

**UCAN DATA REQUEST
UCAN-SDG&E-DR-04
SDG&E 2019 GRC – A.17-10-007
SDG&E PUBLIC RESPONSE
DATE RECEIVED: MARCH 19, 2018
DATE RESPONDED: APRIL 3, 2018**

General

1. Please provide a copy of each data request received by SDG&E and/or SoCalGas from any party other than UCAN, together with SDG&E's responses to that data request including any attachments to those responses.

SDG&E Response 1:

Flash Drives are provided for this response which include the discovery responded to by SDG&E and SoCalGas as of March 19, 2018. Public Flash Drives include the question that was posed by the party propounding the discovery (e.g., intervenor), the public response and any public attachments. Confidential Flash Drives, indicated by confidentiality language on the label, include responses and attachments that are entirely or partially confidential, which can only be viewed by Reviewing Representatives who have executed the Protective Order's Non-Disclosure Certificate. Those confidential responses and attachments are ***Confidential and Protected Materials Pursuant to PUC Section 583, GO 66-D, and D.17-09-023.*** Parties' requests seeking all the discovery requests and responses to date are excluded.

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The following questions relate to Ms. Davidson’s testimony (SDG&E-19)

1. SDG&E states “Funding to support new rate options and programs was approved in the TY 2016 GRC case D.16-06-054. However, due to various reasons, rate reform has progressed at a slower pace than anticipated and not all of the outlined planned activities were implemented in BY 2016 due to the change in the in timing. It is now expected that most marketing, education and outreach for the implementation of a new High Usage Charge (HUC) and transition to default TOU pricing plans will occur from 2017 to 2020.” (pp. LCD-34 – LCD-35) With respect to this statement:
 - a. Please explain why \$1.7 million in incremental Rate Education & Outreach funding (p. LCD-35, Table LD-16) is required to support activities that were approved in SDG&E’s prior GRC and did not occur due to the timing of rate reform.
 - b. Please describe the specific activities that SDG&E plans to undertake using its requested \$1.7 million in incremental Rate Education & Outreach funding.

SDG&E Response 1:

- a. The \$1.7 million is providing incremental funding to communicate rate related changes to both residential and business customers. These communications have included the tier collapse from 4 tiers down to 2 tiers, changes to Time of Use (TOU) pricing plans’ peak periods, seasonal pricing changes and solutions, and the introduction of the High Usage Charge (HUC). Due to the shift in timing, many of these communications slated in 2016 began their deployment in mid to late 2017. The \$1.7 million will continue to be used to communicate on-going rate related changes including TOU peak period changes (the move from 11am to 6pm on-peak time period to 4pm to 9pm) and the variety of pricing plan options, for both business and residential customers, HUC for residential customers and Net Energy Metering customer education.
- b. These funds will be used for communications and outreach activities to create awareness and understanding with both business and residential customers regarding the changes occurring with rates. Additionally, these activities will provide education and encourage engagement, on choices these customers will have, to give them better control over their bill. Activities will include direct communications (mail and email), educational brochures, on-bill messaging/bill inserts, website, videos, outbound call campaigns to at-risk/vulnerable and hard-to-reach customers, community presentations and events with Community Based Organizations (CBO’s), CBO partner materials and workshops.

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2. SDG&E states that its request for incremental Rate Education & Outreach funding in this GRC “will enable us to educate SDG&E’s customers on upcoming changes related to activities such as the HUC, the concept of “When You Use Energy Matters,” TOU period changes, and the distribution of bill comparisons.” (p. LCD-35) With respect to this statement:
- a. Please clarify whether SDG&E has been authorized by the Commission in a previous proceeding within the past 5 years to educate customers on these issues. If so, please identify the specific activities that were authorized and the proceeding and decision in which those activities were authorized.
 - b. Please state whether SDG&E has developed a plan for educating customers on these issues. If so, please describe SDG&E’s plan in detail and provide examples of any education materials it has developed to-date in conjunction with this plan.
 - c. Please state whether SDG&E has conducted any studies evaluating its customers’ current understanding of these issues. If so, please describe these studies, provide the questions posed to customers, and the any quantitative and qualitative data resulting from these studies.

SDG&E Response 2:

- a. SDG&E was authorized \$2 million to educate customers on similar topics in D.16-06-054 (test year 2016 GRC case), of which \$300,000 was spent. As described in response to Question 1, the underspending was primarily due to changes in timing and subsequent delays in overall implementation of rate reform activities. SDG&E also developed a comprehensive Rate Reform Marketing, Education and Outreach (ME&O) plan that was filed November 1, 2016, in Advice Letter (AL) 2992-E, and approved by the Commission in Resolution E-4910. Rate reform ME&O expenses in excess of the amount of TY 2019 GRC funding requested and authorized here will be recorded to the Rate Reform Memorandum Account.
- b. SDG&E plans to build upon previous communication efforts undertaken in the 2015 – 2017 timeframe and to leverage the Rate Reform ME&O plan. There are individual plans for the sub-elements of rate reform, such as the high usage charge (HUC) and TOU transition. Examples of education materials are provided in UCAN-SDGE-DR-04 Q2b Attachment 1, UCAN-SDGE-DR-04 Q2b Attachment 2 and UCAN-SDGE-DR-04 Q2b Attachment 3.

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SDG&E Response 2 Continued:

- c. SDG&E conducted two qualitative research efforts in the summer and fall of 2017 to enhance and refine creative concepts, marketing and educational materials used to communicate the details of rate changes and TOU pricing. The first study, conducted in August 2017, consisted of two focus groups of residential customers (UCAN-SDGE-DR-04 Q2c Attachment 1). The participants were asked to evaluate and provide their impressions of two different creative ad concepts, called “My Plan” and “On the Clock.” The concepts were designed to educate customers on the benefits of Time of Use, one (My Plan) being more customer focused and communicating about customer choice and available tools, and the other (On the Clock) being a more global, “we’re all in it together” message about the benefits of doing your part to shift usage away from peak times. The objective of the research was to understand which approach resonated better with customers, and identify questions and potential red flags when educating customers about Time of Use. A second study was conducted in October 2017. Six focus groups of residential customers were assembled to gather impressions of the draft notification letters and welcome kit materials for the default TOU pilot (UCAN-SDGE-DR-04 Q2c Attachment 2). Participants were asked to provide their opinions regarding the overall messaging, how well they understood what was being communicated and what they were being asked to do, the amount of information and level of detail, and how rate comparison information should be displayed. The objective of the research was to understand if the materials were communicating the intended message, and to uncover what customers view as the specific advantages and drawbacks of the TOU transition.

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3. SDG&E states that its Rate Education & Outreach strategy “is to build on previous communications efforts SDG&E undertook in the 2015 and BY 2016 timeframe and to leverage the Rate Reform Marketing, Education and Outreach (ME&O) plan that was filed November 1, 2016 in Advice Letter (AL) 2992-E. This plan is designed to achieve goals to increase customers’ awareness, understanding, and engagement with rate options, and energy management tools and behaviors that help manage energy use, and increase adoption and retention of customers on TOU.” (p. LCD-35) With respect to this statement:
- a. Please identify the Commission decision authorizing funding for these efforts and provide a citation.
 - b. Please explain how these efforts relate to the efforts to support new rate options and programs for which funding was approved in the TY 2016 GRC case D.16-06-054.

SDG&E Response 3:

- a. The Commission decision authorizing funding for the residential customer transition to Time of Use can be found in Resolution E-4910 dated February 9, 2018. This resolution approved funding for SDG&E’s Rate Reform ME&O Plan (AL 2992-E, AL 2992-E-A) as indicated on page 21: “We approve SDG&E’s proposed budget expenditures of \$19.4 million for entry into the RRMA.”
- b. These efforts are an extension of the original funding approved in the TY 2016 GRC case D.16-06-054. Activities related to the funding authorized in the TY2016 GRC case are described in the responses to Question 1 and Question 4a.

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4. Regarding efforts to transition customers to default TOU pricing plans, SDG&E states that “Messages during this time will evolve and progress from preparing people for the coming changes and explaining the details of these changes, to explaining the reasons and benefits to customers of time variant rates, and ultimately when to expect the changes to affect their bills.” (p. LCD-35) With regard to this statement:
- a. Please explain whether SDG&E would be conducting all of the activities identified in this statement for the target customers for transition to default TOU pricing plans for the first time as a result of this GRC, or whether SDG&E has previously conducted some or all of these activities with the target customers.
 - b. Please identify which of the activities listed that SDG&E has previously conducted with the target customers for transition to default TOU pricing plans.

SDG&E Response 4:

- a. SDG&E is conducting all activities identified with this statement for residential customers, which would include residential customers that may be a part of the Residential TOU Default. This messaging focuses on laying the foundation for changes happening as part of Rate Reform, which includes more than the transition to TOU for residential customers. As a result of the approval of TY 2016 GRC funding, SDG&E started communicating with customers about the changes happening as part of Rate Reform. Messaging included information about:
 - The reason for rate reform and the timing (addressing Why and When)
 - Changes as part of Rate Reform (addressing Who it is happening to and What is happening)
 - Tier collapse from 4 tiers to 2 tiers
 - Introduction of the Minimum Bill and High Usage charges
 - Using My Account to understand how they are using energy in their home/business
 - Using tools behind My Account like “My Pricing Plan Comparison” and/or “Goals & Alerts” to educate customers about their choices and how they can better control/manage their usage or bill
 - Changes happening to customers currently on TOU – shift to the new 4pm-9pm on-peak time period.

Messaging for residential customers moving to Time of Use will be focused on the transition and the customers’ choices and include a customized Pricing Plan Comparison. Funding for these activities are part of the Resolution E-4910 dated February 9, 2018.

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SDG&E Response 4 Continued:

- b. All activities listed above have been conducted with the target customers for transition to TOU pricing plans.

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5. SDG&E states that “Customer research will be used to measure effectiveness and refine messaging specific to the rate reform communications and education efforts.” (p. LCD-35)

With respect to this statement:

- a. Please state whether SDG&E has previously conducted any such research. If so, please describe these studies, provide the questions posed to customers, and any quantitative and qualitative data resulting from these studies.
- b. If SDG&E has not previously conducted any such research, please explain in detail what customer research SDG&E plans to conduct going forward and provide any available documentation regarding these research plans.

SDG&E Response 5:

- a. SDG&E partnered with Luntz Global Partners, a well-known global communication strategy firm, to conduct research on how to better verbalize and articulate rate-related information to our residential customers. The research was conducted in November 2016, and consisted of two instant response dial sessions with a total of 56 participants, followed by an online quantitative survey of 447 respondents (UCAN-SDGE-DR-04 Q5a Attachments 1 and 2). The objective was to identify and measure perceptions, priorities, and expectations of customers for rate reform and TOU, as well as define the most effective positioning, messaging, and language for communicating the customer benefits and opportunities as a result of rate reform and TOU.
- b. SDG&E has previously conducted such research. Please see response to Question 5a above.

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6. SDG&E states that “This funding request also includes research studies to measure the effectiveness of the deployed communications activities.” (p. LCD-35). Please describe these research studies in detail and provide any available documentation regarding these research studies.

SDG&E Response 6:

SDG&E plans to survey customers related to Rate Reform in 2018 and 2019. The primary objective of the research will be to understand higher levels of awareness and understanding, general concepts of when to use energy, and pricing plan options. This will be accomplished through various methodologies, with both general residential and business customers, involving several different research efforts, such as conducting general opinion surveys, awareness and perception studies and ad hoc research, with the objective to gather actionable insights about NEM customers and the general customer population. These efforts can include both qualitative and quantitative research.

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7. SDG&E’s proposed capital investments include the Enterprise Hourly TOU Metering/Billing project, which “includes IT system changes to develop functionality that will enable SDG&E to support third party meter read accuracy and hourly TOU pricing and bill calculations.” (p. LCD-57) Please explain how this project relates to and differs from the investments that SDG&E would make pursuant to the propose settlement agreement in its Customer Information System (CIS) Replacement Program proceeding (A.17-04-027).

SDG&E Response 7:

The Enterprise Hourly TOU metering/Billing project provides functionality that will be leveraged to enable the Power Your Drive (“PYD”) pilot as authorized under D.16-01-045. This specific functionality will ultimately be replaced with SDG&E’s SAP Customer Relationship & Billing (CR&B) systems as proposed in A.17-04-027, however SDG&E requires these changes to bridge the gap until the new SAP CR&B solution is implemented, which is anticipated in January 2021.

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The following questions relate to Mr. Olmsted’s testimony (SDG&E-24)

1. Please explain in detail what actions and/or investments related to the CISCO Wellness initiative will be funded by the incremental \$1,500,000 funding request presented in Table CRO-9 on page CRO-11.

SDG&E Response 1:

As described in the testimony of Christopher Olmsted, footnote 3 on page CRO-11, the CISCO Wellness initiative “includes a collection of system improvement activities, which consists of adding incremental support resources, improving manual processes, and implementing technical enhancements”.

At the time that the SDG&E 2019 GRC application was filed, SDG&E had taken the following actions from 2016 through Q3 2017:

- Incremental support resources
 - Extended the Application Development and Maintenance (ADM) contract with our vendor partner from a 5-year commitment to a 7-year commitment in order to mitigate approximately \$1M of upward IT O&M budget pressure in 2016.
 - Established an Analytics Tiger Team to identify the most impactful (e.g. highest priority) automated, semi-automated and/or manual actions that will reduce the financial and/or operational impacts of CISCO delayed bills to acceptable levels.
- Improve manual processes
 - Established a formal prioritization process to identify the most critical business requirements in order to drive corresponding system enhancements.
- Implement technical enhancements
 - Coded, tested and implemented numerous high priority functional changes to our legacy Customer Information System (CISCO).

At the time that Mr. Olmsted’s revised GRC testimony was submitted (December 2017), SDG&E had taken the following additional actions:

- Implemented technical enhancements - Obtained management approval for the CISCO Enhancement (CEP) Capital Project business case.

At the time of this data request response (March 2018), SDG&E has taken further specific actions:

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SDG&E Response 1:-Continued

- Improving manual processes - Established and piloted an Operational Readiness Test (ORT) process that included designing, developing and executing a set of standard test cases (including automated scripts where possible) in order to identify potential defects or operational impacts to the production environment (via the use of a Pre-Production environment).

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2. SDG&E states that “CISCO Wellness is an initiative that was launched in early 2016 in response to a series of CISCO system-related challenges that were initially encountered in late 2015.” (p. CRO-11, FN3) With respect to this statement, please:
 - a. Clarify whether the CISCO Wellness initiative was considered and authorized in a prior GRC proceeding. If so, please identify the relevant proceeding and Commission decision.
 - b. If SDG&E’s response to 2(a) is anything other than an unqualified “yes,” please clarify whether SDG&E funded the initiative out of its existing IT O&M budget.

SDG&E Response 2:

- 2.a. The CISCO Wellness initiative was not considered or authorized in a prior GRC proceeding.
- 2.b. The CISCO Wellness initiative was funded via the existing IT O&M budget in 2016. In late 2017, when the nature of the technical system changes was more clearly understood, a management decision was made to fund the remaining technical system changes via IT Capital dollars.

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3. Please explain what SDG&E means by “Incremental resources to support new functions/features implemented by capital projects” as stated in Table CRO-9 on page CRO-11. Please provide a list of the incremental resources that SDG&E is proposing to fund and the new functions/features that each resource will support.

SDG&E Response 3:

This forecast was developed based on the proposed capital portfolio included in IT’s request. IT application leadership assessed the overall portfolio and forecasted incremental support needs based on the types of projects and systems impacted. There is not a direct correlation to any one project, instead it is an overall view of incremental support needs based on the project portfolio.

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4. SDG&E states that the types of systems supported by the non-shared SDG&E IT Applications costs “include, but are not limited to, customer field operations, work order management, smart meter data management, customer billing, service order routing, scheduling and dispatching, revenue cycle processing, and customer assistance and customer contact functions, including self-service capabilities.” (p. CRO-11) For each of these systems, please explain the reasons why SDG&E is requesting incremental funding beyond the CIS funding being addressed in A.17-04-027, which also addresses customer billing, service orders, customer care, and meter data.

SDG&E Response 4:

SDG&E is requesting incremental funding beyond the CIS funding being addressed in A.17.04-027 because functional enhancements in these legacy system capabilities are required to bridge the gap until the new SAP CR&B solution is implemented in January 2021.

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5. Please explain why SDG&E is requesting a \$674,000 revenue requirement increase to backfill labor vacancies for non-shared O&M related to Applications as shown in Table CRO-9. (p. CRO-11) Please provide any data or workpapers supporting this increase in Excel format.

SDG&E Response 5:

Details for this forecast are included in O&M workpapers for non-shared applications (SDG&E-24-WP-R, pp. 4 – 11).

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6. Please explain why SDG&E is requesting a \$770,000 revenue requirement increase in order to backfill labor vacancies for non-shared O&M related to Infrastructure as shown in Table CRO-10. (p. CRO-12) Specifically, please explain why this amount incremental funding is required to backfill these vacancies. Please also provide any data or analytical workpapers supporting this increase in Excel format.

SDG&E Response 6:

Details for this forecast are included in O&M workpapers for non-shared infrastructure (SDG&E-24-WP-R, pp. 12 – 18).

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7. SDG&E states that one reason it must develop its proposed Long-Term Evolution (LTE) Communications Network project is because “the Federal Communications Commission’s (FCC’s) grandfathered protection of the use of 3.65 GHz frequency licenses will expire in 2020, which increases the risk of wireless network instability around the Borrego Substation. As more dedicated communications solutions are deployed, there is higher potential for instability of operational field area networks due the (*sic*) use of unlicensed frequencies.” (p. CRO-24) Please respond to the following questions regarding this statement.
- a. Is SDG&E aware of any alternative measures that could manage the risks posed by the expiration of the FCC’s frequency license protection besides the proposed LTE Communications network? If so, please list those alternative measures.
 - b. If SDG&E is not aware of any alternative measures, please explain whether SDG&E has conducted any processes that could have identified potential alternatives.
 - c. Has SDG&E evaluated any alternative measures that could manage the risks posed by the expiration of the FCC’s frequency license protection besides the proposed LTE Communications network? If so, please list those alternative measures and provide any documentation and/or analyses SDG&E has performed regarding the alternatives.
 - d. If SDG&E has evaluated alternative measures, please explain why SDG&E elected to propose the LTE Communications Network project rather than one of these alternatives.

SDG&E Response 7:

- a. The proposed LTE solution is a systemwide solution to support several use cases in the SDG&E service territory. This funding is not specific to the Borrego location.

SDG&E has experience with multiple communications solutions, which could be alternative measures for the deployment in the Borrego Springs location. These include:

License-exempt (ISM/U-NII) bands:

Historically, due to the high cost and complexity of license exempt radio technology, relatively few consumers and businesses used these systems as a platform for communications. In recent years, the large growth of license-exempt wireless systems for use as consumer broadband services and other business has increased. The increased interference levels on these bands has reduced the reliability of our critical communications networks. In addition, wireless service providers are deploying solutions which will continue to increase interference in the same unlicensed frequencies.

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SDG&E Response 7:-Continued

Licensed point-to-point Microwave:

Point to point networks are deployed for very specific use cases and are not scalable for networks with a large number of nodes in the same area.

Proprietary licensed broadband wireless systems:

SDG&E investigated deploying additional proprietary broadband wireless systems. The equipment from each hardware vendor is proprietary and does not interoperate with devices from other vendors. SDG&E has been subject to “vendor lock-in” with proprietary vendor networks that prevents us from hedging our business risks due to limited flexibility and expansion for new applications, and high long-term ownership costs.

Another drawback of operating single purpose proprietary systems is that as the number of applications and endpoints increases, each system requires additional staffing to plan, deploy, operate, secure, and maintain.

Public Carrier Networks

Public carrier coverage is limited in many of the places that SDG&E has endpoints. It is often the case that utility corridors are placed in areas which are remote from the community and public carriers do not provide Reliable coverage that can be used by SDG&E.

In addition, public carrier networks will not provide a guaranteed service level or priority access appropriate to SDG&E’s critical communications needs. During emergencies, SDG&E requires priority access to command and control systems for expedient service restoration.

- b. Please see response to 7a.
- c. As listed in the response to 7a, we have evaluated several alternative measures and found LTE to be the optimal solution to support our existing and future applications and use cases.
- d. SDG&E has experience with several single purpose communications networks in previous years for specific use cases.

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SDG&E Response 7:-Continued

The existing communications infrastructure has become complex and inadequate to meet the demand for greater volumes of data at high speed and have proven to be difficult and costly to deploy and maintain. The existing infrastructure will not support a large increase in the number and density of devices, the increasing amount of bandwidth required per device, and the latency requirements for new applications.

SDG&E has elected to propose an LTE Network project for the benefits listed in Mr. Olmsted's testimony.

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8. SDG&E states that its proposed Long-Term Evolution (LTE) Communications Network project “will provide connectivity for a variety of use cases forecasting tremendous growth over the next 20 years including Advanced SCADA, SmartMeter AMI backhaul, fault circuit indicators, smart transformers, Distributed Storage Monitoring & Control.” (p. CRO-24) Please respond to the following questions regarding this statement.
- a. Of the use cases listed, please identify which of these use cases could not function without SDG&E’s proposed LTE Communications Network project. For each of these use cases, please explain why it requires the LTE Communications Network project.
 - b. Has SDG&E evaluated any alternative measures that could provide connectivity for these use cases? If so, please list those alternative measures and provide any documentation and/or analyses SDG&E has performed regarding the alternatives.
 - c. If SDG&E has evaluated alternative measures, please explain why SDG&E elected to propose the LTE Communications Network project rather than one of these alternatives.

SDG&E Response 8:

- a. These use cases listed above could function using alternative solutions to LTE with a greater total cost of ownership and additional complexity.

SDG&E engaged outside engineering firms specializing in utility and public carrier communications services to prepare a total cost of ownership (TCO) analysis over 20 years given current and future field communications business needs related to SCADA, Distributed Energy Resources, fire risk mitigation and company and public safety technologies as well as others. This analysis considered communications solutions for critical infrastructure communications requirements currently deployed or utilized by SDG&E as well as alternative technologies and solutions employed by other utilities across the country. This analysis, in addition to our participation in the Electric Power Research Institute (EPRI) Telecom Initiative and direct interaction with solutions providers, was used to formulate the expenditures submitted in the 2019 GRC.

SDG&E has piloted, deployed and operated purpose built wireless networks for many years. Additionally, several solution alternatives were included in the TCO analysis, including technologies and solutions employed by other utilities and communications providers across the country. SDG&E’s conclusion is that a Private LTE network will meet current needs, as well as future application, while allowing for consolidation of existing legacy or proprietary wireless solutions.

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- b. Please see response to 7a.
- c. Please see response to 7d.