition to Company performance. Interestingly, our 2016 insurance premiums decreased slightly despite an increase in both gross assets and experience modifier. Conversely, our premiums increased in 2017 despite no change in experience modifier from 2016 to 2017. Below is the table, from the

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1922 *See, e.g.*, Ex. 240 SCG/SDG&E/Cayabyab at 13; SCG/SDG&E OB at 471.
1923 CFC OB at 7, 60-65.
1924 *Id.* at 63.

Companies' rebuttal testimony, Ex. 240 SCG/SDG&E/Cayabyab at 14, outlining our OIL premiums going back to 2012 with corresponding gross assets and experience modifier.

OIL Premiums						
Year	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
OIL Premium	6,077,241	5,725,598	5,762,447	5,005,070	4,940,933	6,192,269
Gross Assets	30,563,236	32,707,574	34,993,146	36,906,924	39,683,816	45,318,438
Experience Modifier	1.0	1.0	1.0	1.0	1.25	1.25

In addition, CFC improperly makes a new argument based on facts that are not in the record. In its opening brief, CFC takes information from a Sempra Energy 10-Q, which it purportedly uses to "calculate[] the value of lost gas" at Aliso Canyon, then to translate that value into an annual amount ($1.2 million) that CFC alleges "would be comparable to the insurance premium impact" that CFC is proposing to disallow ($1.78 million).[1925] CFC's alleged "calculations" and "valuations" constitute extra-record evidence that should be given no weight. To do otherwise would deprive SoCalGas of its due process rights to test these assertions through discovery and the evidentiary hearing process as well as to provide rebuttal testimony contradicting these calculations and valuations.[1926]

In summary, for all of the reasons set forth above and in its rebuttal testimony and opening brief, SoCalGas recommends that the Commission reject CFC's proposed disallowance. CFC incorrectly assumes that OIL's experience modifier of 1.25 directly translated to a 25% increase in premiums.

[1925] CFC OB at 62-63.

[1926] In addition, CFC asserts in its opening brief that "customers should not pay for losses stemming from improper company conduct;" "[t]here have been several recent claims that indicate company conduct as causal;" and "customers should not cover the added premium costs stemming from any such conduct." *Id.* at 63. These unproven assertions are outside the scope of this GRC proceeding and are being addressed in another pending Commission proceeding. Also, this is the first time CFC has alleged that SoCalGas has not properly addressed the Aliso Canyon incident-related requirements of D.16-06-054. SoCalGas provided separate testimony demonstrating how SoCalGas itemized and removed costs associated with the Aliso Canyon incident from the forecasted costs of the 2019 GRC. (*See* Ex. 280 SCG/Steinberg and Ex. 281 SCG/Steinberg). Regardless, CFC's arguments are unsupported.

32. Compensation and Benefits

ORA, TURN, NDC, and OSA addressed Compensation and Benefits in their opening briefs. As stated in SoCalGas and SDG&E's opening brief,[1927] the direct testimony and workpapers of Debbie Robinson provided an overview of the total compensation and benefits program at SoCalGas and SDG&E[1928] and the results of the total compensation study (TCS) conducted by Willis Towers Watson (WTW),[1929] a nationally recognized compensation and benefits consulting firm. The Companies' OB and testimony presentation described SoCalGas' and SDG&E's Compensation and Benefits programs and forecasts in more complete detail,[1930] which is incorporated by reference and will not be repeated again here, for sake of brevity.

As shown in the Companies' OB, Ms. Robinson's testimony presentation, including the WTW TCS, demonstrates that SoCalGas' and SDG&E's request for compensation and benefits cost recovery is reasonable, consistent with past CPUC decisions, will benefit customers, and should be approved.[1931] The compensation and benefits programs provided to SoCalGas and SDG&E employees, retirees, and their dependents reflect the impacts of the marketplace, collective bargaining, and government regulation. Compensation programs are designed to focus employees on the Companies' key priorities, the most important of which are safety and customer service. Benefits include health and welfare programs and retirement plans. SoCalGas' and SDG&E's compensation and benefits programs are critical to attracting,

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[1927] SCG/SDG&E OB at 473-505.

[1928] Exs. 208, 209, and 210 SCG/SDG&E/Robinson.

[1929] Ex. 208 SCG/SDG&E/Robinson at Appendix A (SCG) and Appendix B (SDG&E).

[1930] SCG/SDG&E OB at 473-505; Exs. 208, 209, and 210 SCG/SDG&E/Robinson.

[1931] SCG/SDG&E OB at 473-505. The Companies note that, since the time opening briefs were filed, on September 21, 2018, Senate Bill 901 was signed by the Governor. This bill amended Section 706 of the California Public Utilities Code to read:

> 706.
> (a) For purposes of this section, "compensation" means any annual salary, bonus, benefits, or other consideration of any value, paid to an officer of an electrical corporation or gas corporation.
> (b) An electrical corporation or gas corporation shall not recover expenses for compensation from ratepayers. Compensation shall be paid solely by shareholders of the electrical corporation or gas corporation.

SoCalGas and SDG&E understand that this law becomes effective on January 1, 2019. The Companies have not yet fully analyzed how the new Section 706 will impact this case, nor has any other party provided any substantive positions on the new Section 706. Therefore, the briefing below reflects the state of the record and the law as effective today. The Companies further note that they have each established a General Rate Case Memorandum Account (GRCMA) pursuant to ALJ Lirag's June 7, 2018, ruling, which will track all costs covered in this GRC as of January 1, 2019.

motivating and retaining a skilled, high-performing workforce. The TCS found SoCalGas' and SDG&E's total compensation to be in line with the competitive market, and is therefore reasonable.[1932]

32.1 Total Compensation Study

In their opening briefs, both ORA and TURN stated that they had no issues with the Companies' TCS.[1933] No party submitted testimony or took issue with SoCalGas' and SDG&E's total compensation study (TCS), conducted by Willis Towers Watson (WTW).[1934] As the Companies' OB states, the TCS evaluated SoCalGas' and SDG&E's total compensation relative to the external labor market, including a detailed analysis of "total compensation," which is defined as the aggregate value of annualized base pay, incentive compensation (short-term and long-term) and benefits programs.[1935] For short-term incentive compensation, both actual and target data were analyzed.

Although parties do not take issue with SoCalGas' and SDG&E's TCS, ORA's, TURN's and NDC's briefing arguments fail to take into account the TCS results showing that the Companies' total compensation meets the Commission's standard of compensation that is "at market" and therefore reasonable and recoverable in rates. In D.95-12-055, the Commission affirmatively stated that compensation levels that fall between plus or minus five percent of the relevant market are considered to be "at market" and reasonable.[1936] SDG&E's total compensation (defined as base salaries, short-term incentives, long-term incentives and benefits) is within 0.4% of market based on actual total compensation (using actual ICP) and target total compensation (using target ICP) is within 1.5% of market. SoCalGas' actual total compensation is within 0.7% of market and target total compensation is within 1.2% of market. Thus, for both SoCalGas and SDG&E, actual total compensation and target total compensation fall within both the competitive range of plus or minus ten percent that is widely used by compensation professionals and the range of plus or minus five percent cited by the Commission in D.95-12-

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1932 Ex. 208 SCG/SDG&E/Robinson at 5-8, Appendix A (SCG), and Appendix B (SDG&E).
1933 ORA OB at 395; TURN OB at 223.
1934 Ex. 208 SCG/SDG&E/Robinson at 5-8, Appendix A (SCG), and Appendix B (SDG&E).
1935 SCG/SDG&E OB at 476 (citing Ex. 208 SCG/SDG&E/Robinson at 6).
1936 D.95-12-055, 1995 Cal. PUC LEXIS 965 at *29-30.

055.[1937] Intervenor proposals that are inconsistent with this standard should be disregarded, as discussed further below.

32.2 Short-Term Incentive Compensation (ICP)

As in the Companies' OB, SoCalGas and SDG&E address parties' briefs regarding Non-Executive ICP and Executive ICP in combined sections below.

32.2.1 Non-Executive ICP

32.2.2 Executive ICP

32.2.3 SoCalGas' and SDG&E's Five-Year Average Forecasting Methodology Is Reasonable and Consistent with Commission Precedent.

ORA and TURN indicate that SoCalGas and SDG&E's ICP request in this case is based on a five-year average of their actual, historical costs, which ORA claims "should not be permitted."[1938] This position appears to be based on no other reason but that SoCalGas and SDG&E based their request on a lower, "target," forecasted amount in past cases. ORA and TURN can cite no authority for the premise that a utility request for full recovery of its actual, reasonable costs within market is somehow out of bounds. To the contrary, use of a historical average is a common, acceptable forecasting methodology in GRCs for many types of costs, as ORA's OB notes:

> The Commission has stated in prior decisions that there are a number of acceptable methods for forecasting test year costs. Several different methods can be, and have been, used to calculate test year expense estimates. These include"…linear trending, averaging (*e.g.*, *five year average of recorded expenses*), last recorded year, and budget based estimates."[1939]

Given that the TCS shows SoCalGas' and SDG&E's actual compensation forecast to be at market and reasonable, there is no basis for disputing the use of an average historical forecast.

SoCalGas and SDG&E have noted other GRCs where the forecasted short-term incentive compensation request was based on actual, rather than target forecasts. Southern California Edison Company (SCE) has a longstanding practice of requesting its actual forecast for short-term incentive pay (STIP) rather than target. SCE's TY 2015 GRC is one example, as TURN notes, but there are others, as discussed below. In SCE's 2015 GRC decision, the Commission

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[1937] Ex. 211 SDG&E/Robinson at 7-8.
[1938] ORA OB at 396.
[1939] *Id.* at 4 (citing D.12-11-051 at 13; D. 13-05-010 at 16) (emphasis added).

authorized STIP funding using a labor ratio (which was based on actual STIP costs) based on a six-year average.[1940] The Commission then reduced that amount by 10% based on STIP payout criteria.[1941] In GRCs where SCE did not use average historical costs to develop their forecast, they calculated a ratio of the actual (not target) plan cost divided by the recorded labor expense, which was then applied to the labor forecast for the GRC period. This approach was used in the 2009 and 2012 GRCs.[1942] And in its TY 2009 GRC, SCE used a five-year average (1999-2003) of the Results Sharing payout percentages to forecast program expenses for TY 2009.[1943] TURN is thus incorrect in stating that the Commission's use of a historical average in approving SCE's STIP forecast was specific to SCE's TY 2015 case and D.15-11-021.[1944]

32.2.4 SoCalGas' and SDG&E's Total Compensation is Reasonable and Therefore Should Be Recovered in Rates.

The Commission has recognized that a "utility is entitled to all of its reasonable costs and expenses."[1945] This is consistent with the United States Supreme Court standard for utility ratemaking as set forth in the seminal *Bluefield* and *Hope* cases.[1946] In short, the *Bluefield* and *Hope* standards provide that a utility is entitled to the opportunity to recover its reasonably incurred costs plus a reasonable rate of return.[1947] Just and reasonable rates reasonably apportion the cost of providing service to a utility's customers (decided in a GRC Phase 2), will allow the company to cover its operating and capital expenses (decided in a GRC Phase 1) and earn a fair return on its property devoted to public service (decided in cost of capital cases). And, as

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[1940] D.15-11-021 at 262.
[1941] *Id.* at 265.
[1942] *See* D.09-03-025; A.07-11-011, Ex. SCE-06, Vol. 2, 2009 General Rate Case, Human Resources (HR), Volume 2 – Total Compensation (November 2007) at 18; D.12-11-051 at 456.
[1943] *See* D.09-03-025; A.07-11-011, Ex. SCE-06, Vol. 2, 2009 General Rate Case, Human Resources (HR), Volume 2 – Total Compensation (November 2007) at 18.
[1944] TURN OB at 224.
[1945] D.03-02-035 at 6; *see also* D.14-08-011 at 31 ("[T]he basic principle [of ratemaking] is to establish a rate which will permit the utility to recover its cost and expenses plus a reasonable return on the value of the property devoted to public use[.]").
[1946] *Bluefield Waterworks & Improvement Co. v. Public Service Comm'n of W. Va.*, 262 U.S. 679, 690 (1923) ("Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service are unjust, unreasonable, and confiscatory, and their enforcement deprives the public utility company of its property in violation of the Fourteenth Amendment."); *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944) ("[I]t is important that there be *enough revenue not only for operating expenses but also for the capital costs of the business.*") (emphasis added); *see also Railroad Comm'n Cases*, 116 U.S. 307, 341 (1886) (state regulation of public utility rates may not be confiscatory or deny due process).
[1947] *Id.*

previously noted, the Commission allows for recovery of Compensation and Benefits expenses that are "at market," *i.e.*, within a five percent range of the relevant market.[1948]

ORA, TURN, and NDC all offer proposals that are inconsistent with these Commission decisions and legal standards. No party in this case disputes that SoCalGas' and SDG&E's total compensation, including actual ICP, is at market, as the WTW TCS shows. Instead, ORA, TURN, and NDC all choose to ignore the Commission's guidance considering compensation that falls between plus or minus five percent of the relevant market to be "at market" and reasonable. For example, with no citation to authority, NDC argues that "the Commission has always had the responsibility to determine not only if the *total amount* of compensation costs is reasonable, but how much *ratepayer funding* of the costs is reasonable."[1949] NDC offers no standard by which to measure the claimed difference, if any, and does not explain whether this statement is consistent with the Commission's recognition that "all … reasonable costs and expenses"[1950] are recoverable in rates.

As stated in direct and rebuttal testimony and in the Companies' OB,[1951] incentive compensation programs are an integral part of a reasonable and competitive total compensation package and, as such, should be treated no differently than base salary for cost recovery purposes. In past decisions (*e.g.*, D.92-12-057, D.04-07-022 and D.93-12-043), the Commission concluded that "incentive pay is part and parcel of the overall compensation scheme," and that "the allocation of total cash compensation between salaries and incentives should be left to each utility's discretion."[1952]

D.04-07-022 supported this result, quoting D.92-12-057 for the conclusion that it is "clear how the issue of incentive compensation programs should be handled."[1953] This point is further illustrated in D.04-07-022 for SCE:

> We also note that it would be within SCE's managerial discretion to offer all cash compensation to employees in the form of base pay instead of a mix of base pay and incentive pay. In the event SCE were to do so, we would not take issue with

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1948 *See* D.95-12-055.
1949 NDC OB at 40-41.
1950 D.03-02-035 at 6; *see also* D.14-08-011 at 31 ("[T]he basic principle [of ratemaking] is to establish a rate which will permit the utility to recover its cost and expenses plus a reasonable return on the value of the property devoted to public use[.]").
1951 Ex. 208 SCG/SDG&E/Robinson at 18-20; Ex. 211 SCG/SDG&E/Robinson at 10-13; SCG/SDG&E OB at 476-94.
1952 D.92-12-057 at 81 (quoting consensus report of workshops conducted by Commission staff).
1953 D.04-07-022 at 206 (quoting D.92-12-057 at 81).

> ratepayer funding of the resulting compensation as long as total compensation is reasonable. If total compensation does not exceed market levels, a disallowance of reasonable expenses for the Results Sharing program would in effect be a substitution of our judgment for that of SCE managers regarding the appropriate mix of base and incentive pay. That is the sort of micromanagement that the Commission rejected in D.92-12-057, and that we reject here.[1954]

TURN's OB[1955] takes issue with SoCalGas and SDG&E's use of dicta from the compensation section of D.08-07-046 that was later deleted,[1956] on grounds that the final decision in that case was the result of a settlement.[1957] This argument appears similar to one recently addressed in D.17-05-013, where the Commission rejected a TURN request to remove "confusing and inappropriate dicta" from a decision approving a settlement agreement.[1958] In TURN's view, the decision had "overreache[d] in apparently reaching the merits" of the settled issue.[1959] In rejecting TURN's requested deletion, the Commission generally noted that review of a settlement agreement requires review of the record of the proceeding, analysis based on the record, and a decision on the record.[1960] To the extent TURN objected to the Commission's analysis in approving the settlement agreement, the Commission noted that its decisions do not operate as binding precedent:

> As TURN surely knows, the actions of previous Commissions are not binding on the present Commission, and if this Commission finds it necessary to examine budget-based forecasts in order to reach a finding on the reasonableness of a Settlement Agreement to which TURN is a signatory, it will do so, and TURN has no real basis for objecting to the means found necessary by the Commission to reach its decision.[1961]

Similarly, the Companies believe the language is not "misleading," because it is not binding precedent under the best of circumstances; moreover, the Companies have identified exactly what it is.[1962] As Ms. Robinson has noted, the premise in the quoted dicta remains the same, and the language is supported in other cited decisions and case law.

[1954] D.04-07-022 at 217.
[1955] TURN OB at 226.
[1956] Ex. 208 SCG/SDG&E/Robinson at 19 (citing D.09-06-052, Ordering Paragraph (OP) 2.m.).
[1957] Ex. 208 SCG/SDG&E/Robinson at 19 (citing D.09-06-052 at 13, n.22; *see also* D.09-06-052 at 14.).
[1958] D.17-05-013 at 233.
[1959] *Id.* at 233-234.
[1960] *Id.* at 235 (stating "This analysis is required by law" and citing P.U. Code § 1701.1(e)(8): "The commission shall render its decisions based on the law and on the evidence in the record.").
[1961] *Id.* at 237.
[1962] Ex. 208 SCG/SDG&E/Robinson at 19 ("[a]lthough the compensation section of D.08-07-046 was later deleted… the premise in the above quotes remains the same.").

Conversely, it is misleading for TURN to argue that the Commission's discussion of SCE's "Results Sharing" performance-based ratemaking (PBR) mechanism in its TY 2006 GRC in any way fairly represents how the Commission has treated or should treat incentive compensation in this case. TURN's argument that it is "normal practice" for the Commission to "disallow[] 50% of short-term incentives from rates" is belied by its cited pages 125 and 126 of D.06-05-016,[1963] which describe Commission staff's recommendation not to fund SCE's TY 2006 Results Sharing Incentive Program, in part, because the data was compromised by years of under-reporting safety incidents, falsifying data, and fraud. The Commission disallowed 50% of short-term executive incentive compensation in that case, citing its Results Sharing discussion,[1964] refunded tens of millions in rewards, and ordered a fine of $30 million.[1965] TURN's reference to this case as representing "normal" Commission practice is misleading, for that reason.

TURN also misleads in claiming "twenty years of precedent" of Commission disallowance of short-term incentive compensation linked to financial performance.[1966] The 1986 decision TURN cites in support of this statement occurred prior to a Commission workshop on incentive pay and decisions such as D.92-12-057, D.04-07-022 and D.93-12-043, where the Commission concluded that "incentive pay is part and parcel of the overall compensation scheme," and that "the allocation of total cash compensation between salaries and incentives should be left to each utility's discretion;"[1967] and decisions such as D.95-12-055, where the Commission affirmatively stated that compensation levels that fall within five percent of the relevant market are considered to be "at market" and reasonable.[1968]

Viewed in this light, TURN's contention that D.92-12-057, D.04-07-022 and D.08-07-046 are "anomalies based on particulars of the cases" strains credulity. And although it is true that the Commission did not allow full recovery of the Companies' short-term incentive costs in their TY 2012 case, it is important to note that the record in that case reflected a severe economic

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1963 TURN OB at 228.
1964 D.06-05-016 at 142-143.
1965 D.09-03-025 at 129-130; *see also* D.06-05-016 at 124-132.
1966 TURN OB at 229 (citing D.86-12-095).
1967 D.92-12-057 at 81 (quoting consensus report of workshops conducted by Commission staff).
1968 D.95-12-055, 1995 Cal. PUC LEXIS 965 at *33.

downturn that is not present at the current time.[1969] It is also important to note that in D.13-05-010, the Commission did not evaluate the merits of each individual performance metric as TURN, ORA and NDC have attempted to do in this GRC.

The record in this case also differs because, as Ms. Robinson testified, both SoCalGas and SDG&E have increased the emphasis on employee and operational safety measures in their ICP plans to provide even stronger alignment between SoCalGas' and SDG&E's safety programs and their ICP, as discussed further below. As the Commission stated in the Companies' TY 2016 GRC:

> One of the leading indicators of a safety culture is whether the governance of a company utilizes any compensation, benefits or incentive to promote safety and hold employees accountable for the company's safety record.[1970]

SoCalGas and SDG&E responded to this Commission guidance accordingly, as discussed below.

32.2.5 ICP Performance Goals Benefit Customers and the Community

The SoCalGas and SDG&E ICP plans include a company performance component, which trains employee focus on the achievement of company goals related to safety, reliability, customer satisfaction, and financial health.[1971] In addition, the non-executive plans include an individual performance component, which is based on the employee's contributions toward these company goals and their achievement of their individual performance objectives.

ORA, TURN and NDC base their recommendations for ICP recovery on their evaluations of the perceived benefits of each performance measure to ratepayers and shareholders. The differences in their recommendations, as well as differences in ORA's recommendations from one rate case to the next, demonstrate that attempting to allocate incentive compensation funding between ratepayers and shareholders based on each party's retroactive, subjective assessment of the perceived benefits to ratepayers is unreasonable.

As discussed below, ratepayers benefits from all of these performance measures working together to promote safe, reliable, customer-focused operations while maintaining a financially strong utility.

[1969] *See, e.g.,* D.13-05-010 at 866 (discussing the total compensation study in light of the economic condition of ratepayers and local and state government cut-backs).

[1970] D.16-06-054 at 153.

[1971] Ex. 211 SCG/SDG&E/Robinson at 13.

Safety performance measures

ORA and TURN do not dispute that ICP measures related to safety benefit ratepayers. ORA and TURN contend, however, that strong safety performance also benefits shareholders and, therefore, shareholders should fund a portion of ICP.[1972] ORA recommends that ratepayers and shareholders each fund 50% of the portion of ICP-related to safety goals. TURN recommends that ratepayers fund 90% and shareholders fund 10%. ORA explains the rationale for its 50% funding recommendation for SoCalGas' and SDG&E's ICP safety goals:

> …because both ratepayers and shareholders may both benefit from employees being motivated to meet safety, operational and strategic business goals, the remaining portion of ICP should be shared equally.[1973]

There is no basis for ORA's and TURN's suggestion that reasonable safety-related business expenses should be divided between shareholders and ratepayers. In fact, it is inconsistent with basic ratemaking principles, as stated by the Commission:

> [T]he basic principle [of ratemaking] is to establish a rate which will permit the utility to recover its cost and expenses plus a reasonable return on the value of the property devoted to public use[.][1974]

Because ICP is part of a competitive and reasonable total compensation package, it is a reasonable cost of service and should be fully recoverable. The fact that the interests of ratepayers and shareholders are aligned should not trigger a reduction in ratepayer funding.[1975]

ORA's recommendation of 50% funding for safety measures is a departure from its recommendation of 100% funding for safety measures in SCE's short-term incentive plan in SCE's 2018 GRC:[1976]

> ORA recommends ratepayers fund the portions of STIP associated with safety, customer relationships and operational excellence, and "Grid of the future" because these goals have the ability to benefit ratepayers.[1977]

In its brief, ORA contends that "each case is decided on its own merit and does not does not directly influence another case unless the facts and circumstances are similar to warrant

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[1972] *Id.* at 17 (summarizing Ex. 417 ORA/Hunter and Ex. 494 TURN/Marcus).
[1973] Ex. 417 ORA/Hunter at 10.
[1974] D.14-08-011 at 31; *see also* D.03-02-035 at 6.
[1975] Ex. 211 SCG/SDG&E/Robinson at 17-18.
[1976] A.16-09-001, Ex. ORA-15, Prepared Direct Testimony of Stacey Hunter, Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2018, Human Resources Expenses, Benefits and Other Compensation (April 7, 2017) at 9, Table 15-5.
[1977] A.16-09-001, Opening Brief of The Office of Ratepayer Advocates (September 8, 2017) at 195.

similar treatment. In this case, Sempra provided no basis to determine or support that it should be afforded the same percentage as SCE."[1978] However, in ORA-15 of A.16-09-001, ORA's funding recommendation was across broad categories of goals and ORA's testimony did not address the merits of specific goals: "ORA recommends that ratepayers fund the portions of STIP associated with safety, customer relationships and operational excellence, and "Grid of the future" because these goals have the ability to benefit ratepayers."[1979] Moreover, even when the same performance measures are used, ORA's recommendations differ. For instance, in this GRC ORA is recommending 50% funding for SAIDI. In PG&E's 2017 GRC, ORA recommends 100% recovery for the SAIDI performance measure.[1980]

In addition, conditioning the funding for incentive programs on ORA's and the intervenors' retroactive and subjective assessment of the merits of each individual ICP performance measure constitutes micromanagement of the incentive plan design.[1981] The Commission has declined to manage the performance goals in incentive plans. In SoCalGas' and SDG&E's 2012 GRC decision, the Commission concluded:

> With respect to the argument of TURN and UCAN that the metrics for the ICPs of SDG&E and SoCalGas should be revised, we do not adopt that suggestion. SDG&E and SoCalGas are in the best position to decide what metrics to use to measure the performance of its employees, and to revise the metrics as UCAN has suggested would result in the Commission's micromanaging of the Applicants' variable compensation.[1982]

NDC recommends zero funding for SoCalGas' and SDG&E's Executive ICP. NDC takes issue with the weighting of the safety measures compared to the weighting of the financial measures.[1983] Although employee safety and public safety-related operational measures are weighted at 50% of the total Executive ICP and financial measures are weighted at 35%, because there are more safety measures than financial measures, the weight of specific, individual safety measures is, in some instances, greater than the weight of specific, individual financial measures.

[1978] ORA OB at 397-398.
[1979] A.16-09-001, Ex. ORA-15, Prepared Direct Testimony of Stacey Hunter, Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2018, Human Resources Expenses, Benefits and Other Compensation (April 7, 2017) at 10.
[1980] A.15-09-001, Ex. ORA-16, Office of Ratepayer Advocates, Report on the Results of Operations for Pacific Gas and Electric Company Test Year 2017 General Rate Case, Human Resources Costs (dated April 8, 2016) at 10.
[1981] Ex. 211 SCG/SDG&E/Robinson at 18.
[1982] D.13-05-010 at 882.
[1983] Ex. 211 SCG/SDG&E/Robinson at 18 (summarizing Ex. 437 NDC/Bautista).

NDC also contends that certain measures provide more of a financial benefit than a safety benefit.

SoCalGas and SDG&E strongly disagree with NDC. SoCalGas and SDG&E include several safety measures in the ICP in order to focus employees on multiple aspects of employee safety and public safety-related operational performance. To achieve a full payout, SoCalGas and SDG&E must deliver strong performance on all fronts. Safety measures are the largest component of the Company Performance component of the Non-Executive ICP and Executive ICP. The overall weighing of the safety measures in the Non-Executive ICP is more than triple the overall weighting of the financial measures.

NDC and OSA argue that some safety measures are not primarily related to safety. SoCalGas and SDG&E disagree with this view. All of the safety measures of ICP are designed to promote safe operations.[1984] Some of these measures also confer benefits such as promoting reliability, reducing operating costs or improving customer service. Notably, OSA and NDC offer no suggestions for what safety-related ICP measures they would recommend adopting instead. OSA's and NDC's criticisms reflect a subjective lack of understanding of the auditable, measurable, safe practices reflected in the Companies' plans.

For example, one of the measures criticized by NDC and OSA is SoCalGas' Incomplete Orders Reduction measure.[1985] This measure focuses on reducing the number of repeat visits by Customer Service Field (CS-F) employees by reducing incomplete orders. NDC's and OSA's arguments appear not to recognize that CS-F technicians are trained to always check for unsafe or hazardous conditions in all the work they do. CS-F technicians perform various customer and company generated work at customer premises. The most common reason a field technician is unable to complete the work (*i.e.*, incomplete order) is due to access issues, *e.g.*, customers are not home, locked gates, and unrestrained dogs. This impacts safety because CS-F technicians perform safety-related work at customers' premises. For example, CS-F technicians need access to the meter set assembly (MSA) to perform work necessary to maintain company facilities such as remediating corrosion and correcting abnormal operating conditions at the MSA. Additionally, CS-F technicians provide appliance service for customers, and part of this process includes performing safety checks for unsafe or unsatisfactory conditions. CS-F

[1984] *Id.* at 18-19.
[1985] *Id.* at 19.

technicians check for gas leaks, proper venting operation and other safety-related items to ensure the appliance is safe to use. When necessary, CS-F technicians will issue safety notices and remove unsafe appliances from service. The incomplete order reduction measure is focused on completing the work on the first visit, and as demonstrated in the examples above, thereby promotes safety.

OSA contends that goals such as SAIDI and Worst Circuit do not promote safe operations and may actually be in conflict with safety performance. SDG&E disagrees with OSA's view. Minimizing the frequency and duration of outages helps to promote operational safety. Areas of direct overlap between public safety and reliability include tracking around employee and customer contacts, wire down tracking, vehicle contacts, dig-ins, heavy equipment contacts, and foreign object contacts. There are real impacts to critical infrastructure when power is lost. Emergency services infrastructure may be knocked out. Additionally, outages may be associated with power loss at hospitals, loss of water pressure and sewage backup, and loss of traffic controls. On an individual customer level, customers may lose the ability to power medical equipment, communication tools, and charging infrastructure for electric vehicles.[1986]

As noted *supra* in section 5.2 (Safety Policy), by recognizing only ICP "employee safety measures" as those related to safety, OSA's Opening Brief argument ironically seems to imply that OSA does not recognize process/operational safety-related ICP goals (*e.g.*, goals related to reduced wires-down, dig-ins, and foreign object contacts) as providing a benefit to customers, the public, and the electric and gas systems.[1987] OSA's argument that such goals may negatively impact safety could be valid if SAIDI and Worst Circuit were the only performance measures. However, this is not the case. Evaluating each individual safety measure in isolation ignores the fact that the mix of ICP performance measures are designed to provide balance in promoting the provision of safe, reliable, cost-effective service to SoCalGas and SDG&E customers.[1988]

As discussed above, the mix of ICP goals provides balance and discourages focus on one goal to the detriment of other aspects of safety.[1989] SDG&E's ICP also includes employee safety goals such as Lost Time Incident and Zero Employee Electric Contacts. The benefit of capturing ICP goals such as these is to ensure accountability associated with employee safety at all levels.

1986 *Id.* at 20.
1987 *See* OSA OB at 26-27.
1988 Ex. 211 SCG/SDG&E/Robinson at 18-20.
1989 *Id.*

These goals also help measure our efforts toward continuous improvement. This mix of goals helps to ensure we have a holistic approach to safety, which includes not only our employees, but also the customers who live in the communities that we serve. No one component comes at the detriment of employee or public safety.

Customer and supplier diversity performance measures

ORA opposes ratepayer funding for both SoCalGas' and SDG&E's customer service and supplier diversity metrics because ORA does not believe the measures benefit ratepayers. The 2017 SoCalGas and SDG&E ICP customer service and supplier diversity ICP performance measures and an overview of the ratepayer benefits are discussed below:[1990]

- Customer Connection Survey (SDG&E only): Measures quality of service for customers who have transacted with SDG&E during the year.
  - SDG&E disagrees with ORA's assertion that the metric that measures quality of service to customers does not provide benefit to ratepayers. The Customer Connections Survey is not a measurement of overall perceptions of the Company, which may be influenced by advertising. Rather, it measures Company employees' performance in providing direct service or transactional interactions with customers, such as customer impressions with calls with Energy Service Specialists and onsite visits by field employees. Customers are asked to rate the overall quality of service they received during their most recent experience with the Company. This is an important measure to encourage employees to continue to strive toward excellence in their engagement with customers and work to positively impact the customer's experience.
- Overall self-service (SDG&E only): Measures the percentage of customers who are able to complete their service request using the web or Interactive Voice Response (IVR) system.[1991]
  - SDG&E strongly disagrees with ORA's statement that the Customer Service metric for self-service does not provide "actual benefit to ratepayers." Increasing the self-service benefits SDG&E's customers in several ways:

    1. Self-service improves customer satisfaction by providing them with automated, 24/7 service when they want it, with no wait time and faster service.
    2. Self-service provides customers with more options for service and through multiple channels including phone, mobile, and web.

[1990] *Id.*
[1991] *Id.* at 21.

3. Self-service reduces the overall cost of service by reducing the staffing needed to perform the same function. An example of this financial benefit to ratepayers can be found in the Direct Testimony of Jerry Stewart.[1992] Labor savings are passed on to ratepayers during the GRC proceeding.

SDG&E customers are demanding more choices and self-service options. SDG&E is committed to creating more benefits for its customers by increasing its capabilities. Since 2012, the following options were added to increase self-service: (1) start/stop service via SDGE.com, (2) schedule gas turn-on after house fumigation via IVR, (3) restart service after service disconnect via IVR, and (4) report/check outages via SDGE.com. In addition, SDG&E continuously improves the self-service menus on IVR, and self-service navigation on Web and My Account to enhance customers' self-service experience.[1993]

- Customer Insight Study (CIS) (SoCalGas only): Measures customers' perception of SoCalGas. The ICP goal relates to the percentage of favorable ratings from residential customers.
  - The CIS measurement provides SoCalGas with a way to better understand what is important to its customers. Areas affecting the reputation metric include trust, value for what customers pay, value of customer service received, and ease of doing business with and responsiveness to customers' needs. It allows SoCalGas to identify improvement opportunities with its communications related to safety, and assess any gaps between customer need and preference and the customer experience, products and services SoCalGas offers.
- Paperless Billing Increase (SoCalGas only): Focuses on increasing the percentage of customer accounts billed electronically (not receiving a paper bill).[1994]
  - The SoCalGas Paperless Billing performance measure benefits ratepayers by providing a convenient, online bill payment option for our customers and reducing SoCalGas' operational costs. Online paperless billing provides SoCalGas' customers with the ability to schedule payments (including automatic payments), receive email reminders, and avoid postage costs. The convenience, postage cost savings, and environmental benefits make online paperless billing an attractive payment option that customers have come to expect from service providers and merchants. In addition, online paperless billing reduces costs to ratepayers. For every customer that converts from paper to electronic billing, ratepayers save $4.56 per year. Including this as an ICP measure challenges employees to work together to promote paperless billing to customers through creative ideas as well as through encouraging friends and family to convert to

[1992] *Id.* (citing Ex. 146 SDG&E/Stewart at 39).
[1993] *Id.*
[1994] *Id.* at 22.

electronic billing. In 2017, SoCalGas had 2,467,725 paperless customers which saved ratepayers $11,238,126, which otherwise would have been included in rates. *The cost savings from achieving additional increases in the number of customers using paperless billing are included in SoCalGas' TY 2019 GRC forecast*, as discussed in the revised direct testimony of Michael Baldwin.[1995]

- Supplier Diversity: Measures the Diverse Business Enterprise spend as a percentage of overall spend.
    - SoCalGas and SDG&E each submit an annual report and plan to the CPUC, due on March 1, as part of the requirements of General Order 156.[1996] Within these reports, the utilities provide a detailed breakdown by diverse business groups capturing the dollars spent, number of diverse suppliers, and percentage of spend.[1997] Within the last 5 years, SDG&E and SoCalGas have initiated Supplier Diversity Champion and Ambassador programs with the primary purpose of developing a supplier diversity strategy and identifying sourcing opportunities to incorporate diverse suppliers with the supply chain for products and services procured within their respective organizations. SDG&E and SoCalGas have more than 185 employees who served as supplier diversity champions and ambassadors that help firms connect with business opportunities. Additionally, these employees who are key decision makers provide guidance and mentoring to help suppliers grow their business.

Financial performance measures

As previously mentioned, the Commission declined to micromanage SoCalGas' and SDG&E's ICP metrics in the TY 2012 GRC, rejecting arguments that short-term incentive compensation should not be funded unless metrics are changed.[1998] ORA and TURN's similar arguments against financial metrics should be rejected in this case as well.[1999] And, as previously noted, it is misleading for TURN to claim "twenty years of precedent" of Commission disallowance of short-term incentive compensation linked to financial performance,[2000] when the 1986 decision TURN cites in support of this statement occurred prior

[1995] Ex. 130 SCG/Baldwin.

[1996] Ex. 211 SCG/SDG&E/Robinson at 23 (citing CPUC G.O. 156, Rules Governing the Development of Programs to Increase Participation of Women, Minority, Disabled Veteran and Lesbian, Gay, Bisexual, and Transgender (LGBT) Business Enterprises in Procurement of Contracts from Utilities as Required by Public Utilities Code Sections 8281-8286).

[1997] *Id.* (citing San Diego Gas & Electric Company, *Supplier Diversity, Diverse Business Enterprises, 2017 Annual Report, 2018 Annual Plan* (March 1, 2018)).

[1998] D.13-05-010 at 882.

[1999] Ex. 211 SCG/SDG&E/Robinson at 23.

[2000] TURN OB at 229 (citing D.86-12-095).

to a Commission workshop on incentive pay and decisions such as D.92-12-057, D.95-12-005, D.04-07-022 and D.93-12-043.

ORA and TURN are incorrect to assume that strong utility financial performance does not benefit ratepayers, as the Commission has correctly (and more recently) stated:

> The financial metric may benefit ratepayers as a result of the companies' lower borrowing costs.[2001] …[A] financially strong company usually has lower borrowing costs, which benefits ratepayers by lowering costs.[2002]

The linkage between utility financing costs and benefits to ratepayers was also discussed by Commissioner Ferron in his comments at an October 3, 2013, investor meeting:

> This reduction in risk has led to a direct reduction in the cost of financing capital for the utility sector in California. If you do the math, the reduction in the risk premium – the reduction in the incremental cost of capital to our utilities – when applied to the balance sheet of our utilities, is equal to several hundred million dollars every year in direct savings to rate-paying customers. In short, the ratepayer is ultimately the direct benefactor of this Commission making decisions that improve the investment climate in California.[2003]

In the District of Columbia Public Utilities Commission's 2013 decision regarding short-term incentive pay (in that case, "STIP") for Washington Gas Light Company, the commission stated:

> We have not set as a requirement for STIP that each and every goal within an incentive plan must only benefit ratepayers. We recognize that a financially healthy utility company that provides quality service is beneficial to ratepayers and shareholders alike. As long as the STIP is structured to provide significant benefits to ratepayers, it can also contain a financial performance goal that benefits shareholders. For that reason, we decline to accept OPC's recommendation to reduce the STIP cost recovery by one-sixth because of the existence of the return on equity goal.[2004]
>
> Consequently, we approve the Company's adjustment that increased test year expenses by $809,883 to fund the Company's at-risk STIP.[2005]

[2001] D.13-05-010 at 882.
[2002] *Id.* at 883.
[2003] Ex. 211 SCG/SDG&E/Robinson at 24 (quoting CPUC Commissioner Reports at Voting Meetings, Commissioner Ferron's Report at CPUC Voting Meeting on Meetings with Investors (October 3, 2013) at 1, *available at* http://cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/About_Us/Organization/Former_Commissioners/Peevey(1)/News_and_Announcements/CommissionerFerronsReportonMeetingswithUtilityInvestorsOctober32013.pdf.).
[2004] 2013 D.C. PUC LEXIS 103 at *206.
[2005] *Id*. at *206-207.

In the 2012 decision by the Florida Public Utilities Commission for Gulf Power Company regarding short-term incentive pay (in that case, "PPP"), the commission stated:

> We recognize that the financial incentives that Gulf employs as part of its incentive compensation plans may benefit ratepayers if they result in Gulf having a healthy financial position that allows the Company to raise funds at a lower cost than it otherwise could.[2006]
>
> We find that the short-term incentive compensation test year amounts related to the PPP shall be included in O&M expense.[2007]

The Colorado Public Utilities Commission has also authorized the inclusion of financial incentives in Black Hills/Colorado Electric Utility, LP's revenue requirement. Black Hills argued that "customers directly benefit when they are being served by a financially secure utility that is able to meet their needs efficiently and economically" and the commission agreed that the incentive compensation tied to financial goals "represent[ed] a reasonable amount that directly benefits [Black Hills'] customers."[2008] More recently, the Colorado Public Utilities Commission reaffirmed their position to include financial incentive compensation in revenue requirements. Black Hills offers equity compensation to employees in the form of stocks and argues that ratepayers "directly benefit from the employee's activities that are being compensated which are directed towards providing safe, reliable and efficient electric service."[2009] Moreover, they argued that "there [had] been no showing that the overall level of compensation [was] excessive, compared to similarly situated utilities."[2010] While the commission recognized that there was shareholder benefit, they also agreed with Black Hills that the "expense represents a reasonable amount that directly benefits [Black Hills'] customers" and as such, equity compensation benefits should be included in the test period.[2011]

The Indiana Utility Regulatory Commission also "recognizes the value of incentive compensation plans as part of an overall compensation package to attract and retain qualified personnel."[2012] They have well-established criteria for the recovery of incentive compensation

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[2006] 2012 Fla. PUC LEXIS 233 at *253.
[2007] *Id.*
[2008] 2011 Colo. PUC LEXIS 1285 at *67-68.
[2009] 2014 Colo. PUC LEXIS 1508 at *138.
[2010] *Id*. at *139.
[2011] *Id*. at *141.
[2012] 2012 Ind. PUC LEXIS 178 at *195

plan costs in rates when "the incentive compensation plan is not a pure profit-sharing plan, but rather incorporates operational as well as financial performance goals…"[2013]

Corporate Center allocations should be evaluated based on whether the amount allocated to the utilities is reasonable.

TURN takes issue with the design of the Corporate Center ICP and recommends no funding for performance measures related to Sempra Energy's financial performance or, in the case of the Executive ICP for senior corporate officers, performance measures related to non-regulated businesses. A portion of Corporate Center compensation and benefits costs, including Corporate Center ICP costs, is allocated to SoCalGas and SDG&E to cover the costs of the services provided to the utilities by Corporate Center. Corporate Center allocations are included in the revised direct testimony of Mia DeMontigny.[2014] SoCalGas and SDG&E strongly disagree with TURN's approach.[2015] While Corporate Center employees are not employees of SoCalGas and SDG&E, they do provide services to Sempra Energy business units and their ICP is designed to be broad enough to capture performance across all businesses.

Recovery of Corporate Center allocations, including allocations for Corporate Center ICP, should be based only on whether the allocation methodology and allocation amounts are reasonable.[2016] The performance measures of the Corporate Center ICP are not relevant. Allocation methodologies and percentages (percent of a given cost allocated to each utility) are covered in Ms. DeMontigny's testimony. The remaining variable impacting the allocation amount is the compensation level for Corporate Center employees. Corporate Center jobs were included in the SoCalGas and SDG&E Total Compensation Study. The Total Compensation Study determined that total compensation, including an allocation of costs for Corporate Center jobs, was in line with the market. Actual total compensation (defined as base salaries, short-term incentives, long-term incentives and benefits) is within 0.7% and 0.4% of market for SoCalGas and SDG&E, respectively, including Corporate Center.[2017]

[2013] *Id*. at *196. *See also* 2011 Ind. PUC LEXIS 115 at *149-151 (finding that incentive compensation programs that included financial goals as well as operation and individual goals incent employees to aid the utility in improving its capabilities and service through increased efficiency and reliability.).

[2014] Ex. 315 SCG/SDG&E/DeMontigny.

[2015] Ex. 211 SCG/SDG&E/Robinson at 26.

[2016] *Id.*

[2017] *Id.* at 26-27.

Recognition Programs – Spot Cash

SoCalGas and SDG&E use special recognition awards to reward individual employees and teams for outstanding achievements, exceptional customer service, and process improvements and innovations.[2018] Recognition awards, which may be financial or non-financial, are a key means of recognizing and rewarding high-performing employees and teams.[2019]

SoCalGas and SDG&E's Spot Cash award forecast is based on a five-year historical average.[2020] TURN does not take issue with SoCalGas and SDG&E's forecast for Spot Cash awards.[2021] ORA's OB argues for funding of Spot Cash based on costs for 2016, the lowest year in the five-year period. As the Companies' OB and rebuttal testimony states, a five-year average is more appropriate for costs in this area, because costs vary from year to year.[2022] ORA's suggestion to "cherry-pick" the lowest year of the five-year period is unwarranted and should be rejected.

In its OB, ORA argues that it "is not cherry picking but finds that the five-year average does not reasonably reflect the current trend."[2023] Further, "[t]he Company was able to reduce its award of spot cash in 2016, which demonstrates that it will be able to reward employees in the future at the 2016 level."[2024] Again, this argument suggests that ORA has simply picked the lowest year to deem reasonable; moreover, one data point does not represent a "trend."

Ms. Robinson's testimony demonstrates that Spot Cash awards based on a five-year historical average are reasonable because they are expected to remain flat, and because amounts shown for 2016 actual exclude $3.34 million in overtime costs related to the Aliso Canyon Storage Facility gas leak incident. SoCalGas' and SDG&E's forecast based on a five-year historical average is thus reasonable and warranted and should be approved.

Employee Recognition

The Companies forecasted their employee recognition awards based on the budgeted amount of $75 per employee, resulting in a TY 2019 cost of $646K for SoCalGas and $339K for

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2018 Ex. 208 SCG/SDG&E/Robinson at 22.
2019 *Id.* at 23.
2020 SCG/SDG&E OB at 494-495.
2021 TURN OB at 243.
2022 SCG/SDG&E OB at 495 (citing Ex. 211 SCG/SDG&E/Robinson at 27).
2023 ORA OB at 400.
2024 *Id.*

SDG&E.[2025] ORA's OB argues for funding based on 2016 costs, resulting in $99K for SoCalGas and $86K for SDG&E.[2026] ORA offers no rationale for its methodology, arguing simply that "a zero-based forecast is not appropriate when its result would be unreasonable," and "[t]he base year of 2016 demonstrates that the company was able to award similar or lower amounts than its three-year average,"[2027] thus suggesting that the lowest amount is always the most reasonable. TURN recommends funding based on a three-year per-employee historical average, resulting in $92K for SoCalGas and $119K for SDG&E.[2028]

SoCalGas and SDG&E reiterate that a zero-based forecast based on a $75 per-employee budget amount for this program is the most appropriate forecasting methodology. If the Commission were to adopt funding based on an historical average, it would be more appropriate to use a five-year average, similar to Spot Cash.

32.3 Long-Term Incentive PAY (LTIP)

ORA and TURN recommend disallowing 100 percent of Long-Term Incentive Plan (LTIP) expenses, arguing that these incentives only benefit executives and shareholders. Yet ORA and TURN's characterization of LTIP is inaccurate.

For SoCalGas and SDG&E, a strong, stable, leadership team is essential to delivering safe, reliable service to customers while maintaining efficient, financial sound operations.[2029] Long-term incentives are a critical component of a competitive compensation and benefits package that attracts, motivates, and retains these executives and key management employees.[2030] These incentives make up 11 to 51 percent of total target compensation (which includes base pay, short-term incentives, and long-term incentives) for key management and executive employees. LTIP's three-year performance period makes it a particularly important retention tool. Without long-term incentives, compensation for executive and other senior management employees would be significantly below market.

ORA's cite to the Commission adopting the 2016 GRC settlement that did not include LTIP funding is inapt – because this compromise does not serve as precedent.[2031] Nor is TURN

[2025] SCG/SDG&E OB at 495.
[2026] ORA OB at 400.
[2027] *Id*.
[2028] TURN OB at 243-244.
[2029] Ex. 208 SCG/SDG&E/Robinson at 20.
[2030] *Id.* at 27.
[2031] D.16-06-054.

correct that these benefits are solely tied to financial performance.[2032] Awards also include a service-based component designed to promote retention. Although the Commission declined to allow LTIP in the Companies' 2013 GRC, the Commission acknowledged LTIP's benefit to ratepayers – in the form of a strong workforce and a financially strong company. The Commission further indicated that its decision to not allow LTIP funding was partly based on 2013's economic conditions. This suggests that a different result with the currently improved economic climate could be appropriate now.[2033] Like ICP, long-term incentives are part of a reasonable, competitive total compensation package and should be recoverable.

32.4 Health and Welfare Benefits

ORA and TURN do not object to the Companies' forecasts for dental, vision, accidental death and dismemberment, business travel, or life insurance. The Commission should adopt SoCalGas' and SDG&E's medical, wellness, and mental and substance abuse forecasts, based upon WTW's more precise medical escalation rate and productivity benefits from the programs.

32.4.1 Medical

The parties' differing medical forecasts stem from disagreements over the appropriate medical escalation rate. ORA recommends a medical escalation rate of 4.25 percent for 2018 through 2022.[2034] TURN applies a different medical escalation rate; 6.0 percent for 2018 and 2019.[2035] By contrast, SoCalGas and SDG&E recommend using an escalation rate of 8.0% for 2018 and 7.0% for 2019 and post-test year escalation rates of 6.5% for 2020, 6.0% for 2021, and 5.5% for 2022,

The Companies' medical escalation rate comes from WTW's independent study. ORA and TURN rely upon generalized national studies. By contrast, WTW's medical escalation forecast is the most accurate because it is based upon specific factors that impact health care costs for SoCalGas and SDG&E:

- **Location:** WTW's forecast is based upon the local Southern California health care market, which most accurately determines the Companies' relevant costs, as opposed to national trends;

[2032] TURN OB at 242.
[2033] D.13-05-018 at 883-884.
[2034] ORA OB at 402-403.
[2035] TURN OB at 245-248.

- **Workforce Demographics:** WTW survey incorporates the fact that the Companies' enrolled employees are slightly order, with slightly larger families, then general national demographic averages; and
- **Type of Plans:** WTW based its projections on the fact that a majority of the Companies' enrolled members are in capitated HMO plans and so will not benefit from the national health care market increasingly featuring innovative provider payments programs that mitigate future employer plan cost increases.[2036]

Further, both ORA and TURN ignore the Companies' Update Testimony. There, the Companies applied actual 2018 and preliminary 2019 medical rates, net of employee contributions, to update the medical forecasts. The updated 2019 medical cost forecast is $94.3M for SoCalGas (a decrease of $1.7M compared to original forecast in Direct testimony) and $55.8M for SDG&E (a decrease of $0.4M compared to original forecast in Direct testimony).[2037] The Companies' medical forecasts should thus be adopted.

32.4.2 Wellness

Although TURN does not challenge the Companies' Wellness costs, ORA recommends zero funding for the program, contending that many Wellness services are provided by the Companies' medical plans.[2038] Yet ORA's argument ignores that, by having onsite programs that increase participation, these Wellness programs improve employee health outcomes. This, in turn, lowers ratepayer-funded employee health care costs and increases the Companies' productivity. For example:

- Onsite flu vaccinations encourage a high vaccination rate, a cost-effective means of decreasing illness-related time off and the associated impact on productivity;
- Onsite health screenings facilitate early detection and intervention, reducing disease progression and the need for more expensive, emergency treatment; and
- Onsite weight management and fitness programs reduce long-term medical costs associated with obesity.[2039]

Wellness programs also combine with safety programs to promote a culture of wellbeing. SoCalGas and SDG&E believe that supporting a healthy workforce is a critical part of being responsible employers.

[2036] *See* SCG/SDG&E OB at 499-500.
[2037] *Id.* at 498.
[2038] ORA OB at 408-409.
[2039] SCG/SDG&E OB at 500-501.

32.4.3 Employee Assistance Program (EAP) and Mental Health and Substance Abuse

ORA and TURN do not take issue with EAP costs. Nor does TURN challenge the Companies' Mental Health and Substance Abuse cost forecast.

The dispute between the Companies and ORA over the mental health and substance abuse program is based on their disagreement over the appropriate medical plan escalation rate to apply to the program.[2040] As discussed, SoCalGas and SDG&E recommended escalation rate, based on WTW forecast, should be used, as it most specifically addresses issues related to SoCalGas and SDG&E's health care costs.[2041] The Companies' Mental Health and Substance Abuse forecast should therefore be adopted.

32.5 Retirement Benefits

ORA and TURN do not take issue with the Retirement Savings Plan forecast. The Companies' forecast for nonqualified retirement savings plans and supplemental pensions should be adopted, for the reasons outlined below.

32.5.1 Nonqualified Retirement Savings Plan

ORA and TURN offer differing recommendations for nonqualified retirement savings plans. The Companies disagree with both. Although ORA acknowledges that the Commission has previously granted companies 50 percent ratepayer funding for their Nonqualified Retirement Savings Plan expenses, ORA recommends zero funding.[2042] ORA relies upon the 2018 Sempra Energy proxy statement, claiming that it " shows that the top five executive officers are entitled to nonqualified retirement benefits totaling nearly $30 million."[2043] Yet ORA's statement is misleading for several reasons:

- Of the five officers named in the Sempra Energy proxy statement, three (Ms. Reed, Mr. Householder and Mr. Davis) are excluded from the 2019 GRC's corporate allocation;
- That $30 million is an aggregate balance that includes the officers' contributions of their own base salary and annual bonus to the plan; and
- SEU's GRC forecast is based only on the company matching contributions and does not include employee contributions.[2044]

[2040] *Id.*
[2041] *See supra*, 32.4.1 "Medical."
[2042] ORA OB at 405 (citing D.12-11-051 at 476-477; D.13-05-010 at 888, D.15-11-021 at 275; D.17-05-013 at 101).
[2043] *Id.* at 405 (citing Ex. 417 ORA at 25-26).
[2044] Ex. 211 SCG/SDG&E/Robinson at 42-43.

TURN suggests 50 percent funding, based upon the Commission previously allocating costs for these plans equally between ratepayers and shareholders.[2045] But the nonqualified savings plan, or deferred compensation plan, is a key component of a competitive compensation and benefits package, allowing for the recruiting and retention of the best candidates for executive, director, attorney, and other key management positions that contribute to the Companies' performance.[2046] Company matching contributions under the plan are consistent with company matching contributions under the Retirement Savings Plan; the latter of which ORA and TURN do not oppose.

32.5.2 Supplemental Pension

SoCalGas requests $1.9M and SDG&E requests $2.4M for the Companies' Supplemental Pension forecasts.[2047] TURN recommends a 50% reduction and ORA recommends zero funding for each Companies' request.[2048] SoCalGas and SDG&E disagree with ORA and TURN's recommendations.

Supplemental pension plans are an important component of a competitive compensation and benefits package for executive and other key employees. These benefits are common in the external market, particularly among utilities. Attracting and maintaining talented employees at all levels provides value to ratepayers.

TURN recommends a 50 percent reduction because "such plans 'primarily benefit the executives . . . and their shareholders.'"[2049] However, as TURN points out, the Commission has recognized that "both ratepayers and shareholders derive benefits" from the supplemental retirement plans offered by the Companies, PG&E, and SCE.[2050]

ORA recognizes that "the Commission has ordered ratepayer funding of 50% for Supplemental Pension expense in the past" – yet then recommends no funding for this expense.[2051] This is inconsistent with ORA's proposals in other GRC proceedings. In SCE's 2018 GRC, ORA recommended ratepayer funding of 50 percent for supplemental executive

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[2045] TURN OB at 248-250.
[2046] *See* SCG/SDG&E OB at 35.
[2047] *Id.* at 474, Table 32.A and 475, Table 32.B.
[2048] *Id.*
[2049] TURN OB at 249.
[2050] *Id.*; *see also* D.14-08-032 at 535. Ratepayers benefit from having executives and managers who are "familiar with the corporate culture and . . . policies and objectives of the companies." *Id.* at 534.
[2051] ORA OB at 406.

benefits, "considering Commission history and precedent."[2052] ORA, similarly recommended 50 percent ratepayer funding in PG&E's 2017 GRC, again relying on Commission precedent.[2053]

ORA offers no explanation as to why its recommendations are drastically different in this nearly identical GRC proceeding. SCE and PG&E's supplemental benefit plans are similar to SCG' and SDG&E's plans. Thus, ORA's recommendation should logically be similar. ORA's use of two different recommendations, in the same component category of Compensation and Benefits, across multiple proceedings, is an example of how ORA has been inconsistent and selective in its recommendations. SDG&E and SoCalGas thus request that the Commission approve the Nonqualified Retirement Savings Plan and Supplemental Pension requests as proposed.[2054]

32.6 Other Benefit Programs

ORA did not take issue with the Companies' forecasts for benefits administration fees, educational assistance, and the mass transit incentive.[2055] TURN likewise does not object to the forecast for benefits administration fees.[2056]

ORA recommends 50 percent funding for service recognition and zero funding for the Companies' emergency childcare and retirement activities, and for SoCalGas' special events proposal.[2057] TURN suggests adjusting the Companies' benefits forecasts by using a general five-year benefits average for SoCalGas, and a six-year average for SDG&E. TURN also proposes no funding for retirement activities or for SoCalGas' special events program, and 50 percent funding for service recognition.[2058]

ORA's and TURN's positions on reducing funding for these benefits areas should be rejected. The programs benefit ratepayers – because experienced, at-work, valued employees are more productive:

- ***Service Recognition –*** Promotes the retention of long-service employees and maintaining a positive organizational culture;

[2052] A.16-09-001, Opening Brief of the Office of Ratepayers Advocates (dated September 8, 2017) at 193.
[2053] A.15-09-001, Ex. ORA-16, Office of Ratepayer Advocates, Report on the Results of Operations for Pacific Gas and Electric Company Test Year 2017 General Rate Case, Human Resources Costs (dated April 8, 2016) at 20.
[2054] SCG/SDG&E OB at 503.
[2055] ORA OB at 407-408.
[2056] TURN OB at 251.
[2057] ORA OB at 409-412.
[2058] TURN OB at 251.

- ***Retirement Activities*** – promote an organizational culture that values employee contributions, inspiring loyalty and longevity among active employees;
- ***Emergency Childcare*** – reduces missed work days from parents who must take days off to care for children;
- ***SoCalGas Special Events*** – a long-standing benefit valued by employees at all levels.[2059]

Likewise, SoCalGas' and SDG&E's program-specific forecasts are preferable to TURN's generalized averages:

- ***Educational Assistance and Mass Transit Incentive***: Based on current use while factoring in expected changes in headcount;
- ***Emergency Childcare***: Based on fees per current contract with vendor;
- ***Service Recognition***: Based on demographics (length of service) of current employees.

SoCalGas and SDG&E believe these program-specific methodologies are appropriate and should be adopted.

32.7 Conclusion

As described in thorough detail in Ms. Robinson's direct and rebuttal testimony, and the Companies' opening brief, SoCalGas' and SDG&E's compensation and benefits costs are part of a reasonable, market-driven compensation package. These programs are critical to attracting, motivating and retaining the experienced, highly-skilled workforce required to operate safe and reliable utilities while providing excellent service to customers. Costs for these programs are well-supported, reasonable, and should be approved as submitted.

33. Post-Retirement Benefits

Pension and post-retirement benefits other than pensions (PBOP) are key components of a competitive total compensation program that enables the Companies to attract and retain a high-performing workforce, as set forth in the Companies' OB.[2060] The Commission has a longstanding practice of providing funding for pension and PBOP benefits that are offered as part of a reasonable total compensation program. The Companies projected TY 2019 costs are based on a revised methodology for recovery of pension costs which addresses recent legislative changes that resulted in reduced funding of pension benefits (the methodology for PBOP was unchanged from that which was approved in prior decisions). For both Pensions and PBOP, the Companies propose to maintain the long-standing use of the two-way balancing account mechanism.

[2059] SCG/SDG&E OB at 504-505.
[2060] SCG/SDG&E OB at 505-516.

ORA, TURN, and IS addressed SoCalGas and SDG&E's Post-Retirement Benefits in their opening briefs[2061]:

- ORA: ORA does not oppose the Companies' forecast and change in methodology for pensions. It also does not take issue with the PBOP forecast. Finally, it recommends the continuation of the two-way balancing account for pensions and does not oppose its continuation for PBOPs.
- TURN: TURN agrees that the recovery for pension should be changed from today's current minimum required contribution, but recommends an alternative methodology based on the greater of the minimum required contribution and the GAAP pension expense[2062]. TURN does not comment on PBOP forecasts, but recommends the continuation of the two-way balancing account[2063].
- Indicated Shippers (IS): IS only comments on the amount of pension recovery for SoCalGas' pension, and recommends that the existing methodology be maintained[2064].

33.1 Pensions

The Companies stand behind their proposed change in methodology for recovery of pension costs. As demonstrated throughout this proceeding, the Companies' proposal rectifies the underfunding of pension liabilities that resulted from recent legislative changes that reduced minimum required pension contributions. The methodology change, not opposed by ORA after independent analysis,[2065] achieves the following:

- It addresses the pension shortfall attributable to <u>*past employee services*</u> in a straightforward and transparent manner by calculating the pension shortfall as the difference between the Projected Benefit Obligation (PBO) and fair value of pension assets. Both values are reported on the Companies' financial statements. That shortfall is then funded over seven years, which is consistent with the original intent of the approved current funding mechanism (prior to the aforementioned legislative changes).
- It protects against significant overfunding by requiring annual limits on the amount actually funded (and recovered).
- It adds rate stability by keeping the base amount constant throughout the rate period.
- It provides for annual adjustments using the two-way balancing account mechanism to account for significant favorable or unfavorable experience.

[2061] ORA OB at 412-413; TURN OB at 254-278; IS OB at 27-32.
[2062] TURN OB at 254.
[2063] *Id.* at 256.
[2064] IS OB at 32.
[2065] Ex. 417 ORA/Hunter at 37:7-14.

33.1.1 Rebuttal of TURN and IS

33.1.1.1 Areas of Agreement between TURN and the Companies

First, TURN agrees with the Companies that the current methodology based on the minimum required contribution is inadequate and should be changed.[2066]

Second, by proposing to base future contributions on GAAP pension expense,[2067] TURN also recognizes that the main measures of the pension obligations (service cost and liability) are best measured using GAAP assumptions (which is the basis underlying the calculation of the GAAP pension expense[2068] and the PBO pension shortfall proposed by the Companies).

Third, TURN agrees with the Companies that the contribution should be based on the greater of a base amount or the minimum required contribution.[2069]

Finally, TURN agrees that the current two-way balancing account mechanism should be maintained.[2070]

33.1.1.2 Misunderstanding of Past vs. Future Obligations and the Impact on Intergenerational Equity

Starting from the vast areas of agreement listed above, the remaining question – and the crux of the issue – is "What is the appropriate way to address the unfunded obligation related to past services rendered to the benefit of prior generations of ratepayers?"

In their OBs, both TURN and IS appear to confuse when pension benefits are paid compared to when they are earned. While an employee's pension benefit will not be paid until retirement (or in some cases at termination if a lump sum is elected), a portion of that pension benefit is earned every year and represents compensation for that employee's services rendered during the year it was earned. At any point in time, the PBO represents those pension benefits accrued in the past for which past ratepayers benefited from employees' labor and which, ideally, would have been completely funded by those prior customers.

IS illustrates its misunderstanding when it states:

> […] there is simply no justification for charging customers the cost of employee pensions over a seven-year period beginning in 2017 (sic) when the SoCalGas

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2066 TURN OB at 254.
2067 *Id.*
2068 *See* Ex. 219 SCG/SDG&E/Robinson at 31, Appendix I for more details.
2069 TURN OB at 261. "*Obviously, if GAAP Pension Expense is lower than the MRC, the SEUs would have to contribute the MRC pursuant to federal law.*"
2070 *Id.* at 256.

eligible employees will provide service to customers on average over a 15.4 year period after 2019.[2071]

Future customers will finance their share of the benefits through the service cost.[2072] Future service costs represent the value of benefit accruals associated with those future years of employee services. Each year, the service cost is the value of the portion of the pension benefit employees will earn for services provided that year. Contrary to its argument, IS' suggestion to spread those past costs (unfunded PBO) over a longer period in the future compounds the generational equity concern, by adding more separation between the customer who benefited from the employee labor and the one who ultimately pays for it.

TURN also appears to misunderstand the concept that the PBO is for prior services, based on its statements:

> […] PBO estimates the future impact, to the Plan, of potential hiring changes in advance.[2073]

and again

> Since the PBO represents all obligations due in the future to current participants.[2074]

First, the PBO represents the liability for past services rendered by current and former employees. Future hires have no impact on the PBO. Next, as extensively covered elsewhere,[2075] the PBO only takes into account the portion of retirement benefits that relate to years of employment service in the past. Current (and future) employees will earn future pension benefits as they work for the Companies. The value of those benefits will make up future service costs and are not part of the PBO.

33.1.1.3 Approaches to Fund the Shortfall

No party disputes the fact that a current shortfall exists for pension benefits earned in the past by employees (unfunded PBO). TURN also agrees that the basis for future contributions should be the service cost (value of new benefits earned) "plus something", as evidenced by its proposal to use the GAAP pension expense, which is equal to the service cost, plus a series of other items. It comes down to whether funding of the unfunded PBO should be addressed via a

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2071 IS OB at 31-32
2072 Ex. 219 SCG/SDG&E/Robinson at 6, n.9.
2073 TURN OB at 258-259.
2074 *Id.* at 269.
2075 *See* Ex. 219, SCG/SDG&E/Robinson at 31:5-9, Appendix I.

simple modification of the existing process (the Companies' proposal), or a fundamental change in practice (TURN's proposal).

The Companies' proposal is straightforward. It calculates the shortfall explicitly and funds it over a set period of time. Contributions will be equal to the service cost (new benefits earned) plus the amortization of the shortfall. The approach is consistent with the current methodology, and uses the same seven-year period. The selection of seven years is by no means arbitrary, contrary to TURN's[2076] and IS'[2077] claims. As Ms. Robinson's direct testimony states:

> The proposed funding policy uses a seven-year period to amortize the Pension Plans' unfunded PBO which conforms to the period originally set by the PPA [the Pension Protection Act of 2006] (and the original intent of the prior funding policy). A 7-year period is also consistent with the period approved for Pacific Gas and Electric Company (PG&E) under an All-Party Settlement Agreement approved by the Commission on September 15, 2009 and effective January 1, 2011 (Decision (D.) 09-09-020).[2078]

On the other hand, TURN's proposal to use the GAAP pension expense represents a fundamental change in approach. The GAAP expense is a more convoluted calculation, and by itself will not automatically result in the full funding of the pension benefits. First, GAAP relies on special accounting (settlements, curtailments, or special termination benefits) by which costs are periodically trued up.[2079] Those special accounting charges would have to be included in any methodology using the GAAP pension expense, adding significant volatility. Next, any methodology using the GAAP pension expense as a baseline requires a "greater of" calculation (*i.e.*, the GAAP expense or the minimum required contribution), in order to capture more than $300 million of the current pension deficit.[2080] TURN prefers the use of the GAAP pension expenses because it spreads the deficit over a longer time period.[2081] As discussed in the prior section, this simply results in adding even more separation between the prior customers who benefited from past services rendered, and the future customers who will pay the cost.

[2076] *Id.* at 254.
[2077] IS OB at 31 ("there is simply no cost justification …over a seven-year period…").
[2078] Ex. 208 SCG/SDG&E/Robinson at 15.
[2079] Ex. 219 SCG/SDG&E/Robinson at 31, Appendix I.
[2080] *Id.* at 22:13 –23:7 (illustrating that the GAAP pension expense alone ignores $303.4 million in combined pension deficit).
[2081] TURN OB at 269.

33.1.1.4 The Difference Between the Proposals Is Strictly a Matter of Timing, However Timing Significantly Affects Costs

TURN correctly states that the difference between the various approaches is ultimately a matter of timing[2082]. That said, the plan pays variable rate premiums to the Pension Benefit Guarantee Corporation (PBGC) as a percentage of its deficit (subject to a per participant cap). For 2018, the PBGC variable rate premium was 3.8% of the pension deficit, and that percentage increases every year. Therefore, by funding the deficit sooner, long term plan costs (and costs to ratepayers) are reduced by:

a) Any investment returns earned on those contributions, plus

b) The PBGC variable premium rate (3.8% and increasing).

33.1.1.5 TURN's Proposal Is Not Superior with Respect to Market Timing, Intergenerational Equity, or Transparency

Market Timing

TURN attempts to support putting off funding the current obligation by contending that investing $800 million in three years is a risky investment strategy.[2083] TURN is concerned about a market correction right after amounts are invested. A common solution to this concern is the concept of dollar-cost averaging. Under this approach, amounts are invested over a period of time rather than all at once to reduce the risk of investing all funds at the absolute worst time (*e.g.*, at the peak, prior to a market correction). The Companies' proposal does just that. By funding the current deficit over seven years (and not all at once), funds will be invested over a long period (longer than average full market cycles which have historically averaged approximately five years), providing the full benefit of dollar-cost averaging.

TURN also fails to recognize the PBGC variable rate premium savings mentioned above, which provides the equivalent of an additional 3.8% (and increasing each year) return for every dollar invested that reduces the deficit.

In addition, TURN's $800 million statement is good for effect, but misleads the reader. The combined estimated unfunded PBO at December 31, 2019 was $913 million.[2084] Of the

[2082] *Id.* at 255.
[2083] *Id.* at 264.
[2084] Exs. 217 and 218 SCG/Robinson at 12 of 26. Line A.3 for 2019: $728 million for SoCalGas, and $185 million for SDG&E ($913 million in total).

annual combined contribution of $266.7 million, $114.1 million[2085] is for new benefit accruals (service cost). This really means that from an investment timing perspective, the Companies' proposal results in funding the $913 million at a pace of $152.6 million per year, spread out over seven full years. This is hardly an imprudent deployment of capital.

TURN's argumentation in this matter amounts to asking the Commission to make market timing decisions, and opine as to when is the best possible time to invest the money.

Intergenerational Equity and Transparency

Those two topics were previously covered, but in summary, deferring funding of a past obligation results in a greater disconnect between ratepayers who benefited from services rendered and those paying the cost, exacerbating generational equity issues versus improving them. Regarding transparency, the Companies' proposed calculations are based on PBO and fair value of assets, both of which are disclosed in the Companies' financial statements.

33.1.1.6 The Proposed Contribution Stability Does Not Likely Result In Significant Overfunding

TURN also suggests that while the service cost and unfunded PBO (and resulting seven-year amortization) actually changes every year, the Companies' proposal to provide rate stability by keeping the base amount level for the period will likely result in significant overfunding.[2086] It also claims that overfunding will result from the Companies' proposal to contribute $266 million each year irrespective of actuarial needs, as calculated based on asset values and plan obligations.[2087] This argument disregards the fact that the Companies' proposal does include an annual update process. Each year, the contribution is re-evaluated against updated minimum and maximum amounts to account for favorable or unfavorable experience, reflecting updated asset and liability values. If necessary, the amount of contribution will be adjusted (*e.g.*, reduced if the plan becomes overfunded) and adjustments will be handled via the two-way balancing account mechanism. This process ensures that no contribution will result in plan assets exceeding 110% of the PBO.

[2085] *Id.* Line A.11 for 2019: (service cost at beginning of the year) x 1.041: $77.9 million x 1.041 = $81.1 million for SoCalGas, and $31.7 million x 1.041 = $33.0 million for SDG&E ($114.1 million in total).

[2086] TURN OB at 258.

[2087] *Id.* at 269.

33.1.1.7 Shareholders Should Not Be Required to Contribute to the Pension Plans Because of the Voluntary Retirement Enhancement Program (VREP)

TURN continues to argue that the VREP negatively impacted the pension plan, citing accelerated accounting costs as evidence. It also claims that the Companies hide impacts behind regulatory adjustments and that there is a negative impact of accelerated lump sum distributions due to time value of money.[2088] These are addressed below:

- Ratepayer costs are based on commission-approved cash contributions (currently based on minimum required contribution), and are unrelated to GAAP accounting costs (including settlement charges).
- Regulatory adjustments are simply a mechanism to account for the timing difference between the time the company recovers costs (cash basis) and when it has to recognize the costs (accounting or GAAP basis).[2089]
- The amount of the lump sum paid to a terminating participant does take into account the time value of money. If the lump sum is paid earlier, the amount of the lump sum will be smaller.

The Companies also take issue with TURN's implication that retirement incentives, such as VREP, require advance authorization by the Commission. Such incentives are an important workforce planning tool, allowing SoCalGas and SDG&E to manage the level of skills and experience required to continually improve efficiency and effectiveness in a dynamic business environment.[2090] TURN acknowledges that they are not aware of any Commission authorizing, or declining to authorize, a similar voluntary retirement incentive program:

> SDG&E Asked:
>
> Is TURN aware of any state legislation or public utilities commission decisions authorizing or declining to authorize a program similar to the Companies' recent VREP? If yes, please identify any and all citations to all statutes and/or public utilities commission decisions.

TURN Responded:

> TURN is not aware of any other Commission authorizing or declining to authorize a similar voluntary retirement incentive program.[2091]

Finally, TURN takes exception to the fact that the Companies utilized excess PBOP assets to finance VREP benefits, and claims that the 2016 and 2017 programs increased

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[2088] *Id.* at 273–274.
[2089] Tr. V21:2110:17 – 2111:13 (Gagne).
[2090] Ex. 219 SCG/SDG&E/Robinson at 8.
[2091] *Id.* at 8-9 (citing TURN Response to SDG&E/SoCalGas Data Request 03, Question 6).

liabilities by $70 million.[2092] First, the liability increase was $42.4 million (sum of the Special Termination Benefits for those two years). The fact is that the Companies utilize existing resources to manage employment levels and provide a competitive benefits package in the most cost effective manner. VREP allowed the Companies to perform necessary workforce adjustments at no additional cost to ratepayers by leveraging existing PBOP assets that cannot be used for any other purposes. Other actions would have likely resulted in additional costs (*e.g.*, costs for severance payments), for which the Companies would have likely sought reimbursement. In addition, the existing surplus allows the Companies to provide existing employees with a valuable retiree medical benefit at little or no additional cost to ratepayers.

In the end, TURN recommends that "SEU be obligated to reimburse ratepayers for just the *settlement charges which increased the pension plan obligation by $30 million (SoCalGas) and $16 million (SDG&E)*[2093]" (emphasis added). The italicized portion of the statement is simply factually incorrect. As a result of VREP, some participants retired early and elected to take a lump sum distribution of the benefits to which they were entitled for past services rendered; however, no additional benefits were granted under the pension plan as a result of VREP. When paying a lump sum, the plan's obligation (PBO) is actually ***reduced*** as that obligation has been fulfilled. When combined with other participants who elected to receive a lump sum distributions throughout the year, the total lump sums paid exceeded the threshold defined by accounting standards, triggering settlement accounting. As a result, TURN is wrong on a number of fronts: (a) only a portion of the settlement charge relates to VREP, as a significant portion of lump sums paid are from ongoing plan operations independent of VREP; and (b) a settlement charge recognizes deferred costs in the Companies' financial statements, but does not affect the actual pension plan obligation.

33.1.2 Conclusion

Because of recent changes in federal legislation, minimum required contributions were significantly reduced, resulting in the current pension deficits. The Companies proposed a straightforward adjustment to the current pension calculation methodology to directly address the underfunding issue, while maintaining the essence of the current Commission-approved methodology. Accelerated funding will result in a better alignment between customers who

[2092] TURN OB at 274–275.
[2093] *Id.* at 276.

benefited from services rendered and those who pay the cost, while also reducing the long term cost of the plan by increasing investable assets, but as importantly, reducing PBGC variable rate premiums.

TURN and IS argue that different methodologies should be used to defer those costs to later periods, therefore increasing aggregate future costs (due to missed earnings and higher PBGC premiums) and further "kicking the can" to future generations of ratepayers. Those arguments should be rejected, and the Companies' proposal should be fully approved, a proposal that is not opposed by ORA.

In addition, TURN's recommendation to have shareholders contribute $30 million to SoCalGas' and $16 million to SDG&E's pensions is based on a misunderstanding of the facts regarding the impact VREP has had on the pension plan. As a result, this recommendation should also be rejected.

Finally, similar to its direct testimony, TURN's OB related to pensions and postretirement benefits other than pensions, contained a number of factually incorrect statements, which have been summarized in Table 33.A below, along with page references and commentary as to why the statement is factually incorrect. For all the reasons stated above, in the Companies' OB and in testimony, the Commission should approve SoCalGas and SDG&E's proposed methodology and balancing account as submitted.

Table 33.A – Summary of Factually Incorrect Statements in TURN's Opening Brief

Statement	Reference	Comments
"(VREP) significantly increased PBOP obligations, and at the same time accelerated recovery of certain pension obligations."	p. 256	The VREP did not affect the recovery of pension obligations, since settlement accounting charges have no bearing on the pension costs recovered under the current or proposed mechanisms.
"…doing away with the current two-way balancing account."	p. 256	The Companies propose to continue the two-way balancing account.
"Both the ABO (PPA) and PBO funding numbers are reported by the SEU in their SEC filings."	p. 259	While the ABO and PBO liabilities calculated under US GAAP are reported in the Companies' SEC filings, the PPA funding target liability is not. Furthermore, the ABO and PPA are unrelated, and while the calculation methodology for the PPA funding target is similar to that of the GAAP ABO, the

Statement	Reference	Comments
		underlying assumptions are different resulting in a vastly different result[2094].
"…for their proposal in this case they calculate the 'PBO shortfall' by using the actuarial value of assets, which uses different interest rate assumptions."	p. 259	PBO shortfall for the funding policy proposed by the Companies uses the Fair Value of Assets (and not an actuarial value). For the record, interest rate assumptions affect the liabilities, however they have no bearing on the actuarial value of assets.
"…provided $256 million dollars in funding for benefits that neither exist nor are ever forecasted to materialize."	p. 261	Participants continue to earn additional benefits under PBOP, and the existing surplus currently allows these valuable benefits to be accrued at no additional cost to ratepayers (SCG's PBOP request is $0). Ratepayers are therefore receiving benefit from this surplus via lower rates (versus if the surplus did not exist).
"The PBO shortfall occurs when the actuarial value of pension plan assets falls below the PPA funding target, …"	p. 266	The PBO shortfall is the difference between the PBO and the Fair Value of Assets. Neither the actuarial value of assets or the PPA funding target liability are relevant to the calculation.
"Since the PBO represents all obligations due in the future to current participants, …"	p. 269	The PBO only represent the portion of obligation associated with past years of service performed by the participant. It does not reflect benefits to be earned for future service, and therefore does not represent all obligations that will be due in the future.
"Applicants are proposing to contribute $266 million each year *irrespective* of the actuarial needs as calculated based on asset values and plan obligations."	p. 269	This statement ignores the annual contribution cap introduced to avoid significant overfunding.
"Sempra alleges that excluding such *[settlement]* costs from pension recovery would 'subject ratepayers to significant cost volatility'…"	p. 270	The point being made in rebuttal[2095], is that the basic GAAP Pension Expense definition provided by TURN is incomplete. It should also *include* any special accounting charges, such as settlements or curtailments, which have the potential to create significant year-to-year volatility.

[2094] Tr. V21:2035:22 – 2036:12 (Gagne).
[2095] Ex. 219 SCG/SDG&E/Gagne at 24.

Statement	Reference	Comments
"…the 2016-2017 VREP increased the PBOP liability by almost $70 million." "…even though the VREP has increased liability by over $70 million."	pp. 273, 274-275	2016 and 2017 VREP liabilities totaled $42.4 million. ($13.6 million for SDG&E in 2016, $11.1 million for SCG in 2016 and $17.7 million for SCG in 2017). Suspect that TURN may be citing the total Healthcare Reimbursement Accounts (HRAs), however this is not the PBOP liability for such benefits.
"More accurately, SEU appropriately used pension expense to fund the PBOP, but then capped retiree medical benefits, so that between 2013 and 2017 the PBOP plan funded status increased from less than 90% to almost 130%."	p. 275, n.1085	Any amounts recovered with respect to the pension plans were used to fund the pension obligations. Only amounts recovered for PBOP (if any) were used to fund the PBOP obligations.
"Just the actions of incentivizing those employees to retire early also decreased the funded status of both the SoCal and SDG&E Pension plans by almost 2% each, …"	p. 275	The reduction in funded status quoted factors in all lump sum payments made, not just those related to VREP participants. A sizeable portion of these payments were independent of the VREP and would have occurred regardless, therefore the magnitude of the impact is misleading.
TURN recommends that SEU be obligated to reimburse ratepayers for just the settlement charges which increased the pension plan obligations by $30 million (SoCalGas) and $16 million (SDG&E).	p. 276	A settlement charge recognizes deferred costs in the Companies' financial statements, but does not affect the actual pension plan obligation. Furthermore, only a portion of the settlement charge relates to VREP, as a significant portion of lump sums paid are from ongoing plan operations (independent of VREP).

33.2 Post-Retirement Benefits Other Than Pensions (PBOP)

No additional comments.

34. Human Resources Department, Safety, Workers' Compensation & Long-Term Disability

34.1 Common Issues – Workers' Compensation Medical Escalation

As discussed in our Opening Brief, the Commission should accept SoCalGas and SDG&E's projections for medical premium escalation rates. SoCalGas and SDG&E project an escalation rate of 7% in TY 2019.[2096] ORA and TURN recommended downward adjustments, but as outlined in our Opening Brief, the stronger evidence and argument is that of SoCalGas and SDG&E based on the actual demographic factors specific to SoCalGas and SDG&E that are the key drivers of the medical plan costs.

34.2 SoCalGas Issues

34.2.1 General Numerical Errors in ORA and TURN's Opening Briefs

The primary issues of note in our Reply pertain to numerical mistakes made by ORA and TURN. These may be due to SoCalGas having submitted updated numbers in its SCG Hearing Exhibit - Corrections to Direct Testimony, Rebuttal Testimony & Workpapers of Mary Gevorkian (July 2018).[2097] The following table corrects figures used in ORA's brief:

Table 34.A

Page in Opening Brief	Incorrect Figure	Corrected Figure	Citation
419	$5.186M	$5.218M	Ex. 257A and Ex. 514 at A-12, 2HR004
419	$5.039M	$5.071M	$5.218M - ($840-$693=$147) = $5.071M
422	$18.063M	$22.444M	Ex. 257 Rebuttal Testimony Revision Log June 18, 2018 on last page
422	$1.371M	*	ORA proposed reduction
422	$16.692M	*	Net ORA Forecast
422	$0.171M	$0.139M	Ex. 257A and Ex. 514 at A-13, 2200-2397

Note *: ORA's proposed reductions are based on an outdated forecast and SoCalGas did not speculate about the impact the revised forecast would have on ORA's proposal.

The following table corrects figures used in TURN's brief.

[2096] This was incorrectly stated as 6.5% in workpapers (Ex. 256 SCG/Gevorkian at 4) and in the opening brief (pg. 516); however, it was correctly captured as 7% in the Appendix A of rebuttal testimonies (Ex. 257 SCG/Gevorkian at A-4, and Ex. 364 SDG&E/Taylor at A-4) and in TURN-SEU-11 Q5.

[2097] Ex. 257A SCG/Gevorkian.

Table 34.B

Page in Opening Brief	Incorrect Figure	Corrected Figure	Citation
278	$44.871M	$49.252M	Ex. 514 at A-12 Revised Total TY 2019 NSS in 2016$
278	$1.688M	$1.668M	Ex. 514 at A-13 Revised Total TY 2019 USS in 2016$
278	$10.666M	$15.047M	Ex. 514 at A-12 (TY 2019-BY2016 in 2016$)
279	$18.063M	$22.444M	Ex. 257 Rebuttal Testimony Revision Log June 18, 2018 on last page
279	$11.611M	$15.635M	Ex. 257 Rebuttal Testimony Revision Log June 18, 2018 on last page less $1M FOF Benefits
279	$6.452M	$6.809M	Ex. 256 Workpaper page 48 2019 Forecast
279	HR1006.001	2HR006.001	Ex. 256 Workpaper page 40.
280	$0.292M	*	
280	$17.771M	*	
280	$26.770M	$26.808M	*Result of updated forecast noted above $49.252M-$22.444M=$26.808M
289	$1.200M	*	TURN proposed reduction
289	$700K	*	TURN proposed reduction

Note *: TURN's proposed reductions are based on an outdated forecast and SoCalGas did not speculate about the impact the revised forecast would have on TURN's proposal.

34.2.2 ORA's Faulty Assertions

Additional issues SoCalGas has with ORA's Opening Brief pertaining to HR Services, Safety and Wellness, Organizational Effectiveness, and Workers' Compensation and Long-Term Disability are as follows:

34.2.2.1 HR Services Expenses

On page 419, ORA claims SoCalGas did not provide support for the higher-level funding it requests for RAMP activities in HR Services related to increased recruitment efforts and three RAMP mitigation projects.[2098] In our Rebuttal testimony, we outlined our workforce planning, technical training support, and competency modeling efforts.[2099] ORA's claim that these programs are new and that "until SCG has more years of recorded expenses, ORA recommends that the Commission adopt a more conservative estimate to protect ratepayers from overpaying for a new program" is not accurate, because these programs are already in place. Furthermore, ORA's assertion that SoCalGas failed to provide support for a higher level of funding is inaccurate. On page 419 of ORA's Opening Brief, ORA claims "SCG provided nothing to support the higher level of funding it is requesting or why it cannot continue to operate utilizing the lower funding levels." Once again, SoCalGas demonstrated that the programs are not new and outlined all the programs in place and why they need to be expanded, whether it was due to legal compliance and other regulations, expanding programs across the company, etc.[2100]

34.2.2.2 HR-Safety and Wellness Expenses

On page 420 of its Opening Brief, ORA claims SoCalGas did not provide support for the higher-level funding it requests for RAMP activities in Safety and Wellness. However, in our Rebuttal testimony, we outlined driving, wellness and fitness, drug and alcohol, and contractor pre-qualification programs that are currently in place and why they need to be expanded.[2101] As mentioned above, ORA's claim that these programs are new is not accurate, because many of these programs are already in place. Similar to ORA's claims regarding HR Services, the assertion that SoCalGas failed to provide support for the higher level of funding is inaccurate.[2102] Once again, SoCalGas demonstrated that these programs are not new and outlined all the programs in place and why they need to be expanded, whether it was due to changing regulations, quantitative results from pilot studies, or other reasons.[2103]

2098 It should be noted that the $370k request was only for external hiring and not the RAMP mitigation. The way ORA characterized the request could be confusing in that one might mistakenly believe that the $370k incremental was requested for recruitment and the 3 RAMP projects.

2099 Ex. 257 SCG/Gevorkian at 11-12.

2100 *Id*. at 10-12, SCG-SDG&E OB at 518.

2101 Ex. 257 SCG/Gevorkian at 15-16.

2102 ORA OB at 421.

2103 Ex. 257 SCG/Gevorkian at 14-16; SCG-SDG&E OB at 520-521.

34.2.2.3 Organizational Effectiveness Expenses

Similar to the areas of HR Services and Safety and Wellness, on page 421, ORA claims SoCalGas did not provide support for the higher-level funding it requests for RAMP activities in Organizational Effectiveness and asserts that these programs are new.[2104] Again, in Rebuttal testimony, we outlined knowledge management, training, and succession planning programs that are already in place and why they need to be expanded, whether it was due to increasing retirement eligibility, leadership training needs, or succession planning for additional critical roles.[2105]

34.2.3 TURN's Assertions

TURN's concerns pertain to the job leveling system, costs related to employees temporarily working on the Aliso Canyon incident, the safe driving programs, and the Director Development programs. TURN's concerns were fully addressed in our Opening Brief. Notwithstanding, we will briefly recap our response.

34.2.3.1 Labor Relations Expenses

Job Leveling

As to the job leveling system, TURN recommends 'normalizing' the forecast of $167,000 by adopting $57,000 for the TY 2019.[2106] TURN also argues that "While SCG claims it 'will continuously be updating and re-leveling jobs every year and incurring costs,' it has not provided any evidence that the cost for updating and releveling certain jobs will be $500,000 per year."[2107] However, as we explained, the entire job leveling system must be changed because it is antiquated and the total cost to replace the system is closer to $500,000.[2108] Thus, the projected $167,000 SoCalGas provided is the normalized cost for TY 2019. Also, during initial implementation, the vendor will need to reevaluate many different jobs for internal benchmarking.[2109] TURN also suggests that SoCalGas' acknowledgment that union negotiations tend to be a driver of job leveling is somehow a contradiction that it must 'continuously' update

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[2104] ORA OB at 421.
[2105] Ex. 257 SCG/Gevorkian at 20-21.
[2106] Ex. 494 TURN/Marcus at 98.
[2107] TURN OB at 283.
[2108] Ex. 257 SCG/Gevorkian at 13.
[2109] Tr. V25:2382:1-22 (Gevorkian), and also 2385:14-2386:9 (Gevorkian).

and re-level jobs.[2110] It is not a contradiction. Labor negotiations are ongoing and lead to job re-leveling which tends to be spread over multiple years.[2111] Also, SoCalGas must level all new jobs and any jobs that are modified.[2112]

TURN mistakenly assumes the re-leveling costs are based on the $54,000 spent on re-leveling in BY 2016, which they are not.[2113] In point of fact, the costs for implementing a new system were not based on the costs incurred in BY 2016. The basis for this forecast was based on implementing a completely new system/methodology of evaluating jobs, due to the rising costs and age of the old system.[2114]

<u>Aliso Canyon Costs</u>

With regard to costs associated with employees returning from the Aliso Canyon incident, TURN suggests the Commission not adopt the additional $34,000 requested by SoCalGas.[2115] TURN seems to be focused on 2016 actual spending, however, TURN fails to take into account the corrected BY 2016 cost when adjusted for Aliso. The $34,000 sought by SoCalGas represents only partial individuals (or FTEs) spread across various positions. All these positions continue to exist and are staffed with real people working in Labor Relations.[2116] Applying TURN's logic would result in these individuals receiving pay cuts simply because they worked on Aliso.

34.2.3.2 Safety and Wellness

<u>Driver Safety Programs</u>

TURN argues SoCalGas has not made an adequate showing to justify "all three programs" for driver safety.[2117] TURN mistakenly believes the programs are duplicative.[2118] These are not duplicative programs. Each of the programs serves different purposes and hits different target audiences. For example: (1) Interactive driving is a simulation and training with computer-based feedback. This program was initially piloted with 1,000 field employees and

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[2110] TURN OB at 285.
[2111] Tr. V25:2385:14-2386:9 (Gevorkian).
[2112] *Id*.
[2113] TURN OB at 286.
[2114] Tr. V25:2382:23-2383:15 (Gevorkian).
[2115] TURN OB at 281.
[2116] Ex. 257 SCG/Gevorkian at 11-12 and also SCG/SDG&E OB at 519.
[2117] TURN OB at 288.
[2118] *Id*.

will be rolled out to ALL SoCalGas employees;[2119] (2) Defensive driver training is the expansion of an existing long-standing program to employees who drive less than 3,000 miles and to increase the length of this training for those currently receiving training by 1 day;[2120] and (3) In-vehicle refresher supplements the defensive driver training and is conducted by using actual Field Supervisors riding with employees and providing familiarization, assessment, and feedback in the vehicle the employee will be driving on the job.[2121]

TURN proposes an alternative recommendation for partial funding that revises the forecast to $1.2 million for Interactive Driver Safety, authorizes only 25% of the forecast for in-vehicle training, and rejects SoCalGas' request for additional labor costs associated with training represented employees (which TURN estimates to be about 23 FTEs, plus non-labor costs that would total $1.423 million.[2122]

TURN's proposal to give a haircut to in-vehicle instruction by 75% should be rejected. TURN claims the pilot (which showed a 35% decline in CMVIs in one year) was "poorly associated," that SoCalGas has not evaluated the interaction between the various programs, and that there is no evidence showing the cost-effectiveness of training all 4,500 employees. [2123] These arguments make little sense. A pilot study of the first six months of a new program showing a 35% decline is a great result.[2124] TURN's claim that ratepayers are not provided any benefit due to lower CMVIs is unavailing.[2125] While it is difficult to speculate on the specific amount and timing of savings from reduced accidents given that each accident is different, savings are expected.[2126] Any savings will be reflected in future GRCs as any recorded claims costs decrease.

Finally, on the issue of cost-effectiveness for training all 4,500 employees, TURN's assumption that "it is unreasonable to provide annual in-vehicle training to all of SCG's 4,500 employees, which includes many employees that spend most or all of their days in an office

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[2119] Ex. 257 SCG/Gevorkian at 15.
[2120] Ex. 260 SoCalGas Response to TURN Data Request-024, Q. 3.
[2121] Ex. 255 SCG/Gevorkian at 28.
[2122] TURN OB at 297.
[2123] *Id.*
[2124] Ex. 257 SCG/Gevorkian at 18.
[2125] TURN OB at 291.
[2126] Tr. V25:2396:14-2397:6 (Gevorkian, Bissonnette, Torres).

environment, or otherwise drive for work relatively little" is incorrect. The in-vehicle instruction is intended for field employees and not office employees.[2127]

TURN also claims that:

> In evidentiary hearings SCG's witness admitted that the labor costs equivalent to 23 FTEs was forecasted in addition to the salaries for the FTEs participating in the training. SCG has not established why these additional labor costs are necessary given that employees will complete the training as part of their routine work which is covered by their salaries. Accordingly, the Commission should reject SCG's request for these additional labor costs.[2128]

As previously explained, SoCalGas projected 23 FTE hours for this training because it is not part of their normal routine training and would be added training, requiring additional employee time.[2129] The rationale as to why in-vehicle training is incremental or additional to field employees' regular work, is simply that it is not part of their current daily tasks. This means that for every day an individual attends this new in-vehicle training that same person is not performing gas distribution work or CSF work. To maintain current service levels, an additional 23 FTEs must be funded.[2130] This is no different than necessary funding for incremental activities in all other circumstances.

34.2.3.3 Organizational Effectiveness

TURN argues the Organizational Effectiveness forecast should be lowered, citing to recorded costs for 2016 and 2017 that were lower than authorized.[2131] Since SoCalGas forecasts based on BY 2016 adjusted recorded expenses, TURN's argument is without merit. TURN then attacks costs related to Aliso Canyon reassignments and the Director Development Program.

<u>Aliso Canyon</u>

As to Aliso Canyon, TURN claims SoCalGas did not provide evidence that normal and regular projects were deferred during the Aliso Canyon incident.[2132] This is incorrect. Since several members of the Organizational Effectiveness team were dedicated support for the Aliso Canyon incident, various projects and trainings were on hold. For example, this fact is

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2127 RAMP Ch. 2 – Employee, Contractor, Customer, and Public Safety at 2-26.
2128 TURN OB at 290.
2129 Ex. 255 SCG/Gevorkian at 29.
2130 *Id*.
2131 TURN OB at 298-299.
2132 TURN OB at 299.

evidenced by seeing the reduced training costs in 2016 for The Leadership Challenge Training.[2133]

Director Development Program

TURN also questions SoCalGas' justification for the Director Development Program, claiming it relied on a data request when it built its argument that the program would end in April 2019.[2134] SoCalGas has been very clear, both in data requests and during its cross-examination during evidentiary hearings, that Director Development is an ongoing program.[2135] While programs may alter in the future, the only evidence in the record is an acknowledgement that SoCalGas absolutely will continue to train directors past TY 2019 with this or a different version of this program – a fact TURN cites.[2136]

Ultimately, TURN's forecast and attempt to annualize the cost of the Director Development program is mistaken. The cost of the program was annualized in SoCalGas' workpapers.[2137] TURN's attempt means it is annualizing on top of annualized information, resulting in only allowing for 13% of the actual cost needed for TY 2019 training.[2138]

34.3 SDG&E Issues

The primary issues of note in our Reply pertain to numerical mistakes made by ORA and TURN. These may be due to SDG&E having submitted updated numbers. Nonetheless, it is important the correct numbers that are referenced and the following table corrects figures used in ORA's brief:

Table 34.C

Page in Opening Brief	Incorrect Figure	Corrected Figure	Citation
415	$4.008*	$4.637	Ex. 364, Rebuttal Testimony Revision log on last page
415	$33,000	$330,000	Ex. 363, Workpaper at 54.

Note *: ORA's proposed reductions are based on an outdated forecast and SDG&E didn't speculate about the impact the revised forecast would have on ORA's proposal.

2133 Ex. 259 SoCalGas Response to TURN Data Request 071 Question 4 attachment.
2134 TURN OB at 300.
2135 Ex. 257 SCG/Gevorkian at 22. *See also*, Ex. 259 SoCalGas Response to TURN Data Request 071 Question 4 attachment, which shows a historical trend of director development training costs, providing support for ongoing training.
2136 TURN OB at 301.
2137 Ex. 256 SCG/Gevorkian Workpapers at 67-68.
2138 TURN OB at 300-301.

The following table corrects figures used in TURN's brief.

Table 34.D

Page in Opening Brief	Incorrect Figure	Corrected Figure	Citation
278	$14.558	$15.186	Ex. 514 Update Testimony at B-51
278	$1.1 million	$1.7 million	Ex. 514 Update Testimony at B-51 for WP 1HR002 ($5.824-$4.089 = $1.735)
279	$4.008*	$4.637	Ex. 364, Rebuttal Testimony Revision log on last page

Note *: TURN's proposed reductions are based on an outdated forecast and SDG&E didn't speculate about the impact the revised forecast would have on TURN's proposal.

In addition to the number corrections above, SDG&E replies to the following other contentions made by ORA and TURN as follows:

34.3.1 ORA

On page 416, in discussing RAMP costs related to Organizational Effectiveness, ORA cites to data request responses (ORA-SDGE-099-STA) and the explanations given for the low estimates. Unfortunately, this data request is not in the record and therefore, it cannot be cited to in briefing. Notwithstanding, and in response to ORA's contention, SDG&E's response to the aforementioned data request stated that not all the forecasted line items included the low estimate. On the contrary, SDG&E did not include two of the line items in the original RAMP filing as noted in workpapers as a Ramp-Post Filing line item.[2139] Accordingly, ranges do not exist and therefore were not included in the response to ORA-SDGE-099-STA Question 7.

ORA claims the data request also noted that the high estimate was based on potential compliance related costs or policy mandates.[2140] On this basis, ORA contends that the higher costs are not justified and thus the Commission should adopt the lower funding levels.[2141] This argument misses the mark because the responses to questions 7 and 8 pertain to Organizational

[2139] Ex. 363 SDG&E/Taylor Workpapers at 54.
[2140] ORA OB at 416.
[2141] *Id*.

Effectiveness. While the responses to questions 5 and 6 pertain to a different area, namely Safety and Wellness – an area that ORA did not contest.[2142]

34.3.2 TURN

TURN's primary contention in its Opening Brief pertains to spending for Edison Electric Institute for membership dues.[2143] TURN argues the Commission either should totally deny funding or alternatively to pull a number out of a hat by using what Southern California Edison was authorized in TY 2015.[2144] Neither of these arguments is terribly availing.

First, TURN summarized the dollars incorrectly. As shown in Rebuttal Testimony Appendix C, SDG&E describes how the BY 2016 invoice total cost was $600,000, however, as the table describes, after removing the 13.2% in lobbying expenses of $79,600, the net booked costs in 2016 were $520,400.[2145] In addition, as the response describes, SDG&E is requesting the non-lobbying portion of the estimated TY 2019 invoice price of $174,000.[2146] The table below attempts to correct the numbers that TURN incorrectly cites in their opening brief on page 304.

Table 34.E

Year	Invoice Total	Lobbying Portion Excluded from GRC	Net EEI Dues Requested in TY 2019
2016 Incurred	$600,000	$79,600	$520,400
Incremental Request for TY 2019	$200,000	$26,400	$173,600
TY 2019 Forecast	$800,000	$106,000	$694,000

Second, as discussed at length in our Opening Brief, EEI membership is a value for ratepayers. EEI brings SDG&E employees together with peers and colleagues from other companies in the industry to perform collective activities that are not regularly performed by the individual companies on a full-time basis, such as benchmarking studies, industry surveys, and sharing best practices. This collaborative approach benefits SDG&E ratepayers by reducing the

[2142] The data request cited by ORA is not part of the record and thus, SDG&E is not able to provide a citation.
[2143] TURN OB at 304-306.
[2144] TURN OB at 304.
[2145] Ex. 364 SDG&E/Taylor at C-2.
[2146] *Id*. *See* also Ex. 363 SDG&E/Taylor Workpapers at 76.

need for expensive customized research and studies, consultants and experts, database development and maintenance, publication development, and specialized training.

Third, as to the 50% reduction, SDG&E provided EEI invoices in response to TURN Data Request-019 which identify the portions of the membership fees that EEI attributes to "lobbying" activities. SDG&E reduced its request according to the information provided on EEI invoices.[2147] TURN's assertion that EEI did not provide enough detail about the percentage of its dues "relating to influencing legislation,"[2148] is incorrect. EEI provided an invoice with clear details showing the actual percentage of its dues attributable to lobbying. Since the actual invoice is in the record, TURN's fuzzy math should be rejected, and the Commission should adopt SDG&E's forecast as reasonable.

35. A&G – Accounting and Finance/Legal/Regulatory Affairs/External Affairs

35.1 Introduction

In their opening briefs, ORA, TURN, FEA and UCAN raise various issues regarding SoCalGas' and SDG&E's TY 2019 forecasts of Administrative and General (A&G) costs for SoCalGas' and SDG&E's Accounting and Finance, Legal, Regulatory Affairs, and External Affairs divisions. Because parties' opening briefs largely track the testimony they had submitted - which SoCalGas and SDG&E addressed in their rebuttal testimony (Exs. 320 SCG/Gonzales and Ex. 323 SDG&E/Hrna) and in their opening brief (SCG/SDG&E OB at 526-539) – SoCalGas and SDG&E only summarize the key issues below.

The following tables, based on SoCalGas' and SDG&E's rebuttal testimony, summarize the differences between SoCalGas' and SDG&E's proposals and other parties' recommendations.

SOCALGAS VERSUS OTHER PARTIES - SUMMARY OF DIFFERENCES

TOTAL O&M - Constant 2016 ($000)				
	Base Year 2016	**Test Year 2019**	**Change**	**Variance to SCG Ask**
SOCALGAS	39,085	35,305	-3,780	
ORA	39,085	34,104[2149]	-4,981	-1,201
TURN				-155*

*Represents total company reduction, not only A&G.

[2147] Ex. 364 SDG&E/Taylor at 19.
[2148] TURN OB at 305.
[2149] *See* Ex. 419 ORA/Hadiprodjo at 3 (Table 24-2). In its opening brief, ORA states that "SoCalGas forecasts $21.873 million for *all* of the [A&G] departments" and that "Cal PA's forecast is $20.672

SDG&E VERSUS OTHER PARTIES – *REVISED* SUMMARY OF DIFFERENCES

TOTAL O&M - Constant 2016 ($000)				
	Base Year 2016	**Test Year 2019**	**Change**	**Variance to SDG&E Ask**
SDG&E	**37,823**	**35,977**	**-1,846**	
ORA	**37,823**	**35,877**[2150]	**-1,946**	**-100**
TURN				**-333***[2151]
UCAN				**0**[2152]
FEA				**0**[2153]

*Represents total company reduction, not only A&G.

For the reasons set forth below, SoCalGas and SDG&E request that the Commission adopt their proposals as reasonable.

35.2 SoCalGas' and SDG&E's Response To ORA

35.2.1 SoCalGas' and SDG&E's Response to ORA'S Proposed Reduction for the RAMP Records Management Project

In its opening brief, ORA continues to recommend a $100,000 reduction to each of SoCalGas' and SDG&E's $200,000 TY 2019 forecasts to address a RAMP records management

million." ORA OB at 424 (emphasis added). However, these amounts refer *only* to SoCalGas' Accounting and Finance Division. *See* SCG/SDG&E OB at 526, Table SL-1. In its testimony, ORA states that it does not oppose SoCalGas' forecasts for its *other* A&G divisions. *See, e.g.*, Ex. 419 ORA/Hadiprodjo at 2 ("ORA does not take issue with SoCalGas' requests for its Legal, Regulatory Affairs, and External Affairs' Divisions.").

[2150] *See* Ex. 419 ORA/Hadiprodjo at 2 (Table 24-1). In its opening brief, ORA states that "SDG&E's total forecast for *all* [A&G] departments is $13.535 million for TY 2019" and that "Cal PA's forecast is $13.435 million." ORA OB at 426 (emphasis added). However, these amounts refer *only* to SDG&E's Accounting and Finance Division. *See* SCG/SDG&E OB at 526, Table SKH-1. In its testimony, ORA states that it does not oppose SDG&E's forecasts for its *other* A&G divisions. *See*, *e.g.*, Ex. 419 ORA/Hadiprodjo at 1 ("ORA does not take issue with SDG&E's requests for its Legal, Regulatory Affairs, and External Affairs Divisions.").

[2151] In its rebuttal testimony and opening brief, SDG&E had mistakenly identified TURN's proposed reduction as $403,000 – instead of $333,000 – because SDG&E had included $134,000 as TURN's proposed clothing and gear disallowance instead of the $64,000 amount that SDG&E believes TURN intended. *See* Ex. 494 TURN/Marcus at 78, Table 57. TURN's narrative discussion appears to have reversed TURN's proposed clothing and gear reductions for SoCalGas and SDG&E, but Table 57 appears to accurately represent TURN's proposal (a proposed reduction for SDG&E of approximately $64,000 and a proposed reduction for SoCalGas of approximately $134,000). In its opening brief, TURN identifies $311,000 as the amount of TURN's total A&G proposed reduction for SDG&E, but SDG&E is unclear as to how TURN arrived at this amount (as opposed to SDG&E's understanding of $333,000). *See* TURN OB at 306.

[2152] UCAN proposed changes to SDG&E's proposed Third-Party Claims Balancing Account (TPCBA). No numerical changes are associated with this proposal.

[2153] FEA recommends that the request to establish a TPCBA be denied. No numerical changes are associated with this proposal.

risk.[2154] ORA asserts that SoCalGas and SDG&E failed to provide a "working spreadsheet" explaining how the Companies arrived at their $200,000 forecast.[2155]

For the reasons set forth in SoCalGas' and SDG&E's rebuttal testimony and opening brief, the Commission should reject ORA's recommendation.[2156] SoCalGas and SDG&E explained to ORA in discovery and testimony that its $200,000 forecast was the average of a $100,000 - $300,000 estimated range, with the low end of the estimate ($100,000) based on a records management project that was performed in 2007 and the high end of the estimate ($300,000) based on anticipated additional scope, the need for increased expertise, increased hours and billable rates, and increased risk.

SoCalGas and SDG&E believe they have provided appropriate justification for their RAMP records management projects and for the $200,000 mid-range forecast. SoCalGas and SDG&E request that the Commission adopt the forecasts as reasonable.

35.2.2 SoCalGas' Response to ORA's Recommendation with Respect To SoCalGas' Incident Support and Analysis Department

In its opening brief, ORA continues to oppose funding ($1.10 million) for SoCalGas' Incident Support and Analysis (ISA) department.[2157] ORA does not express opposition to the function or need for the ISA department. ORA simply repeats its initial objection of the funding request on the basis that "SoCalGas did not provide any studies to support its $1.101 million forecast" and "[e]ven though SoCalGas provided a list of positions and the corresponding salary for each position, it did not justify how it derived the salary amounts nor did it conduct a workload analysis to support the proposed number of ten full-time employees."[2158]

For the detailed reasons in SoCalGas' direct and reply testimonies, and summarized in its opening brief, the Commission should approve the ISA department at the requested staff and funding levels, as there is no meaningful basis provided for ORA's recommendation.[2159]

First, ORA is incorrect that SoCalGas "did not justify how it derived the salary amounts."[2160] The workpapers to SoCalGas' testimony clearly state that "[t]he labor is based on

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2154 ORA OB at 424-426.
2155 *Id.* at 427.
2156 Ex. 320 SCG/Gonzales at 6-7, Ex. 323 SDG&E/Hrna at 4-5 and SCG/SDG&E OB at 529-530.
2157 ORA OB at 425.
2158 *Id.*
2159 Ex. 319 SCG/Lee/Gonzales at 14, Ex. 320 SCG/Gonzales at 3-6 and SCG/SDG&E OB at 532-536.
2160 ORA OB at 425.

the mid-range salary of the Market Reference Ranges (MRR) pay band of these positions."[2161] As the ISA function was not fully staffed at the time of application filing, SoCalGas used the mid-point of the applicable MRR pay band in the forecast of labor costs.

Second, and most importantly, as SoCalGas explained at length in its testimony and opening brief, SoCalGas' proposal for funding ISA is consistent with the Commission's focus on safety and incident preparedness, and performs essential incident management functions for the Company. Within the past three-plus years, SoCalGas has recorded over 30 Emergency Operations Center-activated incidents, which triggered over 60 activations of SoCalGas' regional gas emergency centers throughout the service territory, resulting in frequent attention at varying activity levels of incident response staff. SoCalGas anticipates this trend to continue, or at a minimum, must prepare for it to continue with the appropriate staffing.

SoCalGas requires the ISA department to perform key functions associated with incident responsiveness, including:

- Responding to major incidents to help with the coordination of incident response and restoration;
- Acting in a leadership role to oversee and support response and restoration activities during major incidents;
- Responsibility for fiscal guidelines, guidance, and financial reporting associated with incidents;
- Working with Emergency Services and other departments to identify and enhance preparedness planning for major incidents;
- Performing data and records management, and providing other informational support as needed related to incidents.

By proactively enhancing response plans with business units, ISA will help reduce the potential impact that major incidents have on normal operations as well as reduce potential business interruptions. ISA consists of staff with experience in responding to major incidents and leading incident-related business practices. The ISA team will utilize their past experiences in responding to major incidents to help with the coordination of incident response, and when needed, can act in a leadership role to oversee response activities during major incidents.

Support for the requested staffing level for the above activities *was* provided to ORA for review in lieu of the availability of a workload analysis. This information was included in SoCalGas' rebuttal testimony.[2162] SoCalGas is not aware of the reason ORA did not address the

2161 Ex. 319 SCG/Lee/Gonzales at 26.
2162 *See* Ex. 320 SCG/Gonzales at Appendix A.

workforce information provided pursuant to its data requests in its testimony or briefs, however, SoCalGas strongly believes that it has supported its request for this important new department. For the reasons summarized above, SoCalGas requests that the Commission approve funding for ISA as proposed.

35.3 SoCalGas' and SDG&E's Response to TURN's Proposed Reductions for Dues and Donations, Clothing and Gear, and Charitable and Other Sponsorships

In its opening brief, TURN reiterates its challenge to SoCalGas' Base Year 2016 expenses for dues, clothing and gear ($155,000)[2163] and SDG&E's Base Year 2016 expenses for dues, clothing and gear, and charitable and other sponsorships ($333,000).[2164] For the reasons set forth in SoCalGas' and SDG&E's testimony and opening brief, the Commission should reject TURN's recommendations in part as set forth below.[2165]

With respect to dues, of SoCalGas' $22,000 amount, SoCalGas has made clear that it had already removed $1,365 of the amount and does not dispute TURN's recommendation to remove the remaining $20,635. Of SDG&E's $85,362 amount, SDG&E had already removed $74,000; as such, SDG&E overstated its amount by only $11,362, not $85,362.

With respect to clothing and gear, SoCalGas and SDG&E dispute TURN's claim that these expenses are "promotional and image-building."[2166] These items, in conjunction with SoCalGas' customer events, help to create awareness of services and provide customers with a better understanding of various Commission-approved customer programs. SDG&E employees attend such events to promote safety (*i.e.*, "call 811 before you dig"), service options and energy conservation. The giveaways remind customers of safety and Commission-approved programs such as energy efficiency, low income, medical baseline, and clean transportation.

With respect to charitable and other sponsorships, SDG&E believes these sponsorships provide awareness and education of SDG&E programs supporting safety, energy efficiency, and other customer programs. As an example, an expense for $75,000 of SDG&E's requested

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[2163] TURN OB at 306-309. TURN's proposed disallowance for SoCalGas of approximately $155,000 consists of an approximately $22,000 reduction for dues and $134,000 reduction for clothing and gear.

[2164] *Id.* TURN's proposed disallowance for SDG&E is $311,000, but SDG&E's calculation of TURN's proposed reduction is $333,000, which consists of an approximately $85,000 reduction for dues, $64,000 reduction for clothing and gear and $183,000 reduction for charitable and other sponsorships.

[2165] Ex. 320 SCG/Gonzales at 7-8, Ex. 323 SDG&E/Hrna at 5-6 and SCG/SDG&E OB at 530-532.

[2166] TURN OB at 307.

$183,000 was used to support an electric transportation campaign related to Commission programs to promote clean energy transportation throughout San Diego County, including disadvantaged communities. Educating the public on clean transportation, grid optimization and efficiency will promote broader customer benefits system wide. Other expenses were used for outreach and education activities targeted to military customers, safety partners, underserved urban nonprofit organizations, and authorized CPUC programs.

In summary, the Commission should reject TURN's recommendations in part as set forth above.

35.4 SDG&E's Response to FEA's and UCAN's TPCBA Recommendations

In their opening briefs, FEA and UCAN continue to oppose SDG&E's proposed Third-Party Claims Balancing Account.[2167] For the reasons set forth in SDG&E's testimony and opening brief, the Commission should approve the proposed TPCBA.[2168]

As SDG&E explained in its testimony and opening brief, despite increasing efforts by SDG&E to manage its operations to prevent third-party related claims, it remains difficult to predict third-party incidents, as have historically occurred, as well as natural disasters outside of SDG&E's control. In addition, the TPCBA is necessary in light of the mismatch experienced historically between third-party related claims to be paid versus the amount of available insurance at any given time. The balancing account would ensure that customers are ultimately billed no more or no less than actual claims net payments. The balancing account protects both customers and SDG&E against the exposure to expenses that are predicated on a five-year history of events but may actually differ dramatically from such a forecast. As such, the TPCBA is a reasonable approach to managing the claims and should be approved in this proceeding.

36. Shared Services & Shared Assets Billing, Segmentation & Capital Reassignments

In its opening brief, ORA states:

> Cal PA has no opposition to the Sempra Utilities' Shared Services and Shared Assets cost allocations or billing policies. Cal PA does not oppose SDG&E's Segmentation and Reassignment Rates process and resulting rates. Nor does Cal PA oppose SCG's Reassignment Rates process and resulting rates. Differences between the Utilities' Reassignment amounts and Cal PA's are due to the summation of Cal PA's different expense and capital recommendations.[2169]

[2167] FEA OB at 14-16; UCAN OB at 7.

[2168] Ex. 321 SDG&E/Hrna at 25-27, Ex. 323 SDG&E/Hrna at 6-8 and SCG/SDG&E OB at 536-539.

[2169] ORA OB at 429-430 (internal citations omitted).

The Commission should approve SoCalGas' and SDG&E's proposed shared services and shared assets billing and segmentation and capital reassignment policies and methodologies, which no party opposed.

37. Rate Base

Intervenors largely accept SoCalGas and SDG&E's rate base forecasts.[2170] On the relatively few issues where intervenors challenge those forecasts, the Commission should adopt SoCalGas and SDG&E's recommendations, as detailed below.

37.1 AFUDC Rates

TURN reiterates that the Allowance for Funds Used During Construction (AFUDC) rates should be premised upon SoCalGas and SDG&E's 2017 actual rates of return. But this should be rejected, for the following reasons:

- The Companies' authorized rates have been found to be a reasonable proxy for AFUDC and have been used to determine AFUDC in prior GRCs;[2171]
- TURN is incorrect that Federal Energy Regulatory Commission (FERC) guidelines prevent the Companies' actual rates from being higher than their authorized rates,[2172] as SoCalGas' 2018 second quarter actual rate was higher than its 2018 authorized rate of return;[2173] and
- TURN's attempt to avoid the general rule against selectively updating forecasts with actual data by asserting that the Commission should "use the TURN-calculated rates for 2017"[2174] should be rejected because TURN's calculated rate is merely SoCalGas' and SDG&E's 2017 actual rates.

In fact, TURN's brief clarifies that its proposed AFUDC rates for 2018 and 2019 go well beyond what is justified by the Companies' actual 2017 rates. TURN proposes setting SoCalGas' and SDG&E's AFUDC rates at 62 and 41 basis points below the Companies' respective 2018 and 2019 authorized rates of return.[2175]

But TURN provides no reasoning or precedent for why making these specific basis point reductions to the Companies' 2018 authorized rates is justified. Although 62 and 41 basis points represent the difference between SoCalGas' and SDG&E's 2017 actual and authorized rates of

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2170 *See* ORA OB at 435 ("Cal PA does not take issue with SCG's rate base methodology").
2171 SCG/SDG&E OB at 547.
2172 *Compare* TURN OB at 311, *with* FERC Title 18 CFR Part 201 – Gas Plant Instructions, Section 3 *Components of construction cost,* Sub-section 17.
2173 Tr. V:26:2507:27 – 2508:7 (Moersen).
2174 TURN OB at 311.
2175 *Id.*

return, the Companies' 2018 authorized rates have already been reduced from their 2017 authorized levels.[2176] The Companies' 2018 authorized rates are now at or near the level of their 2017 actual rates of return. So setting the AFUDC rates at 62 and 41 points below the Companies' respective 2018 authorized rates of return would also set those rates well below the Companies' 2017 actual rates of return.

Company	2017 Authorized Rate	2017 Actual Rate	2018 Authorized Rate	TURN's AFUDC Proposals
SoCalGas	8.02%	7.36%	7.34%	6.72%
SDG&E	7.79%	7.38%	7.55%	7.14%

TURN proposal is thus arbitrary and contrary to precedent.

37.2 SDG&E Electric and Gas Cash Advances for Construction

ORA asserts that SDG&E's electric and gas cash advances for construction (CAC) forecasts should be based upon ORA's five-year "smooth" linear trendline projection[2177] – as opposed to SDG&E's five-year historical average. But SDG&E has consistently forecasted CACs in GRCs using a five-year historical average.[2178] CACs fluctuate with the business cycle. A trend line fails to capture this fluctuation. The five-year period in question took place during an economic expansion. A linear trend therefore falsely suggests that CACs will grow indefinitely; even though economic expansions do not continue forever.[2179]

A five-year historical average, by comparison, provides a more reasonable future estimate. Although, as ORA points out, the five-year period SDG&E uses for its average also took place during the current economic expansion,[2180] an average better approximates the range of possible future outcomes. SDG&E's forecast will reflect that CACs have increased over the previous five years – while hedging for the possibility that those CAC balances will not continue to increase annually by accounting for the highs and lows of that period.

ORA also contends that SDG&E has offered contradictory testimony regarding its CAC forecast. In SDG&E's direct testimony, it stated that its forecast is based upon recorded December 2016 month-end balances, adjusted for estimates of major project activity and for

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[2176] SCG/SDG&E OB at 547.
[2177] ORA OB at 432.
[2178] SCG/SDG&E OB at 549.
[2179] *Id.*
[2180] ORA OB at 432.

routine activity based upon non-farm employment forecasts.[2181] In SDG&E's rebuttal testimony, the Company stated that its forecast is based on a five-year historical average of recorded CAC net activity for routine projects, and on recorded activity for planned major projects based upon estimated construction costs for individual projects.[2182]

Yet SDG&E already explained this discrepancy. In response to a TURN data request, SDG&E clarified that the direct testimony's language was in error and that, in fact, the forecast used the five-year historical average calculation.[2183] SDG&E has consistently forecast CACs in GRCs using this five-year historical average.[2184] That precedent should be followed here.

37.3 SDG&E Fuel in Storage

ORA also reiterates that fuel in storage should be excluded from rate base and instead included in the ERRA proceedings – despite admitting that the Commission has repeatedly authorized fuel in storage's inclusion in SDG&E rate base since at least 1982.[2185] Yet, in so arguing, ORA apparently misunderstands line pack's use. ORA contends that "line pack is not permanent."[2186] But line pack is permanent in the sense that it must be present for a natural gas pipeline to function.[2187] As the Commission has found, "fuel in storage represents permanent fuel inventory maintained over the long term to assure continued and reliable operations."[2188]

So, contrary to ORA's argument, SDG&E is not "double-counting" fuel pack with the carrying costs of gas because they are two distinct issues.[2189] Line pack is not equivalent to fuel costs.[2190] The fuel costs covered by ERRA is for gas delivered to power plants. Line pack is not delivered to power plants or included in SDG&E's balancing account. So, by definition, it cannot be included in ERRA and "double counted" – the GRC is the only proceeding where line pack is addressed. Nor does line pack implicate SDG&E's incentive to control the level of fuel held in inventory – because line pack is simply the minimum amount of natural gas that must be installed in a pipeline to make that pipeline work.

[2181] Ex. 379 SDG&E/Gentes at 12.
[2182] Ex. 381 SDG&E/Gentes at 3.
[2183] TURN DR-16, Question 6.a.
[2184] SCG/SDG&E Opening Br. at 549.
[2185] *Id.* at 433; *see also* SCG/SDG&E OB at 549-550.
[2186] ORA OB at 433.
[2187] *See* SCG/SDG&E OB at 549.
[2188] D.13-05-010 at 902-903.
[2189] ORA OB at 433.
[2190] *Id.* at 434.

37.4 SDG&E Plant Held for Future Use

Finally, FEA objects to including the Oceanside and Ocean Ranch substations in Plant Held for Future Use (PHFU).[2191] FEA's primary contention is that these substations should not be included because they were also included in PHFU for the 2016 GRC.

As the Commission has found, however, an electric distribution property asset can remain in PHFU for five years.[2192] As the GRC is on a three-year cycle, by definition a substation could remain in PHFU for two GRCs. Both Oceanside and Ocean Ranch fall within a five-year period covered by two GRCs.[2193]

FEA also complains about delays with the Substations.[2194] Oceanside and Ocean Ranch were transferred to construction projects that started within the allowed five-year period.[2195] That is consistent with the Commission's precedent and should be followed here.

38. Depreciation

TURN objects to SoCalGas' and SDG&E's quantitative and qualitative depreciation analyses with blanket statements about "judgment." ORA largely ignores SDG&E's justifications for the Company's Desert Star Energy Center lifespan and net salvage rate proposals. But both SoCalGas and SDG&E adequately explained their judgment and statistical analyses, as detailed below.

38.1 TURN and Judgment

TURN reiterates its generalized assertion that the Companies do not provide sufficient justification for their proposed depreciation rates. Yet TURN still lacks any rationale for why maintaining SoCalGas' and SDG&E's 2016 GRC depreciation parameters is appropriate or ensures the adequate recovery of the Companies' original costs of investment. Nor does TURN specify what would constitute sufficient depreciation justification.

Instead, SoCalGas' and SDG&E's testimonies and workpapers show that the Companies' proposed depreciation parameters are reasonable, and are largely based on historical data, analysis, and knowledge of the Companies' assets. SoCalGas and SDG&E adequately explained

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[2191] FEA OB at 27.
[2192] D.92-12-019 at 66; D.87-12-066 at Appendix B, 1-2; *see* SCG/SDG&E OB at 550.
[2193] SCG/SDG&E OB at 550.
[2194] FEA OB at 28.
[2195] SCG/SDG&E OB at 550.

their recommendations either by relying upon their statistical analyses – or explaining the relevant judgment that supported the proposal.

38.1.1 SoCalGas

TURN asserts that SoCalGas only provided, "at most, the data that served as the inputs for its analysis, and the outcome."[2196] This is misleading. It minimizes the importance of data. The underlying statistics largely determine the resulting depreciation recommendation. Most choices are based on what the statistical analysis suggests, and the data is what a depreciation expert needs to draw conclusions.[2197]

TURN also downplays the contents of SoCalGas' workpapers. But even TURN acknowledges that SoCalGas' workpapers include the following:

- Tables showing the authorized life and survivor curve for each account from past GRCs, with an analysis of the history and determination of trends;
- Life and survivor curve graph and rank listing, with a ranked list of the Iowa curves for each account, and graphs of the selected curve compared to the utility's recorded data;
- Remaining life calculations, allowing for the calculation of the depreciation rate and expense resulting from the proposed life parameters;
- Tables showing past GRC net salvage rates, with an analysis of the history; and
- Net Salvage data, with the recorded retirements, net salvage amounts, and resulting percentages for each account.[2198]

This is the relevant information that a depreciation expert uses to determine service life, average retirement, and net salvage.[2199] In other words, SoCalGas demonstrated how it reached its conclusions, and provided the relevant data if a party wants to reach an alternative recommendation based upon statistical analysis. In not objecting to SoCalGas' recommendations, ORA implied that it had the relevant information to assess the proposed depreciation parameters.

TURN also ignores much of the justification that SoCalGas' expert Flora Ngai provided for her recommendations in her direct testimony, rebuttal testimony, and during hearings.[2200] For example, TURN objects to the amount of information provided for Account 367 – but fails to list much of the testimony provided by Ms. Ngai. For that Account, Ms. Ngai explained that she

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[2196] TURN OB at 320.
[2197] *See* Tr. V27:2581:12-13 (Ngai).
[2198] TURN OB at 320.
[2199] *See* V27:2628:20 – 2630:10 (Watson) (describing the standard process for a depreciation expert).
[2200] *See* SCG/SDG&E OB at 552-555 (detailing Ms. Ngai's analysis).

recommended maintaining the current life/curve – even though it was ranked 14th statistically – because maintaining that life/curve would also maintain the current average service life, which she believed appropriate.[2201] Choosing a higher ranked curve would suggest lengthening the average service life for that account by 21 years, an increase that Ms. Ngai found unreasonable, given that there were no identifiable factors supporting such an increase.[2202] Despite its complaint about SoCalGas' explanation, TURN's proposal would maintain the same life/curve.

Further, even TURN acknowledges that SoCalGas based its recommendations upon additional information beyond the data and Ms. Ngai's analysis; primarily interviews and input from field and operations personnel.[2203] TURN complains that SoCalGas failed to explain what that input was – but SoCalGas provided all the information from those discussions to TURN in response to data requests.[2204] Moreover, SoCalGas did explain how those discussions affected the Company's recommendations. For example, for Account 368, operations personnel indicated that the current average service life of 50 years was too high – because the replacement of engines, gas turbines, and compressors may occur after 15 years "'[d]ue to high pressure used at compressor stations.'"[2205] This led Ms. Ngai to recommend moving from the 50 R1 to the 49 R 1.5 curve.

Significantly, TURN acknowledges that it did not object to SoCalGas' similar format for explaining its depreciation proposals in the 2016 GRC – when the Company's proposals reduced SoCalGas' annual depreciation expenses.[2206] This suggests that TURN's actual concern is with the outcome, not the process.

38.1.2 SDG&E

TURN reiterates its blanket objection to SDG&E's proposed depreciation parameters. Yet as SDG&E expert Dane Watson stated, SDG&E's depreciation analysis largely did not implicate judgment – because for 13 out of 14 electric distribution account proposals the Company selected the highest-ranked Iowa curve.[2207] As the Commission held in its 2015 SCE

[2201] *Id.* at 554 (citing Tr. V27:2586:16-27 (Ngai)).
[2202] Ex. 384 SCG/Ngai at 12.
[2203] *See* TURN OB at 317, fn.1238 and 320.
[2204] TURN DR-043, Question 1.
[2205] Ex. 384 SCG/Ngai at 11 (internal citations omitted).
[2206] TURN OB at 318.
[2207] *Id.* at 322-323; *see* Tr. V27:2652:8-21 (Watson).

GRC decision, the more that an applicant relies upon the statistical results for its depreciation proposals, the less explanation of the applied judgment is needed.[2208]

TURN largely does not challenge that SDG&E relied overwhelmingly on statistical results. Instead, it objects that SDG&E's reliance on statistics is undercut by statements in SDG&E's rebuttal testimony about judgment.[2209] But generalized statements about the role that judgment can play in depreciation analyses do not contradict or somehow alter the character of the actual study undertaken here for SDG&E. That analysis, on its face, was overwhelmingly statistically based.[2210]

Further, TURN's reliance on SDG&E's rebuttal testimony statement about the use of "placement bands/experience bands and visual matching"[2211] is misplaced – because Mr. Watson already acknowledged at hearings that the statement does not accurately describe SDG&E's study and should be stricken.[2212] SDG&E's depreciation study **did not** use visual fitting or multiple placement or experience bands for each account. Only a single, full placement band was reviewed, with the top-ranked life/curve being selected in nearly every instance.[2213] As such, the Commission's 2015 SCE decision regarding judgment is largely not analogous here only because SCE's study there used visual fitting tools that heighten the role of judgment – unlike SDG&E's statistically-based study.[2214]

And SDG&E did adequately explain its results. For example, TURN cites SDG&E's explanation of its net salvage proposal for Account E367 as an example of an insufficient justification.[2215] But this paragraph proves the opposite – SDG&E explained that its proposal was premised on an increasingly negative net salvage rate, adjusted for gradualism.[2216]

Astonishingly, TURN then complains that SDG&E relies too much on statistics and not enough on judgment.[2217] But this contradicts the Commission 2015 SCE decision. There, the Commission found that a company "**can**" use judgment – suggesting it need not – and that a

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[2208] SCG/SDG&E OB at 552 (citing D.15-11-021 at 398).
[2209] TURN OB at 322-323.
[2210] SCG/SDG&E OB at 555-557.
[2211] TURN OB at 323 (citing Ex. 391 SDG&E/Watson at 17).
[2212] Tr. V27:2624:8-23 (Watson).
[2213] *Id.* at 2624:25-28.
[2214] *Id.* at 2657:3-22.
[2215] TURN OB at 316.
[2216] *Id.* (citing Ex. 391 SDG&E/Vanderbilt/Watson at 23).
[2217] TURN OB at 323.

company can primarily rely upon its statistical analysis, with less explanation needed when judgment supports the statistical results.[2218]

38.1.3 SDG&E Correctly Applied Gradualism

TURN also misapplies the Commission's "gradualism" decision in the 2014 PG&E GRC that set a 25 percent limit on the increase in net salvage rates between GRCs.[2219] In that decision, the Commission determined that – given that net salvage rates are increasing industry-wide – a 25 percent cap on net salvage rate increases between GRCs reasonably balances limiting increases on current ratepayers, without unduly burdening future ratepayers with large deferred costs.[2220]

TURN implies that SDG&E here simply applied a 25 percent increase to eleven plant accounts without justification.[2221] But SDG&E only proposed these increases because the underlying data shows five-year net salvage averages that are significantly higher than the net salvage rates proposed by SDG&E.[2222] Whether such increases were proposed in previous SDG&E GRCs is irrelevant[2223] – what is relevant is what the data supports for this GRC. These 25 percent increases are well below the increases that the data suggests, and necessary to avoid further passing the costs of increasing net salvage rates to future ratepayers.[2224]

TURN also complains that SDG&E's actual net salvage rates are skewed by the small number of retirements for each account. But, by definition, each account will only have a small number of retirements in any five-year period.[2225] That does not lessen the insights provided by these recorded retirements. And any potential sharp swings from a relatively small sample size are limited by the Commission's 25 percent increase cap.[2226]

[2218] D.15-11-021 at 397-398.
[2219] TURN OB at 326 (citing D.14-08-032 at 598).
[2220] *See* D.14-08-032 at 599-600.
[2221] TURN OB at 327.
[2222] *See* Ex. 391 SDG&E/Watson at 19.
[2223] TURN OB at 328.
[2224] D.14-08-032 at 600 (Noting that a 25 percent increase cap balances potential cost impacts between current and future customers, while "generally conclud[ing] . . . that TURN's negative salvage estimates are too low, and could ultimately result in future customers absorbing an inordinate level of deferred removal costs.")
[2225] TURN OB at 329.
[2226] *See* D.14-08-032 at 598 (indicating that the 25 percent limit is based on "cautio[n] . . . in making large changes" in net salvage rates).

Finally, TURN oddly argues that the Commission's 25 percent increase limit means that the increase is limited to 25 percent of the percentage difference between the 2016 GRC authorized net salvage rate and the actual five-year net salvage average for that account.[2227] Yet TURN offers no evidence to support this interpretation. As TURN acknowledges, the Commission limited net salvage increase to "no more than 25% of the estimated net increase from current rates."[2228] This most logically means that a net salvage proposal is limited to a 25 percent increase from the previously established GRC rate – not some convoluted differential between the previous GRC rate and the five-year average.

TURN also separately takes issue with SDG&E's proposal for a five-year average service life for Electric Vehicle Supply Equipment (EVSE), based upon an independent study performed by Sargent & Lundy (S&L).[2229] Although S&L acknowledged that certain EVSE units would last beyond five years, it also found that "[h]istorically, some EV charging stations' electronic control systems have been shown to fail or become obsolete" within five years.[2230] It appropriately selected five years as the average service life because this was the point on the Iowa curve where half of the EVSEs would survive past the average service life – and half would not.[2231]

SDG&E likewise reasonably relied upon S&L's independent decommissioning studies.[2232] S&L's study was performed in December 2016, with scrap metal values determined using a three-month average from the most recent quarter at that time (July, August, and September 2016).[2233] Although TURN introduces an average of scrap metal prices from May 2017-April 2018,[2234] this period includes data that was not available at the time S&L conducted its study – or when SDG&E filed its application – violating the general rule that GRCs should not be selectively updated with isolated actual amounts because it provides an incomplete picture.[2235] Moreover, scrap metal value is constantly changing. Prices from 2017 will not necessarily provide a better estimate of future prices.

[2227] TURN OB at 330.
[2228] *Id.* at 326 (citing D.14-08-032 at 600).
[2229] *Id.* at 330-331.
[2230] Ex. 389 SDG&E/Vanderbilt/Watson at 384.
[2231] *Id.*
[2232] Ex. 388 SDG&E/Vanderbilt/Watson at 10.
[2233] Ex. 389 SDG&E/Vanderbilt/Watson at 366.
[2234] *See* Ex. 494 TURN/Marcus at 97.
[2235] *See* D.13-05-010 at 939.

S&L's 20 percent contingency for material, labor, indirect expenses, and scrap metal should likewise be adopted, based on S & L's independent decommissioning expertise. S&L explained why a scrap value contingency is needed, as a "drop in scrap value will result in an increase in project cost."[2236]

38.2 ORA Largely Ignores the Rationale for SDG&E's Depreciation Proposals

ORA reiterates its opposition to reducing the lifespan of the Desert Star Energy Center by 3.17 years (from 2029 to 2026) to accurately reflect Desert Star's lease expiration date.[2237] ORA does not dispute that the correct lease date is in 2026.[2238] Yet ORA maintains its desire to purposefully use an incorrect lifespan for Desert Start as a penalty for SDG&E's "failure to conduct basic due diligence."[2239]

ORA offers no support for its contention that depreciation theory includes a due diligence penalty.[2240] Instead, SDG&E explained the policy rationale for altering Desert Star's lifespan – the purpose of a depreciation rate is to recover the original cost of an investment.[2241] As ORA acknowledges, SDG&E's investment in Desert Start was found prudent. The length of the facility's remaining life had no impact on that decision. So ratepayers will not "bear[] the cost of the [C]ompany's evident failure" if the Desert Star's lifespan is reduced.[2242] Instead, ratepayers would be paying for the actual costs of that investment.

For the remaining net salvage rates where the parties disagree, ORA states that SDG&E's arguments about data adjustments producing a less negative net salvage rate are largely a misnomer, as ORA does not object to many of those adjustments. ORA instead argues that its recommendations should be adopted because it focuses on a 15-year average for each account, while SDG&E focuses on "short-term" net salvage averages.[2243]

But this mischaracterizes SDG&E's methodology and ignores SDG&E's rationale for its proposals. SDG&E did not necessarily use a short-term average. Instead, SDG&E examined short, medium, and long-term averages to look for changes or trends in the Company's

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[2236] Ex. 389 SDG&E/Vanderbilt/Watson at 367.
[2237] ORA OB at 435.
[2238] *See Id.*; *see also* SCG/SDG&E OB at 558.
[2239] ORA OB at 435.
[2240] *Id.*
[2241] SCG/SDG&E OB at 559.
[2242] ORA OB at 436.
[2243] *See, e.g.*, *id.* at 437.

experience.[2244] ORA ignores that many of SDG&E's recommendations are based on longer-term averages, including the following:

- E365: -70 percent, based upon all bands (including the 15-year band) hovering near that figure;
- E366: -75 percent, which was less than the actual net salvage rates for all bands except the 15-year band, with the 15-year band only lower because of a single transaction 15 years ago;
- E367: -90 percent, based on the 10-year band showing increasingly negative net salvage rates;
- E373.2: -110 percent, based on all bands over the last 11 years having a more negative net salvage than SDG&E's recommendation.[2245]

In fact, ORA makes several recommendations based upon 10-year historical averages. But those 10-year averages use data from 2002-2011 – perhaps to minimize subsequently increasing net salvage rates for these accounts.[2246] SDG&E's examination of multiple, different, averages thus more accurately capture net salvage trends.

39. Taxes

ORA accepts SoCalGas and SDG&E's positions on income taxes, property taxes, and franchise fees.[2247] TURN likewise no longer opposes the Companies' positions on the following:

- **ARAM Calculation Method**: TURN has no objection to the Companies' proposals to: (1) follow the IRS' guidance – either in response to SCE's private letter ruling or more generally – as to whether post-2017 cost of removal book accruals should be included in calculating ARAM; and (2) if the IRS' guidance differs from SoCalGas and SDG&E's position on this issue, to track the impact of calculating ARAM with and without cost of removal in the Companies' Tax Memorandum Accounts (TMA);
- **Property Tax Calculation**: TURN accepts the Companies' property tax error corrections for both SoCalGas and SDG&E; and
- **SoCalGas Property Tax Forecast**: TURN no longer opposes SoCalGas' property tax forecast based upon GRC-adjusted data.[2248]

Nevertheless, differences remain over several issues, as discussed below.

[2244] Ex. 391 SDG&E/Watson at 7.
[2245] *Id.* at 9-13.
[2246] ORA OB at 442-444.
[2247] *See* SCG/SDG&E OB at 560.
[2248] TURN OB at 337-338, 343, 344.

39.1 Payroll Tax Rate

ORA reiterates its objection to the Companies' payroll tax forecasts.[2249] Although TURN did not raise this issue in its testimony, it now echoes ORA's position.[2250]

Yet ORA's brief ignores the Companies' update testimony. In that update testimony, the Companies recalculated its payroll tax rates with the Social Security Administration's (SSA) **actual** 2018 wage base.[2251] Those recalculated forecasts largely mirror ORA's proposed rates for 2018.

TURN objects to SoCalGas and SDG&E not also updating their payroll tax forecast for 2019 with SSA's updated projected wage base for 2019.[2252] In support, TURN cites the same footnote from both SoCalGas and SDG&E's direct testimony. That footnote states that "'[i]f the projected OASDI wage bases changes in the 2018 Annual Report'" SoCalGas and SDG&E would update their payroll tax forecasts.[2253]

But in so doing, TURN misstates the Companies' testimony. During hearings, SoCalGas and SDG&E witness Ragan Reeves noted that those identical footnotes contained an error. He corrected those footnotes to replace "projected" with "actual."[2254] In other words, the Companies' final testimony specified that they would update their payroll tax forecasts only if the **actual** – not projected – wage base changed in the SSA's 2018 annual report.

This correction was necessary because SoCalGas and SDG&E adhere to the Rate Case Plan's guidance that projections are not continually updated during a GRC proceeding.[2255] The SSA's updated 2019 projection is not a "known change due to governmental action" – because there is no government action.[2256] Again, it is only a projection. The SSA has not yet acted to impose a 2019 wage base limit.

Nor is TURN correct that ORA arrived at its forecast by "replicating the calculations undertaken by the SSA."[2257] There is no evidence that ORA used the SSA's calculation method

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[2249] ORA OB at 444-445.
[2250] TURN OB at 348-350.
[2251] *See* SCG/SDG&E OB at 561.
[2252] TURN OB at 349.
[2253] *Id.* at 348 (quoting Ex. 261 SoCalGas/Reeves at 5, n. 10) (emphasis in original).
[2254] Tr. V25:2411:13-28 (Reeves).
[2255] SCG/SDG&E OB at 561-562.
[2256] TURN OB at 350.
[2257] *Id.* at 349.

for its 2019 forecast.[2258] In addition, TURN's assertion that ORA "correctly predicted the updated forecast for 2019" is inaccurate, because the SSA has not set its 2019 wage base limit.[2259] Although ORA and the Companies' payroll projections are largely consistent, the Commission should reaffirm, as it has in prior GRCs, that the Companies' method for forecasting payroll taxes based on the SSA's data is reasonable and should be adopted.

39.2 Tax Memorandum Accounts

ORA does not acknowledge that SoCalGas and SDG&E now support continuing their Tax Memorandum Accounts (TMA).[2260] And ORA again fails to adequately explain its TMA proposal. To reiterate, although the Companies have agreed to file annual advice letters to provide updated balances if the Commission requests, the Companies believe it is premature to decide how to dispose of future TMA balances – because the TMA is not supposed to be a "true-up mechanism."[2261]

39.3 Amortization Method for Unprotected Excess Accumulated Deferred Income Taxes

TURN and FEA continue asserting different positions on how unprotected excess accumulated deferred income taxes (ADIT) should be returned. The Companies propose applying the Average Rate Assumption Method (ARAM) to return unprotected excess ADIT. TURN acknowledges that tax timing differences have been normalized in prior GRCs;[2262] consistent with the ARAM methodology. But it nevertheless proposes a different method. TURN wants to treat costs of removal ADIT separately from other unprotected excess ADIT; with the former returned to ratepayers using ARAM, and the latter separately refunded within six years.[2263]

TURN does not provide any conceptual basis for treating one category of plant-based, unprotected excess ADIT differently from the other categories of plant-based, unprotected excess ADIT – other than "providing near-term rate relief"[2264] – as cost of removal is a future cost to ratepayers, and the other unprotected amounts, a future benefit. But TURN's framework:

[2258] Ex. 264 SCG/Reeves at 6; Ex. 267 SDG&E/Reeves at 7.
[2259] TURN OB at 349.
[2260] *See* ORA OB at 445.
[2261] *See* Ex. 264 SCG/Reeves at 11-12; Ex. 267 SDG&E/Reeves at 12-13.
[2262] TURN OB at 338 (citing Ex. 261 SCG/Reeves at 22).
[2263] *Id.* at 339.
[2264] *Id.*

- Treats unprotected excess ADIT inconsistently;
- Is inconsistent with prior GRCs; and
- Could harm future ratepayers, by returning the full benefit of the unprotected net liabilities that reduce rates in the short term, without providing any of this benefit to future ratepayers beyond TURN's proposed six-year period.[2265]

Conversely, the Companies' proposal to return all unprotected excess ADIT using ARAM:

- Is consistent with the treatment of unprotected assets and liabilities in prior GRCs;
- Treats unprotected excess ADIT consistently; and
- Reduces the chance of unfairness between current and future ratepayers.

FEA, by contrast, proposes to return all unprotected excess ADIT within 10 years.[2266] As noted, this will increase immediate costs to ratepayers.[2267] Yet if the Commission were to not adopt the Companies' proposal to apply ARAM to unprotected excess ADIT, FEA's proposal at least simplifies how the excess ADIT is returned, and provides consistency in the treatment of unprotected excess ADIT.

39.4 SoCalGas Franchise Fees

TURN continues to argue for using a two-year average to forecast SoCalGas' franchise fees that includes 2017 actual data – in contrast to SoCalGas' forecast based upon a five-year franchise fee average. TURN has no precedent supporting its proposal; SoCalGas has used a five-year average in previous GRCs.[2268]

TURN's method is instead results-based. According to TURN, the GRC precedent of using a five-year average should not apply here – because a five-year average should only apply when franchise fees increase and decrease within the relevant five-year period.[2269] TURN continues that, because SoCalGas' franchise fees only decreased for the period in question, a two-year average should be used.[2270]

But TURN's two-year average is arbitrary. The short time-frame increases the average's volatility. TURN's reasoning provides no guidance for how franchise fee forecasts should be determined in future GRCs; for instance, what standard applies if franchise fees increase over the relevant five years. Nor does TURN justify using 2017 actual data that was not available when

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2265 SCG/SDG&E OB at 563-564.
2266 FEA OB at 9.
2267 SCG/SDG&E OB at 564.
2268 *Id.* at 566.
2269 TURN OB at 347-348.
2270 *Id.* at 346.

SoCalGas filed its application, violating the general rule that GRC forecasts should not be selectively updated.

In contrast to TURN's results-based approach, SoCalGas has consistently used a five-year average for its GRC forecasts – regardless of whether franchise fees have increased, decreased, or remained static. A five-year average was applied in in SoCalGas' 2016 GRC and should be followed here.

39.5 SDG&E Property Taxes

TURN proposes using a four-year forecast for SDG&E's property taxes – rather than the five-year trend that SDG&E has used in this and prior GRCs. TURN's proposal is, again, designed to reach a results-based outcome; that is, excluding one year (fiscal years 2013/2014 to 2014/2015) that had the largest increase in SDG&E's property tax rates.[2271] TURN's adoption of a results-based approach is evidenced by the fact that the method it uses to forecast SDG&E's property taxes is different from the method it used to forecast property tax rates for SoCalGas.

TURN contends it is purposefully excluding the period from 2013/2014 to 2014/2015 because that year was "anomalous."[2272] But TURN provides no standard for what constitutes an anomalous year, or why that year should be considered anomalous. Instead, as TURN even acknowledges, SDG&E's property tax rates have increased every year over the relevant five-year period.[2273] The increase between 2013/2014 and 2014/2015 was only slightly larger (approximately 0.1 percent) than the increase every other year.[2274]

SDG&E was not obligated to explain why an increase was slightly larger in one year to justify including that year in its five-year trend of historical property tax rates. As it does every GRC, SDG&E simply takes the relevant five-year period at issue and determines the historical trend – regardless of whether property taxes increased or decreased over those five years.[2275] TURN's result-based approach would, again, provide no guidance for what standard should apply to forecasting property taxes in future GRCs.

2271 *See id.* at 345.
2272 *Id.*
2273 *Id.*
2274 Ex. 267 SDG&E/Reeves, App. B at 40.
2275 SCG/SDG&E OB at 567.

40. Working Cash

40.1 Common Issues

40.1.1 Methodology

ORA faults SoCalGas' and SDG&E's methodology of consistently weighting expense lags in its lead-lag study by using 2016 recorded expenses and not "reasonably adjust[ing] for 2019 expense forecasts that differ significantly from 2016 historical amounts;" instead, ORA recommends that "the individual expense lag days be linked to the corresponding forecast *test year* expense dollar amount."[2276] This recommendation would change the weighting of each expense included in the determination of the Overall Weighted Average Expense Lag. In support of its claim that Standard Practice (SP) U-16 allows for test year adjustments, ORA provides pension payments and tax payments as examples that would decrease the Companies' working cash requests.[2277] However, ORA fails to consider expenses for which utilizing TY 2019 forecasts would *increase* working cash requests, such as depreciation expense. (TY 2019 forecasts are 32% ($146 million at SCG and $137 million at SDG&E) higher than 2016 recorded.)[2278]

SoCalGas' and SDG&E's more holistic, unbiased methodology should be approved over ORA's recommendation. The Companies consistently use 2016 recorded data as the proxy for test-year 2019 in recognition that some expense lags may be longer while others may be shorter, potentially offsetting each other.[2279] By applying a uniform approach using 2016 recorded data, the Companies do not cherry-pick items and therefore produce an impartial result that is most likely to correctly weigh expenses.

ORA also criticizes the Companies' claims that their respective Results of Operation (RO) models cannot accept ORA's recommendations, since the structure of the RO Model is within the purview of the Companies.[2280] ORA asserts that the working cash workpapers evidence the Companies' ability to disaggregate and re-formulate the constituent elements of the RO Model as needed to execute ORA's recommendation.[2281] However, as both Companies have

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2276 ORA OB at 446-47, 459-460 (emphasis in original).
2277 *Id.* at 446 and 459.
2278 Ex. 514 Hom UT, Attachment A, Table KN-1, Line 21, Attachment B, Table KN-1, Line 22.
2279 Ex. 175 SCG/Chan at 3:21-22; Ex. 178 SDG&E/Dais at 4:19-21.
2280 ORA OB at 447, 459-60.
2281 *Id.* at 447 and 459.

explained, ORA's recommendation is "impractical," as the "RO Model is structured to facilitate the computation of revenue requirement for the entire company, not just for working cash."[2282] The working cash workpapers were generated with 2016 recorded data tracked in those specific categories (*e.g.*, payroll expense, goods & service, etc.) by querying costs based on specific general ledger accounts or internal orders. In contrast, test year costs are not necessarily forecasted in those specific categories; rather, they are forecasted in categories such as labor and non-labor for certain cost centers or projects.[2283] The category of goods and services is just one of many categories with costs comingled amongst various cost centers and/or projects. In addition, some costs are forecasted based on historic information (*e.g.*, trends, averages) while others are based on projections. To dissect hundreds of cost center and project forecasts into the various working cash categories would be unduly burdensome and impractical.

ORA suggests that the Companies could simply provide a "reasonable estimate" for each working cash expense category.[2284] This suggestion would eliminate the *objectiveness* that is foundational to the Companies' working cash requests, which are based on the purely mathematical calculation prescribed by SP U-16. Introducing estimates adds subjectivity and reduces the transparency of the calculation. Thus, the Commission should decline the invitation to add estimates into lead-lag study, and adopt the Companies' pragmatic, unbiased, and systematic approach using *one* recorded overall weighted average lag applied to *one* total forecasted expense.

40.1.2 Cash Balances

ORA quotes SP U-16's statement that, for cash balances, "*the only amounts which should be considered are the required minimum bank deposits that must be maintained* and reasonable amounts of working funds."[2285] However, just as in its testimony, ORA ignores the second half of the statement—"reasonable amounts of working funds"—to support its recommendation to "exclude cash balances entirely from working cash in accordance with SP U-16."[2286] It is

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[2282] Ex. 175 SCG/Chan at 4:13-15; Ex. 178 SDG&E/Dais at 5:7-10.
[2283] Indeed, the majority of other GRC areas forecast costs based on labor/non-labor. That working cash and a handful of other downstream areas are not in this majority does not warrant wholesale changes to the Companies' RO models.
[2284] ORA OB at 447, 459-460.
[2285] *Id.* at 448 (emphasis in original).
[2286] *Id.*

unreasonable for ORA to rewrite SP U-16 in this fashion—such is the prerogative of the Commission alone.

Citing to D.09-03-025, ORA asserts that without excluding cash balances, "the Commission lacks any standard by which to judge the relative efficiency" of SoCalGas' or SDG&E's use of cash balances.[2287] ORA's assertion misunderstands cash management principles. ORA apparently considers zero cash balances as the only indicator of efficient cash management. However, a zero balance is impractical, if not impossible. The statistics provided by SoCalGas and SDG&E demonstrate that Companies are already highly efficient in their cash management, and do not need any extra "incentive" to be more efficient. For 2016, SoCalGas' ratio of its average cash balance to cash transactions that flow through its bank in a given month was only 0.29%;[2288] similarly, SDG&E's ratio was only 0.31%.[2289]

ORA also asserts, without support, that the maintenance of goodwill and strong ties with financial institutions are not "reasonable" costs of service that should be borne by ratepayers.[2290] Surely ORA does not mean to suggest that the Companies should risk fostering poor relationships with their financial institutions, as that would harm both ratepayers and shareholders; nor does ORA explain why shareholders rather than ratepayers should shoulder this cost. Nothing in SP U-16 suggests this should be the case (to the contrary, it encompasses "reasonable working funds" in addition to minimum bank deposits). Such a sweeping policy judgment is unwarranted by the record in this case.

40.1.3 GHG Balances

As ORA acknowledges, the balances of SDG&E's and SoCalGas' compliance instrument inventories "may sharply increase as 2030 approaches."[2291] There is no dispute that the Companies should be compensated for providing upfront funding for GHG—the question is how. ORA argues that SoCalGas' and SDG&E's stock of unused GHG compliance instruments constitute "an inventory, not a prepayment,"[2292] and therefore reasons that Commission precedents regarding fuel/commodity inventories should control ratemaking for these

[2287] *Id.* at 448 and 460.
[2288] Ex. 175 SCG/Chan at 5 and fn.14.
[2289] Ex. 178 SDG&E/Dais at 6 and fn.17.
[2290] ORA OB at 449 and 460.
[2291] *Id.* at 453 and 467.
[2292] *Id.* at 450 and 464.

instruments.[2293] The Companies properly included GHG accounts in their respective working cash studies based on the directive in SP U-16 that non-interest bearing accounts are to be included in the working cash request; there is no contrary, GHG-specific precedent. However, if the Commission decides, as a policy matter, that an alternate, interest-based return (akin to the short-term debt return already mandated for fuel/commodity inventories) is more appropriate, the Companies do not object to such treatment.

ORA argues that treating GHG compliance instruments as it suggests is consistent with the assignment of other GHG costs and GHG-related interest expenses to ERRA and GHGBA.[2294] It is not. "GHG compliance instruments are only recorded to the balancing account when they are used to offset actual emissions."[2295] The unused portion (net compliance instrument) is not earning any regulatory interest. Thus, there is no "double counting,"[2296] or "additional compensation,"[2297] as ORA suggests.[2298] As stated above, inclusion of these unused instruments in working cash is appropriate under SP U-16; or, at a minimum, they should earn an interest-based return.

[2293] *Id.*
[2294] *Id.*
[2295] Ex. 175 SCG/Chan at 6:12-13.
[2296] ORA OB at 450 and 463.
[2297] *Id.* at 469.
[2298] ORA also claims that Ms. Chan contradicted herself when "she state[d] that the prepayment and deferred debit GHG asset balances do not include any compliance instruments that are offsetting to actual emissions." *Id.* at 462. In fact, this is a correct statement. Ms. Chan clarified the difference between GHG asset and liability balances during evidentiary hearings: "The asset balances of the greenhouse gas compliance instruments, those represent the amount . . . that may be used for future offsets of actual emissions, compared to the liability balances, [which] represent the obligation that SoCalGas has to retire the instruments related to its actual emissions." Tr. V19:1741:9-16 (Chan). Accounting rules dictate that future, unused benefits should be reflected as assets, just as Ms. Chan testified.

In any event, SoCalGas' statement is from an accounting point of view, where the offsets to emissions expense are recorded to liability accounts, not asset accounts (*i.e.*, prepayment and deferred debits). ORA's attempt to oversimplify proper general ledger accounting rules by "offsetting" asset and liability balances mischaracterizes Ms. Chan's testimony.

Furthermore, ORA's assertion of Ms. Chan's "lack of expertise" is misplaced. While she is not the company's GHG expert (something she never purported to be), Ms. Chan is SoCalGas' Utility Accounting Manager, a summa cum laude graduate with an accounting degree, a Certified Public Accountant, and a Certified Internal Auditor. Ex. 173 SCG/Chan at 16. Based on these credentials, Ms. Chan is well qualified to present, and did present, accurate testimony regarding GHG account balances within the scope of the working cash calculation.

40.1.4 Customer Deposits

SoCalGas and SDG&E properly followed the guidance provided in SP U-16 to exclude interest-bearing customer deposits from working cash. Nonetheless, TURN provides a lengthy description in its opening brief of how this issue has been addressed in SCE's and PG&E's prior GRCs recommending that the Commission resolve this "policy matter" consistent with the treatment "adopted for SCE for more than a decade."[2299] However, TURN's opening brief glosses over the fact that this "policy matter" has not been determined by the Commission for SoCalGas and SDG&E in any past GRC proceeding. Further, despite the longstanding treatment for SCE, TURN admits that "the Commission has adopted outcomes that, on their face, are not consistent with the provisions of SP U-16."[2300] ORA recommends, and TURN supports as an alternative, that the Commission treat customer deposits as a source of long-term debt;[2301] ORA also notes that in D.14-08-032 with respect to PG&E's GRC, the Commission stated this issue should be addressed in the cost of capital proceedings.[2302] SoCalGas and SDG&E agree that the cost of capital proceeding, not the GRC, is the appropriate venue to address a change, if any, in the treatment of customer deposits given that parties believe this to be a matter of policy in which the outcome should be consistent among the large California utilities.

TURN's primary position—to treat customer deposits as an offset to rate base—is an unwarranted deviation from SP U-16, based on a slippery slope argument that the Companies pay a relatively low interest rate on customer deposits.[2303] If the Commission decides, on policy grounds, that a change in treatment is warranted, ORA's recommendation (and TURN's alternative recommendation) as an interim approach, until the Commission can decide the issue in the next cost of capital proceeding, is a more reasonable, measured approach than TURN's primary proposal to treat customer deposits as an offset to rate base.

40.1.5 California Corporate Franchise Tax (CCFT) and Federal Income Tax (FIT) Expense Lags

"TURN joins with ORA in recommending that income tax lags should be calculated based on the statutory considerations for payment timing, rather than reflecting the actual

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[2299] TURN OB at 364.
[2300] *Id.*
[2301] ORA OB at 454 and 468; TURN OB at 368-369.
[2302] ORA OB at 455 and 469.
[2303] *See* TURN OB at 362.

amounts recorded in the base year that may reflect substantial swings having nothing to do with the tax liability for the base year itself."[2304] TURN and ORA's recommendation reflects a misunderstanding of how SoCalGas and SDG&E calculate their tax lag days. SoCalGas and SDG&E do in fact use payment due dates; however, they use actual cashflows, instead of fixed percentages based on statutory requirements (*i.e*., 25% for each quarter for FIT, and 30% for Q1, 40% for Q2, 30% for Q4 for SIT). The problem with TURN's and ORA's proposal is that it assumes SoCalGas and SDG&E can perfectly forecast their tax payments upon each due date. This is unrealistic for any company, let alone large utilities with complex tax calculations involving Allowance for Funds Used During Construction (AFUDC), bonus depreciation, tax repairs allowances, self-developed deductions, etc. The Companies' approach is unbiased, consistent with SP U-16, and should be adopted.

40.1.6 Depreciation and Deferred Income Taxes

TURN recommends that the Commission remove depreciation expense and deferred income taxes from the working cash calculation, despite conceding that "the calculation of cash working capital should focus on expenditures of cash supplied by investors."[2305] TURN fails to appreciate that depreciation expense is cash related, as "depreciation expense would not exist if an associated upfront investment did not occur."[2306]

TURN argues that "[t]he investor who provides the investment is compensated for that investment through the authorized return once it ends up in rate base. Providing for further compensation for that same investment through the working cash calculation is unnecessary and excessive."[2307] TURN's argument shows its fundamental lack of knowledge regarding accounting and utility rate making. While TURN is correct that the cash outlay occurred at an earlier point and the investor is compensated for that investment through the authorized return while that asset is in rate base, that compensation diminishes over time as the utility recovers the asset cost through depreciation and reduces rate base accordingly. TURN misses the delay between the time the reduction in rate base occurs (the mid-point of each month) and the cash recovery of that expense through collected revenues. Therefore, this working cash component

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[2304] *Id.* at 359; *see also* ORA OB at 456 and 473.
[2305] TURN OB at 370.
[2306] Ex. 175 SCG/Chan at 17:2; *see also* Ex. 178 SDG&E/Dais at 14:23-24.
[2307] TURN OB at 371.

does not result in "further compensation for the same investment," as TURN suggests; rather, it simply accounts for the lag in cash collection in relation to the timing of the rate base reduction.

Deferred income taxes operate under the same logic as for depreciation; timing differences between cash outlays from investors and cash inflows from customer revenues drive the need for working cash for these taxes.[2308] Due to the differences in depreciation methods, the utilities' tax obligations to the IRS may differ from the tax amounts billed to ratepayers.[2309] This temporary difference (deferred income taxes) is adjusted in rate base to offset the tax benefits taken by the utility; as a result, there is no interim return on this item.[2310] Thus, as with depreciation, it is proper to include deferred income taxes in the working cash determination.

TURN alternatively proposes that if depreciation and deferred taxes remain in the working cash calculation, the Commission should direct that they be re-calculated with a 15-day (half month) lag rather than the 0-day lag.[2311] TURN's proposal is based on SDG&E and SoCalGas recording depreciation expense on a monthly, not daily, basis.[2312] TURN's proposal again shows its lack of understanding of accounting fundamentals. Depreciation occurring uniformly day by day is the underlying premise behind straight line depreciation. The fact that the Companies record this expense on a monthly basis in no way implies that the expense occurs on the last day of the month, as TURN implies. Rather, the recognition of the expense is at the mid-point of the month, which corresponds to the timing of the resulting reduction in rate base. Therefore, because expense lags are measured in relation to revenue lag, and revenue lag is measured in relation to mid-month, comparing depreciation lag to revenue lag appropriately results in 0 lag days for depreciation expense in the working cash study.

40.2 SoCalGas Issues

40.2.1 Revenue Lag

SoCalGas maintains that its consistent approach of using 2016 data as a proxy for TY 2019 revenue lag should be adopted over ORA and TURN's proposed adjustments. ORA and TURN criticize SoCalGas' alternative approach of using linear regression, arguing that it "is not

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[2308] Ex. 175 SCG/Chan at 17; Ex. 178 SDG&E/Dais at 14.
[2309] Ex. 175 SCG/Chan at 17.
[2310] Ex. 175 SCG/Chan at 17; Ex. 178 SDG&E/Dais at 14.
[2311] TURN OB at 373.
[2312] *Id*.

a good fit for the data"[2313] and is not appropriate because of the low coefficient of determination.[2314] However, neither ORA nor TURN provide any evidence as to why their proposals of simple averages are superior to SoCalGas' alternative, which incorporates trends that are inherent in data over time.

40.2.2 New Business Accounts Receivable

TURN claims an undisputed, "downward adjustment to Accounts Receivable New Business to minimize the impact on ratepayers of what appears to be SoCalGas having been lax in its collection of payments from developers, and to reflect the apparently improved practices SoCalGas has deployed more recently."[2315] SoCalGas did not concede this adjustment,[2316] and disagrees with it. SoCalGas has steadily supported its holistic working cash approach—that is, using 2016 recorded as a proxy for TY 2019.

40.2.3 Prepaid Directors and Officers' Liability Insurance

TURN notes, with respect to the prepayment Directors and Officers' (D&O) liability insurance, that TURN and SDG&E "appear to be in agreement" that the outcome on TURN's proposed working cash adjustment "should be consistent with the outcome adopted for the allocation of the D&O Liability Insurance costs generally."[2317] However, with respect to SoCalGas, TURN comments that "SoCalGas appears to have not addressed this subject in its rebuttal testimony."[2318] In fact, SoCalGas deferred this topic to its insurance witness, Mr. Cayabyab.[2319] Thus, like SDG&E, SoCalGas will adjust the insurance amount included in working cash depending on the outcome adopted in the insurance portion of this GRC.

40.3 SDG&E Issues

40.3.1 Revenue Lag

SDG&E maintains that its consistent approach of using 2016 data as a proxy for TY 2019 revenue lag should be adopted over ORA and TURN's proposed adjustments. Whereas

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[2313] ORA OB at 471.
[2314] TURN OB at 358.
[2315] *Id.* at 356.
[2316] As stated in Ms. Chan's rebuttal testimony, not responding to every issue raised by parties "does not mean or imply that SoCalGas agrees with the proposal or contention made by these or other parties." Ex. 175 SCG/Chan at 2:1-3.
[2317] TURN OB at 354-355.
[2318] *Id.* at 358.
[2319] Ex. 175 SCG/Chan at 1:6-8.

SDG&E's proposal is based on objective, 2016 recorded activity, ORA's proposed lower revenue lag, based on a five-year average, is based on a series of hypotheticals, and assumptions regarding how those events might impact customer behavior: "***If*** successful, residential rate reform ***may*** result in increased accounts receivable turnover and a lower revenue lag. ***If*** time-of-use rates are successful in causing load-shifting, the negative effects of cooling degree days on collection lag would be mitigated. ***If*** non-bypassable charges cause new net energy metering customers to make monthly payments, payment lag would decrease."[2320] Further, ORA fails to address the upward trend that the 2012-2016 revenue lag displays. Considering this trend, SDG&E's approach of utilizing the 2016 actual revenue lag is a conservative one—continuing along the trendline would result in a longer revenue lag. Thus, SDG&E's proposed revenue lag should be adopted.[2321]

41. Customer Forecasts

As noted in SoCalGas and SDG&E's Opening Brief, ORA did not oppose either of the Companies' gas customer forecasts or SDG&E's electric customer forecast, stating: "ORA's forecast . . . showed minimal differences with the utility's forecast."[2322] TURN is the only party to take issue with the Companies' customer forecasts and does so for just SDG&E's gas and electric customer forecasts. Accordingly, SDG&E responds here by showing the persuasive data refuting the bases for TURN's suggestions that: (1) "the Commission reduce SDG&E's residential gas connection forecast for 2018 and 2019 by .34% and .59%, respectively, derived by TURN by comparing the results between Moody's and Global Insight (GI) for the electric residential customer forecast" given SDG&E's "intransigence" to re-run its model solely using Moody's data;[2323] and (2) there is a data integrity issue with respect to the electric customer forecast because GI and Moody's use different methodologies.[2324]

[2320] ORA OB at 455-456 (emphasis added).
[2321] TURN contends that SDG&E's working cash rebuttal testimony did not address or object to TURN's recommendation regarding the allocation of purchased power between distribution and generation. TURN OB at 352. This is not a topic addressed in TURN's or SDG&E's working cash direct or rebuttal testimony, and contrary to TURN's assertion, it is not noted in SDG&E's rebuttal testimony at Ex. 178 SDG&E/Dais at 16.
[2322] SCG/SDG&E OB at 577 and 579.
[2323] *Id.* at 376.
[2324] TURN OB at 383-78.

41.1 Gas (SDG&E)

TURN has recommended that the Commission reduce SDG&E's forecast in 2018 and 2019 based on a derivation of comparing the results of Moody's and GI for the electric residential customer forecast.[2325] SDG&E has been tracking how its 2019 GRC forecast has been matching up with recorded customer counts as the data becomes available. SDG&E's gas meter forecast is tracking extremely well and is slightly under forecasted.[2326] This information has been shared with TURN through discovery and the submission of SDG&E's gas customer forecast rebuttal testimony. The record in this proceeding proves that TURN's proposed adjustment to 2018 and 2019 is unnecessary based on the minimal differences between recorded and forecasted gas customer connections. In fact, if any adjustment is deemed necessary, based on how the forecast is tracking at this time, the adjustment should be an upward, not a downward, revision. Given that recorded data supports SDG&E's 2019 GRC gas customer forecast, TURN's recommendation for a spot override on the forecast for two data points (*i.e.*, 2018 and 2019) should be rejected. Further, SDG&E explained to TURN that the reason SDG&E's gas forecasting unit could not re-run a forecast using strictly Moody's data as a driver is because SDG&E's gas forecasting unit does not own a subscription giving it rights to use the proprietary Moody's data.[2327] However, even if SDG&E were to spend additional ratepayer funds to re-run the gas meter forecast with Moody's data, using such data does not preclude the forecast from being over-forecast.

41.2 Electric (SDG&E Only)

While SDG&E acknowledges that GI and Moody's have slightly different methodologies for housing starts, the results of the electric customer forecast show that no data integrity issue was present, as TURN incorrectly asserts. As noted in witness Kenneth Schiermeyer's rebuttal testimony, SDG&E ran multiple scenarios using historical data from GI, Moody's and a blend of GI/Moody's, and these scenarios resulted in minimal differences in forecasted results.[2328] For example, when using only Moody's historical data versus a blend of GI/Moody's historical data,

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[2325] *Id.* at 376.
[2326] Ex. 330 SDG&E/Payan at 3; SCG/SDG&E OB at 577-78.
[2327] SCG/SDG&E OB at 578.
[2328] Ex. 333 SDG&E/Schiermeyer at Appendix A, A-2.

the customer forecast differed by three customers, while the forecast differed by 20 customers when using only GI historical data versus a blend of GI/Moody's historical data.[2329]

Moreover, TURN misinterprets SDG&E's reference to May 2018 in its rebuttal testimony to compare the residential electric May 2018 forecast versus actuals to demonstrate the accuracy of its electric forecast.[2330] SDG&E used the comparison of May 2018 to represent an cumulation of 17 months (January 2017 through May 2018) of forecast versus actuals, rather than a single data point in time, as TURN has suggested.[2331] SDG&E believes that the results, after 17 months, prove that a blend of GI and Moody's provides a reliable forecast of electric customers, considering data through May 2018.

42. Cost Escalation

Only ORA and FEA submitted Opening Briefs on Cost Escalation. They confirmed that they do not dispute SoCalGas and SDG&E's Cost Escalation proposals.[2332] However, unlike FEA, ORA did not address the most recent escalation factors from Global Insight that were used in SoCalGas and SDG&E's Update Testimony. Notwithstanding that omission, as already noted in SoCalGas and SDG&E's Opening Brief, no party disputed their Cost Escalation proposals, as updated.

43. Miscellaneous Revenues

43.1 Common Issues

As discussed in our Opening Brief, Miscellaneous Revenues are comprised of fees and revenues collected by SoCalGas and SDG&E from non-rate sources for the provision of specific products or services.[2333] They include such revenues as collection fees, rents, and charges.[2334] Miscellaneous revenues are incorporated into rates as a reduction to base margin revenue requirements charged to customers for utility service, thereby lowering rates.[2335]
This Reply Brief addresses only the Opening Briefs of ORA and CFC.

[2329] *Id*. at Appendix A, A-3.
[2330] *Id.* at 3.
[2331] TURN OB at 375.
[2332] ORA OB at 474-75; FEA OB at 9.
[2333] Ex. 338, SoCalGas/Steffen at 2; Ex. 341, SDG&E/Dalton at 4.
[2334] Ex. 338, SoCalGas/Steffen at 2; Ex. 341, SDG&E/Dalton at 4-5.
[2335] *Id.*

43.2 SoCalGas Issues[2336]

SoCalGas' Miscellaneous Revenue testimony and workpapers, supported by witness Annette Steffen, describe and justify SoCalGas' forecasted revenues for TY 2019.[2337] In its Opening Brief, CFC takes issue with SoCalGas' Reconnection Charge revenue forecast, arguing it should be $0.205 million higher than the $1.51 million SoCalGas estimated in its filing. CFC argues the following:

> Current economic conditions, particularly around income distribution and growth, combined with the rate increases proposed will pose budgetary problems for some households. Ultimately, higher rates will result in increased disconnections and therefore, increased reconnections.[2338]

While Ms. Steffen, the SoCalGas witness sponsoring this area, did not directly address the affordability issue regarding rate increases, she did point out that, per Mr. Baldwin's testimony, "since 2010, SoCalGas' residential class average rate has fluctuated year over year, as has the number of disconnections for non-payment [yet] SoCalGas observes that the annual number of residential disconnections does not appear to correlate to the fluctuations in the residential class average rate."[2339] SoCalGas is concerned with issues of affordability and this topic is discussed at length in SoCalGas and SDG&E's Opening Brief on pages 626 and 627. Below is an excerpt:

> While affordability is a serious concern that SoCalGas and SDG&E share with these parties, it is not the standard by which the Commission approves a total revenue requirement in a general rate case. In Decision (D.) 13-05-010, the final decision on the Companies' TY 2012 GRC, the Commission noted that several parties had raised concerns regarding the affordability of requested rate increases due to the state of the economy. In response to these arguments, the Commission clarified that the appropriate standard for approving rate increases is whether they are just and reasonable, stating:
>
> It must be kept in mind, that the Commission's duty and obligation under Pub. Util. Code § 451 is to establish just and reasonable rates to enable SoCalGas and SDG&E to provide safe and reliable service for the convenience of the public,

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2336 While ORA did not take issue with SoCalGas' Miscellaneous Revenue requests, in its OB ORA used some incorrect numbers. As SoCalGas explained in Ex. 340 at 2, ORA pointed to the total miscellaneous revenues proposed in the December 20, 2017 Revised Direct Testimony instead of the Second Revised Direct Testimony total listed in Ex. 338 dated April 6, 2018. Which incorporated tax changes related to shared assets. Additionally, Ex. 340 at 2 identifies an error that occurred in the Returned Check Charge forecast. Correcting this error brings the SoCalGas total to $83.114 million.

2337 Ex. 338, SoCalGas/Steffen at. 1.

2338 CFC OB at 50.

2339 SCG/SDG&E OB at 584.

> ratepayers, and employees, while allowing SDG&E and SoCalGas an opportunity for their shareholders to earn a fair return on the property that the companies use in providing their utility services…Consistent with this statutory guidance, the Commission is faced with the challenge of finding the appropriate balance of utility funding and programs to ensure safety, while keeping rates affordable, and allowing a fair rate of return.[2340]

In addition, CFC reprises its argument that the rate increase will lead to higher disconnections and therefore higher reconnections, but that the impact of higher disconnections would be delayed such that, "we might expect a two-year lag [from the date of the rate increase] considering that SCG allows delinquents up to twelve months of extensions on paying arrearages."[2341]

This argument is an extension of their original argument which was that we might see a delay in disconnections one-year following the rate increase (although now CFC indicates one-year was an error on their part and they really meant two-years). On page 585 of SoCalGas and SDG&E's Opening Brief, Table 43.A shows the reconnection revenue history. It does not have 2018 data. CFC requests it be provided, however, this evidence is not part of the record. In Ms. Steffen's rebuttal testimony, however, she makes clear that there is no direct correlation between residential rate changes and disconnections/reconnections.[2342] Additionally, Mr. Baldwin also states: "SoCalGas concludes that, historically, increases in rates appear to have little to no impact on disconnect rates, and that disconnect rates are primarily influenced by utility policy and practices, including the availability of customer services field collector personnel, as well as other external factors."[2343]

CFC disagrees with Ms. Steffen's rebuttal testimony regarding the need for additional staffing to support CFC's proposed reconnection revenue increase.[2344] In their Opening Briefs, CFC presumes SoCalGas would have only two options if the company had insufficient resources to disconnect everyone in arrears.[2345] Either SoCalGas would stop disconnecting or SoCalGas would stop reconnecting.[2346] Although CFC acknowledge Ms. Steffen's rebuttal that credit

[2340] *Id*. at 626-627.
[2341] CFC OB at 53.
[2342] Ex. 340 SCG/Steffen at 5.
[2343] Ex.131 SCG/Baldwin at 1.
[2344] CFC OB at 54.
[2345] *Id*. at 55.
[2346] *Id*.

policies have an impact on the rate of disconnection and that SoCalGas has voluntarily continued some of the policies in the Disconnection OIR Settlement Agreement even after restrictions were lifted, they still assert the rate increase is so large that it will cause an increase in reconnection revenue regardless of those policies.[2347]

However, Mr. Baldwin's testimony clarifies that policies and practices have a greater impact on disconnections.[2348] This is consistent with the CPUC Policy Division report on disconnections, published in December 2017, which states "IOU and CPUC policies, practices and decisions have the biggest influence on the disconnection rate."[2349]

Finally, CFC notes that Ms. Steffen did not mention SB598 or make any comment on how legislation may impact disconnection and reconnection revenues.[2350] While true, Ms. Steffen did mention policies and procedures having the biggest impact on disconnects (as noted above). Mr. Baldwin, however, addressed the legislation directly.

43.3 SDG&E Issues

SDG&E's Miscellaneous Revenue testimony and workpapers, supported by witness Eric Dalton, describes and justifies SDG&E's forecasted miscellaneous revenues for TY 2019.[2351] In its Opening Brief, ORA again hones-in on how SDG&E treats ITCC from a regulatory accounting perspective. This issue is addressed at length in our Opening Brief. SDG&E is bewildered by ORA's sudden attack on how ITCC is being treated ***because we have been treating it the same since the Tax Reform Act of 1986.***[2352] SDG&E uses the Maryland Method which means shareholders – *not ratepayers* – are at risk for shortfalls. This has been explained multiple times to ORA, such as the response to ORA-SDGE-180-MRK SDG&E response 02 which states:

> The attached "ORA-SDGE-180-MRK Q2 Attachment 1" shows the ITCC tax gross-up calculation, which is the same for both SCG and SDG&E.
>
> However, for the regulatory treatment differences at SCG and SDGE:
>
> **For SCG:**
> On Page 5 of SCG (Ex. SCG-35-WP-2R) accumulated deferred taxes related to CIAC (Line 14) is a part of the rate base calculation. The amounts shown on Line

[2347] *Id*.
[2348] Ex. 131 SCG/Baldwin at 1.
[2349] Ex. 340 SCG/Steffen at 4.
[2350] CFC OB at 55.
[2351] Ex. 341, SDG&E/Dalton at 4.
[2352] Ex. 343, SDG&E/Dalton at 4.

14 come from page 35 of the Tax workpapers (Ex. SCG-37-WP-2R). See pages 1 and 2 of the attachment "ORA-SDGE-180-MRK Q2 Attachment 2." Since accumulated deferred taxes are included in rate base, the revenue requirement is covering the deferred tax over the life of the asset. The tax gross-up received from CIAC is given back to ratepayers over the life of the asset to prevent double recovery. In this situation, the difference in the revenue requirement received and the tax gross-up received are covered by ratepayers. This reflects the adoption of the Method 5.

For SDGE:
In contrast to SCG, page 5 of SDG&E Ex. SDG&E-33-WP-2R does not include a line item for accumulated deferred taxes related to CIAC in SDG&E's rate base calculation. See page 3 of the attachment "ORA-SDGE-180-MRK Q2 Attachment 2." Therefore, there is no revenue requirement to cover these deferred taxes. The tax gross-up received from CIAC is amortized over the life of the asset to offset the deferred taxes. In this situation, the difference in the deferred taxes and the tax gross-up received are covered by shareholders. This reflects the adoption of the Maryland Method.

This was again reiterated in our Opening Brief in section 43.4.1.2. In addition, ORA states "In this rate case, SDG&E has discovered errors in its testimony as a result of CAL PA data requests, including errors in its ITCC calculations." This issue is irrelevant to the real discussion as stated in the SDG&E Response 04 to "ORA-SDGE-179-MRK":

Note: While responding to this data request, an error was identified in Table ED-4 on page ED-5 in Exhibit SDG&E-240. The five-year average should reflect $900,000. This will be corrected at the next opportunity.

This was merely an error in the average calculation within the table, and not an error in any of the historical calculations of the actual ITCC amounts.[2353] Since the regulatory treatment of ITCC at SDG&E does not impact the ratepayers, the ITCC component mentioned above should not be included in Miscellaneous Revenue.

44. Regulatory Accounts

As noted in SoCalGas and SDG&E's Opening Brief,[2354] many regulatory accounts were not disputed by any party. SoCalGas and SDG&E only address below the disputed accounts mentioned in parties' opening briefs that were elaborated in some way beyond what they submitted in direct testimony.

[2353] Ex. 471 ORA Stipulated Exhibit - SDG&E Responses to ORA Data Requests ORA-SDGE-161-MRK, ORA-SDGE-179-MRK and ORA-SDGE-180-MRK. The statement was made in response to ORA-SDGE-179-MRK, Question 3.
[2354] SCG/SDG&E OB at Section 44.1.1 at 593-95.

Notably, in ORA's Opening Brief, for the disputed accounts (Liability Insurance Premium Balancing Account (LIPBA),[2355] Storage Integrity Management Program Balancing Account (SIMPBA),[2356] Pipeline Safety Enhancement Plan Balancing Account (PSEPBA),[2357] Tree Trimming Balancing Account (TTBA),[2358] Otay Mesa Acquisition Balancing Account (OMABA),[2359] and Third-Party Claims Balancing Account (TPCBA)[2360]), ORA simply referred back to its positions by citing where to find them in its direct testimony. Accordingly, ORA's brief does not substantively address SoCalGas and SDG&E's rebuttal testimony on these accounts nor any testimony during hearings. As such, ORA's disputes are not addressed any further in this Reply Brief, and SoCalGas and SDG&E refer back to their arguments against ORA in their Opening Brief.[2361]

Similarly, UCAN's Opening Brief for the LIPBA and TPCBA reiterates the same proposals in testimony,[2362] which have also already been rebutted in SoCalGas and SDG&E's Opening Brief and so are not further addressed here.[2363] It should be noted that UCAN's cross-references on pages 30 and 32 to a more detailed discussion of its LIPBA recommendations in Section 44 of its brief do not add any value to its position, as that section (actually labeled as Section 43 Regulatory Accounts) merely states "UCAN not comment."[2364]

2355 ORA OB at 480-81.

2356 *Id.* at 102-03. ORA reasserts its positions to modify SIMPBA from two-way to one-way balancing and recommend one-way balancing for Above Ground Storage and Underground Storage Routine O&M expenses resulting from new regulatory requirements. ORA simply states that nothing in SoCalGas' rebuttal has given it reason to change its recommendations. For the reasons stated in SoCalGas' Opening Brief, SoCalGas' SIMPBA should be adopted as proposed, and one-way balancing is not needed for Above Ground Storage and Underground Storage Routine O&M expenses resulting from new regulatory requirements.

2357 *Id.* at 480-81.

2358 *Id.*

2359 *Id.* FEA's Opening Brief simply states that it supports ORA's recommendation that the OMABA be one-way balanced. FEA OB at 17. *See* SoCalGas and SDG&E's Opening Brief at 602-03 addressing the OMABA. One-way versus two-way balancing has already been generally rebutted in SoCalGas and SDG&E's Opening Brief at 597, 601. While these arguments applied to other accounts, the same would apply to the OMABA two-way balancing proposal.

2360 ORA OB at 480-81.

2361 SCG/SDG&E OB at Section 44.

2362 UCAN OB at 6-7, 30-32, and 34.

2363 SCG/SDG&E OB at 595-96.

2364 *Id.*

44.1 Disputed Regulatory Accounts (SoCalGas Only)

44.1.1 Morongo Rights-of-Way Memorandum Account (MROWMA) and Balancing Account (MROWBA)

TURN's Opening Brief incorrectly indicates that the two-way balancing account for the proposed rights-of-way costs is effectively a memorandum account that would permit the utility to collect in rates the above-forecast recorded amounts even before the Commission has reviewed the costs for reasonableness and that the utility has cited no precedent for such a ratemaking device.[2365] As indicated in SoCalGas and SDG&E's Opening Brief, there was an example given for approved balancing accounts (*e.g.*, the New Environmental Regulatory Balancing Account (NERBA)) for this type of mechanism where the costs are expected to be reasonably incurred, but the full range and level of those costs are unforeseeable or uncertain.[2366]

TURN also continues to misinterpret the two-way balancing proposal from a one-way balancing account as indicated in its statement: "But it is without precedent, so far as TURN knows, for the Commission to create a balancing account that is "one-way" in the other direction, that is, to create an opportunity for the utility to collect from ratepayers recorded amounts that are <u>greater than</u> the adopted forecast."[2367] As indicated in SoCalGas and SDG&E's Opening Brief, the proposed mechanism would still function as a two-way balancing account, albeit an undercollection, as a forecast due to the uncertainty of costs testified by Deanna Haines was not provided in this GRC Application with good reason.[2368] Thus, there is no "adopted forecast," as asserted by TURN. The two-way balancing account is appropriate as SoCalGas is requesting to track and record what are expected to be reasonably incurred costs, if any, as SoCalGas spends them if authorized to do so.[2369]

44.2 Disputed Regulatory Accounts (SDG&E Only)

44.2.1 Liability Insurance Premium Balancing Account (LIPBA)

FEA's Opening Brief only addresses SDG&E's LIPBA, asserting that SDG&E has "not demonstrated it has a unique problem with regulatory lag that is substantially different from the

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[2365] TURN OB at 39-49.
[2366] SCG/SDG&E OB at 599.
[2367] TURN OB at 48.
[2368] *See* Section 13 of this Reply Brief (citing Ex. 60, SCG/Haines at 16-19; Ex. 63, SCG/Haines at 2-3; Tr. V12:914:3-9 and 16-22).
[2369] SCG/SDG&E OB at 599-600.

other California electric public utilities that would justify singling out these expenses from the overall revenue requirement and recovering them in a balancing account."[2370] SDG&E presented its request in Neil Cayabyab's direct testimony based on the current insurance market status which is rather volatile; Mr. Cayabyab further explained the need for flexibility and agility to actively participate in the insurance market.[2371] This uncertainty is why balancing treatment is appropriate and SDG&E need not speculate as to its regulatory lag in rate recovery relative to other California utilities to demonstrate the reasonableness for this ratemaking treatment. Notwithstanding the fact that this would require an analysis of various criteria, including the different GRC cycles and filing timing for each utility, this difference in approaches would not demonstrate the ratemaking treatment requested here in this case is inherently unreasonable. Notably, ORA and UCAN, active parties in this present application, support SDG&E's proposal to establish the LIPBA albeit with some recommendations.[2372]

FEA also states two-way balancing "shifts the burden and responsibility for fluctuations in insurance premiums away from shareholders and puts that risk onto ratepayers. Shifting the risk … could remove or reduce incentives … to prudently control the cost of insurance premiums."[2373] These arguments have already been rebutted in detail in SoCalGas and SDG&E's Opening Brief as to facts that FEA's assertions ignore with respect to the Companies' insurance premiums and needed levels of coverage impacted by factors beyond their control.[2374] SoCalGas and SDG&E also explained in their Opening Brief why parties' misconceptions about two-way versus one-way balancing are not accurate with respect to protecting ratepayers and prudently managing costs.[2375]

As such, for the reasons stated in SoCalGas and SDG&E's Opening Brief,[2376] SoCalGas and SDG&E's LIPBAs should be adopted as proposed.

[2370] FEA OB at 13.
[2371] *See* Ex. 186 SDG&E/Jasso at 7 (citing Ex. 240 SCG/SDG&E/Cayabyab).
[2372] *See* Ex. 416 ORA/Laserson at 53; Ex. 509 UCA/Sulpizio at 15.
[2373] *Id.* at 14.
[2374] SCG/SDG&E OB at 595-96.
[2375] *Id.* at 597, 601. While these arguments applied to other accounts, the same would apply to the LIPBA two-way balancing proposal.
[2376] SCG/SDG&E OB at 595-96.

44.2.2 Tree Trimming Balancing Account (TTBA)

FEA's Opening Brief states that Norma Jasso acknowledged that in the last three GRCs, SDG&E's request to change from one-way to two-way balancing was denied. FEA further asserts that other California electric IOUs do not have two-way balancing accounts for tree trimming/vegetation management costs and that "SDG&E has not offered any compelling new information to change the Commission's determination."[2377] Moreover, FEA notes that for each year 2013 through 2017, and as of February 2018, the TTBA has an overcollected balance, which means SDG&E spent less than authorized five years in a row.[2378] Emerging circumstances have evolved in recent years that have exacerbated risks from vegetation growth that should change the Commission's determination. The current, compelling circumstances for which SDG&E requests a two-way balancing account are stated in William Speer's direct testimony addressing climate fluctuations from recent drought followed by significant rain and the potential impact these events are expected to have on vegetation management requirements in the form of increased vegetation growth and workload.[2379] As stated during hearings by Ms. Jasso, containing costs and being prudent in costs are done in both a one-way and a two-way balancing account.[2380] Additionally, as noted in Exhibit 187 used by FEA during cross-examination, SDG&E's TTBA had an undercollection in 2012 even though the account was designated as one-way; thus showing SDG&E's commitment to safety by prudently spending for tree trimming/vegetation management even when not recoverable from ratepayers.

44.2.3 Third-Party Claims Balancing Account (TPCBA)

Similar to the LIPBA, FEA's Opening Brief asserts similar arguments for the TPCBA that SDG&E has "not demonstrated it has a unique problem with regulatory lag that is substantially different from the other California electric public utilities that would justify singling out the third-party claims expenses from the overall revenue requirement and recovering them in a balancing account."[2381] FEA additionally claims that balancing treatment will also add to the CPUC's workload to review and monitor the costs of another balancing account.[2382] SDG&E

[2377] FEA OB at 18-19.
[2378] *Id.*
[2379] Ex. 68 SDG&E/Speer at 69-70.
[2380] Tr. V20:1798:15-28 to 1799:1-3 (Jasso).
[2381] *Id.* at 15.
[2382] *Id.* at 15-16.

presented its request in Sandra Hrna's direct testimony, explaining the need for TPCBA given uncertainty in the current liability insurance market, and the mismatch experienced historically between third-party related claims to be paid versus the amount of available insurance at any given time.[2383] SDG&E has already addressed above why FEA's statement about regulatory lag relative to other utilities is irrelevant by rebutting FEA's same statement for LIPBA. Notably, ORA indicates in the testimony of Fransiska Hadiprodjo that after reviewing testimony, workpapers, and discovery responses pertaining to the TPCBA, ORA does not take issue with SDG&E's proposal to establish the account.[2384]

45. Summary of Earnings/Results of Operations Model

As indicated in SoCalGas and SDG&E's Opening Brief,[2385] the Companies' RO model has been accepted by all parties without challenge or indication that any redesign is necessary to more accurately calculate a revenue requirement. No party altered its acceptance of the Companies' RO model in opening briefs.

46. Post Test Year Revenue Requirement Issues

ORA, TURN/SCGC, IS, FEA, CCUE, CLB, SBUA, and UCAN addressed SoCalGas' and SDG&E's post-test-year (PTY) ratemaking testimony in their opening briefs. SoCalGas' and SDG&E's PTY ratemaking proposals, sponsored by Sandra K. Hrna[2386] and Kenneth J. Deremer,[2387] are summarized as follows in the Companies' OB:[2388]

- A four-year term (2019-2022) for this GRC cycle, with SoCalGas and SDG&E's next test year in 2023.
- A PTY ratemaking mechanism to adjust authorized revenue requirements for:
    - Labor and non-labor costs based on IHS Markit Global Insight's (Global Insight or GI) forecast;
    - Medical costs based on Willis Towers Watson's forecast (as shown in Ms. Robinson's testimony[2389]); and
    - Calculating PTY capital-related revenue requirements using:
        - an escalated five-year average level of capital additions; and

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[2383] Ex. 321 SDG&E/Hrna at 25-27.
[2384] Ex. 419 ORA/Hadiprodjo at 11:4-6.
[2385] SoCalGas and SDG&E OB at 605.
[2386] Exhibits (Ex.) 242 and 243 SCG/Malik (adopted by Hrna); Ex. 244 SCG/Hrna.
[2387] Exs. 245-247 SDG&E/Deremer.
[2388] SCG/SDG&E OB at 606-625.
[2389] *Id.* at 607 (citing Ex. 211 SCG/SDG&E/Robinson at 31).

- a forecast for Pipeline Safety Enhancement Plan (PSEP) capital additions beyond Test Year (TY) 2019 (applicable only to SoCalGas).[2390]

- Continuation of the currently authorized Z-factor mechanism.[2391]

The Companies' proposals are designed: (1) to align PTY revenue requirements to account for unique cost escalation issues, such as the expected higher growth medical costs, and (2) to account for SoCalGas' and SDG&E's capital investments that mitigate risk and improve safety and reliability of the utility infrastructure. These proposals do not cover all anticipated expenses and capital-related investments but provide a reasonable level of funding necessary to maintain operational and financial stability while holding SoCalGas and SDG&E accountable for productivity improvements.[2392]

Adoption of SoCalGas' proposal is forecasted to yield attrition-year revenue increases of $236.9 million (8.08 percent) in 2020, $192.9 million (6.09 percent) in 2021 and $202.6 million (6.03 percent) in 2022. Adoption of SDG&E's proposal is forecasted to yield attrition-year revenue increases of $151.5 million (6.89 percent) in 2020, $120.0 million (5.10 percent) in 2021 and $122.2 million (4.95 percent) in 2022.[2393]

SoCalGas and SDG&E address intervenors' briefing arguments in the sections below.

46.1 Term of Rates Adopted

The Companies' OB proposes a four-year GRC term of 2019-2022, with the next GRC cycle beginning with TY 2023.[2394] ORA, TURN, TURN/SCGC, CCUE, IS, and SBUA addressed SoCalGas and SDG&E's four-year GRC term in their opening briefs.

ORA "strongly supports" SoCalGas and SDG&E's four-year GRC term proposal, noting: "A four-year GRC term allows for better utility financial and operational management of spending and investment."[2395] ORA also notes that the Companies' proposal "would also be consistent with SDG&E's and SoCalGas' GRCs for Test Years 2008 (2008-2011) and 2012

[2390] CCUE's OB incorrectly states: "SDG&E's proposed post-test year methodology for setting revenue requirement escalation post-2019 has three main components – one for expenses, one for capital additions, *and one for PSEP*." CCUE OB at 168-69 (emphasis added). Only SoCalGas' proposal includes a forecast for PSEP capital additions beyond TY 2019. *See* Exs. 242, 243 SCG/Malik/Hrna.
[2391] *Id.* (citing Ex. 242 SCG/Malik/Hrna at ii; Ex. 245 SDG&E/Deremer at ii).
[2392] *Id.* (citing Ex. 242 SCG/Malik/Hrna at 1; Ex. 245 SDG&E/Deremer at 1).
[2393] *Id.* (citing Ex. 245 SDG&E/Deremer at 1).
[2394] SCG/SDG&E OB at 609.
[2395] ORA OB at 485; *see also* D.16-06-054 at 225 (citing ORA Ex. 398 at 13).

(2012-2015)."[2396] As the Companies noted in their OB, their proposal is also consistent with the four-year GRC term approved for TY 2004 (2004-2008).[2397] For the Companies, "[a] longer GRC cycle is not unprecedented and provides better rate certainty and stability to ratepayers."[2398] ORA further argues that the addition of a third attrition year would be less costly to ratepayers than beginning a new test year cycle every third year.[2399]

TURN/SCGC, CCUE, IS, and SBUA all oppose the Companies' proposed four-year GRC term proposal,[2400] as discussed below. TURN and SCGC argue that the Commission should reject the Companies' four-year GRC cycle request because "the Commission is already considering whether to revise the Rate Case Plan to include a third attrition year in Rulemaking (R.) 13-11-006,"[2401] and TURN/SCGC, CCUE and IS offer some variation of the claim that there is not sufficient basis to support the Companies' proposal. TURN and SCGC's lengthy description of events in R.13-11-006 (the "Risk OIR") arguing these points wholly ignores the evidence and circumstances of the instant proceeding, which demonstrate:

(1) SoCalGas and SDG&E are only proposing a four-year GRC cycle in the instant GRC – not for PG&E and SCE, and not for any GRC term beyond this rate case cycle;

(2) There is ample Commission precedent – cited by SoCalGas, SDG&E, and ORA – showing examples where the Commission has ordered an additional year in the Companies' GRC term,[2402] without modifying the Rate Case Plan.

Although the Companies support modifying the Commission's Rate Case Plan to establish a four-year GRC cycle, in this case, the Commission would only be reaching a determination on the evidence in the instant proceeding, which would apply only to the Applicants and only for the current GRC cycle. Intervenors barely acknowledge the fact that the Companies were granted a four-year GRC cycle in their TY 2004, 2008, and 2012 proceedings, in D.04-12-015, D.08-07-046, and D.13-05-010, respectively; thus, the Companies' proposal is not without precedent and has been deemed reasonable in the past. TURN and SCGC briefly

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2396 *Id*.
2397 SCG/SDG&E OB at 609 (citing D.04-12-015, D.08-07-046, and D.13-05-010).
2398 Ex. 244 SCG/Hrna at 9; Ex. 247 SDG&E/Deremer at 6.
2399 ORA OB at 485-486.
2400 TURN/SCGC OB at 49-65; CCUE OB at 165-171; IS OB at 33-34; CLB OB at 2-13. SBUA's OB states opposition to "PG&E's" four-year term proposal (at iv) without briefing argument warranting reply here.
2401 TURN/SCGC OB at 50-55.
2402 SCG/SDG&E OB at 609-611; ORA OB at 485-486.

acknowledge an additional attrition year in TY 2008, arguing that doing so presented scheduling challenges.[2403] Any scheduling challenges presented could be addressed as they arise, and should not be a reason to ignore the evidence showing an additional attrition year is warranted in this case. Moreover, regardless whether the Commission addresses and approves a four-year GRC term for all utilities, the Commission should begin implementation of an extended cycle with the Companies' TY 2019 GRC because, as noted above, we are the only utilities with a pending request for such relief. There is precedent, the Commission has the ability, and the record in this case supports the approval of an additional attrition year in this GRC.

IS and TURN/SCGC also argue that the additional attrition year would not solve the timing problem associated with processing "the RAMP and to integrate it into the GRC."[2404] TURN/SCGC argues that, to address this issue, "the Commission would need to modify the Rate Case Plan schedule set forth in D.14-12-025 either to expedite the filing of the RAMP or delay the filing of the GRC."[2405] While the Companies also support the Commission modifying the Rate Case Plan to provide additional time between the RAMP and the filing of the GRC in an appropriate regulatory proceeding, this argument ignores the other timing considerations identified by the Companies in support of an additional attrition year. Over the last several years, GRC filings have become more complex and subject to extended delays. Frequently, a utility's GRC takes a considerable amount of time to litigate, often well into the test year, and for a final decision to be approved by the Commission. These timing impacts put pressure on the utility to manage its programs and investments and may not afford ample time to implement the authorized projects prior to the requirement to submit the next GRC application. This issue is now compounded by new processes, reviews, and reporting required by the Risk OIR decisions incorporating Safety Model Assessment Proceeding (S-MAP) and Risk Assessment and Mitigation Phase (RAMP) procedures. This process will become even more complex in the near future, when the Commission reaches a decision in the currently pending S-MAP proceeding. As Ms. Hrna and Mr. Deremer testified, SoCalGas and SDG&E have already experienced timing impacts and the need to request extensions of time in order to internally implement RAMP and S-MAP methodologies, such as the one-year extension that was requested (and granted) to file

[2403] TURN/SCGC OB at 54-55.
[2404] IS OB at 33-34; TURN/SCGC OB at 58.
[2405] TURN/SCGC OB at 58.

the next S-MAP application (from May 1, 2018 to May 1, 2019).[2406] SoCalGas and SDG&E expect to experience similar timing impacts in implementing revised S-MAP and RAMP processes and methodologies that the Commission currently has yet to determine. Adding a fourth attrition year will help alleviate concerns regarding the lengthy time to process GRCs and time to implement authorized projects.

TURN and SCGC argue that an additional attrition year "incorporates another substantial increase in revenue requirement without receiving a significant amount of scrutiny."[2407] Similarly, IS claims "there is a lack of transparency" and "[e]xtending the rate case cycle another year would only exacerbate these problems and place the ratepayers are risk for the consequences of poor forecasting."[2408] IS and TURN/SCGC fail to recognize that the post-year mechanism itself is highly scrutinized and determined in the GRC. Further, the Commission's existing and new processes allow for oversight between GRCs, even more so with the adoption of accountability reporting.[2409] The filing of annual accountability reports provide additional transparency and accountability, by presenting the Companies' actual compared to authorized spending and risk effectiveness for the test year and each attrition year for the items deemed reportable.[2410]

CCUE asserts that a "three-year term would not sacrifice safety or reliability."[2411] But an additional attrition year does not preclude the Companies from making new or continuing investments in safety and reliability. In fact, the Companies have an obligation, which they take very seriously, to provide safe and reliable service and address any emergent safety issues.[2412] D.16-08-018 also provides this consistent guidance to the utilities: "The RAMP and GRCs…are not designed to address immediate needs; the utilities have responsibility for addressing safety

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[2406] Ex. 244 SCG/Hrna at 10; Ex. 247 SDG&E/Deremer at 7 (citing R.13-11-006 and A-15-05-002, March 14, 2018 letter from Executive Director Alice Stebbens to Charles Manzuk granting joint request by SDG&E, SCE and SoCalGas regarding compliance to D.14-12-025 Ordering Paragraph (OP) 5, for extension of deadline to file next S-MAP Proceeding from May 1, 2018 to May 1, 2019).
[2407] TURN/SCGC OB at 64.
[2408] IS OB at 33.
[2409] *See* Ex. 3 SCG/SDG&E/Day at 7 for description of the new annual accountability reporting requirements.
[2410] The Commission's efforts regarding the standardization of reporting and outline of the Risk Spending Accountability Report is currently ongoing in A.15-05-002 (cons.).
[2411] CCUE OB at 164.
[2412] Cal. Pub. Util. Code § 451.

regardless of the GRC cycle."[2413] Therefore, CCUE's concerns are irrelevant to the adoption of a four-year GRC term.

SBUA's claims that a benefit of a three-year cycle is the advocacy of ratepayers are misplaced.[2414] The Companies have testified that one of the many benefits of a longer GRC cycle is better rate certainty and stability to ratepayers,[2415] which includes small business customers. Relationships and commitments made in a GRC can be managed, arguably with greater certainty, over a longer time horizon just as well as in a shorter period. The Companies contend that ratepayers, favor stability and certainty, which further supports a longer GRC term.

In addition to the foregoing, there are multiple benefits of a four-year GRC term. Examples include reducing the administrative burden on all parties and allowing the Companies to more effectively operate their businesses while implementing new risk mitigation and accountability structures, processes and reporting requirements. These benefits, as demonstrated by the record in this proceeding, are evidence that the Companies' proposal for a four-year GRC term, supported by ORA, should be adopted.

46.2 Methodology

ORA, FEA, UCAN, IS, and CLB submitted opening briefs regarding the Companies' proposed annual attrition mechanism in the post-test years. As explained in the Companies' OB, attrition mechanisms should provide reasonable and consistent funding for operating expenses and capital investments.[2416] Without an explicit attrition adjustment, SoCalGas and SDG&E would not have a reasonable opportunity to earn their authorized RORs after TY 2019. The Companies' proposed attrition increases in 2020, 2021, and 2022 account for expected increases in costs due to inflation and increased capital investments (capital additions).

Opening brief positions of the parties that were previously addressed in rebuttal testimony are summarized below.

- ORA's OB recommends post-test year GRC revenue increases of 4.00% in 2020, 2021 and 2022, for both SDG&E and SoCalGas, plus additional revenues for SoCalGas' post-test year PSEP capital additions.[2417] Alternatively, ORA proposes a PTY mechanism

[2413] D.16-08-018 at 152.
[2414] SBUA OB at 7.
[2415] Ex. 244 SCG/Hrna at 9; Ex. 247 SDG&E/Deremer at 6.
[2416] SCG/SDG&E OB at 611 (citing Ex. 242 SCG/Malik/Hrna at 3; Ex. 245 SDG&E/Deremer at 3).
[2417] ORA OB at 488-492.

based on the Companies' proposed O&M expense adjustments, a medical cost escalation rate of 4.25%, and capital adjustments based on a seven-year average.[2418]

- FEA's OB argues for an attrition rate increase for SDG&E in the post-test years, such as the Consumer Price Index (CPI); or alternatively, for the Commission to adopt a PTY mechanism that escalates capital expenditures using a seven-year average of actual expenditures (2011-2017).[2419] FEA argues that its proposal based on historical data is closer to the one adopted by the Commission in PG&E's TY 2017 GRC.[2420]
- For both utilities, UCAN's OB recommends that the Commission adopt the methodology approved by the Commission in SoCalGas' and SDG&E's TY 2012 GRC, which is to increase the Companies' capital and O&M authorized test year revenue requirements by the projected CPI-Urban annual increase plus 75 basis points (providing for PTY revenue requirement increases ranging from 3.4% to 4.0% this year). UCAN does not oppose SoCalGas' proposal to include incremental PSEP costs in its PTY revenue requirements, though UCAN does not take a position on the specific PSEP costs that should be recovered.[2421]
- IS recommended no capital-related SoCalGas revenue requirement increases for non-PSEP capital expenditures in testimony,[2422] as discussed in SoCalGas' and SDG&E's rebuttal testimony and OB.
- CLB recommends SoCalGas annual PTY revenue increases based on CPI plus additional revenue for forecasted PSEP capital additions approved by the Commission,[2423] as well as a lower medical rate, such as the one proposed by ORA.[2424]

As set forth in the Companies' OB and rebuttal testimony,[2425] intervenors' recommendations largely do not take into account the evidence showing that SoCalGas and SDG&E expect to make significant annual capital investments in the TY 2019 GRC.[2426] SoCalGas' and SDG&E's capital programs will continue to focus on investments necessary to build and maintain safe and reliable infrastructure and to mitigate safety risks identified in their RAMP presentations. This theme and content is emphasized throughout the testimony of SoCalGas and SDG&E witnesses sponsoring TY 2019 cost forecasts and aligns with SoCalGas and SDG&E's mission to maintain and enhance their safety-focused culture. Consequently, the

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2418 *Id.* at 491-492. *See* Companies' response in SCG/SDG&E OB at 611-615, 617-621 (citing Ex. 244 SCG/Hrna and Ex. 247 SDG&E/Deremer).
2419 FEA OB at 12.
2420 *Id.* (citing D.14-08-032 at 657).
2421 UCAN OB at 8; *see also* Ex. 511 UCAN/Charles at 35.
2422 Ex. 436 IS/Gorman at 27. IS's OB appears to confuse this position regarding PTY methodology and does not directly address the issue in the PTY section of its brief.
2423 CLB OB at 12; Ex. 478 CLB/Fulmer at 23, 25.
2424 CLB OB at 12.
2425 SCG/SDG&E OB at 611-625; Ex. 244 SCG/Hrna; Ex. 247 SDG&E/Deremer.
2426 *See, e.g.,* Ex. 242 SCG/Malik/Hrna at 4; Ex. 245 SDG&E/Deremer at 4. Testimony demonstrating the Companies' commitment to significant capital investments in the TY 2019 GRC cycles is found throughout SoCalGas' and SDG&E's evidentiary showing.

level of estimated capital expenditures leading up to and including TY 2019 are part of an ongoing investment effort, which will continue beyond the test year period. SoCalGas and SDG&E's PTY attrition mechanism should thus reflect the anticipated growth in capital additions in excess of depreciation in the PTY period, similar to the mechanism the Commission adopted in PG&E's TY 2014 and 2017 GRC proceedings.[2427]

SoCalGas and SDG&E's rebuttal testimony and OB arguments regarding PTY methodology largely address almost all of the intervenors opening brief claims. The Companies' previous testimony and briefing in response to claims that are not new are incorporated herein by reference and not repeated here, for sake of brevity. The few instances where intervenors have raised new briefing arguments regarding the Companies' proposed methodology are addressed below.

CLB

CLB's OB newly argues that SoCalGas' comparison of its PTY ratemaking proposal to the Commission-adopted mechanism in PG&E's TY 2014 and 2017 GRC proceedings "has significant flaws," in part because, for PG&E, "the Commission ultimately approved a settled fixed dollar amount and not the approach itself."[2428] This statement is factually inaccurate and/or incomplete. In PG&E's TY 2014 GRC, the Commission adopted a PTY adjustment to capital-related revenue requirements to reflect the cost of post-test year net capital additions, based on the escalated seven-year average level of capital additions as a proxy for post-test year capital additions.[2429] And in PG&E's TY 2017 GRC, although it is true that the Commission approved a fixed attrition amount as part of a settlement agreement, the settled, fixed amount was based on an alternative PTY mechanism using PG&E's escalation-based methodology,[2430] which the Commission deemed "not inconsistent with D.14-08-032."[2431]

And regarding CLB's proposal that SoCalGas should use "lower, more reasonable medical expense escalation rates," SoCalGas and SDG&E reiterate that Willis Towers Watson's PTY medical escalation rates are appropriate because they are based on the Companies'

[2427] D.14-08-032 at 653; *see also* D.17-05-013 at 246; *see also* Ex. 242 SCG/Malik/Hrna at 4 (citing A.15-09-001, Report on the Results of Operations for Pacific Gas & Electric Company, TY 2017 GRC Post-Test Year Ratemaking, ORA-21 at 22-24.)
[2428] CLB OB at 10.
[2429] D.14-08-032 at 656.
[2430] D.17-05-013 at 235.
[2431] *Id.* at 236.

demographic factors – location, workforce demographics, and medical plan design – which are key drivers of medical plan costs. As set forth in the Companies' OB and in testimony, the Companies' proposed post-test year escalation rates of 6.5% for 2020, 6.0% for 2021, and 5.5% for 2022 are thus appropriate and should be adopted for their PTY ratemaking methodology.[2432]

ARAM

As set forth in their OB, SoCalGas and SDG&E disagree with TURN's proposal to reflect increases in ARAM (the average rate assumption method) in the attrition years.[2433] Taxes witness Ragan Reeves speaks to the complexity of ARAM in his response to data request IS-SCG-009 in May 2018, stating: "Due to the thousands of SoCalGas' [and SDG&E's] plant-related assets, and the TCJA's requirement to compute ARAM on an asset-by-asset basis, the ARAM computation is too complex and detailed to incorporate within SoCalGas' [or SDG&E's] Results of Operations (RO) Model or within an Excel file." For simplicity, SDG&E applied the 2019 ARAM amount to the attrition years.

In its OB, TURN incorrectly argues that the Companies "should be presumed to be able to calculate ARAM in a manner which permits the sure-to-be higher figures for 2020 and 2021 to be incorporated into the RO models for those years."[2434] TURN's claim that ARAM is "sure-to-be-higher" in 2020 and 2021 is inconsistent with the record and inaccurate. FEA's OB notes that "the ARAM can be a complicated calculation and can produce amounts of excess ADIT amortization that vary (perhaps considerably) from year-to-year." And Mr. Reeves' testimony explains clearly how the ARAM calculation is asset-specific and does not provide a consistent trend from year-to-year, and why the Companies' proposed ARAM amounts for 2018 and 2019 are reasonable:

> As explained in [Mr. Reeves' direct testimony,[2435]] the TCJA requires ARAM to be computed on an asset-by-asset basis. SDG&E has thousands of plant-related assets that are subject to depreciation. Accordingly, SDG&E relies on its tax accounting and depreciation software (PowerTax) to compute the ARAM amount for each year. Because ARAM is computed on an asset-by-asset basis, the total ARAM amounts for SDG&E will fluctuate from year to year; however, SDG&E's [sic] expects that the ARAM amounts will be relatively low in the years

[2432] SCG/SDG&E OB at 618 (citing Ex. 211 SCG/SDG&E/Robinson at 31).
[2433] *Id.* at 622.
[2434] TURN OB at 341-342.
[2435] *See* Ex. 261 SoCalGas/Reeves at 21; Ex. 265 SDG&E/Reeves at 23.

immediately following the change in the federal tax rate under the TCJA, with relatively higher ARAM amounts in future years.

> This expectation is a function of the mechanics of the ARAM calculation, because there is no ARAM amount generated for a specific asset until book depreciation for that asset exceeds tax depreciation for that asset, which will not occur until several years after the asset is placed in service. This concept is illustrated by the ARAM example that was included in the Joint Explanatory Statement of the Committee of Conference for the TCJA (TCJA Explanation), which shows that no ARAM is generated for the asset used in the example until 2021, which was five years after the property was placed in service in 2016. See TCJA Explanation at 344-346.
>
> This general principle for ARAM is especially true in SDG&E's case, because SDG&E has made significant capital additions in recent years that are still receiving accelerated depreciation for tax purposes. Therefore, the book depreciation for these assets will not exceed the tax depreciation for several more years, and thus there will be no ARAM associated with these assets for several years.
>
> Accordingly, the ARAM amounts computed by SDG&E's tax accounting and depreciation software for 2018 and 2019 are consistent with SDG&E's expectations and are consistent with the ARAM principals and mechanics as shown in the ARAM calculation example included in the TCJA.[2436]

Although there is no corresponding SoCalGas data request response, these principles are the same for both Companies.

Additionally, the "actual" ARAM amounts will be tracked in the Companies' TMA for 2020 and 2021,[2437] such that even if the ARAM amounts were to increase, TURN's proposal would be unnecessary. For all of these reasons, the ARAM calculation determined through Mr. Reeves' chapter should be utilized for the PTY methodology, as proposed.

Factoring CIS benefits into the 2022 PTY proposal

As noted in the Companies' OB, the CPUC issued D.18-08-008 on August 10, 2018, approving the settlement agreement in SDG&E's customer information system (CIS) proceeding and authorizing SDG&E to, among other things:

[2436] Ex. 267 at Appendix B, at 14-15 (SDG&E's data request response to TURN-060, Question #3 (citing Ex. 265 SDG&E/Reeves at 23)).

[2437] *See* Ex. 264 SoCalGas/Reeves at 10; Ex. 267 SDG&E/Reeves at 11 ("If ORA intends 'impacted by tax changes' to mean the revenue impact of changes in tax law, tax accounting methods, tax procedures, or tax policy, [SoCalGas'/SDG&E's] current TMA for the 2016 GRC cycle already tracks such changes, and [SoCalGas/SDG&E] proposes that the TMA for the 2019 GRC cycle should continue to track the revenue impact of such tax changes.").

- Establish a Customer Information System Balancing Account (CISBA) to record the implementation costs, O&M costs and capital-related costs associated with the CIS program.[2438]
- Authorize SDG&E to recover amounts authorized in the decision through its annual end of the year consolidated advice letter filing into appropriate revenue requirements for affected years.[2439]

UCAN's OB argues that, if SDG&E's request for an additional attrition year of 2022 is adopted in this GRC, SDG&E's 2022 revenue requirement should be adjusted through an advice letter process. This argument is generally consistent with the revenue requirement adjustment set forth in the CIS decision, as SDG&E described in its OB.[2440] However, SDG&E notes that the benefits authorized in the CIS decision would need to be credited against the 2022 CIS costs to come up with the 2022 CIS revenue requirement, and then applied to the total 2022 GRC PTY revenue requirement. Currently, neither the costs nor benefits of the 2022 CIS revenue requirement are reflected in SDG&E's 2022 GRC PTY revenue requirement. Thus, if the 2022 CIS revenue requirement, as proposed in the rebuttal testimony of Michael Woodruff in the CIS proceeding,[2441] is applied to PTY 2022, it would result in a total net revenue requirement of approximately $53.0 million (approximately $64.7 million of costs minus $11.7 million of benefits). If the additional 2022 attrition year is not approved, then the 2022 CIS revenue requirement, which would include both 2022 CIS benefits and the costs, would be addressed in the next (2022 test year) GRC.

46.3 Z-Factor

ORA and City of Long Beach support continuation of SoCalGas and SDG&E's existing, currently authorized, Z-factor mechanism in their opening briefs.[2442] IS opposes continuation of the Z-factor mechanism for SoCalGas.[2443]

SoCalGas and SDG&E's proposal to continue the existing Z-factor mechanism for this 2019-2022 GRC term should be adopted as proposed, for the reasons set forth in their OB and in testimony.[2444] IS's concern that the Z-factor "is not based on verifiable prudent and reasonable

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2438 D.18-08-008 at 21, OP 4.
2439 *Id.* at OP 3.
2440 SCG/SDG&E OB at 622-623 (citing D.18-08-008).
2441 A.17-04-027, Rebuttal Testimony of Michael Woodruff, Revised Table 3, at 3.
2442 ORA OB at 492; CLB OB at 13.
2443 IS OB at 34.
2444 SCG/SDG&E OB at 623-625 (citing Ex. 242 SCG/Malik/Hrna at 10-11; Ex. 245 SDG&E/Deremer at 8).

costs"[2445] is unfounded and misapprehends the stringent requirements and evidentiary showing necessary for SoCalGas or SDG&E to employ use of the mechanism, through a Z-factor application and evidentiary proceeding. As shown in Ms. Hrna's testimony, the mechanism uses a series of eight stringent criteria to identify exogenous cost changes that qualify for rate adjustments prior to the next GRC test year.[2446] One of the eight Z-factor criteria is that costs must be reasonably incurred. All eight criteria must be met, and only then would the Z-factor mechanism allow for rate adjustments, only for the portion of the Z-factor costs not already contained in SoCalGas' and SDG&E's annual revenue requirement, and only for costs that exceed a $5 million deductible per event.[2447] IS's proposal is not supported by record evidence or Commission precedent and should be rejected.

Although ORA supports continuation of the Z-factor mechanism, ORA continues to argue that it should only be effective for the post-test years, and not the test year.[2448] This proposal should be rejected, for all of the reasons set forth in the Companies' OB and testimony.[2449] ORA bases its briefing argument on the claim that its proposal "is consistent with ORA's recommendations in the PG&E 2014 and 2017 GRCs, which were adopted by the Commission."[2450] This argument fails to recognize that this issue was resolved by an adopted settlement agreement in PG&E's 2017 GRC, and that PG&E simply did not contest ORA's proposal in its 2014 GRC.[2451] The Commission's adoption of an uncontested or settled proposal in PG&E's GRC can hardly serve as precedent to resolve this contested issue for SoCalGas and SDG&E. Moreover, SoCalGas and SDG&E's current Z-factor mechanism is also Commission-authorized by adoption of a settlement agreement, and it does not contain the limitation ORA proposes, despite ORA's same proposal in the TY 2016 case.[2452] To the contrary, the

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[2445] IS OB at 34.
[2446] Ex. 244 SCG/Hrna at 21-22 (citing D.10-12-053 at 42 for the following eight Z-factor criteria: (1) costs caused by an exogenous event, (2) costs caused by an event that occurred after the implementation of rates, (3) uncontrollable costs, (4) costs that are not a normal cost of doing business, (5) caused by an event that has a disproportionate effect, (6) costs that have a major impact, (7) costs that have a measurable impact, and (8) costs that are reasonably incurred).
[2447] *Id.*
[2448] ORA OB at 492.
[2449] SCG/SDG&E OB at 623-625.
[2450] ORA OB at 492.
[2451] *See* D.14-08-032 at 662; D.17-05-013 at 52-53 ("Section 3.1.1.4 of the Settlement Agreement adopts ORA's recommendation to limit PG&E's exogenous Z-factor proposal to years other than the test year.").
[2452] *See, e.g.,* D. 16-06-054 at 229 ("the settling parties have agreed to the 'continuation of SDG&E's existing, currently authorized, Z-factor mechanism"').

Commission noted ORA's and SoCalGas' comparative positions in determining the current Z-factor mechanism's reasonableness and adopting the settled agreement on this issue with no change:

> ORA does not oppose SoCalGas' request to continue the Z-factor mechanism. However, ORA recommends that the Z-factor mechanism be effective only during the attrition years, and not for the test year. In the SoCalGas Settlement Comparison Exhibit at 13, the settling parties have agreed to continue the Z-factor mechanism. *Based on a comparison of the positions of SoCalGas and ORA on the Z-factor, it is reasonable to continue the Z-factor mechanism without any change* during the GRC cycle, and that portion of the SoCalGas Settlement Agreement should be adopted. Again, we emphasize that the Z-factor also applies to events that cause cost decreases, as well as to events that cause cost increases.[2453]

As stated in the Companies' OB and testimony, ORA's proposal does not take into account the fact that Z-factor events can take place at any time during the rate case cycle, including the test year.[2454] Furthermore, the very nature of a Z-factor event is its unpredictability. If a Z-factor event occurred in the test year that served to benefit SoCalGas or SDG&E, the ratepayers would be similarly unprotected from a justified lowering of rates. For all of these reasons, the Commission should remain true to the Z-factor's practical intent, which serves as a protection to both the ratepayer and utility, and disregard ORA's limiting proposal.

46.4 Conclusion

To summarize, SoCalGas and SDG&E have proposed a set of PTY ratemaking proposals that fairly balance the interests of both ratepayers and shareholders. The Companies believe that a reasonable PTY mechanism should meet the following goals: (1) use O&M and medical cost escalation indices that are representative of SoCalGas' and SDG&E's actual cost drivers, (2) use capital additions cost escalation that balances the certainty of historical spending with the best available estimates of future period capital additions, and (3) include a forecast for PSEP capital additions beyond TY 2019. For the reasons discussed above, in the Companies' OB, and in testimony, the proposals of ORA, UCAN, TURN, SCGC, CUE, IS, CLB, and FEA fail to meet these goals. The four-year GRC term SoCalGas and SDG&E have proposed should be adopted, as ORA agrees, for all of the reasons noted above.

[2453] D.16-06-054 at 284-285 (emphasis added).

[2454] SCG/SDG&E OB at 624-25.

SoCalGas' and SDG&E's PTY ratemaking proposals are fair and reasonable mechanisms to provide the foundation for operational and financial stability in the post-test years. This proposal accounts for the major cost drivers impacting the Companies, which allows them to provide safe and reliable service to its customers, comply with regulations, and manage their operations as prudent financial stewards.

47. Presentation of Rates

Please see Section 5.1 Policy Overview for SoCalGas and SDG&E's reply to parties' rates and bill comparison positions with respect to affordability and cost-effectiveness concerns.

SDG&E responds here to SDCAN's incorrect assertion that SDG&E "may have misled regulators" by presenting proposed rates which were different from illustrative rates provided two months prior.[2455] Due to the nature of the regulatory process and the existence of overlapping proceedings and filings, it is not unusual that illustrative rates provided in advance of an implementation will differ from those which were ultimately implemented. For example, in accordance with Rule 3.2(a) of the Commission's Rules of Practice and Procedure, SDG&E submits illustrative rates, at a minimum, as an attachment to applications requesting authority to increase rates. Given the Commission's assumption, as provided in Rule 2.1(c), that generally ratesetting applications are resolved with 18 months, there may be additional rate changes that occur during the 18-month processing time of ratesetting applications. Irrespective of this timing issue, as with all of SDG&E's rates, the changes and rates for which SDG&E sought approval in AL 3130-E-B, the specific instance in which SDCAN takes issue, were appropriately reviewed and approved by the CPUC staff or the CPUC prior to implementation.

48. Results of Examination (ORA Audit)

As ORA acknowledges, it conducted an extensive examination of SoCalGas' and SDG&E's financial data that was used to forecast the Companies' proposed revenue requirements, with a primary focus on what costs should be included for GRC forecasting.[2456]

[2455] SDCAN OB at 7-8 (citing SDCAN Testimony of Shames at 17, which cites ORA's protest to SDG&E's Advice Letter (AL) 3130-E-B)). SDG&E AL 3130-E, along with supplemental ALs 3130-E-A, 3130-E-B, 3130-E-C, and 3130-E-D, were submitted for the approval of Release 1 of SDG&E's 2016 GRC Phase 2.
[2456] ORA OB at 493.

ORA's only recommended adjustment is to remove the cost of 20 attorney-client privileged internal audits.[2457]

Yet, as detailed in SoCalGas and SDG&E's opening brief, ORA does not claim that these expenses were incorrect or imprudent. Instead, ORA only contends that the expenses should be removed because ORA was not granted access to the privileged reports.[2458] Although these reports are legally privileged, they represent legitimate expenses.[2459] In addition, ORA did not use the actual audit costs for its recommended reduction.[2460]

Separately, ORA recommends that SoCalGas and SDG&E continue to submit Gas Transmission, Distribution and Storage Safety Reports (Safety Reports) on the grounds that it is premature to assume that the Commission's other reporting requirements, primarily the RAMP and accountability reports (*i.e.*, Risk Mitigation Accountability Report and Risk Spending Accountability Report) pursuant to D.14-12-025, as well as the requirements in SB 549 will provide a complete replacement of the Safety Reports.[2461] ORA's recommendations are in response to the Companies' request put forth in the Compliance testimony of Jamie York.[2462] But there have been significant developments since Ms. York's testimony was served on October 6, 2017.

SB 549 became law effective on January 1, 2018, and added P.U. Code Section 591(a), which requires "an electrical or gas corporation to annually notify the commission … of each time since that notification was last provided that capital or expense revenue authorized by the commission for maintenance, safety, or reliability was redirected by the electrical or gas corporation to other purposes."[2463] The Commission tasked the Energy Division with standardizing the content and format of the Risk Spending Accountability Reports for all the California utilities in the pending S-MAP.[2464] On August 31, 2018, the Energy Division provided guidance in the S-MAP with respect to the Risk Spending Accountability Report that

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2457 *Id.* at 494.
2458 SCG/SDG&E OB at 628 (internal citations omitted).
2459 *Id.* at 444-445.
2460 SCG/SDG&E OB at 628.
2461 ORA OB at 495-496.
2462 *See* Ex. 348 SCG/SDG&E/York at 25.
2463 P.U. Code Section (§) 591(a).
2464 *See* A.15-05-002 (cons.), Administrative Law Judge Ruling Updating Schedule In Response To Comments And Entering Phase Two S-MAP Workshop #2 Staff Summary Into The Record (dated October 5, 2017) at 5.

resulted in (1) an expansion of the report's scope from just safety risk mitigations (*i.e.*, RAMP) to all activities related to maintenance, safety, and/or reliability in accordance with P.U. Code § 591; and (2) additional interim reporting requirements to begin as early as December 2018.[2465] Given these new developments, the Companies' maintain their proposal to discontinue the Safety Reports. The Safety Reports, now more than ever, are substantively duplicative of the Companies' newly revised separate reporting requirements. The Safety Reports are thus burdensome to the Companies, the Commission, and their staff, while providing little, if any additional useful information.[2466]

49. Mobilehome Park Utility Upgrade Program

49.1 SoCalGas

SoCalGas seeks review of costs reasonably incurred in the course of executing the Commission-ordered Mobilehome Park Utility Upgrade Pilot Program (MHP Pilot Program).

Table 49.A
SoCalGas Capital and O&M MHP Pilot Program through 2016
(Constant 2016)

MHP Pilot Program	Costs Incurred for MHP Projects Completed through 2016 ($Million)
Capital	15.5
O&M	0.3
Total	**15.8**

No party opposed the reasonableness of the costs incurred by SoCalGas in executing the MHP Pilot Program in their opening briefs. ORA stated specifically that it "does not object to those costs."[2467]

As such, SoCalGas requests the Commission approve as reasonable the costs incurred through 2016 in executing the MHP Pilot Program.

[2465] *See* A.15-05-002 (cons.), Administrative Law Judge's Ruling Noticing Workshop, Entering Second Revised Staff Proposal Into The Record And Soliciting Comments (dated August 31, 2018) at Appendices, Energy Division Guidance for the Standardized Reporting and Outline of the Risk Spending Accountability Report.
[2466] Ex. 348 SCG/SDG&E/York at 36.
[2467] ORA OB at 496.

49.2 SDG&E

SDG&E also seeks review of costs reasonably incurred in the course of executing the MHP Pilot Program.

Table 49.B
SDG&E Capital and O&M MHP Pilot Program through 2016
(Constant 2016)

MHP Pilot Program	Gas Costs Incurred for MHP Projects Completed through 2016 ($Million)	Electric Costs Incurred for MHP Projects Completed through 2016 ($Million)	Total ($Million)
Capital	5.9	5.4	11.3
O&M	0.1	0.1	0.2
Total	**6.0**	**5.5**	**11.5**

No party opposed the reasonableness of the costs incurred by SoCalGas in executing the MHP Pilot Program in their opening briefs. ORA stated specifically that it "does not object to those costs."[2468]

As such, SDG&E requests the Commission approve as reasonable the costs incurred through 2016 in executing the MHP Pilot Program.

50. Other Issues

50.1 Accessibility Issues

No party has opposed the Accessibility Request advanced by The Center for Accessible Technology (CforAT), SoCalGas and SDG&E.[2469] The Commission should adopt the Accessibility Request as filed.

51. Conclusion

SoCalGas and SDG&E believe they have fully justified and supported their requested TY 2019 revenue requirements, as well as associated ratemaking mechanisms for the proposed four-year rate case cycle. The Companies therefore request that the Commission promptly approve the requested relief in this proceeding by adopting their proposed revenue requirements and proposed costs for TY 2019 as just and reasonable, and their proposed test-year ratemaking mechanisms as just and reasonable. The Commission's final decision should also include an

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[2468] *Id.*
[2469] Ex. 365, Joint Testimony/Kasnitz and Manzuk (May 14, 2018). SCG/SDG&E OB at 631.

ordering paragraph specifically authorizing the Companies to implement the regulatory accounts as proposed in the Companies' testimonies.

Respectfully submitted,

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October 12, 2018

ATTACHMENT A

Ex. 86 SCG/Rivera, Appendix B

Data Request

OSA-SEU-003, Question 7a

7) Please identify all the activities that will be/are being/have been developed and implemented to achieve conformance with API 1173 and identify their status. Also:

a) Using an excel spreadsheet, please map all SMS related activities that are included in this GRC to the corresponding testimony and workpaper sections, provide the activity description, and corresponding dollar amount for each activity.

b) Please compile all the testimony sections addressing the SMS and related activities into a single document compendium.

Utilities Response 7:

Please see the response to Question 7a.

Utilities Response 7a:

a) Please see the separately attached spreadsheet "Data Response OSA 003_Q7a," which provides the SMS-related activities requested in the 2019 GRC, including efforts related to API 1173.

The status of each line item is provided the spreadsheet. It is shown as either "In Process" or "Planned," and was determined by the presence of recorded expenditures greater than zero in 2017. Any line item with a non-zero 2017 expenditure is labeled as "In Process." Because multiple line items in the spreadsheet can correspond to often a single forecasted item in the GRC, if that GRC forecasted item showed a value greater than zero, then all associated line items in the SMS spreadsheet were marked "In Process."

The exact meaning and application of "all SMS related activities" in the question are vague and ambiguous. As such, the speadsheet referenced in this response represent the best efforts of SoCalGas and SDG&E to capture SMS-related activities, including, but not limited to, those intended to achieve or maintain API 1173 conformance and to address Risk Assessment Mitigation Phase (RAMP) items that mitigate SoCalGas and SDG&E's top safety risks. However, depending on the definition of SMS-related activities, this may not be a complete list or include more granular items that may be identified through a more time-consuming, comprehensive search.

It is further noted that API 1173 is specifically mentioned in the following exhibits in the 2019 GRC proceeding:

- SCG-02-R/SDG&E-02-R, Chapter 1 (Day) - testimony
- SDG&E-04-R (Orozco-Mejia) and SDG&E-04-WP-R
- SDG&E-05 (Rivera) and SDG&E-05-WP
- SCG-05-R (Rivera) and SCG-05-WP
- SCG-08-R (Bermel)

Utilities Response 7b:

b) Please see the response to Question 7a. Please also see column C of the spreadsheet referenced in response to Question 7a.

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation	(A) 2016 Embedded RAMP Base Costs (000s)	(B) TY 2019 Estimated RAMP Incremental (000s)	Dollars Requested (000)	Program_Name	Program_Desc	Status
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD000.001	Field O&M - Leak Survey	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Maintenance	1,629	0	1,629	Leak Mitigation, Unstable Earth, Bridge and Span, Pipeline Patrol	Leak surveys, inspection of bridges and spans, self audits all at code required intervals	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD000.001	Field O&M - Leak Survey	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Safety Policies & Programs	1,250	0	1,250	Leak Repair	Leak repair is the result of leak mitigation and pipeline patrol. The activity involves replacing pipe or components that are poorly performing by leaking.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD000.001	Field O&M - Leak Survey	SDG&E-03	Employee, Contractor, and Public Safety	Safety Policies and Programs	211	0	211	Leak Surveys, Pipeline Patrols, Bridge Span Inspections	Patrolling, Leakage Surveys, atmospheric corrosion control and odorization of gas. Mandated under Federal Regulations DOT/PHMSA Title 49	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD000.001	Field O&M - Leak Survey							D. Three Leak Patrollers	to perform leak survey on high pressure pipelines bi-annually; and begin an annual Aldyl-A survey. (Total combined labor is 3 X $85K= $255K beginning in TY2019 and thereafter); Non-labor expense is 3 X 5K= $15K total beginning in TY2019 and thereafter.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD000.002	Field O&M - Locate & Mark	SDG&E-02	Catastrophic Damage Involving Third Party Dig-Ins	Training Locate & Mark Activities Prevention and Improvements	2,542	560	3,102	Locate & Mark Training, Field Activities, Staff Support, Pipeline Observations (stand-by),	Training, certification and compliance of Federal and State laws.Prevention of damage to substructures due to unsafe excavation practices . Staff to translate federal and state regulations into company Gas Standards. Surveillance of excavations in the vicinity of high pressure gas lines to prevent damage.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD000.007	Field O&M - Supervision & Training	SDG&E-17	Workforce Planning	Improvements	0	319	319	Compliance, technical, and leadership training classes and programs	Annual ESCMP/OpQual Welding School Proposed: Supervisor University	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD000.007	Field O&M - Supervision & Training	SDG&E-03	Employee, Contractor, and Public Safety	Safety Policies & Programs	1,875	0	1,875	Traffic Control Work Group and Equip	Traffic Control for Employee and Public Safety. FY impact only 2015 going forward.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD000.007	Field O&M - Supervision & Training							Three Field Supervisors	will be added one beginning in 2018 and two more in 2019 to address growth in capital work. These positions will charge 40% of their time to O&M.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD001.000	Asset Management	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Coat or remove affected buried piping in vaults	0	217	217	Buried Piping in Vaults	SDG&E has pipeline buried in vaults that may be corroded by above ground facilities and pitting of below ground piping. This activity will determine the locations vaults containing medium and high pressure facilities. SDG&E will assess the coating and the condition of the above-ground and below-ground facilities within the vaults.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD001.000	Asset Management	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Encapsulate Dresser couplings	0	0	0	Dresser Mechanical Coupling Removal	This program consists of evaluating the coupling field location, excavating, and assessing the weld housing to encapsulate the dresser mechanical couplings main in and near downtown San Diego.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD001.000	Asset Management	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Maintenance	174	0	174	Utility Conflict Review (Right of Way)	Inspection of the property area where pipelines are located and addresses encroachment, which is tangible property belonging to either the owner or a third party, which has unlawfully been or will be placed within the Companys right of way. This is mandated by CFR 49 Part 192 Subpart M.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD001.000	Asset Management	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Operations	68	0	68	Gas Standards Review	All procedures in Gas Standards are reviewed yearly for updated regulator information & updating standard procedures	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD001.000	Asset Management	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Verify locations and remove	0	0	0	Oil Drip Piping	This project is designed to verify the location of above ground and buried oil drip lines and containers. As part of the process, SDG&E consults with Pipeline Operations and Region Engineering to determine and remove facilities that are not necessary.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD001.000	Asset Management							Four - Technical Support Analysts (TSA)s	will be added in the Technical Services design groups, 2 in 2017 and 2 more in 2018, in order to support increased workload.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD001.000	Asset Management							Two GIS Analysts	will be added in the GGISS group one beginning in 2017. These positions will charge 52% of their time to O&M.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD001.000	Asset Management							Four GIS Technicians	will be added in the GGISS group beginning 2018. This addition is for system growth, mobile home park replacement mapping, mapping support to newly added leak surveys and GO 112-F reporting.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD002.000	Measurement & Regulation	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Scheduled monitoring and survey activities	2,400	0	2,400	Regulator Station Inspections, Meter Set Assembly (MSA), Valve Inspection, Meter and Regulators	Inspect meters, regulators to evaluate and confirm overpressure protection is in place and maintained.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD003.000	Cathodic Protection	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Requirements for Corrosion Control	1,500	0	1,500	Cathodic Protection	System protection requirements mandated by CFR 49 Part 192 Subpart I. This program maintains cathodically protected assets by repairing, replacing, or retrofitting components.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD003.000	Cathodic Protection							Four CP Electricians	(2 CP Electricians in 2017 and an additional 2 in 2018) are required for - CP 10% and other magnesium anode area reads	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD003.000	Cathodic Protection							One Technical Advisor	will be added beginning in 2018 to provide CP system integrity analysis and prioritization of work activities.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD004.000	Operations Management & Training	SDG&E-03	Employee, Contractor, and Public Safety	Customer Communications & First Responder training	262	0	262	First Responder Outreach Program	First Responder gas related safety training and contingency planning. Also includes training and communications to internal personnel.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD004.000	Operations Management & Training	SDG&E-03	Employee, Contractor, and Public Safety	Mandatrory Employee training refresher programs	800	0	800	Job Skills Training and STC -Gas	Job Skills Training at the Skills Training Center (Gas)	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD004.000	Operations Management & Training	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Operations	90	0	90	Pipeline Safety and Compliance	The minimum safety requirements prescribed by CFR 49 Part 192 Subpart L. Operations include locate and mark, emergency preparedness and odorization. These activities are intended to address threats as identified by PHMSA.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD004.000	Operations Management & Training	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Operations	68	0	68	QA/QC mostly new construction	Inspections of installed assets, welding/bonding procedures, material verification, gas standard compliance, personnel training/qualification verification.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD004.000	Operations Management & Training	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Qualifications of Pipeline Personnel	650	0	650	Distribution Welder Training, Distribution Construction Training, Training Props	Certification and training that is required for all distribution employees to work on company assets. This is mandated by CFR 49 Part 192 Subpart N. For safety and distribution staff training, Props are purchased to be used in situation city to simulate real world scenarios while qualifying personnel.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Meji	Gas Distribution	1GD004.000	Operations Management & Training							Records Management System	Funds will be required for setup and licensing for ITS and Veriforce records management systems for monitoring and tracking employee and contractor Operator Qualification records and Drug and Alcohol testing records.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation	(A) 2016 Embedded RAMP Base Costs (000s)	(B) TY 2019 Estimated RAMP Incremental (000s)	Dollars Requested (000)	Program_Name	Program_Desc	Status
SDG&E	O&M	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	1GD004.000	Operations Management & Training								Contract resource (Instructional design) will be required to DEVELOP training for Field Utility Specialists in 2018 and 2019	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	1GD004.000	Operations Management & Training								One Shop Assistant Due to the increase in customer meter sets and regulator stations requiring fabrication in the Welding Shop and for shop tools maintenance, one Shop Assistant will be required beginning in 2018.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	1GD004.000	Operations Management & Training								One Emergency Response Technical Advisor to assist in coordinating tabletop and functional gas incident emergency exercises, provide staff support to the San Diego Region Gas Emergency (GEC), and update GEC procedures and operating manual, one Technical Advisor will be required beginning in 2018.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	1GD004.000	Operations Management & Training								One Project Specialist Beginning in 2018 one Project Specialist will be added to focus on increased reporting and Operator Qualification requirements and compliance support as a result of the implementation of the new CPUC GO-112F.	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	1GD004.000	Operations Management & Training								Contract resource (Instructor) will be required to CONDUCT training for Gas Transmission and Moreno Compressor Station operators in 2018 and 2019	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	1GD004.000	Operations Management & Training								Contract resource (instructional design) to DEVELOP training for the Moreno Compressor station. This includes operations skills, OpQual, and instrumentation training for Moreno personnel	IN PROCESS
SDG&E	O&M	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	1GD004.000	Operations Management & Training								One Project Manager To begin implementing SDG&E Gas Distribution approach to compliance with API 1173 and Pipeline Safety Management System (PSMS) objectives. This will require one Project Manager beginning in 2018 and thereafter	IN PROCESS
SDG&E	O&M	SDG&E-05	Omar Rivera	Gas System Integrity	1SI000.000	GAS CONTRACTOR CONTROLS	SDG&E-03	Employee, Contractor, and Public Safety	Safety Policies & Programs	0	0	0	Traffic Control Work Group and Equipment	Traffic control for construction work	PLANNED
SDG&E	O&M	SDG&E-05	Omar Rivera	Gas System Integrity	1SI000.000	GAS CONTRACTOR CONTROLS	SDG&E-03	Employee, Contractor, and Public Safety	Safety Policies & Programs	0	127	127	Traffic Control Work Group and Equipment	Traffic control for construction work	PLANNED
SDG&E	O&M	SDG&E-05	Omar Rivera	Gas System Integrity	1SI002.000	PIPELINE SAFETY & COMPLIANCE								Adjustment to make the SDG&E Pipeline Safety & Compliance advisor 100%	IN PROCESS
SDG&E	O&M	SDG&E-05	Omar Rivera	Gas System Integrity	1SI003.000	DAMAGE PREVENTION AND PUBLIC AWARENESS	SDG&E-02	Catastrophic Damage Involving Third Party Dig-Ins	Public Awareness	125	500	625	Damage Prevention Public Awareness	Promotion of excavation safety to contractors and the public	IN PROCESS
SDG&E	O&M	SDG&E-05	Omar Rivera	Gas System Integrity	2100-3563	CODES STANDARDS AND RECORDS	SDG&E-13	Records Management	Information Management Systems	0	600	600	Information Management Systems	Regulatory compliance standards increasingly require that utilities be able to efficiently and effectively identify specific attributes related to operational assets	PLANNED
SDG&E	O&M	SDG&E-06	Elizabeth A. Music	Gas Transmission O&M	1GT000.000	Pipeline Operations	SDG&E-10	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Systems In Place To Monitor And Manage Compliance Activity	20	0	20	Pipeline Patrol	Patrol Pipelines For Leaks	IN PROCESS
SDG&E	O&M	SDG&E-06	Elizabeth A. Music	Gas Transmission O&M	1GT000.000	Pipeline Operations	SDG&E-10	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Systems In Place To Monitor and Manage Compliance Activity	7	0	7	Transmission M & I Maintenance	Inspect Regulators To Ensure Overpressure Protection In Place And Maintained	IN PROCESS
SDG&E	O&M	SDG&E-06	Elizabeth A. Music	Gas Transmission O&M	1GT000.000	Pipeline Operations	SDG&E-10	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Systems in place to monitor and manage compliance activity schedules	27	0	27	Maximo Work Order Tracking	Track All Compliance Related Conditions In MAXIMO	IN PROCESS
SDG&E	O&M	SDG&E-06	Elizabeth A. Music	Gas Transmission O&M	1GT000.000	Pipeline Operations								Pipeline Operation - Support Staffing	IN PROCESS
SDG&E	O&M	SDG&E-06	Elizabeth A. Music	Gas Transmission O&M	1GT000.000	Pipeline Operations								Pipeline Leakage Investigation & Mitigation _ (Non Capital qualifying repairs)	IN PROCESS
SDG&E	O&M	SDG&E-06	Elizabeth A. Music	Gas Transmission O&M	1GT000.000	Pipeline Operations								Right-Of-Way Compliance Maintenance	IN PROCESS
SDG&E	O&M	SDG&E-06	Elizabeth A. Music	Gas Transmission O&M	1GT001.000	Compression Station Operations								Compression Operations SupportStaffing	IN PROCESS
SDG&E	O&M	SDG&E-06	Elizabeth A. Music	Gas Transmission O&M	1GT001.000	Compression Station Operations								Peak Load - Extended Maintenance Support Staffing	IN PROCESS
SDG&E	O&M	SDG&E-06	Elizabeth A. Music	Gas Transmission O&M	1GT002.000	Technical Services	SDG&E-10	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Operations	32	0	32	Utility Conflict Review	Review Righs Of Way And Other Conflicts For Resolution	IN PROCESS
SDG&E	O&M	SDG&E-06	Elizabeth A. Music	Gas Transmission O&M	1GT002.000	Technical Services	SDG&E-10	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Operator Qualification	108	0	108	Transmission Operator Qualification	Certification, Training, and Compliance With CFR	IN PROCESS
SDG&E	O&M	SDG&E-06	Elizabeth A. Music	Gas Transmission O&M	1GT002.000	Technical Services								Engineering Support Staffing	IN PROCESS
SDG&E	O&M	SDG&E-09	Deanna R. Haines	Gas Engineering	2100-3563	CODES STANDARDS AND RECORDS	SDG&E-13	Records Management	Administrative	0	0	0	Periodic Independent Internal Audits of Records Management	Records Management Group performs an internal audit of selected departments annually	PLANNED
SDG&E	O&M	SDG&E-11	Maria T. Martinez	TIMP & DIMP	1TD000.000	TIMP	SDG&E-10	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Transmission integrity management program is closely monitored and given high priority.	4,717	283	5,000	ILI - ECDA - Integrity Assessments	Cleaning and assessing internal conditions of hi pressure pipelines, external assesment of hi pressure pipelines, assessing the integrity of current hi pressure pipelines through ILI data	IN PROCESS

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SDG&E	O&M	SDG&E-11	Maria T. Martinez	TIMP & DIMP	1TD000.001	DIMP	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Programs in place to minimize infrastruce damage due to vehicles or equipment striking above ground	3,027	2,973	6,000	GIPP - Anodeless Riser DRIP - SLIP - DIMP DREAMS	Program in place to protect assets by building infrastructure to protect gas equipment - addresses the threat of failures of anodeless risers - addresses an emerging issue concerning pipeline damage associated with sewer laterals - risk evaluation and monitoring of distribution systems	IN PROCESS
SDG&E	O&M	SDG&E-15	William H. Speer	tric Distribution O	1ED011.000	Electric Regional Operations	SDG&E-08	Aviation Incident	Safety Management Syst	34	0	34	Aviation Safety Management System (SMS)	Comprehensive safety management approach consisting of policies and procedures applicable for aviation	IN PROCESS
SDG&E	O&M	SDG&E-15	William H. Speer	tric Distribution O	1ED011.000	Electric Regional Operations	SDG&E-08	Aviation Incident	Safety Management Syst	0	37	37	Governing Document Development	Development of separate policies for internal and external aviation operations	IN PROCESS
SDG&E	O&M	SDG&E-15	William H. Speer	tric Distribution O	1ED011.000	Electric Regional Operations	SDG&E-11	Unmanned Aircraft System Incidents	Safety Management Sy	0	49	49	UAS SMS	A systematic approach to managing safety to better capture, analyze, and understand performance information and flight data, leading to programmatic changes that prevent failures.	IN PROCESS
SDG&E	O&M	SDG&E-15	William H. Speer	tric Distribution O	1ED011.000	Electric Regional Operations	SDG&E-11	Unmanned Aircraft System Incidents	Safety Management Sy	0	29	29	UAS Privacy Policy	A policy to be created in compliance with industry best practices. The development of this policy will drive changes to the Aviation Operations Manual and Training Documentation.	IN PROCESS
SDG&E	O&M	SDG&E-15	William H. Speer	tric Distribution O	1ED027.000	Emergency Management	SDG&E-01 SDG&E-02 SDG&E-14	Wildfires Caused by SDG&E Equipment Employee, Constractor and Public Safety Climate Change Adaptation	Various	5970	911	6881	Emergency Management	Emergency Management is made up of three groups: Emergency Services (ES), Meteorology, and Fire Coordination and Prevention (FCP).	IN PROCESS
SDG&E	O&M	SDG&E-15	William H. Speer	tric Distribution O	1ED019.000	Asset Management	SDG&E-12	Electric Infrastructure Integrity	Utility Asset Managemer	0	3329	3329	ISO 55000 Certification	Estimated costs to obtain ISO55000 certification of standards for utility asset management.	IN PROCESS
SDG&E	O&M	SDG&E-17	Gwen R. Marelli	CS-Field	1FC001.000	Customer Services Field - Operations	SDG&E-03	Employee, Contractor, and Public Safety	Refer to Program Description	0	0	0	Refer to Program Description	CSF BBS program, CSF Field Observations performed by Supervisors, CSF Emergency orders include include Carbon Monoxide, Fumigation and Hazardous and non hazardous gas leaks, CSF Atmospheric Corrosion Orders	IN PROCESS
SDG&E	O&M	SDG&E-17	Gwen R. Marelli	CS-Field	1FC001.000	Customer Services Field - Operations								CS - Field Operations labor and non-labor costs associated with workload order forecast. Refer to Ex. SDG&E-17-WP - GMarelli - 1FC001, Supplemental Workpaper 1, for detailed calculations.	IN PROCESS
SDG&E	O&M	SDG&E-17	Gwen R. Marelli	CS-Field	1FC001.000	Customer Services Field - Operations								Incremental ongoing O&M costs associated with the implementation of the Field Parts Replacement Services (FPRS) program. Refer to testimony of SDG&E witness G. Marelli, Ex. SDGE-17, Section III.A.5, for more information on the FPRS program.	IN PROCESS
SDG&E	O&M	SDG&E-17	Gwen R. Marelli	CS-Field	1FC002.000	Customer Services Field - Supervision								Labor and non-labor cost for front-line CS - Field Supervision who provide direct supervision for CS - Field Operations technicians and collectors to maintain historical employee to supervisor ratio of 12:1. Refer to Ex. SDG&E-17-WP - GMarelli - 1FC002, Supplemental Workpaper 1, for detailed calculations.	IN PROCESS
SDG&E	O&M	SDG&E-17	Gwen R. Marelli	CS-Field	1FC003.000	Customer Services Field - Dispatch	SDG&E-03	Employee, Contractor, and Public Safety	Field observations of employee and contractors activities and safety behaviors	1	0	1	Behavior Based Safety (BBS) Program	CSF BBS program	IN PROCESS
SDG&E	O&M	SDG&E-17	Gwen R. Marelli	CS-Field	1FC003.000	Customer Services Field - Dispatch								Labor and non-labor costs for Dispatch personnel who route and dispatch work orders to CS - Field Operations employees. A three-year average was used because SDG&E believes this methodology best reflects the effects of Smart Meter implementation.	IN PROCESS
SDG&E	O&M	SDG&E-17	Gwen R. Marelli	CS-Field	1FC004.000	Customer Services Field - Support	SDG&E-03	Employee, Contractor, and Public Safety	Field observations of employee and contractors activities and safety behaviors	96	0	96	Behavior Based Safety (BBS) Program	CSF BBS program	IN PROCESS
SDG&E	O&M	SDG&E-17	Gwen R. Marelli	CS-Field	1FC004.000	Customer Services Field - Support	SDG&E-03	Employee, Contractor, and Public Safety	Field observations of employees and contractors activities and safety behaviors	0	(22)	(22)	Behavior Based Safety (BBS) Program	CSF BBS Program	IN PROCESS
SDG&E	O&M	SDG&E-17	Gwen R. Marelli	CS-Field	1FC004.000	Customer Services Field - Support								CS - Field Support labor and non-labor expenses to support CS - Field Operations. A three-year average was used because SDG&E believes this methodology best reflects the effects of Smart Meter implementation	IN PROCESS
SDG&E	O&M	SDG&E-17	Gwen R. Marelli	CS-Field	1FC004.000	Customer Services Field - Support								Incremental ongoing O&M costs for software license and maintenance costs associated with the implementation of the SORT Extension Capital Project. Refer to SDG&E witness G. Marelli, Ex. SDG&E-17, Section V, for more information on this project	IN PROCESS
SDG&E	O&M	SDG&E-18	Jerry D. Stewart	CS-Office Operations	1OO001.000	Advanced Metering Ops	SDG&E-03	Employee, Contractor, and Public Safety	Field observations of employee and contractors activities and safety behaviors.	37	0	37	Behavior Based Safety (BBS) and Customer Service Field (CSF) Observations Outside of BBS	A proactive approach to safety and health management focusing on principles that recognize at-risk as a frequent cause of both minor and serious injuries. The purpose is to reduce the occurrence of at-risk behaviors by modifying individuals actions and/or behaviors through observation, feedback, and positive interventions aimed at developing safe work habits, and Field observations performed by Supervisors.	IN PROCESS
SDG&E	O&M	SDG&E-18	Jerry Stewart	CS-Office Operations	1OO001.000	Advanced Metering Ops								Work Order Volume Increase: Estimated increase of 4,000 work orders over 2016 base year. These orders would be worked at an average annual order of 1,000 per FTE at an annual salary of $90.3K per year. Approximately 3,000 of the increase in orders will be worked by the Electric Meter Tester Apprentices (EMTA's). See AMO 1OO001.000 Supplemental Workpaper 1 - Work Order Volume Forecast Calculations. (Reference cells C-17 and C-21)	IN PROCESS

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SDG&E	O&M	SDG&E-18	Jerry D. Stewart	CS-Office Operations	1OO006.000	CCC Operations	SDG&E-03	Employee, Contractor, and Public Safety	Customer initiated orders relative to public safety.	371	166	537	Call Center Volume Relative to Public Safety	Emergency calls taken by the Customer Contact Center.	IN PROCESS
SDG&E	O&M	SDG&E-18	Jerry D. Stewart	CS-Office Operations	1OO006.000	CCC Operations	SDG&E-03	Employee, Contractor, and Public Safety	Mandatory employee training programs and standardized policies are in place.	20	0	20	Customer Contact Center (CCC) Emergency Call Training	Emergency call training and situational practice relative to both gas and electric.	IN PROCESS
SDG&E	O&M	SDG&E-19	Lisa C. Davidson	CS-Information & Technologies	1IN001.000	Residential Customer Services	SDG&E-03	Employee, Contractor, and Public Safety	Customer Communications and First Responder Training	11	0	11	Fire Preparedness & Outreach	Ensure public is aware of SDG&Es operation activities during high fire risk situations. Work closely with Commercial & Industrial (C&I) Services Outreach, Residential Services Outreach, Media Relations, Public Affairs, and Community Relations to plan, organize, and participate in community outreach events ensuring that key external stakeholders and channels are utilized efficiently. Provide funding for programs from community partners and first responders that support fire prevention and emergency response.	IN PROCESS
SDG&E	O&M	SDG&E-19	Lisa C. Davidson	CS-Information & Technologies	1IN002.000	Business Services	SDG&E-03	Employee, Contractor, and Public Safety	Customer Communications and First Responder training	80	0	80	Fire Preparedness & Outreach	Ensure public is aware of SDG&Es operation activities during high fire risk situations. Work closely with Commercial & Industrial (C&I) Services Outreach, Residential Services Outreach, Media Relations, Public Affairs, and Community Relations to plan, organize, and participate in community outreach events ensuring that key external stakeholders and channels are utilized efficiently. Provide funding for programs from community partners and first responders that support fire prevention and emergency response. Forecast methodology is base year.	IN PROCESS
SDG&E	O&M	SDG&E-19	Lisa C. Davidson	CS-Information & Technologies	1IN003.000	Marketing Research & Analytics	SDG&E-03	Employee, Contractor, and Public Safety	Customer Communications and First Responder Training	455	100	555	Emergency Prep Communications; Summer/Winter Prep Campaign	Emergency Prep: A general communications effort mainly concentrated in the High risk fire area, but reaching beyond this service area with information about preparing for emergencies. Summer/Winter Prep Campaign - Bill inserts, print, radio, web, social media. Messages include Carbon Monoxide Safety, Fumigations, furnace, etc.	IN PROCESS
SDG&E	O&M	SDG&E-19	Lisa C. Davidson	CS-Information & Technologies	1IN004.000	Customer Programs Pricing and Other Office	SDG&E-03	Employee, Contractor, and Public Safety	Customer initiated orders relative to public safety.	147	141	288	Natural Gas Appliance Test (NGAT)	NGAT or CO testing is a safety-related program for Customer Assistance's Energy Savings Assistance (ESA) Program participants. SDG&E conducts Carbon Monoxide (CO) testing on homes weatherized through the ESA Program in accordance with Statewide ESA Program Installation Standards and the Statewide ESA Program Policy and Procedures Manual. CPUC directives require SDG&E to charge the costs for the NGAT program to base rates rather than to the public purpose funds.	IN PROCESS
SDG&E	O&M	SDG&E-22	ichard D. Tattersa	Real Estate, Land Services & Facilities	1RE001.000	SDGE Facility Operations	SDG&E-03	Employee, Contractor, and Public Safety	Safety Policies & Programs	0	0	0	Facilities Maintenance Program	Facility Manger addresses issues regularly and consistently.	IN PROCESS
SDG&E	O&M	SDG&E-25	Gavin H. Worden	Cyber Security	2100-3101	SECURITY POLICY AND AWARENESS	SDG&E-07	Cyber Security	See Subsidiary Workpaper	0	0	0	Cyber Security	Security Policy and Awareness	IN PROCESS
SDG&E	O&M	SDG&E-25	Gavin H. Worden	Cyber Security	2100-3763	DIRECTOR - INFORMATION SECURITY	SDG&E-07	Cyber Security	See Subsidiary Work Paper	367	0	367	Cyber Security	Cyber Security	IN PROCESS
SDG&E	O&M	SDG&E-25	Gavin H. Worden	Cyber Security	2100-3774	SECURITY ENGINEERING	SDG&E-07	Cyber Security	See Subsidiary Workpaper	0	115	115	Cyber Security (Labor)	SECURITY ENGINEERING	IN PROCESS
SDG&E	O&M	SDG&E-25	Gavin H. Worden	Cyber Security	2100-3774	SECURITY ENGINEERING	SDG&E-07	Cyber Security	See Subsidiary Workpaper	1,174	140	1,314	Cyber Security - (Non Labor)	SECURITY ENGINEERING	IN PROCESS
SDG&E	O&M	SDG&E-25	Gavin H. Worden	Cyber Security	2100-3774	SECURITY ENGINEERING	SDG&E-07	Cyber Security	See Subsidiary Workpaper	993	0	993	Cyber Security	SECURITY ENGINEERING	IN PROCESS
SDG&E	O&M	SDG&E-25	Gavin H. Worden	Cyber Security	2100-3775	SECURITY OPERATIONS	SDG&E-07	Cyber Security	See Subsidiary Work Paper	1,642	0	1,642	Cyber Security	SECURITY OPERATIONS	IN PROCESS
SDG&E	O&M	SDG&E-25	Gavin H. Worden	Cyber Security	2100-3775	SECURITY OPERATIONS	SDG&E-07	Cyber Security	See Subsidiary Workpaper	0	115	115	Cyber Security - (Labor)	SECURITY OPERATIONS	IN PROCESS
SDG&E	O&M	SDG&E-25	Gavin H. Worden	Cyber Security	2100-3781	CRITICAL INFRASTRUCTURE PROTECTION	SDG&E-07	Cyber Security	See Subsidary Workpaper	0	420	420	Cyber Security	Security Contracts	IN PROCESS
SDG&E	O&M	SDG&E-25	Gavin H. Worden	Cyber Security	2100-3781	CRITICAL INFRASTRUCTURE PROTECTION	SDG&E-07	Cyber Security	See Subsidary Workpaper	0	0	0	Cyber Security	Security Contracts	IN PROCESS
SDG&E	O&M	SDG&E-25	Gavin H. Worden	Cyber Security	2100-3781	CRITICAL INFRASTRUCTURE PROTECTION	SDG&E-07	Cyber Security	See Subsidiary Workpaper	0	2,950	2,950	Cyber Security - Contracts	Security Contracts	IN PROCESS
SDG&E	O&M	SDG&E-25	Gavin H. Worden	Cyber Security	2100-3976	INFORMATION SECURITY PROGRAMS	SDG&E-07	Cyber Security	See Subsidiary Workpaper	22	0	22	Cyber Security	Security Programs	IN PROCESS
SDG&E	O&M	SDG&E-26	Λia L. DeMontign	Corporate Center - General Administration	1SE000.001	SECC OUTSIDE SERVICES EMPLOYES - F923.1	SDG&E-13	Records Management	Administrative	107	0	107	Sempra Energy Records Management Support and Offsite Records Storage	Costs allocated from Sempra Energy for Records Management Support and Offsite Records Storage	IN PROCESS
SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	1HR001.000	Safety Wellness and Disability Svcs	SDG&E-03	Employee, Contractor, and Public Safety	A comprehensive Health & Safety risk management framework is in place at SDG&E. This framework cons	1,069	200	1,269	Safety Training, Workshops and campaigns	Safety Training, Workshops and campaigns	IN PROCESS
SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	1HR001.000	Safety Wellness and Disability Svcs	SDG&E-03	Employee, Contractor, and Public Safety	A comprehensive Health & Safety risk management framework	0	0	0	Contractor Safety Program	Contractor Safety Program Analyst	IN PROCESS
SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	1HR001.000	Safety Wellness and Disability Svcs	SDG&E-03	Employee, Contractor, and Public Safety	A comprehensive Health & Safety risk management framework	0	40	40	Contractor Safety Program	Contractor Safety Database	IN PROCESS
SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	1HR001.000	Safety Wellness and Disability Svcs	SDG&E-03	Employee, Contractor, and Public Safety	A comprehensive Health & Safety risk management framework	25	100	125	Contractor Safety Program	Program Manager FY Impact	IN PROCESS
SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	1HR001.000	Safety Wellness and Disability Svcs	SDG&E-03	Employee, Contractor, and Public Safety	A comprehensive Health & Safety risk management framework	0	75	75	Contractor Safety Program	Contractor Safety Program Analyst	IN PROCESS

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SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	1HR001.000	Safety Wellness and Disability Svcs	SDG&E-03	Employee, Contractor, and Public Safety	Safety Training	2,480	0	2,480	OSHA Required Training and Training Required per Company Safety Standards	OSHA Required Training and Training Required per Company Safety Standards	IN PROCESS
SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	1HR004.000	Organizational Effectiveness	SDG&E-17	Workforce Planning	Training	0	80	80	Working Foreman Training and Human Performance	Working Foreman Training and Human Performance	IN PROCESS
SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	1HR004.000	Organizational Effectiveness	SDG&E-17	Workforce Planning	Training	0	0	0	Workforce Planning	Training	IN PROCESS
SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	1HR004.000	Organizational Effectiveness	SDG&E-17	Workforce Planning	Workforce Planning	76	150	226	Leadership training programs	Workforce Planning Efforts Supervisor Effectiveness Program	IN PROCESS
SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	1HR004.000	Organizational Effectiveness	SDG&E-17	Workforce Planning	Workforce Planning	0	100	100	Supervisor Effectiveness Training	Supervisor Effectiveness Training	IN PROCESS
SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	2100-0214	SDG&E FIELD SAFETY	SDG&E-03	Employee, Contractor, and Public Safety	A comprehensive Health & Safety risk management framework	885	90	975	Field Safety	Field Safety Advisor	IN PROCESS
SDG&E	O&M	SDG&E-30	Tashonda Taylor	HR, Safety, WC, LTD	2100-3414	Safety Compliance	SDG&E-03	Employee, Contractor, and Public Safety	A comprehensive Health & Safety risk management framework	577	30	607	Safety Compliance	Increased substance abuse prevention, testing and contractor monitoring	IN PROCESS
SDG&E	O&M	SDG&E-31	Sandra K. Hrna	Acctg, Fin, Reg, Legal	2100-3555	Oper CCTR-USS-Controllers - BUSINESS CONTROLS	SDG&E-13	Records Management	Consulting expertise to improve records management program	591	200	791	Consultant Support	Records Management update	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-02	Employee, Contractor, Customer, and Public Safety	Contractor Management and Traffic Control	1,541	0	1,541	Medium Pressure Contractor Inspections	These inspections are completed on capital jobs by the Contractor Inspectors plus support from the area Field Operations Supervisor and Team Leads.Inspectors to complete a Field Audit Collection Tool form to record their findings - both performance overall and work elements	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-02	Employee, Contractor, Customer, and Public Safety	Employee Skills Training	0	0	0	Formal Skills Training - Distribution Employee Time	Distribution employee skills training, base safety meeting and annual documents review	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-02	Employee, Contractor, Customer, and Public Safety	Gas Facility and Pipeline Inspections	0	0	0	Bridge and Span Inspections - Distribution	Bridge and Span Inspections - Distribution	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	High-Pressure Pipeline Failure, Project Maintenance	59	0	59	Valve Maintenance and Installation (Distribution High Pressure)	Maintain valves and replace or install valves required for compliance	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-01	Catastrophic Damage Involving Third Party Dig-Ins	Maintenance	3,476	0	3,476	Pipeline Observation (Standby)	Surveillance of excavations in the vicinity of high pressure gas lines to prevent damage	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Maintenance	89	32	121	Bridge & Span Inspections	Inspect pipelines which cross bridges or spans. Inspections of natural gas pipeline over bridges and land crossings at least once every 2 calendar years, but with intervals not exceeding 27 months. This is mandated by CFR 49 Part 192 Subpart M.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Maintenance	8	0	8	Unstable Earth Inspection	Mitigation of pipeline rupture due to environmental conditions of soil. This is usually completed at the same time of the valve inspection and maintenance cycle.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Maintenance	862	0	862	Valve Inspection and Maintenance (Per Region)	Valves are checked and serviced at intervals not exceeding 15 months, but at least once each calendar year. (CFR 192.747). This is mandated by CFR 49 Part 192 Subpart M.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Maintenance	160	38	198	Pipeline Patrol	Pipeline patrol performed to look for any broken terraces, exposed pipe, erosion, sunken back fill, etc. Any remedial action discovered must be issued within 30 days and completed in 90 days. This is mandated by CFR 49 Part 192 Subpart M.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-02	Employee, Contractor, Customer, and Public Safety	PPE and Safety Equipment	693	0	693	Company wide purchases of personal protective equipment (PPE)	Cost basis of the purchases for inventory replenishment of PPE materials	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-02	Employee, Contractor, Customer, and Public Safety	PPE and Safety Equipment	1,032	0	1,032	Uniform Expenses - Distribution, Transmission, Storage	Uniform rentals for employees - both protective and for security	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-02	Employee, Contractor, Customer, and Public Safety	PPE and Safety Equipment	0	20	20	Confined space air monitoring system for field personnel	Replace 280 confined space monitors in 2018. Replace 380 personal monitors in 2018. 100 calibration gas cylinders purchased per year	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-02	Employee, Contractor, Customer, and Public Safety	QA Job Observations Field Rides and Job Monitoring	1,647	0	1,647	High Pressure Standby Distribution	This is review at the 3rd party job site to ensure safety of SoCalGas system. The locations are often result of Locate & Mark tickets	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-02	Employee, Contractor, Customer, and Public Safety	QA Job Observations Field Rides and Job Monitoring	60	0	60	Medium Pressure Company Crew Inspections	The Field Operations Supervisor and Team Leads will complete inspections on company crew work. Supervisors will complete the Field Audit Collection Tool form to record their findings	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Qualifications of Pipeline Personnel	1,821	652	2,473	Student Labor for attending Distribution-related training classes	Certification and training that is required for all distribution employees to work on company assets. This is mandated by CFR 49 Part 192 Subpart N.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Formal Skills Training - Distribution Employee Time	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer and Public Safety (SCG-02); High Pressure Pipeline Failure (SCG-04); Records Management (SCG-08); and Medium Pressure Pipeline Failure (SCG-10) (NOTE: Overlapping training removed)	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support							Office Instructor	Incremental Office Instructor to support Dispatch offices with on the job training	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support							Field Operations Supervisors	Field Operations Supervisors to support incremental work related to Leak Survey, Main Maintenance, Service Maintenance, and Locate and Mark	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.000	Field Support							Hydraulic Valve Maintenance	Maintenance for installation of hydraulic valves due to PSEP Valve Enhancement Plan. Upgraded valve infrastructure provides automatic and remote isolation and depressurization of the distribution supply line system in 30 minutes or less in the event of a pipeline rupture. PSEP plans to install six valves in 2018 and four in TY 2019.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.001	Leak Survey	SCG-02	Employee, Contractor, Customer, and Public Safety	Gas Facility and Pipeline Inspections	0	0	0	Leak Survey Distribution	Completion of the routine leak survey requirements.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.001	Leak Survey	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Maintenance	7,080	1,240	8,320	Leak Survey	Leak surveys are performed to find any leaks in the system using state of the art technology and SAP leak reporting for tracking purposes. This is mandated by the Federal Code of Regulation (CFR) 49 Part 192 Subpart M.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation	(A) 2016 Embedded RAMP Base Costs (000s)	(B) TY 2019 Estimated RAMP Incremental (000s)	Dollars Requested (000)	Program_Name	Program_Desc	Status
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.001	Leak Survey								Incremental 690 miles of leak survey due to revisions in GO 112-F. This effort will begin in 2017 and continue through 2018 and TY 2019. See Supplemental Workpaper SCG-04-GOM-O&M-SUP-005 for calculation details.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.001	Leak Survey							Bi-Annual High-Pressure Leak Survey	Proposed change to inspect all high-pressure lines twice a year. Approximately 19 million feet of high-pressure lines would be inspected twice a year starting in TY 2019. See Supplemental Workpaper SCG-04-GOM-O&M-SUP-005 for calculation details.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.001	Leak Survey							Enhanced Leak Survey - Early Vintage Plastic Pipe	SoCalGas plans to increase survey cycle requirements for all pre-1986 plastic pipe (Aldyl-A) from a five-year survey cycle to an annual cycle. This change adds a mitigation measure in support of RAMP risk: Catastrophic Damage Involving Medium-Pressure Pipeline Failure. Aldyl-A is a polyethylene plastic pipe material widely used in the gas industry. Early vintages of this material (1970s and1980s) can experience brittleness as it ages increasing the risk for leakage. Approximately 32,202,720 million feet of pipe to be surveyed annually. See Supplemental Workpaper SCG-04-GOM-O&M-SUP-004 for calculation details.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.002	Locate & Mark	SCG-01	Catastrophic Damage Involving Third Party Dig-Ins	Locate & Mark Activities	12,529	1,921	14,450	Locate & Mark Field Activities	Prevention of damage to substructures due to unsafe excavation practices	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.002	Locate & Mark	SCG-01	Catastrophic Damage Involving Third Party Dig-Ins	Locate & Mark Training	140	0	140	Gas Operations Centralized Training	Training, Certification and compliance of Federal and State laws	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.002	Locate & Mark	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Locate & Mark Training	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer and Public Safety (SCG-02); High Pressure Pipeline Failure (SCG-04); Records Management (SCG-08); and Medium Pressure Pipeline Failure (SCG-10) (NOTE: Overlapping Trainings Removed)	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.002	Locate & Mark							USA Ticket Price Increase	i. USA Ticket Price Increase - SoCalGas costs will increase by $0.15 per new ticket for the regional notification center covering the southern region of the service territory (DigAlert, also known as USA South). See Supplemental	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.002	Locate & Mark							USA Ticket Price Increase	ii. USA Ticket Price Increase - The regional notification center covering the northern part of the SoCalGas' service territory (USA North 811, also known as USA North) uses a membership fee structure, which will increase by 2% over the base year 2016 cost. See Supplemental Workpaper SCG-04-GOM-O&M-SUP-009 for calculation details.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.002	Locate & Mark							Vacuum Technology for Potholing	The use of keyhole technology to excavate in order to find hard-to-locate underground pipelines. Provides accurate locating and marking of hard-to-find or un-locatable pipelines and reduce the risk of damage to its infrastructure and protect public safety. Non-labor cost will be 10 units x $1,000 = $10,000 beginning in 2017 Non-labor cost will be 100 units x $1,000 = $100,000 beginning in 2018 Non-labor cost will be 500 units x $1,000 = $500,000 beginning in TY 2019	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.003	Main Maintenance	SCG-02	Employee, Contractor, Customer, and Public Safety	Contracting for Traffic Control Delineation materials -- Distribution Only. Outside vendors	942	920	1,862	Contracting for Traffic Control Delineation materials	Contracting for Traffic Control Delineation materials	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.003	Main Maintenance							Leak Repairs	SoCalGas has forecasted in this TY 2019 GRC an increase in the number of incremental leak repairs in 2017 and 2018 to 2,800 and 4,870 respectively for a total of 7,670 over this two-year period. Labor costs will be 2,800 leaks X $1,000 = $2,800K in 2017. Non-labor costs will be 2,800 leaks X $1,500 = $4,200K in 2017. Labor costs will be 4,870 leaks X $1,000 = $4,870K in 2018. Non-labor costs will be 4,870 leaks X $1,500 = $7,305K in 2018. As a result of the accelerated leak survey cycles there is an estimated of 2,400 leaks that will be repaired in TY 2019. Labor costs will be 2,400 leaks X $1,000 = $2,400K in TY 2019. Non-labor costs will be 2,400 leaks X $1,500 = $3,600K in TY 2019. See Supplemental Workpaper SCG-04-GOM-O&M-SUP-001 for calculation details.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.004	Service Maintenance							MSA Maintenance Activities	SoCalGas plans to address the continuing increase in maintenance work associated with riser and service valve work, SoCalGas anticipates addressing approximately 1,500 orders in 2017, 3,000 in 2018, and 8,500 in TY 2019. Associated non-labor cost can be found under the workbook for Tools-Fittings and Materials. See Supplemental Workpaper SCG-04-GOM-O&M-SUP-007 for calculation details.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.004	Service Maintenance							Meter Guard Activities	SoCalGas plans to address the continuing increase in maintenance work associated with meter guard activities, SoCalGas anticipates addressing approximately 500 orders in 2017, 1,000 in 2018, and 3,500 in TY 2019. Associated non-labor cost can be found under the workbook for Tools-Fittings and Materials. See Supplemental Workpaper SCG-04-GOM-O&M-SUP-006 for calculation details.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation	(A) 2016 Embedded RAMP Base Costs (000s)	(B) TY 2019 Estimated RAMP Incremental (000s)	Dollars Requested (000)	Program_Name	Program_Desc	Status
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.004	Service Maintenance							Chronically Inaccessible MSA's	Disconnect Services - SoCalGas continues to face the issue of chronically inaccessible MSAs. This refers to meters that Company personnel are unable to access after multiple attempts of communication. After Customer Services personnel attempts to reach the customer to gain access to the MSA using different communication options such as letter, phone and in person; a final notification is sent notifying the customer that service will be cut in the street if SoCalGas is unable to access the meter to complete the inspection work. Gas Distribution crews cut and cap the gas service line at the service to main connection. This effort will begin in 2018 by addressing approximately 364 services in 2018 and 709 in TY 2019. See Supplemental Workpaper SCG-04-GOM-O&M-SUP-011 for calculation details.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.005	Tools Fittings & Materials							Calibrated Tools	This project will build up an adequate stock of tools available for immediate swap out when equipment is sent in for maintenance or calibration. The project will also replace tools that are at the end of their useful life or that are damaged and no longer useful	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.005	Tools Fittings & Materials							OMD Cages	The purchase and installation of protective cages around vehicle mounted Optical Methane Detectors (OMD). The cages will be built specifically for OMDs to provide protection from damage in case of contact with objects or other vehicles while allowing easy access to the equipment.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.005	Tools Fittings & Materials							MSA Maintenance Activities	SoCalGas will address an increased amount of riser and service valve orders regenerated by the MSA Inspection program SoCalGas anticipates addressing approximately 1,500 orders in 2017, 3,000 in 2018, and 8,500 in TY 2019. Associated labor cost can be found under the workbook for Service Maintenance.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.005	Tools Fittings & Materials							Meter Guard Activities	SoCalGas will address an increased amount of meter guard orders regenerated by the MSA Inspection program. SoCalGas anticipates addressing approximately 500 orders in 2017, 1,000 in 2018, and 3,500 in TY 2019. This section covers the non-labor cost for this activity. Associated labor cost can be found under the workbook for Service Maintenance	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD000.005	Tools Fittings & Materials							OMD Maintenance	Regular maintenance of SoCalGas owned Optical Methane Detectors (OMD). Maintenance is required every three months by a certified technician. Cost for manufacturer to maintain and service these devices	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD001.000	Asset Management							Administrative Control Clerks for Pipeline Records Management	Administrative Control Clerks to support record-keeping and document quality control driven by an increase in level of construction as discussed throughout the Gas Distribution testimony. Continuous improvement of documentation practices that provide for the development and retention of reliable, traceable, and verifiable records.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD001.000	Asset Management							Administrative Control Clerk for Leak Survey and Repairs	Administrative Control Clerks to support with recording work history and maintenance of records due to increase in leak survey cycles for pre-1986 plastic pipe and high-pressure pipe.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD002.000	Measurement & Regulation	SCG-02	Employee, Contractor, Customer, and Public Safety	Gas Facility and Pipeline Inspections	0	0	0	Meter & Regulator Station Inspections Distribution	Meter & Regulator Station Inspections Distribution	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD002.000	Measurement & Regulation	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Maintenance	1,191	198	1,389	M&R and Maintenance	Inspect meters, regulators, and gauges to evaluate and confirm overpressure protection is in place and maintained. Each pressure limiting station, relief device, signaling device, and pressure regulating station and its equipment must be inspected and tested at intervals not exceeding 15 months, but at least once each calendar year. This is mandated by CFR 49 Part 192 Subpart M.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD002.000	Measurement & Regulation	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Maintenance	3,550	1,449	4,999	MSA	Maintenance and inspections of meter set assemblies in the system. This is mandated by CFR 49 Part 192 Subpart M.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD002.000	Measurement & Regulation							Meter Transmission Unit (MTU) Battery Replacements	Non-labor cost to capture the replacement of MTU batteries. Non-labor cost will be 3,000 orders x $40 = $120,000 beginning in TY 2019.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD002.000	Measurement & Regulation							Advanced Metering Infrastructure (AMI) Remediation	Labor cost for Measurement & Regulation technicians to troubleshoot and replace approximately 1,900 AMI modules due to failure of the devices. See Supplemental Workpaper SCG-04-GOM-O&M-SUP-010 for calculation details.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD003.000	Cathodic Protection	SCG-02	Employee, Contractor, Customer, and Public Safety	Gas Facility and Pipeline Inspections	879	0	879	CP 10% Reads - Inspections on Distribution system	CP 10% Reads - Inspections on Distribution system	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD003.000	Cathodic Protection	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Requirements for Corrosion Control	10,519	5,056	15,575	CP	System protection requirements mandated by CFR 49 Part 192 Subpart I. This program maintains cathodically protected assets by repairing, replacing, or retrofitting components.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD003.000	Cathodic Protection							Incremental Cathodic Protection System Enhancement	Re-evaluation of existing 100 mV shift areas at least every 10 years to verify their effectiveness as a measurement for adequate cathodic protection of the area. SoCalGas will re-evaluate 75 CP packages in 2018 and 175 CP packages annually starting in TY 2019 See Supplemental Workpaper SCG-04-GOM-O&M-SUP-003 for calculation details	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation	(A) 2016 Embedded RAMP Base Costs (000s)	(B) TY 2019 Estimated RAMP Incremental (000s)	Dollars Requested (000)	Program_Name	Program_Desc	Status
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD004.000	Operations and Management	SCG-02	Employee, Contractor, Customer, and Public Safety	Employee Skills Training	552	0	552	Formal Skills Training - Instructor Time	Formal Skills Training - Instructor Time	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD004.000	Operations and Management	SCG-01	Catastrophic Damage Involving Third Party Dig-Ins	Locate & Mark Activities	111	0	111	Staff Support	Staff to translate federal and state regulations into company Gas Standards	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD004.000	Operations and Management	SCG-02	Employee, Contractor, Customer, and Public Safety	Policy Procedures Standards and ESCMP	1,540	0	1,540	Development and management of formal gas standards, procedures and processes for Gas Distribution,	Evaluation includes the time of the Standard Owner to complete initial review, coordinate inputs, make changes and complete processing	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD004.000	Operations and Management							Project Advisors	Leak Repairs - Incremental project advisors responsible for implementing leak analysis and process strategy to the leak inventory reduction effort. They will schedule work and coordinate with field crews and contractors to verify that repairs and service replacements are completed on time. The project advisors will develop reports to track cost, set up performance metrics, manage contractors, and coordinate material and fleet needs.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD004.000	Operations and Management							Project Manager	Leak Repairs - Incremental support to manage the Leak inventory reduction effort and communicate with key stakeholders, provide work direction to the project advisors, implement best practices, negotiate contractual agreements, and work with the finance team to develop key financial metrics.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD004.000	Operations and Management							Director of Workforce Planning & Resource Management	Incremental Director position responsible for directing and providing strategy, vision and leadership for an organization accountable for the planning, scheduling, resource management, engineering, design and special projects of the entire SoCalGas distribution pipeline infrastructure. The director provides strategic direction and leadership in optimizing resource management across all distribution functions including pipeline maintenance, construction and special project work across company and contractor crews.	IN PROCESS
SoCalGas	O&M	SCG-04	Gina Orozco-Meji	Gas Distribution	2GD004.000	Operations and Management							Continuous Improvement Operations Manager	Incremental position responsible for providing the focus to review work processes that determine efficiency, safety and compliance improvement opportunities. This position identifies and implements opportunities to reduce or avoid operating cost through efficiency initiatives and improvements that strengthen business processes and internal controls.	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-0302	BUSINESS PROCESS ESS IMPLEMENTATION AND ESS MOBILE SOLUTION	SCG-08	Records Management	Information Management System	0	110	110	Document management and communications of Gas Standards	Involves the management of the Document Management System, including the development, publication & maintenance process of the SoCalGas & SDG&E plans to comply to pipeline safety regulations (49 CFR Parts 191-193) and CPUC General Orders 112-E, 58A & 58B in addition to the Company Operations Standards, Form Instructions, Manuals (Safety, IIPP, DIMP/TIMP, Gas Operator Safety Plan, Welding Specs, etc.)	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-0305	ESS PRODUCTION SUPPORT	SCG-08	Records Management	Information Management Systems	0	100	100	IT O&M Costs	Costs for the ongoing O&M to maintain the systems used to store operational asset records	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-0306	WRK MGMT & DATABASES	SCG-08	Records Management	Operational Compliance and Oversight	0	200	200	Support of Employees in Designated Departments to Collect, Enter and Maintain Records Related to Ope	Labor and non-labor costs for employees in designated departments to collect, enter and maintain records related to operational assets	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-0306.000	WRK MGMT & DATABASES								Incremental FTEs for two Technical Computing Advisors and one application Support Lead develop and implement the Engineering Data Analytics group.	PLANNED
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2023.000	FIELD TECHNOLOGIES								One additional employee to support QA Operations	PLANNED
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2144.000	GAS SYSTEM INTEGRITY STAFF &PROGRAMS								Incremental $25k for non-labor for Gas System Integrity Director and Admin. Non-labor expenses include Office Supplies, Mileage, Per Diems, Professional Dues, External Training, Cell Phones etc…	PLANNED
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2344	OPERATOR QUALIFICATION	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Operations	0	794	794	Operator Qualification Program Administration and Development	The minimum safety requirements prescribed by CFR 49 Part 192 Subpart L Operations include locate and mark, emergency preparedness and odorization. These activities are intended to address threats as identified by PHMSA.	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2345	PIPELINE SYSTEM CONSTRUCTION POLICY	SCG-01	Catastrophic Damage Involving Third Party Dig-Ins	Locate & Mark Activities	0	250	250	Locate & Mark Field Activities	Prevention of damage to substructures due to unsafe excavation practices	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2345	PIPELINE SYSTEM CONSTRUCTION POLICY	SCG-01	Catastrophic Damage Involving Third Party Dig-Ins	Locate & Mark Activities	0	865	865	Staff Support	Staff to translate federal and state regulations into company Gas Standards	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation	(A) 2016 Embedded RAMP Base Costs (000s)	(B) TY 2019 Estimated RAMP Incremental (000s)	Dollars Requested (000)	Program_Name	Program_Desc	Status
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2345.000 -	PIPELINE SYSTEM CONSTRUCTION POLICY								R&D at $20 000 for N/L per year 2017 - One time Office Equipment Update at $50,000 Golden Shovel Implementation at $5,000 per year. The project encompasses SoCalGas' adoption of the Gold Shovel Standard. The Gold Shovel Standard is a program designed to strengthen professional contractors' commitment to safe excavation practices through incentives tied to obtaining contracts with the utility. All contractors who perform excavation activities when performing contractual work for SoCalGas will be required to be Gold Shovel Standard certified, which includes development of safe excavation policies and practices, process for acquiring employee feedback, and protection against retaliation of whistleblowers. Gold Shovel Standard membership will improve SoCalGas' insight to the excavation safety practices of the contractors it hires by allowing the utility access to information regarding damages caused by contractors working for other entities anywhere in the United States.	PLANNED
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2360	QUALITY & RISK	SCG-08	Records Management	Operational Compliance and Oversight	0	315	315	Support of Employees in Designated Departments to Collect, Enter and Maintain Records Related to Ope	Labor and non-labor costs for employees in designated departments to collect, enter and maintain records related to operational assets	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2376	ENTERPRISE GEOGRAPHIC INFORMATION SYSTEM (EGIS)	SCG-08	Records Management	Operational Compliance and Oversight	0	580	580	Support of Employees in Designated Departments to Collect, Enter and Maintain Records Related to Ope	Labor and non-labor costs for employees in designated departments to collect, enter and maintain records related to operational assets	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2417	SHARED PUBLIC AWARNESS ACTIVITIES	SCG-01	Catastrophic Damage Involving Third Party Dig-Ins	Analysis	398	420	818	Upgrade reporting systems	Upgrade and integrate systems to automate pipeline damage information and reporting for improved data analysis and prevention of dig-ins	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2473.000	PIPELINE SAFETY & COMPLIANCE MANAGER								Additional headcount needed to perform increasing number of audits & to manage simultaneous scheduled audits as prescribed by regulation.	PLANNED
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2551.000	PIPELINE SAFETY OVERSIGHT								1st half of root Cause analysis training- Teach how to do root cause so we're consistent , implement train the trainer program, develop core curriculum, licensing fee with trainer program benefit: to ensure better effective solutions to solve problems and no longer see repeat issues	PLANNED
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-2551.000	PIPELINE SAFETY OVERSIGHT								Upward pressure adjustment in shared cost center 2200-2551 to implement new staff focused on performing centralized incident analysis, enhanced tracking & management of process improvement to meet PHMSA compliance requirements, and enhanced compliance oversight. We also want to enhance our ability to administer within staff organizations & communicate our gas standards to the field.	PLANNED
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-7242	RECORDS MANAGEMENT - from 2200-2361	SCG-08	Records Management	Operational Compliance and Oversight	0	1,650	1,650	Centralized Operational Records Management Department	ARMA certified records specialists from each functional area; data analysts; quality control specialists (5 - 15 Full Time Equivalents)	PLANNED
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2200-7242	RECORDS MANAGEMENT - from 2200-2361	SCG-02	Employee, Contractor, Customer, and Public Safety	Policy Procedures Standards and ESCMP	0	900	900	Development and management of formal gas standards, procedures and processes for Gas Distribution,	Evaluation includes the time of the Standard Owner to complete initial review, coordinate inputs, make changes and complete processing	PLANNED
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-02	Employee, Contractor, Customer, and Public Safety	Employee Skills Training	0	250	250	Broaden Situation City Skills Training	Expand Situation City training props at Pico Rivera campus - props, sheds and simulation capabilities to increase number of classes conducted per year	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Qualification of Pipeline Personel	0	0	0	Cathodic Protection Technician Training	Certification and training that is required for all distribution employees to work on company assets. This is mandated by CFR 49 Part 192 Subpart N	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Qualifications of Pipeline Personnel	664	0	664	Distribution Construction Technician Training	Certification and training that is required for all distribution employees to work on company assets. This is mandated by CFR 49 Part 192 Subpart N	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Qualifications of Pipeline Personnel	267	0	267	Distribution Energy Technician Training	Certification and training that is required for all distribution employees to work on company assets. This is mandated by CFR 49 Part 192 Subpart N	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Qualifications of Pipeline Personnel	323	0	323	Distribution Lead Construction Technician Training	Certification and training that is required for all distribution employees to work on company assets. This is mandated by CFR 49 Part 192 Subpart N	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Qualifications of Pipeline Personnel	99	0	99	Distribution System Protection Specialist Training	Certification and training that is required for all distribution employees to work on company assets. This is mandated by CFR 49 Part 192 Subpart N	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Qualifications of Pipeline Personnel	0	0	0	Distribution Lead System Protection Specialist Training	Certification and training that is required for all distribution employees to work on company assets. This is mandated by CFR 49 Part 192 Subpart N	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Qualifications of Pipeline Personnel	99	0	99	Distribution Construction Technician Training	Certification and training that is required for all distribution employees to work on company assets. This is mandated by CFR 49 Part 192 Subpart N	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Qualifications of Pipeline Personnel	5	0	5	Distribution Energy Technician Distribution Training	Certification and training that is required for all distribution employees to work on company assets. This is mandated by CFR 49 Part 192 Subpart N	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Qualifications of Pipeline Personnel	15	0	15	Distribution Lead Construction Technician Training	Certification and training that is required for all distribution employees to work on company assets. This is mandated by CFR 49 Part 192 Subpart N	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer an	Distribution Construction Technician Training	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer an	Distribution Energy Technician Training	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation	(A) 2016 Embedded RAMP Base Costs (000s)	(B) TY 2019 Estimated RAMP Incremental (000s)	Dollars Requested (000)	Program_Name	Program_Desc	Status
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Distribution Lead Construction Technician Training	Distribution Lead Construction Technician Training	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer an	Distribution System Protection Specialist Training	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer an	Distribution Lead System Protection Specialist Training	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer an	Distribution Construction Technician Training	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer an	Distribution Energy Technician Training	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer an	Distribution Lead Construction Technician Training	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer an	Distribution System Protection Specialist Training	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-07	Workforce Planning	Training - Technical non-HR	0	0	0	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer an	Distribution Lead System Protection Specialist Training	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT	SCG-07	Workforce Planning	Training - Technical non-HR	0	1,050	1,050	Skills training covered by the following risks: Dig-Ins (SCG-01); Employee, Contractor, Customer an	Technical Specialist for Modernization of Training Materials	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT							Classroom Technology	Further enhancing the employee training experience and knowledge transfer SoCalGas' proposes to continue its modernization of classroom technology, this modernization would include enhancing audio-visual equipment, introduction of handheld devices into the classroom and leveraging virtual technology for simulated activities.	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT							Employee Collaborative Training Program	Development and implementation of a technical academic training program	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT							Incremental Locate & Mark Trainer	Historically we have seen an increase in the number of locate and mark tickets and we expect a continued increased through our continual efforts from our Public Awareness Program and Senate Bill 661(Protection of subsurface installations) that was signed in September 2016. Senate Bill 661 added enforcement to the digging law by establishing the California Underground Facilities Safe Excavation Board. The Board is authorized to take action against those parties who violate the excavation law 4216. This new bill is expected to require more excavators to notify Underground Service Alert (USA) which will add upward pressure to an already increasing USA ticket volume in California. Thus, more employees will be needed to perform locate and mark activities in order for the Company to meet increasing USA ticket demands and prevent marking delays. Other notable impacts of the Dig Safe Act of 2016 include the requirement for marking the presence of known abandoned lines and keeping abandoned line records which will increase time spent locating each ticket and create additional work for supporting activities.	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT							High Pressure Technical Advisors	One Technical Advisors are required to support high pressure training. They will develop new and refine existing training modules, and will assume delivery of initial Operator Qualification technical training to managers and supervisors involved with high pressure pipeline construction. The Technical Advisor will be the responsible document owners for the various high pressure field procedures.	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT							Instructors for Formal Clerical Training	SoCalGas has identified an opportunity for enhancement is the training for employees performing clerical work within Gas Transmission, Gas Distribution and Storage, such as Distribution Operations Clerk, Work Order Control Clerk, and Leakage Clerk. Instructors are responsible for accuracy of course materials, arranging required items for class, and following up with students and their supervisors following class to identify areas of continuous improvement so that students are prepared when they return from training. Additionally, Instructors act as Subject Matter Experts while adapting course content following a change to software or the process used by employees to complete the required tasks . The work these clerical workers perform directly impacts compliance and pipeline facility records management . Therefore, having knowledgeable, highly-skilled clerks contributes to the safety and integrity of the gas system.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation	(A) 2016 Embedded RAMP Base Costs (000s)	(B) TY 2019 Estimated RAMP Incremental (000s)	Dollars Requested (000)	Program_Name	Program_Desc	Status
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT							Compliance Assurance Technical Advisor	comprehensive data validation tools to identify missing or incorrect information. This position will work directly with region personnel (Supervisors, Compliance Technical Advisors, and Administrative Advisors) to retrieve the correct information and make the necessary changes in SAP. As trends are discovered with specific data issues, additional validation mechanisms will be implemented in Click and SAP to help reduce the number of discovered errors. Furthermore, this advisor will assist in the preparation of reports for the annual CPUC audits and will support region management during audits to respond to data requests.	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI001.000	GAS OPERATIONS TRAINING & DEVELOPMENT								Incremental to support R&D Engineering studies and Policy and Procedure development for High Pressure Management	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI002.000	PIPELINE SAFETY & COMPLIANCE	SCG-08	Records Management	Operational Compliance and Oversight	0	100	100	Support of Employees in Designated Departments to Collect, Enter and Maintain Records Related to Ope	Labor and non-labor costs for employees in designated departments to collect, enter and maintain records related to operational assets	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI002.000	PIPELINE SAFETY & COMPLIANCE	SCG-08	Records Management	Operational Compliance and Oversight	0	295	295	Support of Employees in Designated Departments to Collect, Enter and Maintain Records Related to Ope	Labor and non-labor costs for employees in designated departments to collect, enter and maintain records related to operational assets	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI002.000	PIPELINE SAFETY & COMPLIANCE	SCG-08	Records Management	Operational Compliance and Oversight	0	781	781	Support of Employees in Designated Departments to Collect, Enter and Maintain Records Related to Ope	Labor and non-labor costs for employees in designated departments to collect, enter and maintain records related to operational assets	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI002.000	PIPELINE SAFETY & COMPLIANCE	SCG-08	Records Management	Operational Compliance and Oversight	0	1,111	1,111	Support of Employees in Designated Departments to Collect, Enter and Maintain Records Related to Ope	Labor and non-labor costs for employees in designated departments to collect, enter and maintain records related to operational assets	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI003.000	PUBLIC AWARENESS	SCG-01	Catastrophic Damage Involving Third Party Dig-Ins	Public Awareness	398	1,000	1,398	Damage Prevention Public Awareness	Promotion of excavation safety to contractors and the public	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI004.000	ASSET MANAGEMENT	SCG-08	Records Management	Operational Compliance and Oversight	5,572	104	5,676	Support of Employees in Designated Departments to Collect, Enter and Maintain Records Related to Ope	Labor and non-labor costs for employees in designated departments to collect, enter and maintain records related to operational assets	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI004.000	ASSET MANAGEMENT	SCG-08	Records Management	Operational Compliance and Oversight	0	208	208	Support of Employees in Designated Departments to Collect, Enter and Maintain Records Related to Ope	Labor and non-labor costs for employees in designated departments to collect, enter and maintain records related to operational assets	IN PROCESS
SoCalGas	O&M	SCG-05	Omar Rivera	Gas System Integrity	2SI004.000	ASSET MANAGEMENT	SCG-01	Catastrophic Damage Involving Third Party Dig-Ins	Prevention and Improvements	0	0	0	Automated USA Ticket Prioritization	Automate the prioritization process using algorithms based on ticket and GIS information	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005000	New Business					6,376	8,217	7,805		Budget code 500 covers the installation of gas mains and services, meter set assemblies (MSAs), regulator stations, and all associated equipment except the purchase of gas meters and service regulators, which are reflected in budget code 502. Costs includes main and service extensions into new residential, commercial and industrial developments.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005000.03	RAMP - Base / Risk ID 16 - Odorization of New Pipeline	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Odorization of gas	45	45	45	45	Odorization of Pipelines	Operations include locate and mark, emergency preparedness, and odorization. These activities are intended to address threats as identified by PHMSA.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005010	Systems Minor Additions, Relocations and Retirements					3,694	3,694	3,694		Projects in this budget allow for minor gas distribution main and service additions, retirements, and relocations due to customer requests or as required by SDG&E to support system operation and integrity, retirement of gas mains and services, and expenses for associated street repairs.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005010.03	RAMP - Base / Risk ID 2 - Locate and Mark Field Activities	SDG&E-02	Catastrophic Damage Involving Third Party Dig-Ins	Locate and Mark	225	225	225	225	Locate and Mark	Prevention of damages to substructures due to unsafe excavation practices	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005010.04	RAMP - Incremental / Risk ID 2 - Locate and Mark Field Activ	SDG&E-02	Catastrophic Damage Involving Third Party Dig-Ins	Locate and Mark	0	18	18	18	Locate and Mark	Prevention of damage to substructures due to unsafe excavation practices	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005020	Meter and Regulator Materials					7,077	7,468	7,283		This effort involves the purchasing of new domestic, commercial and industrial gas meters and regulators. These meters are required to provide gas service to new customers as well as replace aging meters for some existing customers. Existing residential gas meter measurement accuracy is monitored by sampling meters in the service territory under the Gas Meter Performance Control Program. Meters are grouped into "families" for monitoring purposes. As these family groups age, they may fall outside prescribed accuracy limits and must be replaced. Budget code 502 provides funds to replace family groups of meters that do not meet strict accuracy guidelines. In addition to the replacements (meters, this budget code includes the costs of additional regulators to replace obsolete regulators.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005030	Pressure Betterment					1,695	1,695	1,695		This budget code provides Capital expenditures for gas distribution system reinforcement or pressure betterment projects required to maintain gas service to all customers. System reinforcement projects are designed to remedy low-pressure problems and/or improve reliability to large single feed areas, to meet load growth. These projects typically involve installing new mains and/or regulator stations, extending high pressure mains or upgrading existing mains to increase delivery pressure.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005040	Distribution Easements					38	38	38		Expenditures under budget code 504 are used to perform necessary surveys and mapping functions, document research, document preparation, and negotiations for the acquisition of easements to allow the installation of gas distribution facilities on private property or public lands.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005050	Pipe Relocations - Franchise and Freeway					6,665	6,665	6,665		This project covers the relocation of existing gas distribution facilities when necessitated by public improvements as required by the company's franchise agreements to clear municipal or other improvements. Generally, the work involves a change in alignment and/or grade of existing gas pipelines and associated facilities driven by local and state agency requirements. Work may involve main replacement in a new location in lieu of lowering, raising or changing lateral position of the existing main due to municipal improvements such as street and highway, railroad, and water and sewer line construction.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005060	Tools and Equipment					2,219	2,219	2,219		Funds in this budget code are used to acquire various tools and equipment used by gas crews, personnel in the field, construction operations, shop operations, and identical start-of-the-art tools used in training. Tools and equipment are replaced due to failure, age, advances in technology, and to improve employee safety and ergonomics These tools and equipment are necessary to economically and safely install, operate and maintain the gas distribution system.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005060.02	RAMP - Base Risk ID 16/SDG&E Medium Pressure Pipeline Failur	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Training props	300	300	300	300	Qualification of pipeline personnel	For safety and distribution staff training, props are purchased for use in situation city t simulate real world situations when qualifying personnel.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005060.03	RAMP - Incremental Risk ID 16/SDG&E Medium Pressure Pipeline	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Training props	0	435	214	25	Qualification of pipeline personnel	For safety and distribution staff training, props are purchased to be used in situation city t simulate real world scenarios while qulaifying personnel.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005070	Code Compliance					2,549	1,149	1,174		Four principle ongoing compliance issues involving the gas distribution system currently require funding under this budget code: 1. Labor for the Regulator Replacement Program for pre 1982 American Meter Type K-Regulators to be removed in compliance with 49 CFR § 192.197(b); 2. Labor and materials necessary for the installation of barricades to protect MSAs from vehicular traffic in compliance with 49 CFR § 192.353(a); 3. Labor and materials necessary for the installation of distribution system electronic pressure monitoring devices (EPM) in compliance with 49 CFI § 192.741(a)-(b); and 4. Installation of isolation valves necessary for the safe operation of the gas distribution system in compliance with 49 CFR § 192.181.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005080	Replacements of Mains & Services					5,968	16,940	26,266		This budget code includes the replacement of gas distribution pipelines due to its condition or location. Pipelines with a leak history are evaluated, resulting in a list of projects for replacement under this budget that are ranked by risk. This evaluation uses several criteria to prioritize candidate replacements including observed condition of the pipe, coating deterioration, leak history, age of the pipe, construction methods originally used, and location relative to places of gathering or population centers.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005080.02	RAMP - Incremental / Risk ID 16 - Early Vintage Steel Replac	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Improvements	0	1,901	5,488	7,385	Early Vintage Steel Replacement	This program is intended to remove pre-1947, non-piggable high pressure pipeline as well as pre-1955 medium pressure steel mains. In the years prior to 1955, cold tar asphaltic wrap was used as the primary protection against corrosion with cathodic protection supplementing as secondary protection.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005080.03	RAMP - Incremental / Risk ID 16 - Early Vintage Threaded Mai	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Improvements	0	0	7,385	14,774	Pre-1933 Threaded Main Removal	Prior to 1933, piping in the gas distribution system was joined by treaded couplings. Thi project aims to proactively remove a total of 152 miles of threaded pipe over a 10-year period. This would be a 10-year program to remove 15 miles of pipe per year.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005080.04	RAMP - Base / Risk ID 2 - Excavation Standby	SDG&E-02	Catastrophic Damage Involving Third Party Dig-In	Standby	13	13	13	13	Pipeline Observations (Standby)	Surveillance of excavations in the vicinity of high pressure gas lines to prevent damag	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005080.05	RAMP - Base / Risk ID 16 - Leak Repair	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Maintenance	1,000	1,000	1,000	1,000	Leak Repair	Leak repair is the result of leak mitigation and pipeline patrol. This activity involve replacing pipe or components that are leaking.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005080.06	RAMP - Incremental / Risk ID 16 - Leak Repair	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Maintenance	0	46	46	46	Leak Repair	Leak repair is the result of leak mitigation and pipeline patrol. This activity involve replacing pipe or components that are leaking.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005080.07	RAMP - Base / Risk ID 16 - EPOCH Planned Replacement of Pipe	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Pipeline projects are prioritized based on condition and performance	2,000	2,000	2,000	2,000	EPOCH	Planned, risk-ranked replacement of pipe with recurring leak history.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005080.08	RAMP - Incremental / Risk ID 16 - EPOCH Planned Replacement	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Pipeline projects are prioritized based on condition and performance	0	(36)	259	597	EPOCH	EPOCH projects start with a single coded leak repair. When subsequent repairs are made to the same pipe, the segment is added to a risk-ranked list of planned replacements	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005090	Cathodic Protection					1,535	1,741	1,946		Corrosion on pipelines increases the potential for gas leaks and may reduce the useful lives of the pipelines. Cathodic protection is one method for mitigating external corrosion on steel pipelines by imposing an electric current flow toward the surface of a pipeline. This budget code funds the addition of new CP systems and the replacement or upgrade of existing CP systems. Installations include direct current rectifier stations, deep well anode beds, and related equipment.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005100	Regulator Station Improvements and Other					1,688	20,509	25,633		Projects completed under this budget code typically involve upgrades or improvements to distribution piping, pressure regulation or metering stations, valve stations, meter set assembly valve replacements, remot monitoring instrumentation equipment, LNG upgrades, or other gas distribution facilities.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005100.02	RAMP - Incremental / Risk ID 16 - Dresser Mechanical Couplin	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Improvements	0	926	6,952	7,877	Dresser Mechanical Couplings	This program consists of evaluating the coupling field location, excavating, and assessing th weld housing to encapsulate the dresser mechanical couplings main in and near downtown San Diego.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005100.03	RAMP - Incremental / Risk ID 16 - Oil Drip Piping Removal	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Improvements	0	0	9,275	9,275	Oil Drip Piping	This project is designed to verify the location of above ground and buried oil drip lines an containers. As part of the process, SDG&E consults with Pipeline Operations and Region Engineering to determine and remove facilities that are not necessary.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005100.04	RAMP - Incremental / Risk ID 16 - Buried Piping in Vaults	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Improvements	0	0	0	7,719	Buried Piping in Vaults	SDG&E has pipeline buried in vaults that may be corroded by above ground facilities and pitting of below ground piping. This activity will determine the locations vaults containing medium and high pressure facilities. SDG&E will assess the coating and the condition of the above-ground and below-ground facilities within the vaults.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	005100.05	RAMP - Incremental / Risk ID 16 - Closed Valves Between High	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Improvements	0	0	3,520	0	Closed Valves Between High and Medium Pressure Piping	This proposed activity involves verifying the valve location, excavating, and removing the closed and locked valves which connect high pressure piping to medium pressure piping.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	009020	Local Engineering Pool					7,247	14,739	20,083		This budget code is comprised of labor and non-labor costs associated with technical planning for capital projects. This includes production of project drawings, acquiring and managing third party services, and estimating work order costs. This budget code also includes Region Engineering personnel's labor and non-labor costs associated with capital projects as well as other engineering functions including pipeline network analysis, development of pipeline project specifications, developing construction requirements, and analysis of the construction impact on the gas distribution system.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	009020.02	RAMP - Incremental Post Filing / Risk ID 16 - RAMP Proposed	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Local Engineering overhead costs associated with large RAMP proposed projects	0	600	6,928	9,989	Local Engineering - RAMP component	Local Engineering overhead costs associated with large RAMP proposed projects	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	009020.03	RAMP - Incremental / Risk ID 16 - CP System Risk Algorithm D	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Improvements to Cathodic Protection reliability	0	0	1,027	3,349	Cathodic Protection (CP) Reliability Program	This is a region specific program which will perform a detailed cathodic protection evaluatio that will assess the health of the CP system	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	009020.04	RAMP - Base / Risk ID 3 - Traffic Contro	SDG&E-03	Employee, Contractor, and Public Safety	Safety policies and Programs	3,700	3,700	3,700	3,700	Traffic Control Work Group and Equipmen	Traffic control for construction worl	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	009020.05	RAMP - Incremental / Risk ID 3 - Traffic Contro	SDG&E-03	Employee, Contractor, and Public Safety	Safety Policies and Programs	0	353	353	353	Traffic Control Work Group and Equipmen	Traffic Control for construction worl	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	009020.06	RAMP - Base / Risk ID 16 - Gas Standards Review	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Operational Review	68	68	68	68	Gas Standards Review	All procedures in Gas Standards are reviewed yearly for updated regulator information an updating.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	009020.07	RAMP - Base / Risk ID 16 - New Construction QA/QC	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Operational QA/QC	383	383	383	383	QA/QC mostly new construction	Inspections of installed asset, welding/bonding procedure, material verification, gas standard and other construction activities	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	125510	Cathodic Protection System Enhancement					3,915	3,915	3,915		This budget code funds the proactive cathodic protection system improvements and reinforcements in addition to its routine work performed in budget code 509. Cathodic system enhancements are based on internal company assessments. A majority of work involves separating transmission gas mains from distribution gas mains, as well as isolating all high pressure distribution lines. CP system enhancements included in BC 125510 involve the installation of insulated unions to separate CP systems, new rectifiers, anode beds and test points allowing CP technicians to take CP reads.	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	125510.02	RAMP - Base / Risk ID 16 - Maintain CP Assets	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Cathodic Protection	1,095	1,095	1,095	1,095	Requirements for corrosion control	Maintains cathodically protected assets by repairing, replacing, or retrofitting components	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	125510.03	RAMP - Incremental / Risk ID 16 - Maintain CP Assets	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Cathodic Protection	0	965	1,172	1,285	Requirements for corrosion control	Maintains cathodically protected assets by repairing, replacing, or retrofitting components	IN PROCESS
SDG&E	Capital	SDG&E-04	Gina Orozco-Mejia	Gas Distribution	145530	CNG STATION UPGRADES						2,617	2,617		Infrastructure includes canopy structure, lighting, card readers, dispensers, security, and signage; compressed natural gas equipment including compressors, dryers, controllers, valves, piping, and storage vessels; an engineering, design, fabrication, construction, initial testing and start up fees.	IN PROCESS
SDG&E	Capital	SDG&E-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	004010	GT PL NEW ADD-PRE 2004					3,901	3,901	3,901		New pipeline projects include planning, design, permitting, material acquisition, constructior commissioning and impact mitigation for new pipelines and associated valves, fittings, pressure regulating stations and service lines. Projects can range in size and magnitude from a few feet to many miles of large diameter pipeline through urban, suburban, rural or remote terrain within SDG&E's service territory.	IN PROCESS
SDG&E	Capital	SDG&E-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	004140	GT PL RELOC-FRAN/PRV ROW/EXTERNAL DRIVEN					2	2	2		This Budget Code contains forecasts for a number of pipeline relocation projects required to meet the regulatory requirements or contract clauses of operating, right of way, franchise, and 3rd party develope agreements. Specific projects with cities and developers are not always clear during the annual budgeting process. These projects can range in magnitude from less than one hundred feet of pipe to accommodate a storm drain or sewer installation to several miles of relocated pipe, fittings, valves and appurtenances needed to accommodate residential development over large tracts ofpreviously undeveloped land throughout our service territory. Throughout the year, SDG& can be required to relocate pipelines during the same year the request is received by SDG&E due to the immediate needs of third party developers or municipal agencies	IN PROCESS
SDG&E	Capital	SDG&E-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	004160	GT CATHODIC PROTECTION/EXTERNAL DRIVEN					184	184	184		Typical expenditures include the replacement of surface anode beds, deep well anodes and/or rectifier systems, installation of new cathodic protection stations, and applying cathodic protection to existing steel mains and service lines. Cathodic protection projects may also include the installation of new remote satellite communication technology which allows for more efficient operation and monitoring of the cathodic protection system.	IN PROCESS
SDG&E	Capital	SDG&E-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	004160.01	RAMP - BASE GT CATHODIC PROTECTION/EXTERNAL DRIVEN	SDG&E-10	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Requirements for corrosion control.	184	184	184	184	Cathodic Protection	Install cathodic protection (anodes, rectifiers, etc.) to protect high pressure pipelines	IN PROCESS
SDG&E	Capital	SDG&E-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	004180	M&R Stations					691	691	691		Typical expenditures includes the instrumentation necessary for the metering or regulating of natural gas in connection with transmission operations and, in particular, costs associated with additions or replacements of station piping, valves, regulators, control and communications equipment, shelters and enclosures.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SDG&E	Capital	SDG&E-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	M04120	MP PL REPLACE/EXTERNAL DRIVEN					1,505	1,505	1,505		Projects in this Budget Code include the cost to plan, design, permit, acquire materials, construct, commission, and mitigate impacts for the replacement of pipelines, fittings, valves, and associated pressure regulating stations and service lines. Multiple projects are completed each year ranging in size and magnitude from a few feet to several miles of replacement. Projects can involve difficult and hazardous access with many logistical challenges caused by weather or physical terrain. This forecast is for multiple smaller projects varying in scope and pipe size but not qualifying for seperate work papers. Also included are projects to replace pipelines due to class location changes	IN PROCESS
SDG&E	Capital	SDG&E-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	M04120.01	RAMP - Base Blanket WOA	SDG&E-10	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Gas Transmission Operations	1,505	1,505	1,505	1,505	HCA Class Location Followup Mitigation	HCAs for natural gas pipeline focus on populated areas which affects class location. HCA identification relies on pipeline-specific information regarding the location, size, and operating characteristics of the line, as well as the identification of structures, specified sites, and their intended usage along the pipeline right-of-way	IN PROCESS
SDG&E	Capital	SDG&E-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	M04150	MP COMP STA ADD/RPL / EXTERNAL DRIVEN					1,552	1,552	1,552		Individual project scopes can consist of one or a combination of the following installations: engine control panels, oxidation catalysts, evaporative ponds, cooling tower, blowdown silencer, station auxiliary systems, turbos, station physical security, and clearance pockets.	IN PROCESS
SDG&E	Capital	SDG&E-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	M04350	MP COMP STA ADD/RPL /QUALITY-ECON DRIVEN					2,863	2,563	2,413		Activities include permitting, environmental and detailed engineering design. Other capita improvements includes routine and bulk work that is forecasted based on the 5 year average cost.	IN PROCESS
SDG&E	Capital	SDG&E-11	Maria T. Martinez	TIMP & DIMP	034680.01	RAMP - Base BC 3468 is SDG&E TIMP	SDG&E-10	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	TIMP ILI/ECDA	3,658	3,997	3,997	4,000	TIMP	TIMP ILI/ECDA	IN PROCESS
SDG&E	Capital	SDG&E-11	Maria T. Martinez	TIMP & DIMP	095460.01	RAMP - Base BC 9546 is SDG&E DIMP DREAMS	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Distribution Integrity Management Programs - DREAMS	22,346	20,219	20,219	22,346	DIMP DREAMS	Distribution Integrity Management Programs - DREAMS	IN PROCESS
SDG&E	Capital	SDG&E-11	Maria T. Martinez	TIMP & DIMP	095460.02	RAMP - Incremental BC 9546 is SDG&E DIMP DREAMS	SDG&E-16	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	DIMP DREAMS	0	0	0	22,654	RAMP - Incremental BC 9546 is SDG&E DIMP DREAMS	DIMP DREAMS	IN PROCESS
SDG&E	Capital	SDG&E-22	R. Dale Tattersall	Real Estate, Land Services & Facilities	00701A.004	Mission Skills Training Site Upgrades					403	605	504		SDG&E Skills Training Center is a combined site and classroom based facility that provides training of electric, gas, customer service, project planning and inspection resources. The objective and focus of this project is to improve the site training facilities needed to develop the skills of current and future electric field employees (e.g. lineman, electric troubleshooter, fault finder, substation electrician, etc.). The current site training facilities were originally designed to primarily meet apprenticeship and journeyman training requirements and need to be improve to incorporate training for new technologies and equipment. More efficient space planning and increased infrastructure flexibility is necessary to allow employees to train on new equipment standards before encountering in the field, receiv periodic refresher training for reinforcement of safe work methods and compliance with electric standard practices, and concurrently serve a greater mix of employee groups. The project scope will therefore include a redesign of the existing training yard utilization, new training and testing locations, upgrades to existing training equipment, and expanded equipment storage and accessibility.	IN PROCESS
SDG&E	Capital	SDG&E-22	R. Dale Tattersall	Real Estate, Land Services & Facilities	00710A.003	Miramar Welding Room Expansion						1,088	3,023		This project will construct a new facility to replace an existing aged and inadequate facility, thereby creating a safer, more efficient environment for employees and contractors to participate in welding qualification and training, and allowing for increased throughput of qualified and certified welders necessary to maintain compliance with governing regulations and standards. The existing facility is comprised of a 3-sided metal building structure that is protected by the elements only by retractable tarp. Only 8 hands-on welding training booths are available and they alternate between each of arc and oxy-acetylene welding training. Wind poses a risk to training safety as well as the spread of particulates outside of the welding environment. There is no classroom or office space for instructors. The project scope will increase welding booths up to 24, split between dedication to arc and oxy-acetylene welding training, provide classroom space for operator qualification and welding training classes, and office space for the welding instructors to organize instruction materials and maintain training records. These new areas will allow arc and oxy-acetylene welding training to be conducted concurrently, and classroom training to be conducted at the same time as hands-on training, thereby yielding an increased number of welders qualifying at the same time.	IN PROCESS
SDG&E	Capital	SDG&E-22	R. Dale Tattersall	Real Estate, Land Services & Facilities	00710A.004	Mission Critical Facility Consolidation & Expansion						1,496	3,540		The objective of the project is to unify critical 24/7 operations control functions into a singular facility, constructed with high level seismic resistivity and physical security measures to increase the hardening and protection of these facilities and internal assets. Functions to be housed at this facility would include, but not be limited to, Grid Control, Distribution Operations, IT Network operations and Emergency Operations Control. The existing facilities providing these functions would be redeployed as back-up operations, thereby improving the capabilities of back-up functions, as well. Costs proposed in this rate case submittal would be to initiate design and permitting processes, only.	IN PROCESS
SDG&E	Capital	SDG&E-22	R. Dale Tattersall	Real Estate, Land Services & Facilities	16768A.001	CP East Tenant Improvements					10,943				The project includes technology infrastructure upgrades and a complete demolition and remodel of the existing office space. Tenant improvement construction will include prefabricated modular walls and raised floor for flexibility of space utilization, a new HVAC distribution system and lighting, information systems distribution (routers, switches, wireless access points and cabling), audio visual technologies, security and surveillance systems, and furniture to meet current company ergonomic standards. This workpaper includes the 2017 cost component, only, of the project, which has an overall estimated cost of $24.5M and commenced in 2016.	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00811H	T16033 POWER YOUR DRIVE/ENTERPRISE FUNCTIONALITY					1,513				The project scope includes upgrades that are PYD specific and charged to the PYD balancing account (web Enrollment and My Account modifications, meter/charger inventory tracking, Service Orders (account holder start, stop, change service as well as meter/charger repair/replacement, and Finance/Credit), as well as Enterprise assets that shall support 3rd party meter read accuracy and hourly TOU pricing and bill calculations.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00813A.01	RAMP - INCREMENTAL T16045 CPD ENHANCEMENTS PHASE 3	SDG&E-13	Records Management	IT	0	129	0	0	IT	IT	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00813A.02	RAMP - INCREMENTAL T16045 CPD ENHANCEMENTS PHASE 3	SDG&E-13	Records Management	IT	0	7,805	0	0	IT	IT	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00813A.03	RAMP - INCREMENTAL T16045 CPD ENHANCEMENTS PHASE 3	SDG&E-13	Records Management	IT	0	0	888	0	IT	IT	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00813B.01	RAMP - INCREMENTAL T16035 CMP SAP ENHANCEMENT	SDG&E-13	Records Management	IT	0	1,023	0	0	IT	IT	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00813D	T19015 E&FP 2017 CAISO Mandates					941	426			The initiatives that will have an impact on E&FP, IT and vendor efforts during 2017 have been identified based on the RUG process of the ISO, and include: 1. Automated Dispatch System (ADS) Technology Upgrade (Internal E&FP effort) 2. Commitment Cost Enhancements Phase 3 (Opportunity Cost Adder for Use Limited Resources) 3. Contingency Modeling Enhancements- Bid Cost Recovery (BCR) Implications - special case 4. Reliability Services Initative/Capacity Procurement Mechanism (RSI/CPM) Phase 1B/2 (Impact to PCI Resource Adequacy (RA) Non SE Outage Screen), and Versify application) 5. Bidding Rules Enhancements Part B 6. Aliso Canyon 7. Regional Resource Adequacy Planning (PacifiCorp joining in 2019 will require this capability in 2017) 8. Cost Allocation Mechanism (Versify/ Allegro impact) 9. CPUC Resource Adequacy (Versify Impacts)	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00813F.01	RAMP - INCREMENTAL T19011 Patrol Inspect Auto Corrective Mai	SDG&E-13	Records Management	IT	0	646	0	0	IT	IT	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00813I	T15073 SDGE GOPA Phase 3					110				Deliver 153 SCG and SDG Gas Operations self-service reports and ad-hoc reporting capabilities Automate the acquisition, validation, and integration of data from SAP Plant Maintenance, ClickSchedule, KorTerra, MyTime, Franson GPSGate, ARCOS, and SAP FI/CO within SAP HANA Implement information Steward (Data Dictionary) for GOPA reports	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00827B	T15080 SCADA RADIO REPLACEMENT & EXPANSION					1,861				1. Manage finance for the business to test and replace a subset of existing RMS900 RTUs in critical sites 2. Replace 1788 GE end point radios, 30 radio masters and 200 repeater radios including SDGE Electric Distribution, SDGE Gas Transmission 3. Expand SCADA radio coverage with a potential to reduce the number of repeater sites. Number of repeaters to be reduced is pending RF analysis 4. Address backhaul capacity constrains (San Clemente to Encina, Rattlesnake, Borrego and Los Pinos) 5. Repeaters moved to licensed spectrum where available 5. Address issues with SCADA backend ACS Servers	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00829A	T16050 SDGE ENHANCED MOBILE COMMAND TRAILER					95				The build will consist of the following capabilities: 900 MHz, 800 MHz, and 450 MHz radios (excludes radio consoles): two (2) for the workspace and one (1) in conference room (3 total) Iridium satellite phones with external antennas and attached analog phones. One (1) for each workspace and one (1) in the conference room. With speaker available on the analog phone or speaker phone capability in conf room. Direct TV: 2 receivers Monitors - AV matrix switch from any of the stations in the trailer to one or many of the monitors. 2 MiFi devices for the interim. 1 Verizon & 1 AT&T Users will use MDTs with cellular data cards Office supplies, printer etc. 4G/LTE and satellite voice and data backhaul to the Sempra Corporate network. Add ability for IT Network Operations Center (NOC) to provide remote network and power management support	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00829B	T16055 EMERGENCY FIELD COMMUNICATION SERVICES					1,272				Satellite – 5 quickly deployable trailers Microwave – 5 quickly deployable trailers Standards for Satellite and Microwave Comm Trailer Cell on Wheels and Fly Away Kit for cellular voice coverage	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00831B	T19004 Gas Customer Choice Automation (GCCA)						1,216	310		Provide a software solution to perform the following functions: Create a central repository and reporting for Gas Customer Choice capabilities. Manage gas core and non-core imbalance reporting and customer communications, contract maintenance. Enable gas curtailment processes including analysis of available load, event monitoring, and violations reporting.	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00831I	T15064 SMART METER SYSTEMS UPGRADE					3,340	480	480		Replace IBM database servers. The MDMS application software will be upgraded from IEE 7.0 (Itron Enterprise Edition) SP4.0 HF10 to the current release IEE 8.1 or later. The OWCE application software will be upgraded from OWCE 3.9 HF3 to the current release OWCE 6.6. Define the overall Smart Meter testing methodology and develop test automation for end-to-end Smart Meter system testing. This improved Smart Meter testing process will ensure that these systems are thoroughly tested during this project and will provide the process and tools required for ongoing software release testing and Smart Meter configuration and firmware testing in the future. Provide analysis and if warranted, report recommendations to enhance business operations and streamline applications through additional configuration of available MDMS functionality. Provide analysis and if warranted, report recommendations to upgrade IEE 6.6 to Beryllium.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00831P	T19047 Smart Meter Network Modernization						4,866	10,215		The SDG&E Smart Meter Network consists of approximately 2,800 operational Itron OpenWay radio frequency local area network (RFLAN) 3G Cell Relays. The Cell Relays provide routing functions for over 2.2 million existing Company RFLAN electric and gas meters. The majority of the existing Cell Relays are near the end of their useful life. Reportedly, in Q1 of 2019 Verizon will discontinue support of 3G communication devices and in Q1 of 2020, AT&T will follow suit. If the Cell Relays are not replaced with 4G or better communication technology, the network will stop communicating. Additionally, greater efficiency and new revenue opportunities exist with modernizing our network capabilities. The existing Smart Meter Network is not capable of supporting additional communication devices limitin functionality and scalability to support newer technologies, e.g. Internet of Things (IoT) sensors, methane gas sensors, 3rd party devices (water meters, street lights, EV charging stations, solar inverters, etc.).	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00832B	T16034 SMART METER NETWORK ENHANCEMENT					2,534				This project will overlay a new internet protocol version 6 (IPv6) communications infrastructure designed for different device types enabling new functionality and services. This new infrastructure would permit the Company to add new capabilities and revenue sources not specifically related to metering. The project will deliver a field area network upgrade path which facilitates the integration of new multi-vendor meters, Internet of Things (IoT) sensors, as well as having the ability to provide connectivity services to 3rd party devices (e.g., methane gas sensors, water meters, street lights, EV charging stations, solar inverters, etc.).	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00833B.01	RAMP - INCREMENTAL T16040 SORT EXTENSION	SDG&E-13	Records Management	IT	0	52	0	0	IT	IT	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00833B.02	RAMP - INCREMENTAL T16040 SORT EXTENSION	SDG&E-13	Records Management	IT	0	1,609	0	0	IT	IT	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00833J.01	RAMP - INCREMENTAL T19023 CPD Enhancement Phase 4	SDG&E-13	Records Management	IT	0	0	9,954	0	IT	IT	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00833J.02	RAMP - INCREMENTAL T19023 CPD Enhancement Phase 4	SDG&E-13	Records Management	IT	0	0	0	9,954	IT	IT	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00833M	T17003 FoF - ET & Substation Project Lifecycle					3,064	4,943	4,089		New functions or groups established to support end to end process (project management COE, QA/QC, work and resource management) Existing organization redesigned to support end to end processes (per output from up front organizational assessment) Improved control using formalized project stage gates Standardized Work Breakdown Structure (WBS) for capital work Capital planning extended further into the future to allow increased visibility Defined work and resource management processes and procedures to balance supply and demand of project work Project management best practices are formalized and tracked Tools integrated to support end to end process Consistent data sources and defined "sources of truth" to ensure clear visibility into costs, resources, and project information	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00834E	T19012 LTE Communications Network						22,889	50,262		Implement a private LTE network that can be expanded in stages, as needed, to provide communications capability in traditionally difficult to reach locations in addition to providing a wireless network with broadband capabilities for a variety of uses - voice, SCADA, Advanced SCADA, pipeline integrity and others.	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00834F	T16024 2016/2017 SDGE MDT TECHNOLOGY OBSOLESCEN					1,015	160			This project will replace approximately 235 units in 2016 and 294 units in 2017 used by various organizations throughout SDG&E. This replacement is being done in accordance with guidelines outlined in the MDT standards for MDT life cycle, due to the environment in which units are used on a daily basis, and because of their general condition at the end of four years. The technology will be evaluated to insure users will be able to take full advantage of new features being developed in field applications such as Click Mobile and GIS Mobile	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00834H	T15088 SDGE ENTERPRISE DESKTOP REFRESH					2,928				Procure/configure/deploy ~3300 Windows 10 workstations to office-based SDGE employees Workstations include combination of desktops, laptops and tablets; laptops will be provided in "bundle" to include dock, adapters/dongles, headset, case. One workstation per employee. An allowance for replacement of ~10% of monitors/peripherals is included. Perform foundational work to support above deployment, including Windows 10 image development and testing. Assess, test, remediate and validate applications compatibility on Windows 10 platform. Remediation could include minor code changes, application virtualization (App-V), or other workarounds (ie, VDI running Win 7). Deploy Office 365 tools to same users as part of desktop refresh, including but not limited to: OfficeProPlus, Skype for Business, SharePoint Online, OneDrive, Delve. Project has strong dependency on Office 365 Adoption Project for organizational change management. Update CMDB and solidify asset management process to ensure accurate asset tracking	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00834I	T19014 SDGE FAN Voice and Dispatch					9,659	9,816	11,968		Replace mission critical analog radios and consoles with digital capable equipment, refresh analog base stations to digital base stations, and provide high available radio infrastructure for disaster recovery purposes. Project will include expansion of the current radio coverage area and will replace leased.	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	00834O	T19027 Transmission Communications Reliability Enhancement - Phase II					6,769	12,711	14,631		Phase II of this project will complete the design, implementation, and commissioning of standardized communication infrastructure developed during Phase I of this project. The remaining Electric Transmission substations (~100) and associated transit communication sites are included within the scope of this project. All remaining legacy telecommunications equipment will be decommissioned and removed from the field. Services such as LMR, LPCN and SCADA Radio are out of scope for this project	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	03849A	T19031 FoF - IVR Project					652				This project will add Fumigation turn-off self-service function, streamline appliance service orders flow to improve self-service and customer experience, and to match the new streamline ASO process. This project will reroute credit excessive-repeat callers to self-service, insist callers to specify the purpose of their calls before transferring callers to agents. This project will expand emergency menu to include detailed emergency types, quickly post gas odor messages to help customers self-service. This project will quickly post outage information regarding outage start time, cause, restoration time and numbers of callers.	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	03849B	T19030 FoF - KANA Enhancements and Online Training					1,360				To funtionalize and integrate existing features within the KANA Enterprise Bundle (Case Management, Live Chat, E-Mail). To implement computer based training for onboarding Energy Service Specialists. Integrate KANA products into existing applications that are currently used. For on-line training: Secure vendor for on-line training.	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	03851A	T19035 FoF - Business Process Management (BPM) Automation					2,259				Install system for SDGE only. Note 1: SCG concept doc exists for entire enterprise - this one needed for SDGE if SCG doc is not approved. Note 2: if PegaSystems is selected solution, potentially migrate from cloud instance to on premise). Integrate with HR Repository and SAP to synchronize various approval hierarchies. Develop APIs (if not already pre-built) to facilitate BPM integration with major systems, depending on prioritized use cases - SAP (ECC, CPD, etc.), CISCO, GIS, Click, SORT, etc.. Develop core set of workflows to address various business use cases. Design/implement organizational support model to sustain and grow capability.	PLANNED
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	03852A	T19032 FoF - Unmanned Aerial System (UAS) Analytics					1,362	1,684			Design, develop and implement IT application and infrastructure solution to support growing UAS requirements and demand. Scope encompasses the "lifecycle" of UAS imagery data: - Architecture: reference architecture (capabilities), data architecture, applications/systems architecture - Capture: How data will be initially captured from UAV and uploaded into SDGE systems - Storage: Most likely in "data lake"; make imagery data searchable and available for consumption by multiple applications, users; requires ingest process, metadata tagging, integration, retention rules, etc. - Analytics: Applications to analyze imagery data (images, video, LIDAR). May be multiple tools, and could be insourced or outsourced - Integration: With core systems as needed/prioritized: GIS, SAP, PowerWorks, etc. - Distribution: Providing potentially large volume of imagery data either real time or post-capture via video stream or similar bandwidth intensive channel. Impacts could be to wired and wireless networks, and may include satellite communications in field.	PLANNED
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	15869A	T15869 SMART GRID ENDPOINT PROTECTION					218				Develop and test proper endpoint protection policies and processes for each use case (connected/disconnected). Add hardware and licensing to SDG&E's remote privileged access management technology to support Smart Grid applications. Establish new internal remote access process and procedures for internal and external vendors and administrators	IN PROCESS
SDG&E	Capital	SDG&E-24	Christopher R. Olmsted	Information Technology	16871A	T16028 SMART METER NETWORK DEVICES					725	475			Purchase and installation of Smart Meter Network Devices to enable communication o company metering equipment.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	001510	New Business Construction					35,935	44,616	49,696		The activities of this category include installation of gas mains and services, meter se assemblies, regulator stations and the associated facilities necessary to provide service to new customers.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	001630	Meters					16,289	22,206	29,838		A meter is the device that measures the customer's gas consumption. Meter types purchased within this budget code include diaphragm, rotary, turbine, and ultrasonic. Meters are grouped into two sizing groups where the small and medium size meters are referred to as "size 1 through 3" meters, and the other being the large size meters referred to as "size 4 and above" meters. Size 1 through 3 meters are typical of residential and small commercial customers. The size 4 and above are typical of large commercial and industrial customers.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	001640	Regulators					3,733	4,962	5,128		Gas regulators are purchased for two primary purposes, new business installations and replacements. When choosing a pressure regulator many factors are considered before selecting a model. Important considerations include: material choice, inlet operating pressure, outlet delivery pressure, flow capacity, temperature, and size constraints	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	001730	Cathodic Protection (CP) Capital					6,320	8,434	9,511		Typical projects for this workgroup include the capital expenditures associated with the installation of new and replacement cathodic protection stations and applying cathodic protection to existing steel mains and service lines. This includes the additions of new rectifier (impressed current) sites along with associated anode installations including the necessary cathodic protection instrumentation and remote monitoring equipment; shallow well and dee well anode bed replacements for existing rectified systems; as well as installation and replacement of larger surface bed magnesium anode systems.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	001730.03	RAMP - Base - Risk ID SCG-10/SCG Medium-Pressure Pipeline Fa	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Systems are in place to monitor and manage complianc activity schedules	3,727	3,908	5,096	5,590	Cathodic Protection (Per Region)	System Protection of all distribution system	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	001810	Electronic Pressure Monitors (EPM)					829	909	577		An Electronic Pressure Monitors (EPM) is a unit made for the purpose of measuring and recording gas pressure within a gas pipe via a connected gas transducer sensor. The unit has a box shaped shell cover that protects the internal circuitry from environmental hazards. After initial installation, this device is placed on an annual maintenance plan which includes inspection of the battery pack serving as the source of power for most EPMs. Currently, this device is commonly connected to a telephone hardline. These devices will be converted to operate using the Advance Metering Infrastructure (AMI) network. The line of communication is what allows the EPM device to send pressure data logs to a calling computer, at which point, the pressure data can be electronically reviewed, analyzed, stored, and archived. These EPM units are commonly affixed to wall-mount and pole-mount configurations.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	001820	Remote Mtr Reading					727	2,032			This category includes CSF labor and associated non-labor costs for the replacement of curb meters. CSF labor includes field technicians who perform the meter replacement work, supervision and management support staff.	IN PROCESS

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SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002510	Pressure Betterments - Routine					23,088	23,088	23,088		Pressure betterment projects typically involve one or more of the following: • Installing new mains. • Upsizing existing mains. • Upgrading existing mains to higher pressure. • Installing new regulator stations. • Upsizing existing regulator stations.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002520	Main Replacements					33,711	33,711	33,711		The distribution medium pressure system is comprised of approximately 47,093 miles of stee and plastic pipeline constructed between the early 1920s and the present, and ranges in diameter from 1-inch to 16-inch. These mains support the delivery of gas to more than 5.9 million customers. Pipeline replacement projects include: • The installation of new mains to replace existing mains. • Service line replacements associated with main replacements. • Existing service line "tie-overs" to newly installed replacement main. • Meter set re-builds associated with newly installed replacement main. • Main replacements completed in advance of public infrastructure improvement projects.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002520.02	RAMP - Base - Risk ID SCG-02/SCG Employee Contractor Custome	SCG-02	Employee, Contractor, Customer, and Public Safety	Contracting for Traffic Control Delineation materials	2,199	2,146	2,146	2,146	Contracting for Traffic Control Delineation materials -- Distribution Only	Contracting for Traffic Control Delineation materials	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002540	Main & Service Abandonments					9,256	10,522	11,787		Abandonment of mains and services can only occur when abandonment of the pipeline is deemed to not cause a negative effect on the distribution system, otherwise a replacement plan will be pursued. Mains are retired from service by stopping the flow of gas into the section of pipe to be abandoned. This is typically accomplished with pressure control fittings installed on both extremes of the section of pipe in order to isolate from gas flow. Abandonment of service lines is accomplished by cutting and capping at the service-to-main connection.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002560	Service Replacements					28,538	31,470	34,403		SoCalGas has approximately 49,516 miles of service pipe. These distribution service lines are used to transport gas from a common source of supply to an individual residence, or to two adjacent or adjoining residences, or a small commercial customer. It is also common to serve multi-residential buildings and multi-commercial customers through a meter header or a manifold. A service line ends at the end of the customer meter or at the connection to a customer's piping, whichever is further downstream	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002560.02	RAMP - Base - Risk ID SCG-10/SCG Medium-Pressure Pipeline Fa	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	MSA Inspections	1,765	2,150	2,258	2,526	Meter Set Assembly (MSA)	Maintenance and inspections of meter set assemblies in the system. Per region basis	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002610	Pipeline Relocations - Freeway					7,837	7,837	7,837		Gas pipeline relocation projects are performed to establish adequate clearance to accommodate freeway construction improvements and/or expansions. These pipeline relocation projects include all sizes of distribution main and associated service lines, meter set assemblies and related gas facilities. Freeway relocation projects include altering: • Pipeline crossing over and under a freeway bridge span. • Any gas facility interfering with construction and located within CalTrans' right-of-way. • Any gas facility outside of CalTrans' right-of-way deemed to interfere with freeway construction.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002620	Pipeline Relocations - Franchise					17,894	17,894	7,894		Franchise related pipeline relocation projects are performed to establish adequate clearance t accommodate public works construction improvements and/or expansions. These pipeline relocation projects include all sizes of distribution main and associated service lines and related pipeline facilities including meter set assemblies. Some examples of the type of municipality work that drives franchise pipe relocations include: • Street widening, resurfacing, or repairs. • Storm drain work. • Municipal water work. • Sewer work	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002640	Meter Guards					359	8,299	8,299		Meter guards consist of pipeline compatible materials with sufficient structural integrity to guard against damage to meter set assemblies. Posts installed into the ground with welded cross braces, usually made of stee pipe, are fabricated and installed by SoCalGas field crews and contractors	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002650	Regulator Stations					8,636	14,636	19,436		Regulator Stations are key assemblies of control equipment on the SoCalGas pipeline system. They are installed to reduce the pressure of gas from high-pressure pipelines to provide the lower pressures used on the distribution pipeline system, which provides steady continued operating conditions to the customer. These stations consist of pipes, electronics, valves and regulators, which are installed in either below-ground vaults or above-ground fenced facilities, and in some instance inside specially built housing. These stations not only serve to control gas pressure but also a a line of defense against over-pressurization. Many of the modern stations are design with dual run feeds to maintain continued operation of the station in the event of a failure within either of the two runs.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002650.02	RAMP - Base - Risk ID SCG-04/SCG High-Pressure Pipeline Fail	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Systems are in place to monitor and manage complianc activity schedules.	179	185	185	185	Regulator Station Inspection and Maintenance	Inspect regulators to ensure Overpressure Protection is in place and maintained	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002650.03	RAMP - Base - Risk ID SCG-10/SCG Medium-Pressure Pipeline Fa	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Systems are in place to monitor and manage complianc activity schedules	318	42	42	42	Measurement & Regulation and maintenance	Inspect regulators and gauges to ensure overpressure protection is in place and maintained.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002670	Supply Line Replacements					4,209	4,209	4,209		The distribution supply line system is comprised of approximately 3,700 miles of high-pressure pipeline constructed between the early 1920s and the present, and ranges in diameter from 2 inch to 30 inch. These supply lines normally operate at pressures higher than 60 psig. Projects in this workgroup include replacements of pipelines and associated facilities within the supply line system.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002700	Other Distribution Capital Projects					3,297	3,297	3,297		These facility relocation projects include all sizes of distribution main and associated service lines, meter set assemblies and related gas facilities. Examples of these “other” projects include, but are not limited to: • Replacement or alteration and abandonment of appurtenance to mains such as valves and vaults, drips, traps, roads, and fences due to condition in order to maintain the reliable operation of the distribution system. • Raising, lowering or relocating main due to interference with external party construction. • Changes to Company facilities at customer request. This could include items such as alteration or relocation of main or meter set assemblies; installation of customer exclusively used mains, or moving or relocatin regulator stations. • Changes to SoCalGas facilities in accordance with right-of-way agreements, encroachment permits, and railroad crossing lease agreements.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002700.03	RAMP - Base - Risk ID SCG-10/SCG Medium-Pressure Pipeline Fa	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Systems are in place to monitor and manage compliance activity schedules	5	13	5	5	Valve Inspection and Maintenance (Per Region)	Maintenance and Inspection of Valves	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002700.04	RAMP - Base - Risk ID SCG-04/SCG High-Pressure Pipeline Fail	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Maintenance	21	22	22	22	Valve Maintenance and Installation (Distribution High Pressure)	Maintain valves with lubrication and servicing, and replace or install valves required fo compliance	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	002800	Gas Energy Measurement Systems (GEMS)					1,415	1,470	1,494		Gas Energy Measurement Systems (GEMS) provide the electronic means to compute and accumulate corrected volumetric measurements. They also have the ability to provide gas volume corrections based on "live" temperature measurement, provide audit trail capabilities, and some models provide remote communication capabilities. These devices are configured to fit the requirements of each GEMS field site. Proper pressure and temperature transducers need to be considered, as well as casing size and mounting configuration. The types of GEMS included in this category are: Electronic Correctors, little GEMS, big GEMS, and new generation GEMS	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	007250	Capital Tools & Equipment - Routine					14,386	14,220	12,322		Routine tool and equipment purchases are used by the gas distribution field, meter shop, fabrication & repair shop, measurement & controls, and other departments to efficiently and safely install and maintain the gas distribution system	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	007250.02	RAMP - Incremental - Standardizing locate and mark tools use	SCG-01	Catastrophic Damage Involving Third Party Dig-Ins	Prevention and Improvements	0	3,800	2,500	0	Standardize Locate & Mark Equipment	Standardize locating tools used by Locators by replacing aging tools	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	007250.04	RAMP - Incremental - Upgrade Nomex coveralls and fresh air	SCG-02	Employee, Contractor, Customer, and Public Safety	Upgrade Nomex Coveralls & Fresh Equipment	0	1,667	0	0	Upgrade Nomex coveralls and fresh air equipment	Replace all current Nomex and fresh air equipment	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	007250.05	RAMP - Incremental - Confined space air monitoring system f	SCG-02	Employee, Contractor, Customer, and Public Safety	Confined space air monitoring system for field personnel	0	0	1,100	0	Confined space air monitoring system for field personnel	Replace 280 confined space monitors in 2018. Replace 380 personal monitors in 2018. 100 calibration gas cylinders purchased per year	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	009030	Field Capital Support					61,317	70,292	74,618		Traditional work elements recorded to this budget category include project planning, local engineering, clerical support, field dispatch, field management and supervision, and off-production time for support personnel and field crews who install the Gas Distribution capital assets.	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	009030.02	RAMP - Base - Risk ID SCG-02/SCG Employee Contractor Custome	SCG-02	Employee, Contractor, Customer, and Public Safety	Med Pressure Company Crew Inspections	59	58	58	58	Medium Pressure Company Crew Inspections	FOS and Team Leads will complete inspections on company crew work	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	009030.03	RAMP - Base - Risk ID SCG-10/SCG Medium-Pressure Pipeline Fa	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Systems are in place to monitor and manage compliance activity schedules	72	83	86	108	Utility Conflict Review (Right of Way)	Review right of way and other conflicts and resolve these matters	IN PROCESS
SoCalGas	Capital	SCG-04	Gina Orozco-Mejia	Gas Distribution	A01510	New Business Trench Reimbursement					697	697	697		In conjunction with the installation of gas facilities (mains and services, meter set assemblies, and the associated regulator stations) necessary to provide service to the customers, a trench in which the pipeline is placed must be developed. If SoCalGas develops the trench the costs are included in the new business construction costs. I the customer provides the trench SoCalGas reimburses the customer for this cost. This workpaper covers only the latter.	IN PROCESS
SoCalGas	Capital	SCG-06	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	003090.04	RAMP - Incremental Blanket projects	SCG-06	Physical Security of Critical Gas Infrastructure	Operations Mitigation	0	1,883	3,648	6,080	Operational Resiliency	Develop and implement operational flexibility, which may include redundant pipeline syster capabilities, backup equipment and resources, resumption planning and exercises	IN PROCESS
SoCalGas	Capital	SCG-06	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	003090.04	RAMP - Incremental Blanket projects	SCG-06	Physical Security of Critical Gas Infrastructure	Physical security measures put in place for the security/safety of employees and infrastructure	0	594	1,152	1,920	Physical Security Systems	Physical security measures put in place for the security/safety of employees and infrastructure	IN PROCESS
SoCalGas	Capital	SCG-06	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	003160.01	RAMP - Base Gas Transmission Cathodic Protection / Externall	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Requirements for corrision control	504	1,927	1,729	1,219	Transmission Cathodic Protection	install cathodic protection (anodes, rectifiers, etc.) to protect high pressure pipelines	IN PROCESS
SoCalGas	Capital	SCG-06	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	00308A.01	RAMP - Base Valve Maintenance and Installation	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Valve Maintenance and Installation	5,713	0	0	0	Valve Maintenance and Installation (Transmission)	Replace or retrofit of capital equipment to allow for effective valve servicing.	IN PROCESS
SoCalGas	Capital	SCG-06	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	00309A.01	RAMP - Incremental Real time monitoring of lanc movement via	SCG-09	Climate Change Adaptation	Strain Gauge Installation Projects	0	396	396	400	Strain Gauge Installation Projects	Real time monitoring of land movement via stress acting on infrastructure	IN PROCESS
SoCalGas	Capital	SCG-06	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	M03120.19	RAMP - Base Blanket WOA	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Gas Transmission	5,000	3,935	9,026	1,890	HCA Class Location Follow-up Mitigation	HCAs for natural gas pipelines focus on populated areas which affects class location. HCA identification relies on pipeline-specific information regarding the location, size, and operating characteristics of the line, as well as the identification of structures, specified sites, and their intended usage along the pipeline right-of-way	IN PROCESS
SoCalGas	Capital	SCG-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	003010	GT - New Construction					8,543	7,383	7,383		(003010.01 El Segundo Loop) - Installation of new pipe, valves, and fittings conecting existing transmission pipelines on the east in the City of El Segundo thereby creating a transmission pipeline "loop" in the El Segundo area. This solution provides not only the necessary incremental capacity but a level of redundancy that is currently lacking, insuring more reliable service. (003010.02 Blanket WOA) - multiple smaller Transmission pipeline projects that arise typically on short notice.	IN PROCESS
SoCalGas	Capital	SCG-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	003040	GT - Pipeline Relocations - Franchise/Private					11,584	10,464	5,834		Relocating pipe.	IN PROCESS
SoCalGas	Capital	SCG-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	003080	GT - M&R Stations					18,938	18,938	18,938		Typical expenditures includes the instrumentation necessary for the metering or regulating of natural gas in connection with transmission operations and, in particular, costs associated with additions or replacements of station piping, valves, regulators, control and communications equipment, shelters and enclosures. This project includes adding and/or replacing critical valves in large pressure regulating stations to comply with federal class location regulations. Also included are local projects to replace or upgrade customer metering sites and large pressure regulating equipment due to age and/or obselesence	IN PROCESS
SoCalGas	Capital	SCG-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	003090	GT - Aux Equipment					10,314	8,700	12,350		Included are local controls and communication devices such as programmable logic controllers (PLCs), pressure transmitters, gas quality remote sensors, communication interfaces/technologies, intrusion monitoring & alerting systems and real-time video monitoring.. This equipment is used to control the flow of gas in pipelines, valves and regulator stations both locally and through the initiation of remote commands and for enhanced security for remote sites where transmission facilities are either above ground or reside in concrete vaults	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SoCalGas	Capital	SCG-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	003130	GT PL Reloc-Fway / Externally Driven					12	12	88		Relocate and replace pipelines and related facilities found to be in conflict with Caltrans construction projects. Individual projects will vary from less than $10,000 to as high as multiple hundreds of thousands of dollars.	IN PROCESS
SoCalGas	Capital	SCG-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	003160	GT Cathodic Protection / Externally Driven					5,000	6,235	6,658		Typical expenditures include the replacement of surface anode beds, deep well anodes and/or rectifier systems, installation of new cathodic protection stations, and applying cathodic protection to existing steel mains and service lines. Cathodic protection projects may also include the installation of new remote satellite communication technology which allows for more efficient operation and monitoring of the cathodic protection system.	IN PROCESS
SoCalGas	Capital	SCG-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	M03050	MP Comp Sta Add/Rpls/Pre 2004					193	193	193		Individual project scopes can consist of one or a combination of the following installations: replacing the pneumatic and electro-mechanical control systems and related station auxiliary systems, installation of new engine control panels, new station control panel and replacement of sensors, wiring, industrial communications and local controllers. New Programmable Logic Controllers, local control networks, operator interfaces, continuous emissions monitoring (CEMS), precombustion chambers, and new catalysts.	IN PROCESS
SoCalGas	Capital	SCG-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	M03120	MP PL Rpls / Externally Driven					30,194	26,358	10,499		Projects in this Budget Code include the cost to plan, design, permit, acquire materials, construct, commission, and mitigate impacts for the replacement of pipelines, fittings, valves, and associated pressure regulating stations and service lines. Multiple projects are completed each year ranging in size and magnitude from a few feet to several miles of replacement. Projects can involve difficult and hazardous access with many logistical challenges caused by weather or physical terrain. This forecast is for multiple smaller projects varying in scope and pipe size but not qualifying for seperate work papers. Also included are projects to replace pipelines due to class location changes	IN PROCESS
SoCalGas	Capital	SCG-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	M03150	MP Comp Sta Add/Rpls / Externally Driven					11,818	17,875	11,150		Individual project scopes can consist of one or a combination of the following installations: engine control panels, oxidation catalysts, evaporative ponds, cooling tower, blowdown silencer, station auxiliary systems, turbos, station physical security, and clearance pockets	IN PROCESS
SoCalGas	Capital	SCG-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	M03250	MP Comp Sta Add/Rpls / Volume Driven					1,283	1,283	1,283		This work paper represents multiple smaller projects not qualifying for their own work paper and is based on recent experience in maintaining compressor-related equipment through capital component replacements and upgrades.	IN PROCESS
SoCalGas	Capital	SCG-07	Michael Bermel & Elizabeth Musich	Gas Transmission Capital	M03350	MP Comp Sta Add/Rpls / Quality/Economic Driven					37,138	84,000	104,000		SoCalGas will decommission two compressor stations, Desert Center and Cactus City, and isolate the station from existing transmission pipelines.SoCalGas will install new gas compression and related ancillary systems at the Blythe Compressor Station.	IN PROCESS
SoCalGas	Capital	SCG-08	Michael Bermel	Gas Major Projects	003430	Distribution Operations Control Center and Technology Management					1,200	8,969	37,714		The following provides the physical description for the Distribution Operations Contro Center and Technology Management projects identified under budget code 00343: (00343.001 – DOCC) The DOCC project will add RTUs control valves, valve indicators, pressure monitors, servers and modifications to existing field equipment to provide monitoring and oversight to the DOCC SCADA servers, co-located with the existing Gas Control which will be looking to migrate to a new facility in 2022. In addition to the field equipment, 32 employees (fifteen management and fifteen union) will be needed to support the project, 16 c which will need to be hired between 2017 and 2019. (00343.002 – Methane Sensors and Fiber Projects) The Methane Sensor project will look to deploy upwards of 2,100 methane sensors along existing HCA and evacuation challenged areas. The fiber optic project will deploy several fiber monitoring stations along new and replaced transmission pipelines that meet specific operating criteria, estimated at approximately 4 operating stations per year. (00343.003 – Pipeline Infrastructure Management System) PIMS will include new and enhanced IT system functionality along with related data transfer interfaces to various systems that include OSI PI, SAP, GIS, Esri, dispatch, field workforce order management systems, and SCG Advanced Meter and SDG&E Smart Meter (for sensor data collection). This will allow for the data management and reporting for over 2,000 methane sensors and fiber optic monitors as well as provide	IN PROCESS
SoCalGas	Capital	SCG-08	Michael A. Bermel	Gas Major Projects	003430.01	RAMP - Incremental Post Filing Distribution Operations Contr	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Gas Control Operation	0	400	3,156	25,901	Distribution Operations Control Center	This program will bring in the EPM hourly data directly into the Gas Control SCADA system along with real-time alarms, along with hourly core and non-core customer data. The DOCC will also bring in real-time pressure data and provide remote control to high priority distribution sites which will provide greater visibility of the distribution system. Creating a distribution operations control center can allow for more data to be monitored and analyzed for the purpose of safety, pipeline reliability, more efficient emergency response and improving environmental performance.	IN PROCESS
SoCalGas	Capital	SCG-09	Deanna R. Haines	Gas Engineering	006170	Land Rights (BC 617) & Buildings (BC 633)					5,468	5,468	5,468		Pipeline rights-of-way physical dimensions vary but may be at least thirty feet wide (to allow for workers, vehicles and equipment) and are as long as the distance across a property owner's land. They are contractual agreements for which landowners are compensated and may incorporate an expiration date. Such buildings and structures may be gauge houses, shelters for multiple critical valves or buildings providing shelter and protection for critical controls or SCADA-related equipment. Such structures and buildings vary from frame-and-stucco house or buildings made from reinforced masonry blocks in cases where protection and security is needed.	IN PROCESS
SoCalGas	Capital	SCG-09	Deanna R. Haines	Gas Engineering	007300	Laboratory Equipment (BC730), Measurement Gas Samples (BC714) and Capital Tools (BC736)					2,245	2,245	2,245		Tools used by laboratory personnel are frequently sensitive instruments for measuring a variety of materials, substances and gases including emissions. Other equipment may include ovens, burners, microscopes, scales, handling equipment, and tools for computed radiography. Also, this includes hand tools, Volt/Amp Meters, GPS receivers, leak detection equipment, methane detectors, gauges, wrenches, tapping and stopping equipment.	IN PROCESS
SoCalGas	Capital	SCG-09	Deanna R. Haines	Gas Engineering	007300.01	RAMP - Base: ENGINEERING LABORATORY EQUIPMENT	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Odorization	116	2,245	2,245	2,245	Engineering Analysis Center Odorization	Engineering Analysis Center (EAC) develops odorant techniques for system	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SoCalGas	Capital	SCG-09	Deanna R. Haines	Gas Engineering	009080	Supervision and Engineering Overhead Pool					4,909	5,648	6,388		Provide a pool for overhead charges from the Gas Engineering Supervisors or other employees. The charges get reassigned to the various budget categories on a direct basis. Charges reside in this Budget Category temporarily and are reassigned on a monthly basis. Overhead charges stemming from labor spend on capital projects and reassigned to Capital budget categories	IN PROCESS
SoCalGas	Capital	SCG-14	Maria T. Martinez	TIMP & DIMP	002760.01	RAMP - Base BC 276 is TIMP Capital	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	TIMP is closely monitored and given high priority frequent audits are conducted	4,217	5,080	5,080	5,080	TIMP - ILI & ECDA	cleaning and assessing internal conditions of high pressure pipelines	IN PROCESS
SoCalGas	Capital	SCG-14	Maria T. Martinez	TIMP & DIMP	002770	Distribution Integrity Managemen					74,383	74,383	160,000		In DIMP DREAMS capital for 2019 expecting to ramp up the amount of miles replacin	IN PROCESS
SoCalGas	Capital	SCG-14	Maria T. Martinez	TIMP & DIMP	002770.01	RAMP - Base BC 277 is for DIMP DREAMS and GIPP	SCG-10	Catastrophic Damage Involving Medium-Pressure Gas Pipeline Failure	Distribution Integrity management programs are closely monitored and given high priority. Frequent audits are conducted.	60,854	70,183	71,583	60,854	DIMP DREAMS and GIPP	Risk Evaluation and Monitoring of Distribution Systems, Program in place to protect assets by building infrastrucure to protect gas equipment	IN PROCESS
SoCalGas	Capital	SCG-14	Maria T. Martinez	TIMP & DIMP	002770.02	RAMP - Incremental DIMP Gas Distribution enhancement IT	SCG-08	Records Management	Projects that will modernize and enhance the searchability traceability and digitalization of Operation Asset Records	0	4,200	2,800	0	Records Management, maintenance of projects	Projects that will modernize and enhance the searchability, traceability and digitalization of Operation Asset Records	IN PROCESS
SoCalGas	Capital	SCG-14	Maria T. Martinez	TIMP & DIMP	002770.03	RAMP - Incremental BC 277 is for DIMP DREAMS and GIPP	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	DIMP DREAMS and GIPP	0	0	0	96,346	DIMP DREAMS and GIPP	DIMP DREAMS and GIPP	IN PROCESS
SoCalGas	Capital	SCG-14	Maria T. Martinez	TIMP & DIMP	002770.04	RAMP - Incremental DIMP Gas Distribution enhancement IT	SCG-08	Records Management	Projects that will modernize and enhance the searchability tracability and digitalization	0	0	0	2,800	Records Management, maintenance of projects	Projects that will modernize and enhance the searchability, tracability and digitalization	IN PROCESS
SoCalGas	Capital	SCG-14	Maria T. Martinez	TIMP & DIMP	P03120	GT PL Rpls / Externally Driver					45,721	45,721	49,920		In 2019 expecting increase in TIMP capital activity	IN PROCESS
SoCalGas	Capital	SCG-14	Maria T. Martinez	TIMP & DIMP	P03120.01	RAMP - Base BC 312 is Base TIMP	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	TIMP is closely monitored and given high priority. Frequent audits are conducted.	38,152	40,321	42,021	46,220	TIMP - ILI, ECDA and P&M measures	Cleaning and assessing internal conditions of Hi pressure pipelines	IN PROCESS
SoCalGas	Capital	SCG-14	Maria T. Martinez	TIMP & DIMP	P03120.02	RAMP - Incremental TIMP Gas High Pressure Enhancement IT	SCG-08	Records Management	Info systems costs will modernize and enhance the searchability, traceability and digitalization of operational assets	0	5,400	3,700	0	Records Management - collect, enter and maintain records related to operational assets	costs to collect, enter and maintain records related to operational assets	IN PROCESS
SoCalGas	Capital	SCG-14	Maria T. Martinez	TIMP & DIMP	P03120.03	RAMP - Incremental TIMP Gas High Pressure Enhancement IT	SCG-08	Records Management	Info systems costs will modernize and enhance the searchability, traceability and digitalization	0	0	0	3,700	Records Management - collect, enter and maintain records related to operation assets	costs to collect, enter and maintain records related to operation assets	IN PROCESS
SoCalGas	Capital	SCG-15	Richard D. Phillips	PSEP	00569A	PSEP Pipeline Projects							11,179		These costs are for PSEP Capital Projects that go into service in 2019. The Supply Line 36-9-09 North (SL-36-9-09N) Section 12 Replacement Project will install 0.875 miles of pipe to replace non-piggable pipelines installed prior to 1946 with new pipe constructed using state-of-the-art methods and to modern standards, including current pressure test standards. The project is located in San Luis Obispo County southwest of the City of Santa Margarita and will be completed in 2019. The forecast also includes an allowance for pipeline test failure. Over the course of hydrotesting pipelines, a rupture can occur. To address this potential for pipeline failure during hydrotest, an allowance was added for each year in the GRC.	PLANNED
SoCalGas	Capital	SCG-15	Richard D. Phillips	PSEP	00569A.03	RAMP - Base - Line 36-9-09N (sec 12) Replacement	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Approved PSEP program to test or replace High Consequence Area High Pressure pipelines that do not m	6,500	0	0	9,122	High Pressure Pipeline Replacement	Replacement of HCA pipelines	PLANNED
SoCalGas	Capital	SCG-15	Richard D. Phillips	PSEP	00569A.06	RAMP - Base - Allowance for Pipeline Test Failure	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Approved PSEP program to test or replace High Consequence Area High Pressure pipelines that do not m	0	0	0	2,057	High Pressure Pipeline Replacement	Replacement of HCA pipelines	PLANNED
SoCalGas	Capital	SCG-15	Richard D. Phillips	PSEP	00569B	PSEP VALVE PROJECTS					4,920	8,200	6,880		Execution of 284 Valve Enhancement Plan projects encompassing the following different types of enhancements: 1) Installation of new Automatic Shut-off Valves (ASV)/Remote Control Valves (RCV) on transmission pipelines, 2) Installation of new backflow prevention devices, either with check valve installations or through modifications to existing regulator stations, 3) Installation of new communications technology to enhance existing valve sites already equipped with ASC/RCV technology, and 4) Installation of new flow meters on major transmission pipelines and at major interconnection points.	PLANNED
SoCalGas	Capital	SCG-15	Richard D. Phillips	PSEP	00569B.01	RAMP - Base - PSEP VALVE PROJECT BUNDLE 2019	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Approved PSEP program to test or replace High Consequence Area High Pressure pipelines that do not m	51,512	4,920	8,200	68,880	Transmission Valve Automation and Replacement	High pressure pipeline valve automation to help improve response of valve shut-ins	PLANNED
SoCalGas	Capital	SCG-15	Richard D. Phillips	PSEP	00569C	PSEP PMO Project					667	667	9,868		Labor and non-labor associated with the PSEP Senior Director, Budget and Administration Group, and PMO Group. In addition, PSEP Construction and PSEP Project Execution personnel's time that is not charge directly to PSEP projects.	PLANNED
SoCalGas	Capital	SCG-15	Richard D. Phillips	PSEP	00569C.01	RAMP - Base - VMS Project	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Approved PSEP program to test or replace High Consequence Area High Pressure pipelines that do not m	574	667	667	666	High Pressure Pipeline Replacement	Replacement of HCA Pipelines.	PLANNED
SoCalGas	Capital	SCG-15	Richard D. Phillips	PSEP	00569C.02	RAMP - Base - PSEP PMO Costs	SCG-04	Catastrophic Damage Involving High-Pressure Gas Pipeline Failure	Approved PSEP program to test or replace High Consequence Area High Pressure pipelines that do not meet current records criteria. Program has continuous monitoring and priortizing of lines with timely	10,352	0	0	9,202	High Pressure Pipeline Replacement	Replacement of HCA Pipelines	PLANNED
SoCalGas	Capital	SCG-23	Carmen L. Herrera	Facilities & Fleet	00654A	Safety/Environmental					1,470	1,245	1,200		The following are examples of necessary ADA improvements: adding or modifying access ramps, automatic doors, accesible restrooms, parking lot access and signage. Earthquake retrofit or Seismic retrofitting to modify existing structures to make them more resistant to seismic activity, ground motion, or soil failure due to earthquakes. This may include wood framed, concrete masonry block, and poured in place concrete structures erected prior to 1989.	IN PROCESS
SoCalGas	Capital	SCG-23	Carmen L. Herrera	Facilities & Fleet	00654B	Safety/Environemental - General Plant					980	830	800		The following are examples of necessary ADA improvements: adding or modifying access ramps, automatic doors, accesible restrooms, parking lot access and signage. Earthquake retrofit or Seismic retrofitting to modify existing structures to make them more resistant to seismic activity, ground motion, or soil failure due to earthquakes. This may include wood framed, concrete masonry block, and poured in place concrete structures erected prior to 1989.	IN PROCESS
SoCalGas	Capital	SCG-23	Carmen L. Herrera	Facilities & Fleet	00712A	Facility Energy Management Systems					1,000	500			Energy management systems consist of software and hardware systems that are integrated with the building's HVAC and lighting systems. Depending whether the EMS is wireless or analog, wiring will also be required to connect the EMS with a site's building systems.	PLANNED
SoCalGas	Capital	SCG-23	Carmen L. Herrera	Facilities & Fleet	00716A	Fleet Capital Tools Replacement					248	248	248		New/Replacement garage equipment such as tire changing and balancing machines, diagnostic tools, parts cleaners, brake lathe, alignment machines, Air Conditioning/Freon machines, emissions related equipment for gasoline, diesel, and NGV/LNG vehicles	IN PROCESS
SoCalGas	Capital	SCG-23	Carmen L. Herrera	Facilities & Fleet	00716B	Fleet Training Center					300	900			New fleet training facility will house and store equipment and training tools needed to appropriately train technicians in new vehicle technologies such as NGV/CNG compliance & safety; SMOGs; and other automotiv practices.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SoCalGas	Capital	SCG-23	Carmen L. Herrera	Facilities & Fleet	00716C	Fleet UST Replacement Program						1,046	1,402		This work will include the following: 1) UST removal and replacement 2) Piping removal and replacement 3) Under Dispenser Containment (UDC) removal and replacement 4) Removal and replacement of obsolete dispenser Items 1 -3 noted above will trigger the upgrades to meet the Assembly Bill ("AB") 2481 standards	IN PROCESS
SoCalGas	Capital	SCG-23	Carmen L. Herrera	Facilities & Fleet	00734A	CURRENT NGV PROJECTS					6,093	660			The NGV fueling station enhancements will embody: • Added fueling capacity at existing public accessible and heavy use stations; • Secondary compression at select SoCalGas NGV Fleet/Public fueling stations to improve the reliability of capacity; • Upgrade of existing public fueling station driveways and fueling islands to allow access for larger fleet vehicles; • Replacement of outdated NGV fuel dispensers which will provide for added reliability and data security for public fueling customers who use a credit card.	IN PROCESS
SoCalGas	Capital	SCG-23	Carmen L. Herrera	Facilities & Fleet	00734B	NGV REFUELING STATION 2017					1,082				The NGV fueling station enhancements will embody: • Added fueling capacity at existing public accessible and heavy use stations; • Secondary compression at select SoCalGas NGV Fleet/Public fueling stations to improve the reliability of capacity; • Upgrade of existing public fueling station driveways and fueling islands to allow access for larger fleet vehicles; • Replacement of outdated NGV fuel dispensers which will provide for added reliability and data security for public fueling customers who use a credit card.	IN PROCESS
SoCalGas	Capital	SCG-23	Carmen L. Herrera	Facilities & Fleet	00734C	NGV REFUELING STATION 2018						15,277			The NGV fueling station enhancements will embody: • Added fueling capacity at existing public accessible and heavy use stations; • Secondary compression at select SoCalGas NGV Fleet/Public fueling stations to improve the reliability of capacity; • Upgrade of existing public fueling station driveways and fueling islands to allow access for larger fleet vehicles; • Replacement of outdated NGV fuel dispensers which will provide for added reliability and data security for public fueling customers who use a credit card.	IN PROCESS
SoCalGas	Capital	SCG-23	Carmen L. Herrera	Facilities & Fleet	00734D	NGV REFUELING STATION 2019							18,799		The NGV fueling station enhancements will embody: • Added fueling capacity at existing public accessible and heavy use stations; • Secondary compression at select SoCalGas NGV Fleet/Public fueling stations to improve the reliability of capacity; • Upgrade of existing public fueling station driveways and fueling islands to allow access for larger fleet vehicles; • Replacement of outdated NGV fuel dispensers which will provide for added reliability and data security for public fueling customers who use a credit card.	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00754C	84291 PACER OCS ORDER REPRIOR PH1					440				Centralize the increase in compliance (MSA) and other company generated maintenance work threads (AM, PMC) to provide visibility and workload balance in PACER for CSF Dispatch Operations. Creation of company generated maintenance and compliance orders for Customer Services Field for unscheduled/pending orders.	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756A.01	RAMP - INCREMENTAL 19060 3DPM-Work Order Sketching 2018 & 20	SCG-08	Records Management	IT	0	0	1,525	0	IT Capital	Capital gas costs for projects that will modernize and enhance the searchability, traceabilit and digitalization of operational asset records	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756A.02	RAMP - INCREMENTAL 19060 3DPM-Work Order Sketching 2018 & 20	SCG-08	Records Management	IT	0	0	189	0	IT Capital	IT Capital	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756A.03	RAMP - INCREMENTAL 19060 3DPM-Work Order Sketching 2018 & 20	SCG-08	Records Management	IT	0	0	0	1,525	IT Capital	IT Capital	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756A.04	RAMP - INCREMENTAL 19060 3DPM-Work Order Sketching 2018 & 20	SCG-08	Records Management	IT	0	0	0	189	IT Capital	IT Capital	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756C.02	RAMP - INCREMENTAL 19061 Gas GIS 2018-2019	SCG-08	Records Management	IT	0	0	4,456	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756C.03	RAMP - INCREMENTAL 19061 Gas GIS 2018-2019	SCG-08	Records Management	IT	0	0	0	4,459	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756C.05	RAMP - INCREMENTAL 19061 Gas GIS 2018-2019	SCG-08	Records Management	IT	0	0	178	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756C.06	RAMP - INCREMENTAL 19061 Gas GIS 2018-2019	SCG-08	Records Management	IT	0	0	0	178	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756F.01	RAMP - INCREMENTAL 19063 M&R (CLICK) Image Document Manageme	SCG-08	Records Management	IT	0	0	690	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756F.02	RAMP - INCREMENTAL 19063 M&R (CLICK) Image Document Manageme	SCG-08	Records Management	IT	0	0	248	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756F.03	RAMP - INCREMENTAL 19063 M&R (CLICK) Image Document Manageme	SCG-08	Records Management	IT	0	0	0	482	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756F.04	RAMP - INCREMENTAL 19063 M&R (CLICK) Image Document Manageme	SCG-08	Records Management	IT	0	0	0	173	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756G.01	RAMP - INCREMENTAL 19064 Operator Qualification & Training P	SCG-08	Records Management	IT	0	666	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756G.02	RAMP - INCREMENTAL 19064 Operator Qualification & Training P	SCG-08	Records Management	IT	0	625	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756G.03	RAMP - INCREMENTAL 19064 Operator Qualification & Training P	SCG-08	Records Management	IT	0	0	412	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756H.01	RAMP - INCREMENTAL 19065 SCG CPD Enhancements Phase 4	SCG-08	Records Management	IT	0	1,043	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756H.02	RAMP - INCREMENTAL 19065 SCG CPD Enhancements Phase 4	SCG-08	Records Management	IT	0	98	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756H.03	RAMP - INCREMENTAL 19065 SCG CPD Enhancements Phase 4	SCG-08	Records Management	IT	0	0	1,673	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756I.01	RAMP - INCREMENTAL 19072 GT Leak Survey	SCG-08	Records Management	IT	0	0	779	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756I.02	RAMP - INCREMENTAL 19072 GT Leak Survey	SCG-08	Records Management	IT	0	0	75	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756I.03	RAMP - INCREMENTAL 19072 GT Leak Survey	SCG-08	Records Management	IT	0	0	0	3,682	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756J.01	RAMP - INCREMENTAL 19094 Click Enhancements Project	SCG-08	Records Management	IT	0	5,137	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756J.02	RAMP - INCREMENTAL 19094 Click Enhancements Project	SCG-08	Records Management	IT	0	0	3,898	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756J.03	RAMP - INCREMENTAL 19094 Click Enhancements Project	SCG-08	Records Management	IT	0	0	0	2,000	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756K	19095 GEARS Upgrade - Ent. GIS 10.x					901	844	314		This project focuses on system application upgrades, scripting upgrades and provides access to current data to enhance accuracy and usability. * Data Management: The project will continue to maintain/develop necessary data interfaces. Project will develop and implement GIS technical tools to streamline data maintenance while also improving accuracy. * Model Enhancement: Environmental model upgrade will ensure access to data/information necessary to meet compliance requirements and business planning, engineering, construction along with emergency response needs/objectives. The project will re-write the models to the new programming format and standard. The existing Models will be replaced with standard scripting to provide enhanced flexibility, increased stability and improves system robustness. * Web Upgrade: The current Silverlight based web viewer is at end of life. Project will affor opportunity to determine the best web platform for deployment.	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756M.01	RAMP - INCREMENTAL 19097 WebEOC Applications Replacement Pro	SCG-02	Employee, Contractor, Customer, and Public Safety	IT	0	0	533	0	Employee, Contractor, Cust & Public Safety	Employee, Contractor, Cust & Public Safety	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756M.02	RAMP - INCREMENTAL 19097 WebEOC Applications Replacement Pro	SCG-02	Employee, Contractor, Customer, and Public Safety	IT	0	0	0	92	Employee, Contractor, Cust & Public Safety	Employee, Contractor, Cust & Public Safety	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756P.01	RAMP - INCREMENTAL 84255 3DPM WORK ORDER SKETCHING 2016 & 20	SCG-08	Records Management	IT	0	1,145	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756P.02	RAMP - INCREMENTAL 84255 3DPM WORK ORDER SKETCHING 2016 & 20	SCG-08	Records Management	IT	0	0	623	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756Q.01	RAMP - INCREMENTAL 84206 GAS GIS 2015 & 2016	SCG-08	Records Management	IT	0	4,721	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756R.01	RAMP - INCREMENTAL 84220 MATERIAL TRACEABILITY - SAP BATCH M	SCG-08	Records Management	IT	0	4,360	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756S.01	RAMP - INCREMENTAL 84281 OSI PI GAS OPS DATA HISTORIAN & REP	SCG-08	Records Management	IT	0	468	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756S.02	RAMP - INCREMENTAL 84281 OSI PI GAS OPS DATA HISTORIAN & REP	SCG-08	Records Management	IT	0	0	342	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756U.01	RAMP - INCREMENTAL 84298 RECORD & INFO MGMT SYSTEMS	SCG-08	Records Management	IT	0	275	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756V.01	RAMP - INCREMENTAL 84312 RECORDS & INFO MGMT CONSOLIDATED SO	SCG-08	Records Management	IT	0	1,464	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756V.02	RAMP - INCREMENTAL 84312 RECORDS & INFO MGMT CONSOLIDATED SO	SCG-08	Records Management	IT	0	0	841	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756V.03	RAMP - INCREMENTAL 84312 RECORDS & INFO MGMT CONSOLIDATED SO	SCG-08	Records Management	IT	0	700	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756V.04	RAMP - INCREMENTAL 84312 RECORDS & INFO MGMT CONSOLIDATED SO	SCG-08	Records Management	IT	0	40	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756X.01	RAMP - INCREMENTAL 19131 HP GAS CONSTRUCT RECORDS & INFO MGM	SCG-08	Records Management	IT	0	0	4,187	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00756X.02	RAMP - INCREMENTAL 19131 HP GAS CONSTRUCT RECORDS & INFO MGM	SCG-08	Records Management	IT	0	0	0	2,271	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00766B.01	RAMP - INCREMENTAL 84232 VIRTUAL LEARNING INTEGRATION TO SAP	SCG-08	Records Management	IT	0	953	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00772D.01	RAMP - INCREMENTAL 19078 Emergency Field Communication Servi	SCG-08	Records Management	IT	0	0	1,549	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00774U	84227 SCG CUSTOMER SERVICE ROUTING					1,556				1A: Tier 1 system supported by IT and Vendor. Improved system performance. 1B: MSA Inspection Route Assignment, Route planning efficiencies. 2A: A new system to plan, optimize and manage MSA Inspection Routes and forecast workload that integrates with CIS, PACER, and DART 2B: Tools and processes to support business requirements for customer and billing factor initiation and maintenance in CIS after Advanced Meter is deployed. Implement a new fleet navigation application to include enhancements including real-time traffic. Street map updates and enhanced address and coordinate compatibility. Improved consistency in mapping, mileage reporting. Ongoing maintenance programs and processes to maintain consistent and accurate facility location and street network data. Enhance capability for route analysis and continuous improvement.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00774V.01	RAMP - INCREMENTAL 84309 CPD PHASE 3	SCG-08	Records Management	IT	0	2,685	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776AB	19121 DCU Software IS Upgrade						248	316		The Project will consist of two separate HE Software & DCU Firmware upgrades to provide initial enhancment of network protocol authentication and cryptographic capabilities in two stages, both leveraging the existing DCU hardware.	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776AD.01	RAMP - INCREMENTAL 81452 CLICK UPGRADE (CU)	SCG-08	Records Management	IT	0	926	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776AE	81495 FINANCIAL PLNG & BUDGETING					228				Utilize the same key accounting objects (cost centers, orders, accounts, etc.) as our core SAP system. Most integrated Planning & Budgeting solution – with SAP data: Actual $'s, cost centers, work orders, security settings, etc. Most efficient leverage of existing IT infrastructure and support. Best position for future integration with SAP HANA. End users are familiar with SAP/BW applications for reporting and analysis.	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776AH.01	RAMP - INCREMENTAL 19125 GAS OPERATIONS DEPARTMENTAL WEBSITE	SCG-08	Records Management	IT	0	575	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776C	84293 SAP ECC ON HANA					8,159	3,645			ECC HANA implementation and activation of single sign-on SAP PI upgrade SAP Solution Manager upgrade SAP Portal and SAP Adobe Document Services upgrades New servers for ECC Replacement of the disaster recovery environment Development and implementation of a comprehensive regression testing strategy and patch/service pack/upgrade capability (people, process, technology)	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776D	84229 GIS MOBILE REPLACEMENT					974				To adequately resolve GIS mobile problems will need to upgrade to modern application that leverages new technology: •Cached Tiling •Targeted content services •Configurability	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776E	84248 2019 RO MODEL & GRID ENHANCEMENT					317				Developed new database queries and linkages, add reports, and enhance Visual Basic (VB) code to create PSEP revenue requirement Developed new database queries and linkages, add reports, and enhance VB code to categorize safety spending New tax module will align with Power Tax Developed VB code and macros to create variance reports for different areas in the RO model Redesign calculations to eliminate wasted calculations and reduce to 10 mins or less Dedicated server to improve access and run time for GRID	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776F.01	RAMP - INCREMENTAL 19066 Enhanced M&R KPI and Analytic Repor	SCG-08	Records Management	IT	0	0	843	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776F.02	RAMP - INCREMENTAL 19066 Enhanced M&R KPI and Analytic Repor	SCG-08	Records Management	IT	0	0	35	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776G.01	RAMP - INCREMENTAL 19067 Field Data Collection with eForm	SCG-08	Records Management	IT	0	0	1,463	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776G.02	RAMP - INCREMENTAL 19067 Field Data Collection with eForm	SCG-08	Records Management	IT	0	0	440	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776G.03	RAMP - INCREMENTAL 19067 Field Data Collection with eForm	SCG-08	Records Management	IT	0	0	0	1,903	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776H.01	RAMP - INCREMENTAL 19068 Gas Distribution and M&R Improvemen	SCG-08	Records Management	IT	0	817	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776H.02	RAMP - INCREMENTAL 19068 Gas Distribution and M&R Improvemen	SCG-08	Records Management	IT	0	0	0	904	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776H.03	RAMP - INCREMENTAL 19068 Gas Distribution and M&R Improvemen	SCG-08	Records Management	IT	0	0	1,886	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776H.04	RAMP - INCREMENTAL 19068 Gas Distribution and M&R Improvemen	SCG-08	Records Management	IT	0	309	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776I.01	RAMP - INCREMENTAL 19069 Gas Operations: Maintenance & Inspe	SCG-08	Records Management	IT	0	0	2,471	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776I.02	RAMP - INCREMENTAL 19069 Gas Operations: Maintenance & Inspe	SCG-08	Records Management	IT	0	0	946	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776I.03	RAMP - INCREMENTAL 19069 Gas Operations: Maintenance & Inspe	SCG-08	Records Management	IT	0	0	0	1,256	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776J.01	RAMP - INCREMENTAL 19070 High Pressure Construction (Move fr	SCG-08	Records Management	IT	0	0	3,575	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776J.02	RAMP - INCREMENTAL 19070 High Pressure Construction (Move fr	SCG-08	Records Management	IT	0	0	0	14,107	IT Capital	IT Capital	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776K.01	RAMP - INCREMENTAL 19071 Measurement & Reliability Complianc	SCG-08	Records Management	IT	0	595	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776K.02	RAMP - INCREMENTAL 19071 Measurement & Reliability Complianc	SCG-08	Records Management	IT	0	25	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776K.03	RAMP - INCREMENTAL 19071 Measurement & Reliability Complianc	SCG-08	Records Management	IT	0	0	334	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776L.01	RAMP - INCREMENTAL 19073 Enhanced Operations & Compliance De	SCG-08	Records Management	IT	0	787	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776L.02	RAMP - INCREMENTAL 19073 Enhanced Operations & Compliance De	SCG-08	Records Management	IT	0	550	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776M.01	RAMP - INCREMENTAL 19075 Gas Materials Traceability Wave 3 &	SCG-08	Records Management	IT	0	181	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776M.02	RAMP - INCREMENTAL 19075 Gas Materials Traceability Wave 3 &	SCG-08	Records Management	IT	0	0	2,669	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776M.03	RAMP - INCREMENTAL 19075 Gas Materials Traceability Wave 3 &	SCG-08	Records Management	IT	0	0	0	263	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776M.04	RAMP - INCREMENTAL 19075 Gas Materials Traceability Wave 3 &	SCG-08	Records Management	IT	0	0	437	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776O	19085 Web Portal and Application Modernization						905			All applications hosted on the existing EWE infrastructure are in scope. Major web sites/applications include SempraNet, Gas Lines, and PowerUp plus approximately 200 other web sites. Estimate assumes PaaS (Platform as a Service) and Iaas (Infrastructure as a Service). Concept does not include costs associated to a public cloud solution or disaster receovery. Scope represents a portion of the 200+ web sites. Non-labor includes vendor services but not infrastructure.	IN PROCESS

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00776Z	19119 DCU Compliance Inspection Work Mgmt						469	234		DCU Installation - consists of the following phases: Site Selection & Survey, GIS Approvals, Permitting, Construction Specifications, Commissioning, As-Built Drawings and Acceptance • Pole Installation – consists of the following phases: Site Selection & Survey, GIS Approvals, Permitting, Construction Specifications, Commissioning, As-Built Drawings and Acceptance • DCU Inspection – Inspection, Follow up Repairs • Pole Inspection - Inspection, Follow up Repairs • DCU asset management – Supply Management, RMA (return to manufacturer), Claims Support • Pole asset management – Supply Management, RMA (return to manufacturer), Claims Support • DCU Incident management – track incidents specific to asset • Pole Incident management - track incidents specific to asset • DCU Replacement – Track a new installation for replacements • Pole Replacement - Track a new installation for replacements • DCU Relocations – Track a new installation for relocations • Pole Relocations – Track a new installation for relocations • DCU Reporting – data must be available to automate reports • Pole Reporting - data must be available to automate reports • DCU component management – track specific components within the DCU, Replacements, Incidents, Maintenance • Site Alerts – safety concerns, corporate security incidents • Data Conversion • Data exchanges from vendor(s) & ACLARA	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00777C	19076 Business Continuity Enhancement					6,828	23,795	33,609		The project will design and implement new infrastructure (compute, storage, network, cabinets, racks, and cabling) for highly available data center infrastructure services, extend network adjacency to the HA environment, extend basic data service chaining capabilities (through vRealize Automation and vRealize Orchestration), implement VMWare Site Recovery Manager (SRM), vRealize Operations (vROPS) The project will also create standard framework for implementing business continuity for the most critical business applications (target DR tier 1 applications). The project will develop operational procedures for the appropriate operations teams, design documentation for engineering teams to add capacity as appropriate in the future and provide tier 4 operational support.	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00777L.01	RAMP - INCREMENTAL 84225 GIS UPGRADE	SCG-08	Records Management	IT	0	4,743	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00777N.01	RAMP - INCREMENTAL 19122 MDT Refresh 2018-2020	SCG-08	Records Management	IT	0	0	2,574	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00777N.02	RAMP - INCREMENTAL 19122 MDT Refresh 2018-2020	SCG-08	Records Management	IT	0	0	0	2,574	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00785A	19108 FoF - CSF PACER Mobile Platform					3,426	4,262	1,591		The following software need to be migrated or adapted to achieve this goal: Replace the windows PACER MDT with a PACER Mobile application (650) Replace iGuidance with a new platform to provide: visual situational awareness (641) automate route re- optimization (auto re-route) for field technicians (129) Develop a mobile version of the Aclara's STAR Programmer software and change the Programming coil interface from USB to Bluetooth or other untethered means (Advanced Meter) Migration to Smartphones / mobile platform will allow the development of the following capabilities: Use of video for remote assistance (645) Work Order management on smart phone (650) Customer call ahead to reduce CGI ("Can't Get In" – Repeat Orders) rates (61) Near Real Time QA Inspections (111) Credit Card Payments via Bill Matrix (254)	PLANNED
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00786A.01	RAMP - INCREMENTAL 19114 FoF - GOPA Phase 4	SCG-08	Records Management	IT	0	1,029	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00786A.02	RAMP - INCREMENTAL 19114 FoF - GOPA Phase 4	SCG-08	Records Management	IT	0	0	211	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00786A.03	RAMP - INCREMENTAL 19114 FoF - GOPA Phase 4	SCG-08	Records Management	IT	0	53	0	0	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00786A.04	RAMP - INCREMENTAL 19114 FoF - GOPA Phase 4	SCG-08	Records Management	IT	0	0	0	257	IT	IT	IN PROCESS
SoCalGas	Capital	SCG-26	Christopher R. Olmsted	Information Technology	00786C	19116 FoF - Claims Analytics						1,192	1,123		Project will deliver an IT solution that will make data from RiskMaster, GIS, SAP and CASCADE accessible for analytics and reporting. The focus will be on predictive analytics in order to identify trends and help decision makers take correction action to avoid future litigation.	IN PROCESS
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758A.01	RAMP - Incremental PKI Rebuld	SCG-03	Cyber Security	Protect	0	58	0	0	Public Key Infrastructure	PKI digital key encryption system to protect in transit and to authenticate devices, services, and applicationsDeploy SHA2 compliance public key infrastructure for digital certificates	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758AA.01	RAMP - Incremental Automated recovery systems cyber threats	SCG-03	Cyber Security	Respond	0	0	0	831	Incident Response	Vendor solution for forensics infrastructure	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758AA.02	RAMP - Incremental Automated response systems cyber threats	SCG-03	Cyber Security	Respond	0	0	0	3,400	Incident Response	Vendor solution for forensics infrastructure	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758AB.01	RAMP - Incremental Automated recovery systems cyber threats	SCG-03	Cyber Security	Recover	0	0	0	831	Security capability recovery infrastructure	Recovery infrastructure specific to security capability infrastructure	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758AB.02	RAMP - Incremental Automated recovery systems cyber threats	SCG-03	Cyber Security	Recover	0	0	0	3,399	Security capability recovery infrastructure	Recovery infrastructure specific to security capability infrastructure	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758B.01	RAMP - Incremental Firewall Security	SCG-03	Cyber Security	Protect	0	308	0	0	Web Applications and Database Firewalls	Firewall Security	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758C.01	RAMP - Incremental Forensics System Rebuild	SCG-03	Cyber Security	Respond	0	202	0	0	Enterprise Forensics	Rebuild of the forensics and ediscovery system	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758D.01	RAMP - Incremental SCG Network Anomaly Detection Phase 1	SCG-03	Cyber Security	Detect	0	368	0	0	Cyber Security	SCG Network Anomaly Detection Phase 1	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758D.02	RAMP - Incremental Deploy Silent Defense SCADA ICS protectio	SCG-03	Cyber Security	Detect	0	1,376	0	0	Cyber Security	SCG Network Anomaly Detection Phase 1	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758E.01	RAMP - Incremental Enterprise Threat Intel system	SCG-03	Cyber Security	Identify	0	369	0	0	Vulnerability Management	Implementation of an active scanning vulnerability management solution and a passiv scanning capability	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758E.02	RAMP - Incremental Enterprise Threat Intel system	SCG-03	Cyber Security	Identify	0	1,105	0	0	Vulnerability Management	Implementation of an active scanning vulnerability management solution and a passiv scanning	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758F.01	RAMP - Incremental User behavior analytics / MS Advanced Thr	SCG-03	Cyber Security	Detect	0	395	0	0	Threat Detection	Insider Threat Detection / Prevention	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758F.02	RAMP - Incremental Outlook Enterprise Threat Intel system	SCG-03	Cyber Security	Detect	0	1,448	0	0	Threat Detection	Insider Threat Detection / Prevention	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758G.01	RAMP - Incremental Fueling Our Future 760	SCG-03	Cyber Security	Protect	0	2,516	1,270	0	Converged Perimeter Systems	Converged Perimeter Systems - FOF 760	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758H.01	RAMP - Incremental Fueling Our Future 790	SCG-03	Cyber Security	Protect	0	440	23	0	Host Based Protection	Host Based Protection - FOF 790	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758H.02	RAMP - Incremental Fueling Our Future 790	SCG-03	Cyber Security	Protect	0	1,827	0	0	Hosted Based Protection	Hosted Based Protection - FOF 790	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758I.01	RAMP - Incremental Decrypt SSL at the perimeter to enable in	SCG-03	Cyber Security	Detect	0	296	0	0	SSL Egress Decryption	Decrypt SSL at the perimeter to enable inspection	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758J.01	RAMP - Incremental RFP to evaluate and upgrade spam malware	SCG-03	Cyber Security	Protect	0	252	0	0	Email and Web Browser Protections	Solution deployment for internet email spam, phishing and malware filtering	PLANNED

Company	Cost Type	GRC Exhibit Number	GRC Witness Name	GRC Witness Area	GRC Workpaper	GRC Workpaper Description	RAMP Chapter	RAMP Risk Description	Mitigation Activity	Embedded 2016 Costs	2017 Forecast	2018 Forecast	2019 Forecast	Program_Name	Program_Desc	Status
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758J.02	RAMP - Incremental RFP to evaluate and upgrade spam malware	SCG-03	Cyber Security	Protect	0	834	0	0	Email and Web Browser Protections	Solution deployment for internet email spam, phishing and malware filtering	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758K.01	RAMP - Incremental replace switches and IPS IS zone	SCG-03	Cyber Security	Protect	0	901	0	0	IS Zone Rebuild	Replace switches and IPS in IS zone	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758L.01	RAMP - Incremental i.e. Packet Sled Splunk Threat Analytics	SCG-03	Cyber Security	Detect	0	325	146	0	Network Security Monitoring	Packet Sled, Splunk & Threat Analytics	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758L.02	RAMP - Incremental Packet Sled Splunk Threat Analytics - non	SCG-03	Cyber Security	Detect	0	1,445	0	0	Network Security Monitoring	Packet Sled, Splunk & Threat Analytics	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758M.01	RAMP - Incremental Automate key security triage task	SCG-03	Cyber Security	Respond	0	345	185	0	Security Orchestration	Automate key security triage task	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758M.02	RAMP - Incremental Automate key security triage task	SCG-03	Cyber Security	Respond	0	1,360	0	0	Security Orchestration	Automate key security triage task	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758N.01	RAMP - Incremental Gas infrastructure protection systems - 2	SCG-03	Cyber Security	Protect	0	399	0	0	Critical Gas Infrastructure Protection	Critical Gas Infrastructure Protection	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758N.02	RAMP - Incremental Gas infrastructure protection - 2017	SCG-03	Cyber Security	Protect	0	1,275	0	0	Critical Gas Infrastructure Protection	Critical Gas Infrastructure Protection	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758O.01	RAMP - Incremental Gas infrastructure protection	SCG-03	Cyber Security	Protect	0	0	591	0	Critical Gas Infrastructure Protection - 2018	Critical Gas Infrastructure Protection - 2018	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758O.02	RAMP - Incremental Gas infrastructure protection	SCG-03	Cyber Security	Protect	0	0	1,700	0	Critical Gas Infrastructure Protection - 2018	Critical Gas Infrastructure Protection - 2018	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758P.01	RAMP - Incremental Gas infrastructure protection	SCG-03	Cyber Security	Protect	0	0	0	832	Critical Gas Infrastructure Protection	Critical Gas Infrastructure Protection - 2019	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758P.02	RAMP - Incremental Gas infrastructure protection	SCG-03	Cyber Security	Protect	0	0	0	3,400	Critical Gas Infrastructure Protection	Critical Gas Infrastructure Protection - 2019	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758Q.01	RAMP - Incremental Cloud Access Security Broker i.e. Netskop	SCG-03	Cyber Security	Protect	0	0	513	0	CASB (cloud data use)	CASB (cloud data use)	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758Q.02	RAMP - Incremental Cloud Access Security Broker i.e. Netskop	SCG-03	Cyber Security	Protect	0	0	2,380	0	CASB (cloud data use)	CASB (cloud data use)	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758R.01	RAMP - Incremental Security controls on servers. Deploy web	SCG-03	Cyber Security	Protect	0	0	2,228	0	Web Applications and Database Firewalls	Security controls on servers. Deploy web application firewalls	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758S.01	RAMP - Incremental Improved passive and by-pass tap technolo	SCG-03	Cyber Security	Detect	0	0	1,331	0	Perimeter Tap Infrastructure Redesign	Improved passive and by-pass tap technology	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758T.01	RAMP - Incremental Deploy a comm and coordination platform	SCG-03	Cyber Security	Respond	0	0	426	0	Incident Response Secure Collaboration	Deploy a communication and coordination platform that can be securely leveraged on th corporate network	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758T.02	RAMP - Incremental Deploy a comm and coordination platform s	SCG-03	Cyber Security	Respond	0	0	1,488	0	Incident Response Secure Collaboration	Deploy a communication and coordination platform that can be securely leveraged on th Corporate Network	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758U.01	RAMP - Incremental Proactive preventative application scanni	SCG-03	Cyber Security	Protect	0	0	245	36	Enterprise Source Code Security	Proactive preventative application scanning, static analysis of source code before in hous and/or third party software is released into production	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758U.02	RAMP - Incremental Proactive preventative application scanni	SCG-03	Cyber Security	Protect	0	0	935	0	Enterprise Source Code Security	Proactive preventative application scanning, static analysis of source code before in hous and/or third party software is released into production	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758V.01	RAMP - Incremental Impl tech ctrls to authenticate substatio	SCG-03	Cyber Security	Protect	0	0	3,375	60	Wired Network Preventative Controls	Implement technical controls to authenticate substation devices before granting network access	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758W.01	RAMP - Incremental RSA or another	SCG-03	Cyber Security	Protect	0	0	515	0	Multi Factor Authentication Refresh	RSA or like authentication refresh	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758W.02	RAMP - Incremental RSA or another	SCG-03	Cyber Security	Protect	0	0	2,125	0	Multi Factor Authentication Refresh	RSA or like authentication refresh	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758X.01	RAMP - Incremental My Account two factor authentication	SCG-03	Cyber Security	Protect	0	0	0	479	My Account Multi Factor Authentication	My Account two factor authentication	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758Y.01	RAMP - Incremental Identify cyber threat	SCG-03	Cyber Security	Identify	0	0	0	906	Threat Identification systems	Threat Identification systems	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758Y.02	RAMP - Incremental Identify cyber threat	SCG-03	Cyber Security	Identify	0	0	0	3,825	Threat Identification systems	Threat Identification systems	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758Z.01	RAMP - Incremental Automated detection systems cyber threats	SCG-03	Cyber Security	Detect	0	0	0	907	Cybersecurity Event Monitoring - IT	Threat Detection systems	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758Z.02	RAMP - Incremental Automated detection systems cyber threats	SCG-03	Cyber Security	Detect	0	0	0	3,825	Cybersecurity Event Monitoring IT	Threat Detection systems	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758Z.03	RAMP - Incremental automated detection systems cyber threats	SCG-03	Cyber Security	Detect	0	0	0	0	Cybersecurity Event Monitoring IT	Threat Detection systems	PLANNED
SoCalGas	Capital	SCG-27	Gavin H. Worden	Cyber Security	00758Z.04	RAMP - Incremental automated detection systems cyber threats	SCG-03	Cyber Security	Detect	0	0	0	0	Cybersecurity Event Monitoring IT	Threat Detection systems	PLANNED

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of San Diego Gas & Electric Company (U902M) for Authority, Among Other Things, to Update its Electric and Gas Revenue Requirement and Base Rates Effective on January 1, 2019.	Application No. 17-10-007 (Filed October 6, 2017)
And Related Matters.	Application No. 17-10-008 (Filed October 6, 2017)

NOTICE OF AVAILABILITY OF REPLY BRIEF OF SOUTHERN CALIFORNIA GAS COMPANY (U 904 G) AND SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M) IN THE TEST YEAR 2019 GENERAL RATE CASE

Please take notice that on October 12, 2018, Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E) electronically filed their Reply Brief in the Test Year 2019 General Rate Case. Pursuant to Rule 1.9 of the Rules of Practice and Procedure of the California Public Utilities Commission, the opening brief will be made available by 5:00 p.m. on October 12, 2018 on SoCalGas' website at the following location:

https://www.socalgas.com/regulatory/A17-10-008.shtml

The brief will be made available by 5:00 p.m. on October 12, 2018 on SDG&E's website at the following location.

https://www.sdge.com/regulatory-filing/22261/sdge-2019-general-rate-case

The opening brief is exceeds 50 pages, per Rule 1.9(d)(1). SoCalGas and SDG&E will upon request provide a copy of the reply brief. SoCalGas and SDG&E have the reply brief on a compact disc (CD-ROM), which SoCalGas and SDG&E would prefer to provide in lieu of hard copies for ease of handling and to conserve resources. SoCalGas and SDG&E will however mail hard copies of the reply brief to parties who request it. Copies of the reply brief may be obtained by contacting:

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