

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Application of SAN DIEGO GAS & ELECTRIC
COMPANY (U902E) for Approval of its Electric
Vehicle-Grid Integration Pilot Program.

Application 14-04-014
(Filed April 11, 2014)

And Related Matter.

Rulemaking 13-11-007

**REPLY COMMENTS OF SAN DIEGO GAS & ELECTRIC COMPANY (U902E) ON
JOINT MOTION TO ADOPT SETTLEMENT AGREEMENT**

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FORM OF CITATIONS TO THE RECORD IN THIS PROCEEDING

Citation to the record transcript: “[witness surname, if applicable], T. [page number(s)]: [line number(s)] (date).” *E.g.*, Mutialu, T. 1086:17-21 (May 4, 2015)

Citations to Prepared Testimony identified as exhibits in this case shall use the exhibit numbers assigned by the ALJs. For brevity, the prefix “SDG&E” is shortened to “SD.” Citations are as follows: Ex. [party abbreviation] [exhibit number] ([witness surname]) [page:line number(s) and/or footnote number]. *E.g.*, Ex. SD-4 (Schimka) 19:5-6 and n.2.

Citation to Other Record Exhibits identified as exhibits will use the exhibit number assigned by the ALJs. *E.g.*, “Ex. [party abbreviation] [exhibit number], [exhibit title, if referenced (date, if any)] [page number(s) if applicable]. *E.g.*, Ex. SD-17, “ChargePoint press release (May 16, 2014),” p. 2.

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Pursuant to Commission Rule 12.2, applicant San Diego Gas & Electric Company (“SDG&E”) submits this reply to comments¹ submitted on the *Joint Motion to Adopt Settlement Agreement* filed June 3, 2015 in the above application (“joint motion”) for an electric vehicle-grid integration (“VGI”) pilot program.²

I. INTRODUCTION – COMMENTS IGNORE THE SETTLEMENT’S BENEFITS AND APPLY THE WRONG STANDARD OF REVIEW

The subject application is California’s first utility pilot proposal to deploy charging infrastructure, and the only proposal to date to offer vehicle-grid integration – *i.e.*, managed

¹ Timely comments were submitted by Office of Ratepayer Advocates (“ORA”), The Utility Reform Network (“TURN”), Consumer Federation of California (“CFC”), Marin Clean Energy (“Marin”), California Energy Storage Alliance (“CESA”), Joint Minority Parties (“JMP”), Utility Consumers’ Action Network (“UCAN”), Shell Energy North America (“Shell”), and Vote Solar Initiative (“Vote Solar”). This brief will cite to comments as follows: “[Party nickname] comments at [page number(s)].”

² To emphasize the vehicle-grid integration benefits of the application, SDG&E and the Settlement Agreement refer to SDG&E’s proposed pilot in this case as the “VGI” Program. This is consistent with the Commission’s use of the term in R.13-11-007 (pp. 14-17, 24) and as referenced in, *e.g.*, the *California Grid Integration Roadmap* (December 27, 2013) (<http://www.caiso.com/Documents/Vehicle-GridIntegrationRoadmap.pdf>) and the Energy Division Staff White Paper: *Vehicle-Grid Integration: A Vision for Zero-Emission Transportation Interconnected throughout California’s Electricity System* (November 14, 2013) (<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M080/K775/80775679.pdf>).

charging - to reduce the environmental impact of electric transportation growth on grid operation and infrastructure costs. It is also the only proposal before the Commission that can demonstrate net consumer, ratepayer and societal benefits; the VGI Program will track and measure the costs and benefits of the proposal using a methodology familiar to the Commission. The settlement is a well-structured and widely supported compromise that will advance some of the state's highest-priority energy and environmental policies, promote market competition, customer choice, innovation, and skilled jobs, and ensure safety, equity, and consumer welfare.

Comments opposing the Settlement Agreement³ fall short in two fundamental ways. First, they ignore the manifest benefits of the settlement, especially as the benefits relate to ratepayers and advancing the state's and the Commission's electric transportation and carbon reduction goals.⁴ Opponents' comments largely restate their immovable opposition to utility ownership of charging equipment and attempt to isolate [and often mischaracterize] specific elements of the VGI Program without regard for their value, how they were modified by the settlement, or how the parts are designed to work together.

³ Terms set forth with initial capitalization, unless otherwise defined herein, are used as defined in the Settlement Agreement. This reply will also refer to the Settlement Agreement and supporting joint motion in the aggregate as the "settlement."

⁴ While many of the commenters claim to support portions of the governor's goals, the VGI Program responds to Governor Brown's goals in their entirety, and it is the only current proposal to do so. Specifically, Executive Order B-16-2012 calls for the following 2020 grid integrated charging infrastructure goals:

IT IS FURTHER ORDERED that these entities establish benchmarks to help achieve by 2020:

- The State's zero-emission vehicle infrastructure will be able to support up to one million vehicles; and ...
- Electric vehicle charging will be integrated into the electricity grid...

Second, much of the opposition offers “improvements” to the settlement, and thus misapprehends the proper standard of review for settlements presented to the Commission. Such comments are based on a misconception that, to be approved, a settlement must represent the best possible outcome in all regards, instead of whether the settlement is a reasonable compromise and is in the public interest. As SDG&E and the other Settling Parties will demonstrate, the settlement is reasonable, consistent with both laws and Commission decisions promoting electric transportation, and will generate net benefits that are in the public interest.

Because SDG&E is the applicant, and the Settlement Agreement adopts SDG&E’s proposal with modifications, SDG&E is in the best position to reply to many of the comments. As applicant, SDG&E also has the ultimate burden of persuasion. Note that most of the objections identified in comments address elements of SDG&E’s original Application rather than those provisions modified by the settlement.⁵ The fact that SDG&E replies separately should in no way suggest that SDG&E does not wholeheartedly support the entire Settlement Agreement.⁶

A. Overview and Summary – the VGI Application Advances the Public Interest.

The Settlement Agreement, if approved by the Commission, would resolve issues raised in the above Application (A.14-04-014) for the VGI Program. SDG&E’s Application introduces an innovative VGI Rate reflecting daily dynamic changes in energy prices, as well as system and circuit conditions. To implement this rate, SDG&E proposes to own, install and maintain

⁵ The Settlement Agreement adopts SDG&E’s Application, with “certain important modifications to SDG&E’s proposal are desirable to incorporate the views of stakeholders and to support the Governor’s 2020 grid-integrated infrastructure and 2025 vehicle deployment goals, as well as California’s clean air and climate change objectives.” *Id.*, ¶ I., p. 2.

⁶ In any event, if there are any perceived inconsistencies between characterizations in this reply and the Settlement Agreement, the terms and conditions set forth in the Settlement Agreement are to prevail.

enabling electric vehicle supply equipment (“EVSE”)⁷ and associated infrastructure at up to 550 sites in SDG&E’s service territory, which will allow electric vehicle (“EV”) drivers to “fuel” their vehicles under this VGI Rate and have the charging session billed to the driver’s SDG&E account (or, under the settlement, to the site host’s account). In broad terms, the Settlement Agreement enables adoption of SDG&E’s VGI proposal with significant modifications to address some of Settling Parties’ concerns about the Application’s effect on competition, customer choice and market innovation, inclusion of Disadvantaged Communities, and other issues, and to support the Governor’s 2020 grid-integrated infrastructure and 2025 zero-emission vehicle deployment goals, to further California’s efforts to increase access to zero-emission vehicles in Disadvantaged Communities established by the Charge Ahead California Initiative,⁸ to comply with federal air quality standards, and to achieve the state’s path-breaking climate change objectives.

In addition to supporting the explicit state goals for carbon reduction and electric transportation, the settlement will provide the following consumer and societal benefits (Ex. SD-7 (Avery) ST-1:11-ST-2:26; Settlement Agreement, ¶ III., Guiding Principles):

1. Provides ratepayer benefits

The VGI Program will reduce emissions and avoid new generation and other infrastructure costs by sending price signals to encourage off-peak charging by drivers:

⁷ EVSE is a defined term in the Settlement Agreement (p. 2). The Commission uses EVSE, for example, in Decision (“D.”) 11-07-029, and in D.14-12-079, and it is generally understood to reference the equipment that a customer plugs into the EV. SDG&E understands the term to reference SAE J1772, the standard for electrical connectors for EVs maintained by the Society of Automotive Engineers. This standard defines a common EV conductive charging system architecture including operational requirements and the functional and dimensional requirements for the vehicle inlet and mating connector. Ex. SD-7 (Avery) ST-2, n.2.

⁸ See Senate Bill (“SB”) 1275, Chapter 530, approved September 21, 2014 at http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB1275.

- Day-ahead pricing and hourly rates allow drivers to meet energy needs even on grid impacted days.
 - Encourages drivers to charge at times of grid surplus to integrate and manage charging loads with grid operation, including the efficient integration of energy from renewable energy resources.
 - Factors in loading on individual distribution feeders, loading on transmission grid and impact on overall system peak, incenting the customer to charge during off peak periods, greatly reducing the need for costly system upgrades and new fossil generation.
- Reduces carbon emissions.
- Transparent data collection and cost effectiveness measurement will inform future Commission EV policy; customer data collected on program participation will be aggregated to protect customer privacy and made available to the Commission and stakeholders.⁹ Ex. SD-6 (Martin) JCM-35 – JCM-37; Settlement Agreement, Appendix B.

2. Promotes EV adoption

Through feedback effects, introduction of charging infrastructure to currently underserved venues (MuDs and workplaces) will promote EV adoption.¹⁰

⁹ Drawing on Commission experience with energy efficiency, the VGI Program proposes a cost-effectiveness measurement methodology which will be populated with data generated by the proposed pilot. Ex. SD-6 (Martin) JCM-30 – JCM-35.

¹⁰ Ex. SD-1 (Avery) LK-13:11-20; Ex. SD-12 (Martin) JCM-22:13-JCM-23:6; Ex. SD-14, pp. 1, 14-15. Please note that SDG&E witness James P. Avery adopted the testimony of Lee Krevat submitted with the Application. Ex. SD-7 (Avery) ST-4:16-ST-5:2. “MuDs” refers to multi-unit dwellings.

- Offers potential site hosts the option to receive the VGI Rate and manage EV charging or to have rates charged directly to drivers, and also provides them with an array of choices for equipment and service vendors and service enhancements. Settlement Agreement, ¶¶ III. A., C., F., O. and Appendix C.
- Provides scalable solution where utility is responsible for installing, managing, and reliably maintaining the charging equipment, ensuring the equipment funded by the program is well-maintained and operational.
- Offers customers choices for charging electric vehicles via day-ahead hourly rates based on circuit and system conditions.
- Allows installation of charging infrastructure at locations that offer the best opportunity for grid-integrated charging due to long parking durations: multi-family communities and work places.
- Promotes market growth by creating opportunities for third parties to design, build, install, operate and maintain charging equipment to SDG&E specifications. *See* Ex. SD-2 (Schimka) RS-8:2-6, Ex. SD-7 (Schimka) ST-42:15-17, Ex. SD-9 (Pulliam) BP-14:13-18; Settlement Agreement, ¶¶ III. F, G, G.a., O and Appendix C.
- Customer billing: Allows drivers and site hosts to pay SDG&E directly for their energy on their monthly bills with no additional service fees. Billing and usage summary data will also be provided to drivers and site hosts through a variety of channels. Ex. SD-2 (Schimka) RS-20:17-19; Settlement Agreement, ¶ III. A.
- Maintenance benefit: funds ongoing maintenance for the customer charging apparatus, in contrast to most commercially-installed EVSE in the region, and

promotes customer adoption and confidence in transportation electrification. Ex. SD-8 (Avery) JPA5:7-24; Ex. SD-10 (Schimka) RS-7:15 - RS-8:21.

As detailed in SDG&E's testimony and in section IV. below, the foregoing items should yield ratepayer and societal benefits net of program costs.

The "underserved" nature of MuDs and work places with respect to charging infrastructure is well-documented.¹¹ The settlement retains the Application's target underserved market segments. The targeted segments currently comprise just 15% of total non-residential EVSE units in SDG&E's service area.¹² To the extent that the program is able to penetrate these locations, EV deployment will increase and the overall demand for EV fueling services will increase, benefiting non-SDG&E charging providers.¹³

B. Commenters employ the wrong standard of review

Commenters suggest that the settlement should not be approved unless certain "improvements" or additions are adopted.¹⁴ This fundamentally misunderstands how the

¹¹ *E.g.*, Ex. SD-2 (Schimka) RS-2, n. 1; Ex. SD-15, pp. 39-43. Indeed, the governor's goals and the 2015 ZEV Action Plan draft recognizes the underserved nature of workplaces and MuDs by making the installation of charging infrastructure at those locations a priority. *See* Executive Order B-16-2012 (March 2012) at <http://gov.ca.gov/news.php?id=17472>. *See also* Governor's Interagency Working Group on Zero-Emissions Vehicles, 2013 ZEV Action Plan (February 2013), p. 6, ¶ 2 and p. 12, ¶ 1. Located at: [http://opr.ca.gov/docs/Governor's_Office_ZEV_Action_Plan_\(02-13\).pdf](http://opr.ca.gov/docs/Governor's_Office_ZEV_Action_Plan_(02-13).pdf).

See also Governor's Interagency Working Group on Zero-Emission Vehicles, *Draft 2015 ZEV Action Plan* (April 24, 2014), p. 11, ¶ 3. Located at: http://gov.ca.gov/docs/DRAFT_2015_ZEV_Action_Plan_042415.pdf.

¹² Ex. SD-9 (Pulliam) BP-11, Table 3.

¹³ SDG&E's testimony addresses TURN's absurd and unsupported contention that EV infrastructure deployment will not advance EV adoption. *See*, Ex. SD-1 (Avery) LK-13:11-20; Ex. SD-12 (Martin) JCM-22:13-JCM-23:6; Ex. SD-14, pp. 1, 14-15.

¹⁴ *See, e.g.*, CESA comments at 2-5; ORA comments at 6, 9-12; Vote Solar comments at 2-4; and TURN comments at 48-58.

Commission evaluates settlements. It considers the entire settlement, and not just its individual parts:

In assessing settlements we consider individual settlement provisions but, in light of strong public policy favoring settlements, we do not base our conclusion on whether any single provision is the optimal result. Rather, we determine whether the settlement as a whole produces a just and reasonable outcome.¹⁵

Consistent with this precedent, as recited in the joint motion, the Settling Parties view the Settlement Agreement as a cohesive bargain, which reflects compromises on issues addressed in testimony and hearings. The Settlement Agreement (section IV.C) recites that it “is indivisible and each part interdependent on each and all other parts. Any party may withdraw from this Settlement Agreement if the Commission modifies, deletes from, or adds to the disposition of the matters settled herein.” Modification of a portion of the Settlement Agreement would necessarily upset the balance of interests that led to the settlement’s execution, and it would excuse parties from their settlement obligations. Accordingly, in evaluating the Settlement Agreement, the Settling Parties agreed that the Commission should consider the entire Settlement Agreement, and not just its individual parts, consistent with the Commission precedent cited above. Commenters’ pleas for piecemeal adjustments to the settlement ignore this precedent, and appear motivated by the obvious consequence that cherry-picked changes could kill the program. And, as discussed below, the comments fail to show that the settlement is inconsistent with the public interest.

II. COMMENTERS’ RENEWED SUGGESTIONS TO DELAY, “GO SMALL” AND “ONE-SIZE-FITS-ALL” ARE NOT IN THE PUBLIC INTEREST

Several commenters renew calls they made in testimony and motion practice in this case, and argue that the Commission should do some combination of substantially reducing the size of

¹⁵ D.11-05-018, p. 16.

this pilot, subjecting it to further process delays, reducing the utility's role to providing so-called "make ready" infrastructure, and imposing this common framework on all three utilities.¹⁶ Such calls ignore the necessity for substantial and urgent utility involvement to reach the state's goals. By issuing D.14-12-079, after a thorough process that included robust rounds of comment and workshops, the Commission set a course to act promptly on the pilot applications submitted with the encouragement of the OIR. Those urging delay simply ignore that D.14-12-079 set forth a carefully considered test of evaluating utility ownership of charging equipment, and set this Application on a specific procedural schedule for disposition. What ORA and others propose is to simply pretend that D.14-12-079, and the process leading up to it, never happened. Given the state's goals and the Commission's well-considered recent action in the EV sphere, these suggestions should be rejected.

SDG&E appreciates that the Commission has stuck to its plan and has devoted resources to adjudicating the Application to this point. It may be useful to review here why proceeding to decide this Application and approving the Settlement Agreement is important. Fundamentally, the data gleaned and lessons learned from this pilot will help inform future decisions of the Commission and the conduct of the OIR. Specifically, with respect to rate design, SDG&E's proposes an alternative rate structure for electric vehicle charging in the workplace and multi-family unit context that incorporates dynamic hourly prices that reflect: (1) a system critical peak, (2) a distribution circuit peak, and (3) surplus energy events. No other utility proposes a

¹⁶ ORA in particular, advocates such a result. Ex. ORA-2 (Mutialu) 1:10-11, 17:14-21, 21:18-22:2. *See e.g.*, Ex. TURN-1A (Jones) 2:17-3:4; Ex. TURN-2 (Borden) 4:11-7:6, 14:38-15:3; Ex. UCAN-1 (Croyle) 8, 14-19; UCAN comments at 4, 13-15; Ex. CESA-1 (Lin) 6:5-8:18. Ironically, these parties appear willing to make a ratepayer investment, albeit a small one, without firm assurances that the equipment be well-maintained. *E.g. see* UCAN's proposal (comments at 8, 9, 11) to fund infrastructure, but rely on contracts with unregulated site hosts that could easily strand the bulk of the investment (*i.e.*, the "make-ready").

rate to encourage integration of EV with the operation of the grid. This is especially important, because adding additional electric load at peak will simply defeat the GHG-reducing objectives of the Commission, and it makes no sense to postpone addressing this serious problem.

The Application also proposes a cost-effectiveness methodology that builds upon standard cost effectiveness tests familiar to the Commission in demand response and other contexts. The OIR scoping memo¹⁷ establishes that Phase I will consider how VGI resources should be valued and identify the costs and benefits associated with VGI applications. The VGI Program's cost effectiveness methodology will be tested with data developed by the pilot. This subject will be a matter of great interest in the OIR, and yet only SDG&E's application includes grid-integrated charging rate along with a cost-benefit methodology and analysis for Commission consideration. Delay will simply deprive the Commission and OIR stakeholders of valuable data and cost effectiveness results from this pilot.

The size of SDG&E's proposal is necessary to generate a robust sample to evaluate the benefits of grid-integrated charging through the VGI Rate and to generate economies of scale. SDG&E addresses the appropriate size of the VGI Program in section III. below. SDG&E believes its proposal as modified by the settlement will promote state policy priorities, yield net benefits and generate data that would otherwise be unavailable. However, as recognized by many stakeholders, this market is still relatively new. SDG&E does not presume that this approach is the only way to accomplish these valuable objectives. We welcome the opportunity to compare the results of the VGI Program with other proposals pending at the Commission or other jurisdictions. In sum, the Commission should reject calls to delay, reduce or homogenize the VGI Program.

¹⁷ The scoping memo (p. 11) states that pilot programs initiated in the OIR will not be required to demonstrate positive cost-benefit ratios as a condition for approval.

III. THE SIZE OF THE VGI PROGRAM IS REASONABLE

TURN, ORA and UCAN argue that the size of the VGI Program is too big.¹⁸ Before addressing the specific comments, it will be useful to review the testimony supporting the Application concerning size.

A. The record shows that the VGI Program Size and Duration are Reasonable

1. How SDG&E derived the proposed size and duration.

VGI Program sign-ups and contracting are proposed to take place over 4 years, and installations to take place over 4 to 5 years,¹⁹ with a goal of VGI installations at a blend of workplace and MuD host sites as follows:

- Year 1 (2015) – 50 site installations of 10 charging stations
- Year 2 (2016) – 100 site installations of 10 charging stations
- Year 3 (2017) – 200 site installations of 10 charging stations
- Year 4 (2018) – 200 site installations of 10 charging stations

This proposed limited time schedule and number of VGI facility installations is designed to encourage MuD and workplace host sites to sign up quickly, thus encouraging the success of the program. Ex. SD-2 (Schimka) RS-3:1-10. This rollout and installation goal is also subject to the \$103 million cap on spending authority requested in the Application.²⁰

¹⁸ TURN comments at 29-30; ORA comments at 3-6; UCAN comments at 11-12, 25-26.

¹⁹ SDG&E seeks authority to enroll customers for 4 years. In addition, SDG&E commits to replace the EVSE and connecting cables once during the project, with an expected life of 10 years for the replacements, ensure ratepayer value and customer protection. Ex. SD-2 (Schimka) RS-15:14-18; Ex. SD-10 (Schimka) RS-7:15-RS-8:5.

²⁰ At hearings, SDG&E witness Randy Schimka clarified that SDG&E is requesting authority to build up to the 550 charging stations, subject to the \$103 million cap on spending authority requested in the application (at Ex. SD-4 (Atun) JBA-4:2-7 and Table JBA-5, which shows total capital and O&M expenditures of \$102,753). SDG&E will not build over the 550 charging stations if the spending cap is not reached with that rollout level. Schimka, T. 534:5-23 (April 29, 2015).

The Settlement Agreement (¶ III. N.) adds clarification that SDG&E’s VGI proposal is modified to allow host sites planning for new construction or major tenant improvements to complete installation of VGI Facilities beyond the 5th year of the VGI Program if the commitment is made by the end of the 4th year of the program.

The foregoing rollout schedule is a maximum, and does not assume that every site will request or justify the installation of 10 charging stations (a station equals one charging port or “nozzle”), but it assumes that some sites will want to install more than 10 stations. SDG&E cautions that installing as few as 3-5 stations per site on a consistent basis will raise project average costs per site due to fixed costs and will not take advantage of the natural scale economies of the charging station infrastructure. Therefore, SDG&E’s cost estimates were calculated with an expectation of cost averaging due to higher and lower charging station counts at the various VGI sites. Ex. SD-10 (Schimka) RS-12:9-17.

Another benefit of installing more rather than fewer charging stations per site is that it helps to minimize drivers having to swap out their cars when one is done charging and another driver is waiting to charge. At workplaces in particular, SDG&E has observed²¹ that sites with a small number of charging stations and more cars trying to use them usually have coordination issues with drivers having to swap cars to access a charging station. This results in driver and employer inconvenience, as well as a loss of productive employee time. For the foregoing reasons, SDG&E believes that using a model of 10 charging stations per site is a good engineering choice for the purpose of estimating overall costs, while acknowledging that some sites will have more charging stations installed and some sites will have less. Ex. SD-10 (Schimka) RS-12:18-RS-13:6.

²¹ Ex. SD-10 (Schimka) RS-12:18-RS-13:2.

2. The scoping memo did not opine on the reasonableness of the program size

ORA implies that the scoping memo in this proceeding found that the VGI Program is too big.²² ORA's contention is inaccurate. The scoping memo for SDG&E's Application addressed the characterization of the VGI Program as a "pilot" for purposes of determining the appropriate process for considering SDG&E's application (emphasis added).²³

SDG&E's *request for expedited treatment* of its Application is predicated in large measure on the assertion that the proposed VGI program is a pilot program. However, SDG&E's Application includes at least three defining characteristics that make expedited treatment inappropriate. First, the size of the estimated cost is over \$103 million, of which approximately \$55 million represents a potential capital investment for which SDG&E seeks ratebase treatment ... It is also on par with the size of a fully developed utility program, not an initial experimental pilot. Second, SDG&E's Application requests authority to own charging infrastructure raising the issue of whether utility ownership of ... [EVSE] may be appropriate Third, SDG&E's Application proposes to implement the new program over ten years and collect the costs in rates until 2037. Taken together, these factors go beyond typical pilot programs and put the SDG&E Application on par with a full program business model, rather than an initial, research-oriented test project. These factors require the Commission to *allow adequate time to meaningfully assess the reasonableness* of a request of this length, cost and complexity.

Since the scoping memo, D.14-12-079 has addressed the utility ownership issue as described in section V. A. below. SDG&E appreciates the opportunity provided by this decision to show why its proposal is reasonable, and why the program size is reasonable.²⁴ In sum, in

²² ORA comments at 4, citing *Joint Assigned Commissioner and Administrative Law Judge's Scoping Memo and Consolidation Ruling* (September 29, 2014), pp. 3-4. ORA's comments mischaracterize the Ruling's conclusion as "requiring extended review."

²³ *Id.* SDG&E is not contending that this program's adoption turns on acceptance of the "pilot" characterization. But SDG&E uses the "pilot" reference, as we believe it captures, as described in its testimony, the limited scope and experimental nature of the proposal.

²⁴ Note that ORA (comments at 4-5) implies that the cited scoping memo said that the proposal was too big. A plain reading of the quoted passage shows that is not the case. SDG&E had asked for expedited consideration of the Application, but the decision declined to expedite on grounds of program size and its novel policy implications. This scoping memo did not in any way suggest that the program size was unreasonable, and it gave SDG&E the opportunity to show that the program size is, if fact, reasonable.

addition to its experimental nature, SDG&E considers its VGI Program a pilot because of its novel program features (VGI Rate), limited scope (MuDs and workplaces only), size (up to 550 sites) and duration (four year enrollment period). In any event, to approve the settlement, the Commission need not decide whether the pilot characterization is apt, and the Settlement Agreement did not find it necessary to address that characterization.

3. The program is sized to support a robust study sample

The proposed program size is needed to support robust study results. As described in Ex. SD-3 (Fang) CF-2:7 – CF-3:6, the VGI Rate is influenced by changes in the price of energy as well as system and circuit conditions. In order for the VGI Program’s data collection to achieve robust results sufficient to measure the impact of the VGI Rate and technology, the number of VGI Facilities must be large enough to ensure a reasonably strong statistical representation of SDG&E circuits. Although no two circuits are alike, there are some parameters that help to characterize the population of circuits. The relevant parameters include: type of distribution circuit (*e.g.*, Residential, Commercial, or mixed), solar penetration on the circuit, load factor of the circuit, and peak demand hours of the circuit. These circuit characteristics are expected to impact the calculation of the VGI Rate’s hourly prices (specifically the VGI D-CPP Hourly Adder), across more than 1,000 distribution circuits within SDG&E’s service territory.²⁵ Any risk attendant to the program’s size as reflected in the above rollout plan is mitigated by the size

²⁵ Ex. SD-7 (Schimka) ST-46:2-13. This does *not* mean that charging stations must be installed on each of SDG&E’s circuits to get a robust data sample. Ex. SD-7 (Martin) Appendix A contains an illustrative distribution circuit sample frame and a discussion of associated sampling error that supports the proposed sample size. SDG&E’s Illustrative Sample Frame and Error Calculations (*id.*, Appendix A-3 Figure A-1 and Appendix A-5 Table A-1) indicate significant statistical validity can be achieved, using 550 VGI systems (5,500 charging stations) deployed within a 30 cell (distribution circuit) sample frame (*id.*, Appendix A-4). This quantity of VGI systems and VGI chargers is necessary to ensure that the pilot results will have sufficient statistical validity, to show “whether hourly-variant pricing influences changing decisions, with the aid of enabling technology.” *Id.*, Appendix A-1; Ex. SD-1 (Avery) LK-11:18-19.

limit, and the fact that site enrollment and the installation rate for VGI Facilities require customer site host interest and driver demand for charging at those sites. If the interest and demand do not materialize, unwanted charging facilities will not be installed. Ex. SD-7 (Schimka) ST-47:8-10; Ex. SD-2 (Schimka) RS-7:5-18.

ORA (comments at 6) justifies its call for a smaller program by advocating for less granular data and cutting off the program after one year. ORA neglects to consider that the VGI Rate was designed to recover revenues over a full year. By assessing less than 8760 hours (one year) of data, ORA's proposal would bias the results by excluding certain hours that were designed to off-set other hours of the year (*e.g.*, hours where prices were higher than they would otherwise be to compensate for low-cost hours priced to encourage charging and vice-versa). It is also not reasonable to assume that all customers would enroll and have their equipment installed on day one; therefore data collected under ORA's stunted proposal would not accurately reflect either the financial impacts or the behavioral changes associated with the VGI Program. This concern does not apply to the other proposals pending at the Commission because they do not propose grid-integrated rates.

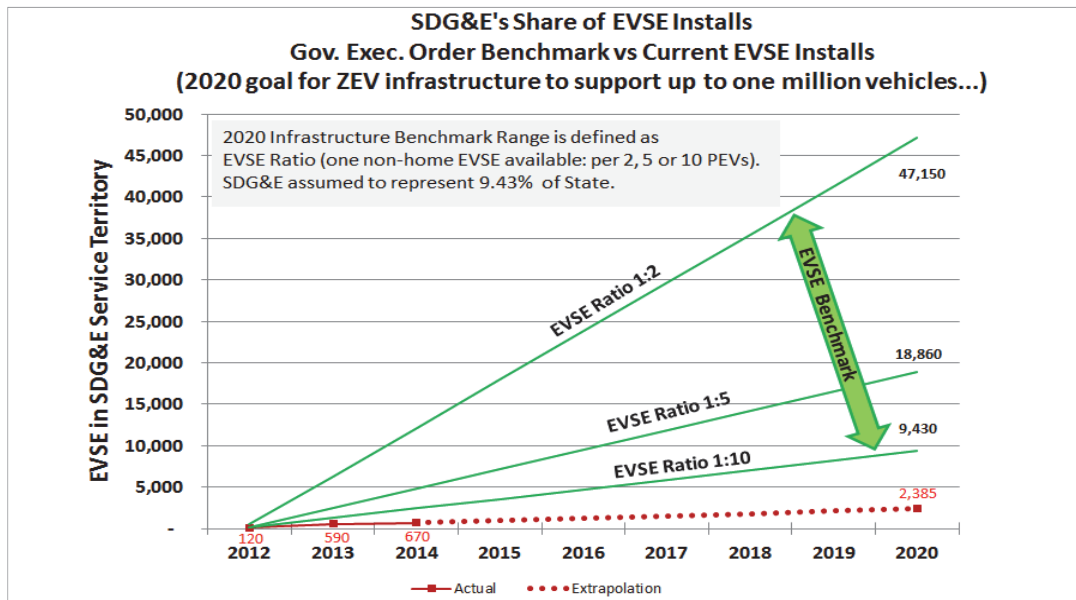
4. The program size supports the goals of the state and this Commission

The record is unequivocal that current EVSE installation trends will fall short of the state's goals. While SDG&E's proposal cannot make up for this shortfall alone, the trends indicated by the evidence strongly argue against either a piecemeal or a scaled-down approach as commenters advocate. SDG&E's unrebutted evidence examines the overall volume of EVSE with various trajectories to 2020. Figure 1 shows an estimate of publically available charging stations required in the SDG&E service territory to meet its portion of the State charging

infrastructure goal by 2020.²⁶ Although EV drivers charge their vehicles at a variety of private and public locations, the use of commercial facilities here is intended to be a yardstick by which to measure progress toward charging infrastructure deployment goals.²⁷

Figure 1

Estimate of San Diego Charging Station Installations by 2020 (current commercial EVSE 2012-2014, extrapolated to 2020)



Currently, there is one installed commercial (non-residential) charging station for every 15 vehicles in the SDG&E service territory. At the current rate of installation of commercial EVSE, the San Diego region will have just under 2,400 installed charging stations or EVSE by 2020, or approximately 25% of the amount targeted by the Governor. To meet the Governor’s 2020 charging infrastructure goal, SDG&E and other industry experts believe that much more

²⁶ SDG&E has 9.43% of California’s PEVs, Source: ICF International, California Transportation Electrification Assessment – Phase 1: Final Report (2014).

²⁷ Ex. SD-7 (Schimka) ST-40:12-ST-41:9. SDG&E references non-home commercial EVSE here. Note that the MuD “home” segment of SDG&E’s customer population is still not “adequately supported” in that about 50% of its residential customers reside in MuDs. Ex. SD-2 (Schimka) RS-5:1-2 and n. 4.

EVSE deployment is needed at both public and private sites.²⁸ The sheer volume of EVSE is just part of the EVSE deployment adequacy aspect of the Governor’s 2020 infrastructure deployment goal. For the most effective deployment of the EVSE infrastructure, the location of such facilities is the more important consideration. This aspect of deployment and the locations targeted by the VGI Program are described in greater detail in Section III.A. above. Finally, the expert evidence suggests that making the VGI Program available to these locations should boost demand for PEVs in the SDG&E service territory; an increase in demand for PEVs will in turn lead to an increase in demand for PEV fueling services at commercial locations that are not a part of the VGI Program. Ex. SD-9 (Pulliam) BP-13:3-8.²⁹

5. VGI Program size will yield economies of scale

The evidence is uncontested, as common sense would suggest, that the proposed program size will support economies of scale in both siting and procurement of EV charging services and infrastructure. Ex. SD-10 (Schimka) RS-12:13-15. And, while it would be pure speculation to quantify the effect, especially when the scope of what individual vendors might offer cannot be known until the RFI/RFP process described in SDG&E’s testimony takes place, it is self-evident that a lower price for services and equipment can be obtained with a larger order, not to mention more interest among vendors. The benefits of scale in procurement must be weighed when considering whether the size of the VGI Program is appropriate.

²⁸ See, e.g., http://www.mercurynews.com/business/ci_24947237/charge-rage-too-many-electric-cars-not-enough-workplace-chargers; Mercury News article “Charge Rage” by Dana Hull, January 19, 2014. See also, EPRI, Guidelines for Infrastructure Planning: An Explanation of the EPRI Red Line/Blue Line Model (product ID: 3002004096), 2014. <http://www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=000000003002004096>.

²⁹ ChargePoint’s expert agrees with Mr. Pulliam on this point. Ex. CP-3 (Monsen) 7:18-21.

B. Commenters fail to describe why they think the project is too big

For the most part, commenters seem to believe that the facts recited above are self-evident support for the notion that the VGI Program is “too big.” ORA makes a weak attempt to show that a smaller sample size (and by implication) a smaller program, would yield adequate results. ORA (comments at 6) asserts without evidence that the same confidence level can be achieved by simply making the program smaller, thereby “collapsing” the number of cells in the sample. But the introduction of the Settlement Agreement’s VGI Rate-to-Host option almost doubles the sample size needed to get robust results to test both the Rate-to-Driver and Rate-to-Host options. ORA’s suggestion that the sample size could be smaller and still yield reliable results should be rejected as unsupported.

IV. THE SETTLEMENT AGREEMENT PROVIDES NET RATEPAYER BENEFITS

ORA, TURN and UCAN contest the evidence that shows that the VGI Program will yield net ratepayer benefits.³⁰ For example, TURN (comments at 26) alleges that the cost-benefit ratio under the Ratepayer Impact Measure is 0.2. To understand these comments, and why they are wrong, the next sections review SDG&E’s evidence on its proposed cost-benefit analysis, which the Settlement Agreement would adopt,³¹ and show how this evidence works with the Settlement Agreement.³² In addition, the record on the VGI Program’s impact on customer bills is reviewed.

³⁰ ORA comments at 9, 11; TURN comments at 21-41; UCAN comments at 11-14. In any event, the comments ignore that the OIR scoping memo (p. 11) states that pilot programs initiated in the OIR will *not* be required to demonstrate positive cost-benefit ratios as a condition for approval. *Assigned Commissioner’s Scoping Memo and Ruling*, R.13-11-007 (July 16, 2014) (“OIR scoping memo”).

³¹ The Settlement Agreement, Appendix B, provides that the VGI Program Advisory Council (“PAC”) may supplement the data gathered under the VGI Program as described in SDG&E’s testimony in Ex. SD-6 (Martin).

³² TURN (comments at 34) argues that the VGI Program ought to be guided by the very specific customer contribution provisions of SDG&E Electric Rules 15 and 16 governing line extensions. The

A. The proposed cost-benefit analysis illustrates potential pilot benefits and will inform state policy.

The testimony submitted with the Application showed how the proposed cost-benefit analysis will enable the Commission and other stakeholders to determine how effectively grid-integrated charging enables plug-in electric vehicle (“PEV”) batteries to provide energy storage benefits for grid support, in terms of ratepayer and societal impacts. As explained in the OIR³³ (pp. 15-16), potential grid benefits from integrated charging include:

- reducing system ramping needs by building loads during the lowest demand periods;
- providing load to absorb low cost energy supply; and
- avoiding local distribution impacts by minimizing load when local distribution system is near capacity.

To this end, the VGI Program offers a cost-effectiveness methodology applicable to VGI solutions based on models used by the Commission to evaluate other preferred resource programs. This tool will enable the Commission to quantify the benefits of the VGI Program, including the effect of grid-integrated pricing and managed charging, and evaluate these benefits relative to the cost of the program. The VGI Program is the only proposal before the Commission to offer a means to demonstrate that the benefits of making this investment outweigh the costs.³⁴

short answer is that Rules 15 and 16, and their underlying rationale, simply don’t apply here. SDG&E is applying for a program specific to EV charging, which will have its own separate tariff and is governed by separate policy concerns.

³³ The “OIR” herein refers to the *Order Instituting Rulemaking to Consider Alternative-Fueled Vehicle Programs, Tariffs, and Policies*, docketed R.13-11-007 (November 22, 2013), and later consolidated with the Application.

³⁴ The cost-effectiveness methodology is detailed at Ex. SD-6 (Martin) JCM-18:4-JCM-35:8.

1. SDG&E’s proposed cost benefit model is well-grounded in Commission experience.

Consistent with the Commission’s VGI White Paper,³⁵ the VGI Application introduced a cost-effectiveness methodology for the Commission’s consideration for evaluating VGI solutions, such as those proposed in the settlement. The methodology relies on an analytical model developed at SDG&E’s direction by Energy and Environmental Economics (“E3”), a consulting firm that has conducted numerous economic assessments to support the Commission’s policy development in the areas such as distributed energy resources, demand response, and energy efficiency. The methodology and model described in SDG&E’s testimony builds upon the standard cost-effectiveness tests familiar to the Commission in these areas, leveraging many of the models, data and policies adopted and articulated by the Commission in those proceedings. Ex. SD-12 (Martin) JCM-1:18-JCM-2:1, JCM-4:20-21. The construct of the cost effectiveness model and the basis for the illustrative inputs are described in detail at Ex. SD-6 (Martin) JCM-4:20-JCM-29:6. The VGI Program, as improved by the settlement, allows robust collection of data – data that would be largely unavailable without the pilot – that will be fed into the model, yielding informative and actionable results.

TURN asserts that “the cost effectiveness methodology SDG&E used to evaluate the VGI pilot has not been approved or even reviewed by the Commission.”³⁶ This is true but irrelevant.³⁷ TURN ignores that SDG&E has proposed a methodology “based on both standard

³⁵ Issued November 22, 2013. Available at: <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M080/K775/80775679.pdf>

³⁶ TURN comments at 23.

³⁷ As Mr. Martin testified, “... [w]e adopted existing cost-effectiveness methodologies. Since there is no methodology for ... electric vehicle charging programs, we don’t, of course, have one that is approved.” T. 245:11-16 (April 28, 2015).

practice manual and the demand response methods.”³⁸ Moreover, TURN is well aware that the Commission approved the demand response programs long before Demand Response cost effectiveness protocol methodologies were approved.³⁹ But if the VGI Program is approved, the cost-effectiveness evaluation can commence upon program implementation.

2. Illustrative results from the model show net ratepayer benefits

The illustrative modeling SDG&E performed suggests that the VGI Program can yield net benefits to both ratepayers and society as a whole and can be implemented without upward pressure on rates for non-participating customers. Under most scenarios studied, rates can actually be reduced. SDG&E’s testimony offers modeling results using hypothetical assumptions (Ex. SD-6 (Martin) JCM-2:10-14):

Cost-effectiveness methodology is used to model EV charging in SDG&E’s service territory under two sets of hypothesized assumptions, including assumptions on SDG&E’s VGI Pilot Program. Results are used to infer market level insights into the cost and benefits of deploying EV charging at workplace and ... [MuD] locations. The model output is illustrative only and is not intended to be predictive. However, results may provide policy makers with insights about various VGI solutions in the SDG&E EV charging market.

Notwithstanding its use of hypothetical assumptions, the modeling is especially informative with respect to scenario comparisons. The methodology models future EV charging in SDG&E’s service territory under two EV Market scenarios. The two EV Market Scenarios are: the SDG&E VGI Rate Scenario and a Non-utility Flat Fee Scenario. These scenarios include similar EV charging deployments at MuD and workplace charging locations, but with two key differences: 1) who owns the deployed charging technology (SDG&E or a Non-utility entity); and 2) what price the EV driver pays at the charging technology (VGI Rate or Flat

³⁸ Martin, T. 245:20-22 (April 28, 2015).

³⁹ The Commission undertook a major effort to adopt effective DR programs as early as 2002 (R.02-06-001), but it did not adopt Demand Response cost effectiveness protocols until 2010 (R. 07-01-041).

Fee).⁴⁰ The scenarios model all current and future EV charging in the SDG&E service territory through 2028. Ex. SD-12 (Martin) JCM-2:10 – JCM-3:2.

TURN (comments at 23-25) complains that SDG&E compares market-level benefits to program-level costs.⁴¹ SDG&E uses results from these scenarios to infer market level costs and benefits,⁴² because discrete project evaluation is less applicable to a price-based EV charging program due to the unique flexibility of EV charging decisions. An EV customer can choose when, where, and how quickly, how long and how often to charge. To capture these interrelated charging location and time dynamics, a market level approach is required to evaluate load impacts, as well as costs and benefits.⁴³

Cost test results are prepared to isolate relative benefits of the SDG&E VGI Rate scenario., The table below (from Ex. SD-12 (Martin) JCM-3:11-17) describes the key questions answered by the cost-benefit tests:

⁴⁰ Ex. SD-6 (Martin) JCM-5:9-JCM-6:2.

⁴¹ TURN (comments at 24-25) also wrongly alleges that “SDG&E does not include the costs of building an additional 100,000 or so chargers necessary to induce” the assumed level of market growth. TURN is dead wrong. SDG&E included in its assumption the costs of installing all chargers – VGI Program chargers, as well as single family residential chargers, and pre-existing workplace charging equipment. Ex. SD-6 (Martin) JCM-27:3-28:2.

⁴² The results are detailed at Ex. SD-6 (Martin) JCM-29:7 – JCM-35:8, and are presented using the standard cost-benefit test methodologies familiar to the Commission.

⁴³ Ex. SD-6 (Martin), JCM-4:10-18.

Cost-Benefit Tests - Key Questions Answered		
Cost Test	Acronym	Key Question Answered
Ratepayer Impact Measure	RIM	Will utility rates increase?
Participant Cost Test	PCT	Will the participants benefit over the measure life?
Total Resource Cost	TRC	Will the total costs of energy in the utility service territory decrease?
Societal Cost Test	SCT	Is the utility, state, or nation better off as a whole?

The modeling results described in SDG&E’s testimony suggests that EV Drivers paying the VGI Rate at VGI Facilities save electric supply costs of \$16.8 Million Net Present Value (“NPV”) compared to the Non-utility Flat Fee scenario.⁴⁴ This translates to an electric supply cost savings of over \$3,000 NPV per each of the 5,500 VGI chargers. Sensitivity analyses performed by SDG&E, including those requested by intervenors, not only confirm robust net benefits from the VGI Program, but show that ratepayers, EV drivers, California and society as a whole are better off with VGI Facilities where drivers pay the VGI Rate, than if ratepayers subsidize a third party to install similar chargers and the EV drivers pay a flat fee. Ex. SD-12 (Martin) JCM-12:1-21.

Indeed, this ratepayer benefit *increased* to \$3,500 and \$3,600 NPV per VGI charger when SDG&E ran sensitivities requested by UCAN.⁴⁵ Bottom line, SDG&E’s testimony shows that there are net benefits under each test – which demonstrates that EV drivers are better off, ratepayers are better off and society is better off under the VGI Program. Ex. SD-6 (Martin) JCM-33, Table 6-12.

⁴⁴ Ex. SD-6 (Martin) JCM-34, Table 6-14.

⁴⁵ Ex. SD-12 (Martin) JCM-4:12-13, JCM-12:1-21. SDG&E also ran scenarios for TURN and ORA.

Note that the Commission does not require a positive Ratepayer Impact Measure (“RIM”) test for energy efficiency (“EE”), demand response (“DR”) or distributed generation (“DG”). In fact, the RIM test is less than 1.0 for many EE, DR and DG programs. These programs are nevertheless encouraged by the Commission because they promote policy goals, provide environmental and societal benefits, reduce energy procurement costs and reduce customer bills.⁴⁶ Passing the RIM test is not a requirement for EE, DR or DG programs, nor should it be an absolute requirement for the VGI Program.⁴⁷ Nevertheless, applying the RIM test with VGI Program assumptions shows that, unlike other programs, the VGI Program can potentially be implemented without upward pressure on rates for non-participating customers. Under most scenarios studied, rates can actually be reduced. Ex. SD-12 (Martin) JCM-13:6-14. These robust sensitivity results are, at minimum, sufficient to support the Commission approving the Settlement Agreement.

B. The Settlement Agreement should not affect the benefits suggested by the illustrative modeling results.

Although performed prior to the settlement, the cost effectiveness analysis in Ex. SD-6 (Martin) described in the previous section captures the range of possible outcomes of a cost benefit analysis under the Settlement Agreement. Thus, no additional modeling analysis is needed to confirm that the settlement will likely yield net benefits. To confirm that this is so, consider the following:

As described in the prior section, the analysis in Ex. SD-6 contains two scenarios – EV charging with the VGI Rate, and EV charging based on a flat rate. The settlement adds the

⁴⁶ This is consistent with the benefits specified in P.U. Code § 740.8, which is part of a statute that specifically encourages the Commission to involve utilities in supporting electric transportation and that defines ratepayer “interests” to include environmental and societal benefits.

⁴⁷ The OIR scoping memo (p. 11) states that pilot programs initiated in the OIR will *not* be required to demonstrate positive cost-benefit ratios as a condition for approval.

choice for the site host to elect a VGI Rate-to-Host option (to the originally proposed option of VGI Rate-to-Driver). If the site host chooses the Rate-to-Host option, it must include a load management plan, consistent with the Agreement’s Guiding Principle that “must be structured to provide net benefits to all ratepayers.”⁴⁸ By the Settlement Agreement providing this choice to site hosts, it introduces the chance to explore (1) the extent to which site hosts would prefer to get the VGI Rate directly, and (2) how site hosts receiving the rate can creatively manage the charging load. This settlement option allows the pilot to explore other approaches to encourage off-peak charging and charging at times of day when the price per hour is low. Even if a large portion of site hosts choose the VGI Rate-to-Host option, it is still expected that the resultant EV charging behavior would yield results similar to those of Mr. Martin’s modeling for the Rate-to-Driver option alone in Ex. SD-6. This is because the substantial hourly pricing differentials in the VGI Rate give the site host under the Rate-to-Host option a strong incentive to manage the charging at the site.⁴⁹

Even if one assumes an implausible extreme-case for program benefits under the settlement – that all sites choose the Rate-to-Host option, and that none implement an effective load management plan – the modeling results in Ex. SD-6 show that installing additional EV charging infrastructure yield net ratepayer benefits. This is because this “extreme case” is the

⁴⁸ Settlement Agreement ¶¶ III. A., B. and Guiding Principle 2.

⁴⁹ In any event, the data yielded by the pilot should reveal customer preferences and the effectiveness of the VGI Rate to affect driver charging behavior under both options in the Settlement Agreement. *See* Settlement Agreement, Appendix B.

same as the EV Flat Rate scenario described in Mr. Martin’s testimony. As his testimony shows, even the Flat Rate Scenario yields net benefits.⁵⁰

C. Commenters’ alternative cost-benefit analyses lack merit

TURN and UCAN use two SDG&E data request responses to suggest that the VGI Program is not beneficial to ratepayers⁵¹ and any benefits depend on very large market growth.⁵² However examination of this contention further illustrates the merits of the VGI Program.

Table 1 – Data Request Results Only for VGI Program Chargers⁵³

Cost Effectiveness Tests - Illustrative Detailed Results (Sensitivity Analysis - Results only for Pilot Chargers: Pilot Charger Utilization = 1.00) (NPV \$ Millions)									
Test Component		SDG&E VGI Rate Scenario				Non-utility Flat Fee Scenario			
		RIM	PCT	TRC	SCT	RIM	PCT	TRC	SCT
EV Customer Costs & Benefits	Incremental Vehicle Cost		(\$24.9)	(\$24.9)	(\$24.9)		(\$24.9)	(\$24.9)	(\$24.9)
	Utility Bills	\$12.8	(\$12.1)			\$14.2	(\$3.3)		
	Commercial Charging Fees		(\$1.8)				(\$28.9)		
	Gasoline Savings		\$40.0	\$40.0	\$40.0		\$40.0	\$40.0	\$40.0
	Federal Tax Credits		\$14.4	\$14.4	\$14.4		\$14.4	\$14.4	\$14.4
	State Tax Credits		\$4.7				\$4.7		
EV Charger & Admin Costs	Utility Charger and Admin Costs	(\$79.1)		(\$79.1)	(\$79.1)				
	Third Party Charger and Admin Costs			\$0.0	\$0.0			(\$72.0)	(\$72.0)
	Customer Charger Costs		(\$0.6)	(\$0.6)	(\$0.6)		(\$0.6)	(\$0.6)	(\$0.6)
Electric Supply Costs	\$0.7		\$0.7	\$0.7	(\$16.1)		(\$16.1)	(\$16.1)	
Societal Benefits	Avoided Gasoline CO2				\$2.1				\$2.1
	LCFS Benefit				\$4.2				\$4.2
	Criteria Pollutant Benefit				\$1.8				\$1.8
Grand Total		(\$65.6)	\$19.6	(\$49.6)	(\$41.6)	(\$1.9)	\$1.3	(\$59.2)	(\$51.2)
Total Costs		\$78.4	\$39.5	\$104.0	\$104.0	\$16.1	\$57.7	\$113.6	\$113.6
Total Benefits		\$12.8	\$59.1	\$54.4	\$62.4	\$14.2	\$59.1	\$54.4	\$62.4
C/B Ratio		0.2	1.5	0.5	0.6	0.9	1.0	0.5	0.5

⁵⁰ Ex. SD-6 (Martin) JCM-33 Table 6-12. Even the Flat Fee Scenario provides ratepayer benefits because utility bills from EV charging exceed electric supply costs from EV charging at the market level, thus reducing upward pressure on rates for all ratepayers.

⁵¹ See Ex. TURN-2 (Borden) 23:3-12, and UCAN comments at 11-13.

⁵² See Ex. TURN-2 (Borden) 19:24-21:17, and TURN’s *Notice of Ex Parte Communication* (July 3, 2015), handout page 1: “Ratepayer Benefits Due to Increased Electric Load – Only materialize if there is an increase in total EV market of at least 40% of the forecast (72,000 EVs) or 180,000 EVs by 2028 (currently around 12,000 EVs in SDG&E’s territory).”

⁵³ TURN and UCAN incorrectly refer to this Data Request as Question 16 in TURN DR-05. However the correct reference is Question 9a in TURN DR-05.

Table 1 reproduces the Data Response to the TURN-requested scenario.⁵⁴ In this requested scenario TURN and UCAN are correct that the RIM test results are negative for the VGI Rate Scenario (Cost/Benefit ratio of 0.2). However, TURN and UCAN ignore additional context of the data response. First, TURN’s data request is based on an unrealistic market size of 5,500 EVs, and it does not take into account changes in charging behavior at residences and existing workplaces. Second, the negative Total Resource Cost (“TRC”) and Societal Cost Test (“SCT”) results illustrate, consistent with the record, that currently there are questionable economics of EV charging business models, where an isolated EV charger cannot cover installation and operating costs.⁵⁵

Table 2 – Data Request Results for a 40% of EV Population Forecast used in Scenarios⁵⁶

Cost Effectiveness Tests - Illustrative Detailed Results (Sensitivity Analysis - 40% of EV Population Forecast used in Scenarios) (NPV \$ Millions)									
Test Component		SDG&E VGI Rate Scenario				Non-utility Flat Fee Scenario			
		RIM	PCT	TRC	SCT	RIM	PCT	TRC	SCT
EV Customer Costs & Benefits	Incremental Vehicle Cost		(\$215.5)	(\$215.5)	(\$215.5)		(\$215.5)	(\$215.5)	(\$215.5)
	Utility Bills	\$197.4	(\$191.9)			\$197.9	(\$188.4)		
	Commercial Charging Fees		(\$14.3)				(\$25.1)		
	Gasoline Savings		\$384.5	\$384.5	\$384.5		\$384.5	\$384.5	\$384.5
	Federal Tax Credits		\$120.0	\$120.0	\$120.0		\$120.0	\$120.0	\$120.0
	State Tax Credits		\$36.4				\$36.4		
EV Charger & Admin Costs	Utility Charger and Admin Costs	(\$79.1)		(\$79.1)	(\$79.1)				
	Third Party Charger and Admin Costs			(\$15.1)	(\$15.1)			(\$87.1)	(\$87.1)
	Customer Charger Costs		(\$50.3)	(\$50.3)	(\$50.3)		(\$50.3)	(\$50.3)	(\$50.3)
Electric Supply Costs		(\$114.7)		(\$114.7)	(\$114.7)	(\$121.3)		(\$121.3)	(\$121.3)
Societal Benefits	Avoided Gasoline CO2				\$20.1				\$20.1
	LCFS Benefit				\$40.0				\$40.0
	Criteria Pollutant Benefit				\$17.4				\$17.4
Grand Total		\$3.6	\$68.9	\$29.9	\$107.5	\$76.6	\$61.6	\$30.3	\$107.9
Total Costs		\$193.8	\$472.1	\$474.7	\$474.7	\$121.3	\$479.4	\$474.3	\$474.3
Total Benefits		\$197.4	\$541.0	\$504.6	\$582.1	\$197.9	\$541.0	\$504.6	\$582.1
C/B Ratio		1.0	1.1	1.1	1.2	1.6	1.1	1.1	1.2

⁵⁴ Ex. TURN-2 (Borden) 23:3-12.

⁵⁵ See Ex. SD-7 (Pulliam) ST-20:10 regarding ECotality. See also the quarterly net income results of Car Charging Group (which acquired BLINK assets from ECotality in Q4 2013): <https://finance.yahoo.com/q/qs?s=CCGL>.

⁵⁶ From Response to Question 10 TURN DR-05, also found at Ex. TURN-2 (Borden) 21:7-11, Table 5.

Table 2 reproduces a data request response to a TURN-requested scenario. TURN uses this response to highlight its market size concern that ratepayers will be negatively impacted if the EV market does not grow to around 73,146 vehicles (40% of the projected 182,866 vehicles in the forecast for SDG&E's territory in 2028).⁵⁷ This market size uncertainty concern is overblown, since the current annual EV adoption rate in SDG&E service territory will achieve a 2028 EV market of 73,146 vehicles.⁵⁸

The break-even 73,146 vehicles by 2028 can be achieved with annual additions of about 4,500 EVs a year, given that 15,000 EVs are currently in SDG&E's service territory.⁵⁹ Projected 2014 to 2015 increase in EVs is 4,533 vehicles,⁶⁰ and observed year-over-year increase in EVs is over 5,000 vehicles between 2014 and 2015. Continued EV market adoption at the current annual rate eliminates TURN's market size concerns.

D. TURN mis-states the definition of ratepayer benefits

TURN (comments at 31-33) alleges that, because it finds that the VGI Program is not cost-effective under the RIM test, it violates P.U. Code § 740.3, which requires the Commission to find that utility EV investments are in the "ratepayers' interests."⁶¹ TURN's statutory argument fails for three reasons. First, as shown in sections B. and C. above, the VGI Program is likely to yield net ratepayer benefits.

⁵⁷ Ex. TURN-2 (Borden) 21:4-5.

⁵⁸ Source: Ex. SD-6 (Martin) JCM-17, Table 6-5, based on the Cal ETC forecast there cited.

⁵⁹ Martin, T. 233:27-234:4 (April 28, 2015).

⁶⁰ Ex. SDG&E-6 (Martin) JCM-17:1-4 and Table 6-5.

⁶¹ P.U. Code § 740.3(c) provides that:

The commission's policies authorizing utilities to develop equipment or infrastructure needed for electric-powered and natural gas-fueled low-emission vehicles shall ensure that the costs and expenses of those programs are not passed through to electric or gas ratepayers unless the commission finds and determines that those programs are in the ratepayers' interest.

Second, though cited by TURN (comments at 32), TURN would effectively nullify a related code section, P.U. Code § 740.8, that specifically defines the “ratepayers’ interests” referenced in section 740.3. Section 740.8 provides that, in defining the ratepayers’ interests with respect to EV-related investments, the Commission is to include all activities that benefit ratepayers, including those that “promote energy efficiency, reduction of health and environmental impacts from air pollution, and greenhouse gas emissions related to electricity and natural gas production and use, and increased use of alternative fuels.”⁶² Instead, TURN defines ratepayer interests only in terms of RIM test results, and treats as irrelevant the explicit and broader statutory definition.⁶³

E. Commenters completely ignore the record showing that VGI Program bill impacts are minimal.

The evidence shows that the VGI Program cost impacts on rates are reasonable and will have a trivial effect on customer bills. Ex. SD-3 (Fang) Attachment B, provides the impact to class average rates associated with recovery of the proposed annual revenue requirements during the 2015-2019 VGI Program period compared to SDG&E’s current rates.⁶⁴ Table CF-4 below (Ex. SD-3 (Fang) CF-20:1-2) presents the illustrative class average electric rate impacts for 2015 and 2019 of the proposed revenue requirements:

⁶² For full context, the complete text of P.U. Code § 740.8 reads as follows:

As used in Section 740.3, “interests” of ratepayers, short- or long-term, mean direct benefits that are specific to ratepayers in the form of safer, more reliable, or less costly gas or electrical service, consistent with Section 451, and activities that benefit ratepayers and that promote energy efficiency, reduction of health and environmental impacts from air pollution, and greenhouse gas emissions related to electricity and natural gas production and use, and increased use of alternative fuels.

⁶³ TURN also ignores that the Commission recognizes that a positive cost-benefit ratio is not the sole determinant of the ratepayers’ interest with respect to EV infrastructure investment. *See* OIR, pp. 15-16.

⁶⁴ Rates effective April 1, 2014 (Advice Letter 2587-E).

Table CF-4- Class Average Rates Impact in cents/kWh

	<i>4/1/2014</i>	<i>VGI Proposal 2015</i>	<i>% Change from 4/1/2014</i>	<i>VGI Proposal 2019</i>	<i>% Change from 2015 to 2019</i>
Residential	20.624	20.629	0.02%	20.701	0.35%
Small Commercial	21.172	21.175	0.01%	21.231	0.26%
Medium/Large C&I	17.233	17.235	0.01%	17.265	0.17%
Agriculture	20.869	20.873	0.02%	20.927	0.26%
Lighting	17.696	17.698	0.01%	17.736	0.21%
System Total	18.873	18.877	0.02%	18.925	0.25%

SDG&E proposes to recover the costs of implementing the VGI Program, which consists of costs for such things as charger equipment, transformers, services and meters as addressed in Ex. SD-4 (Atun), through distribution rates, consistent with the recovery of similar costs. Ex. SD-3 (Fang) CF-20:3-5.

The first year of proposed revenue requirement impacts are anticipated to have an annual bill impact that will be approximately 0.18 cents in 2015 for a typical residential customer using 500 kWh per month in both the Inland and Coastal climate zones, as compared to current rates. On a percentage basis, this equates to an increase of 0.02% for a typical residential customer in the Inland climate zone and 0.01% for a typical residential customer in the Coastal climate zone. Ex. SD-3 (Fang) CF-20:6-12. Table CF-5 below (Ex. SD-3 (Fang) CF-21:1-2) describes the illustrative bill impacts for Inland and Coastal Customers for the years 2015 and 2019.

Table CF-5: Annual Illustrative Bill Impacts for Inland and Coastal Customers

	4/1/2014	VGI Proposal 2015	Change from 4/1/2014	% Change from 4/1/2014	VGI Proposal 2019	Change from 2015 to 2019	% Change from 2015 to 2019
Inland							
300 kWh	\$556.20	\$556.20	\$0.00	0.00%	\$556.20	\$0.00	0.00%
500 kWh	\$1,131.00	\$1,131.18	\$0.18	0.02%	\$1,133.10	\$1.92	0.17%
750 kWh	\$2,238.00	\$2,238.60	\$0.60	0.03%	\$2,247.48	\$8.88	0.40%
1,000 kWh	\$3,383.34	\$3,384.48	\$1.14	0.03%	\$3,400.26	\$15.78	0.47%
1,500 kWh	\$5,674.26	\$5,676.36	\$2.10	0.04%	\$5,705.94	\$29.58	0.52%
Coastal							
300 kWh	\$557.88	\$557.88	\$0.00	0.00%	\$557.88	\$0.00	0.00%
500 kWh	\$1,242.06	\$1,242.24	\$0.18	0.01%	\$1,245.48	\$3.24	0.26%
750 kWh	\$2,365.56	\$2,366.28	\$0.72	0.03%	\$2,376.42	\$10.14	0.43%
1,000 kWh	\$3,511.02	\$3,512.16	\$1.14	0.03%	\$3,529.20	\$17.04	0.49%
1,500 kWh	\$5,801.88	\$5,803.98	\$2.10	0.04%	\$5,834.88	\$30.90	0.53%

These small bill effects should be weighed with the evidence of potential ratepayer benefits described in the preceding sections, and with the state’s and the Commission’s GHG and electric transportation objectives. Considering all of this evidence in context, the Commission should conclude that the VGI Program is reasonable from a ratepayer perspective.

V. THE SETTLEMENT IS PROCOMPETITIVE AND MEETS THE BALANCING TEST

ORA (comments at 7-9), TURN (comments at 30-31) and UCAN (comments at 14-19) maintain that the Settlement Agreement remains anticompetitive because the utility owns the chargers, and this feature will crowd out third party investment. This assertion is based on the comments’ express or implied conclusion that this ownership feature alone causes the VGI Program to fail the Commission’s competitive balancing test.⁶⁵

⁶⁵ D.14-12-079 (pp. 8-9) states that the Commission will examine the potential competitive impacts on the market segment targeted by SDG&E’s application as part of a balancing test intended to weigh the benefits of utility EV fueling infrastructure ownership against the potential competitive limitations associated with that ownership. The inquiry includes examination of the following points:

- The nature of the proposed utility program and its elements;
- The degree to which the market into which the utility program would enter is competitive, and in what level of concentration;

A. The settlement resolves any proper competitive concerns

At the most basic level, commenters' arguments fail because of the nature of the settlement itself. Three well-resourced entities who have actively participated in the EV charging market support the settlement.⁶⁶ The one entity purporting to represent EV charging interests that commented in opposition, CESA, has not clarified the extent to which its members are actual or potential participants in the EV charging market – and two of its members are Settling Parties!⁶⁷ In sum, the industry settlement signatories represent the great weight of the interests in this proceeding (in terms of numbers and actual market participation) that commenters suggest would be disadvantaged by the settlement.⁶⁸

There are two additional reasons the comments asserting anticompetitive effects fail. First, no explanation is given why utility ownership is anticompetitive – it is just assumed. TURN unwittingly reveals why utility ownership, from a competition perspective, is not the

-
- Potential unfair utility advantages, if any; and
 - If the potential for the utility to unfairly compete is identified, the Commission will determine if rules, conditions or regulator protections are needed to effectively mitigate the anticompetitive impacts of unfair advantages held by the utility.

⁶⁶ ChargePoint, Inc., has the second largest charging presence in the San Diego region. Ex. SDG&E-7 (Pulliam) ST-19:19-21:6 and Appendix 2. NRG has installed charging facilities at several sites in the San Diego region pursuant to its 2012 settlement with the Commission. KnGrid is currently working with the University of California, San Diego, on an intelligent charging demonstration project. *See*: http://www.energy.ca.gov/2014_energypolicy/documents/2014-06-23_workshop/comments/KnGrid_Comments_2014-07-11_TN-73370.pdf

⁶⁷ CESA (comments at pp. 2-5), without citing any evidence, offers conditions that it simply asserts will “address the competitive impact” of the settlement, but does not explain how its conditions relate to competition. Note that the listed CESA members (comments at 1, n. 1) include two of the Settling Parties, ChargePoint, Inc., and NRG Solar, LLC (an affiliate of Settling Party NRG EV Services LLC). CESA, a trade association for energy storage businesses, not electric vehicle service providers, does not explain whether or how its other listed members are interested in the EV charging market, or how it can square its comments with the fact that two of its listed members have signed the Settlement Agreement, except to note that “... [t]he views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies.” Because CESA’s views differ from those of its members, its comments should be given no weight.

⁶⁸ *See* n. 66 above, describing the charging industry presence among Settling Parties.

issue. TURN observes that ChargePoint’s “business model is not to own charging stations but to provide additional billing and management services.”⁶⁹ Ownership, in and of itself, is one means to an end for a market participant; but there is *no evidence* that ownership is what drives private interest in the EV charging market. This is further indicated by the nature of the charging industry opposition to the Application and by the compromises that led to the Settlement Agreement. The industry opposition was concerned that SDG&E’s original proposal would deprive consumers – the site hosts – choice in equipment and service options.⁷⁰ The most competitively significant settlement provisions – the VGI Rate-to-Host option and the competitive procurement provisions⁷¹ - enhance consumer choice. Ownership in this context is irrelevant.⁷² Indeed, the settlement promotes competition among providers of enabling technology and services. This outcome is consistent with SDG&E’s expert evidence that the Application would be procompetitive.⁷³

Second, except for UCAN, none of the comments on this point rely on record evidence; instead, they offer mere conclusory assertion that utility ownership will chill third party investment. ORA’s expert in effect, conceded that utility ownership was the sole basis he could offer for finding the Application anticompetitive.⁷⁴ And ORA’s comments cite no evidence at all

⁶⁹ TURN comments at 30, *citing* Ex. CP-2 (Jones) 3:12 – 4:17.

⁷⁰ *See, e.g.*, Ex. CP-1 (Quinn) 12:14-18, Ex. CP-2 (Jones) 11:12-12:9.

⁷¹ Settlement Agreement ¶¶ III. A-C, G, O and Appendix C.

⁷² Of course the Commission is properly concerned about utility ownership because ratepayer funds are involved, but that does not necessarily mean it is a competitive problem. SDG&E explains in the next section why utility ownership is necessary for the VGI Program. Ex. SD-8 (Avery) 5:7-17.

⁷³ “SDG&E’s Pilot should accelerate demand for (and supply of) EVSE at targeted locations. This will serve to accelerate growth in [PEV] demand and demand for EV services at non-targeted locations (*i.e.*, commercial locations) as well.” Ex. SD-9 (Pulliam) BP-1:18 – BP-2:2.

⁷⁴ *See, e.g.*, Durvasula, T. 1023:26- 1028:5 (May 1, 2015); T. 1035:5-1037:13 (May 4, 2015), where ORA’s witness could offer no justification for concluding that the VGI proposal was anticompetitive

to support that utility ownership is anticompetitive. In any event, the record evidence UCAN cites is mostly conclusory testimony that utility ownership is anticompetitive.⁷⁵ In sum, anticompetitive is not just a self-defining “epithet” – it must be shown with reference to evidence of market effects, and this the complaining commenters failed to do in their comments and testimony.⁷⁶

B. Utility ownership remains important under the settlement

Ratepayer advocates suggest that the settlement’s addition of the VGI Rate-to-Host option vitiates the Application’s rationale for utility ownership.⁷⁷ This concern is presented as if the VGI Rate-to-Host option extinguishes the value of utility ownership. This is simply not true. The testimony supporting SDG&E’s application offered three fundamental reasons to support utility ownership.⁷⁸ First is the need to address vehicle-grid integration, and to get the VGI Rate to the driver. Second is transparent data collection to inform the Commission and stakeholders of the costs and benefits of the pilot. Third is the utility’s unique ability, subject to Commission

other than the fact that ratepayers would pay for it. In any event, ORA’s competition expert had no credentials or any prior testimony on competition issues that would qualify him as an expert on competition. Durvasula, T. 1040:20-1041:18 (May 4, 2015).

⁷⁵ UCAN does cite to ChargePoint testimony that SDG&E’s proposal was “analogous to” predatory pricing.” UCAN comments at 14-15, *citing* Ex. CP-3 (Monsen) 4:14-20. But the cited testimony was *pre-settlement*. Note that, whatever the pre-settlement views of the Settling Parties were with respect to the evidence on the competitive balancing test applied to SDG&E’s original proposal, per Settlement Agreement ¶ IV.C:

The Settling Parties acknowledge that the positions expressed in the Settlement Agreement were reached after consideration of all positions advanced in all the testimony sponsored in the proceeding by all parties and declare and mutually agree that the terms and conditions herein are reasonable, consistent with the law, and in the public interest.

⁷⁶ *Cf.* Phillip Areeda, *Essential Facilities: An Epithet in Need of Limiting Principles*, 58 ANTITRUST L.J. 841 (1990). Professor Areeda, the renowned antitrust economist and treatise author, was cited by both the SDG&E and ChargePoint competition experts.

⁷⁷ UCAN comments at 10; TURN comments at 38-40; ORA comments at 7-9.

⁷⁸ *See, e.g.*, Ex. SD-8 (Avery) JPA-5:7-17.

oversight, to ensure that the ratepayers' charging equipment investment remains used and useful.⁷⁹ These rationales apply with full force to the Settlement Agreement.

With respect to the first two rationales – getting the price signal the driver and sending the data, an election of the VGI Rate-to-Host option does shift the decision on how to structure response to the price signal in the first instance to the site host, and the EV driver's response is to the site host's load management plan. But the fact that the site host under the option will remain an SDG&E customer with the site's EV charging separately-metered under the VGI Rate leaves the utility ownership rationale intact for the critical grid-integration aspects of the VGI Program. No commenter explains how a third party can generate or send the data unless the EVSE and associated equipment and software is utility-owned, or at least built to utility specifications.

As for the third rationale, the settlement simply does not affect it at all. It is true that, under the Settlement Agreement maintenance of installed facilities will be contracted out to third parties.⁸⁰ But, with utility ownership, SDG&E remains responsible for seeing that the VGI Facility remains used and useful, and the VGI Program data collection will reveal if SDG&E has been derelict in this regard. EV charging is a nascent industry, and the record shows that bankruptcy is a real risk for players in this market. At this stage, the Commission should not rely solely in unregulated third parties against whom the Commission has no practical recourse, to

⁷⁹ *E.g.*, Ex. SD-8 (Avery) JPA-5:7-17.

⁸⁰ The Settlement Agreement, ¶ III.G.a., places the following requirements on contractors to ensure quality:

Construction, installation and maintenance contractors will have Electric Vehicle Infrastructure Training Program (EVITP) certification, and SDG&E will require that all construction, installation and maintenance of VGI Facilities that is not performed by employees of SDG&E shall be performed by contractors signatory to the IBEW who hold a valid C-10 contractor's license, as defined in the governing labor agreement between SDG&E and the IBEW.

make good on ratepayer investments. The VGI Proposal relies on third parties for execution, but the utility retains full responsibility.⁸¹ That is reasonable and in the public interest.

In any event, the fundamental point of the VGI Program is for the utility to assist the state in reaching its electric transportation and carbon reduction goals, and to test EV-grid integration as part of those goals. If ratepayers are going to make the investments, they should have the benefits of utility ownership as described above.

VI. THE SETTLEMENT PROVIDES ROBUST OVERSIGHT AND DATA GATHERING

The Settlement Agreement reinforces the Application’s provision for transparent robust data collection and reporting for purposes of cost-benefit analysis and otherwise informing future Commission action to support electric transportation.⁸² ORA and CESA would require interim reporting to the Commission after shortly after implementation begins.⁸³ Neither party specifies whether nor why the “interim progress report” and comment process provided in the Settlement Agreement (¶ III. P) is insufficient. It is common sense that such reporting has costs, and has value directly proportional to the amount of data available at the time the report. The two years interim reporting period embodied in the settlement should be upheld as reasonable.

CESA goes on to recommend reporting on third-party charging installations (*i.e.*, installations not associated with the VGI Program). While SDG&E certainly expects there will

⁸¹ Ironically, ratepayer advocates appear willing to make a ratepayer investment in “make-ready,” without firm assurances that the connected EVSE equipment be well-maintained. *E.g. see*, UCAN’s proposal (comments at 8, 9, 11) to fund infrastructure, but rely on contracts with unregulated site hosts that could easily strand the bulk of the investment (*i.e.*, the “make-ready”).

⁸² Settlement Agreement, ¶¶ III. L, P and Appendix B.

⁸³ ORA (comments at 9-10) recommends a “near-term report” one year one year after “program deployment and an [unspecified] number of charging stations have been installed....” CESA (comments at 3) recommends an interim progress report 18 months after the effective date of a decision approving the VGI Program.

be such charging installations, the record suggests that, currently, most commercial charging is done off of existing site host service and meter panels.⁸⁴ There is no reason to expect that this will change in the near future outside of VGI Program charging. Given that there is no way to segregate charging load served off the same meter panel as other site load, there is no obvious way for SDG&E to collect such data, or even to learn of the installation of charging ports at such a site. And how can the Commission compel such a non-VGI Program site to provide data to SDG&E? CESA's suggestion should be rejected as impractical.⁸⁵

VII. THE SETTLEMENT IS GENEROUS TO DISADVANTAGED COMMUNITIES

The Settlement Agreement contains the following provisions aimed to assist Disadvantaged Communities:⁸⁶

- At least 10% of VGI Facilities will be installed in Disadvantaged Communities as identified by Cal EPA's EnviroScreen tool developed pursuant to SB 535 (de León, 2013). SDG&E will work with community based organizations to assist with education and outreach, as well as pre-qualifying and signing-up site hosts for participation in the VGI Program. In addition, SDG&E will:
 - a. Scale up deployment of VGI Facilities at qualified locations above the 10% target (in line with screening criteria identified in SDG&E's prepared direct testimony, Ex. SDG&E-2 (Schimka) RS-7:4-18) to support accelerated EV adoption in Disadvantaged Communities.
 - b. SDG&E will complement and coordinate with federal, state and locally funded programs, such as those being developed by the Air Resources Board pursuant to SB 1275, that are expected to grow the demand for EVs in Disadvantaged Communities (e.g., EV car-sharing services). *Id.*, ¶ III. I.

⁸⁴ Jones, T. 753:20-754:5 (April 30, 2015), *referencing* Ex. SD-18; *id.*, T. 774:5-775:3, *referencing* Ex. SD-22.

⁸⁵ Also note that there is nothing about this proposal, or the issue it addresses, that relates solely to the Settlement Agreement. CESA could have offered this proposal as part of its prepared testimony in this proceeding, and by offering it now it effectively bypasses discovery and cross-examination.

⁸⁶ The Settlement Agreement (p. 2) defines Disadvantaged Communities "as identified by the California Environmental Protection Agency's EnviroScreen tool developed pursuant to SB 535 (de León, 2013)."

- All contractors shall have hiring goals to support opportunities to increase hiring from Disadvantaged Communities, including first-source hiring and targeted-hiring goals for projects in Disadvantaged Communities. The PAC⁸⁷ will also monitor and provide recommendations, including specific numerical targets for meeting hiring targets, to contractors or subcontractors associated with the increase of hiring from Disadvantaged Communities, including best practices for hiring in Disadvantaged Communities. *Id.*, ¶ III. J.
- The VGI Program Advisory council will include representatives of Disadvantaged Communities. *Id.*, ¶ III. K.
- The participation payment for site hosts will be waived for VGI Facilities at sites located in Disadvantaged Communities. *Id.*, ¶ III. D.
- Third party vendors pre-qualified by SDG&E for the VGI Program will include Disadvantaged Communities in their efforts to market and sign up potential VGI Facility site hosts. Responses to the RFP should reflect this requirement (see SDG&E’s prepared direct testimony, Ex. SDG&E-2 (Schimka) 18:7-20); Settlement Agreement, ¶ III. G.

This is in addition to the inherent benefit to Disadvantaged Communities of the VGI Program’s focus on MuD sites, where the disadvantaged disproportionately reside.⁸⁸ Given that EVs, at this stage of development, are a premium consumer item, the settlement’s effort to include Disadvantaged Communities is extraordinary.

But it is not enough for Joint Minority Parties. They seek, for example, “funding programs that subsidize EV purchases.” JMP comments at 5. SDG&E is in the business of selling electricity at retail. JMP would have SDG&E assist businesses removed from SDG&E’s core regulated mission. The Commission should disregard the call to get involved in the sale and financing of electric vehicles, or to conduct research in that area. Instead, the Commission should approve the Settlement Agreement’s extraordinary efforts to include Disadvantaged Communities in the benefits of the VGI Program.

⁸⁷ “PAC” refers to the VGI Program Advisory Council, a “broad and diverse stakeholder advisory group” established by the Settlement Agreement (¶ K and Appendix A).

⁸⁸ Ex. SD-2 (Schimka) RS-5:1-2 and n. 4.

VIII. THE SETTLEMENT HAS APPROPRIATE CLARITY AND REQUIRES NO FURTHER HEARINGS

ORA, TURN and Shell state that, because the terms of the settlement are unclear, it should be rejected.⁸⁹ TURN further states that because the settlement adopted of much of SDG&E's proposal, this means that SDG&E has failed to meet its burden of proof.⁹⁰ Shell (comments at 2), in particular, asserts that it is not clear what part of SDG&E's original proposal is being adopted by the Settlement Agreement. ORA (comments at 10-12) and TURN (comments at 10-11) go on to itemize matters that, in their view, lack clarity.

As a general matter, these assertions are wrong, for three reasons. First, the scope of the settlement, as it relates to SDG&E's original proposal is very clear, and quite simple. As the Settlement Agreement recites (§ III. pp.3-4):

The Settling Parties find reasonable, as modified, SDG&E's proposal for the implementation of its VGI Program and cost recovery as described in SDG&E's Application and supporting testimony.... Each of the modifications is set forth below....

This recitation is followed by sixteen alphabetical paragraphs with three supporting appendices enumerating the modifications to SDG&E's original proposal.⁹¹ These paragraphs and appendices contain numerous pinpoint citations to the testimony supporting the Application. The Settlement Agreement also contains eleven Guiding Principles "which informed the proposed modifications and should guide VGI Program implementation." *Id.* Settlement agreements that adopt an applicant's proposal with modifications, and that specify only the

⁸⁹ ORA comments at 1; TURN comments at 10; Shell comments at 2-5.

⁹⁰ TURN comments at 8-9; Shell comments at 2-5.

⁹¹ The modifying paragraphs also refer to and incorporate three appendices to the Settlement Agreement that address implementation details concerning procurement, the Program Advisory Group and program changes, and data collection.

modifications, are a common feature of Commission practice and are often approved by the Commission.⁹²

Second, some of the asserted concern about “clarity” involves the appropriate level of implementation detail to be provided in testimony and the Settlement Agreement. Settlement or not, the Commission should and does require a certain level of detail to ensure that an application is in the public interest. But it does not require that all implementation details must be settled before approval. Such a requirement would be impractical, and, for example, might force substantial expenditures for detailed program design and marketing that are impractical or even wasteful at a pre-approval stage. The Settlement Agreement addresses program implementation by establishing Guiding Principles. Further, the Settlement Agreement provides that “SDG&E will solicit the participation of a broad and diverse stakeholder advisory group (the ‘VGI Program Advisory Council’ ...) in planning and implementing the VGI Program following its approval by the Commission.”⁹³ This is similar to the stakeholder advisory groups the Commission ordered for each of the utilities on its own motion to guide the implementation of the utility green tariff shared renewable programs in D.15-01-051.⁹⁴ In that situation, as here, the utilities and the Commission were faced with novel utility programs – there is not a well-traveled path for utility green tariff programs or for electric transportation support. That the Settlement Agreement embodies such a stakeholder process guided by eleven explicit principles should allay any concerns about implementation detail. And nothing in the settlement avoids Commission oversight. In fact, the Settlement Agreement specifically recites that any program

⁹² See, e.g., D.07-04-043, *Opinion Approving Settlement on SDG&E’s Advanced Metering Infrastructure*, at pp. 84, 87.

⁹³ Settlement Agreement ¶¶ III. K, L and Appendix A.

⁹⁴ D.15-01-051 at pp. 7, 143, 177 (conclusion of law 22) and 183 (ordering paragraph 15).

changes identified by this process will be submitted to the Commission for approval, as appropriate. Settlement Agreement, ¶¶ III. K., L.

As for the individual items alleged to be “unclear,” SDG&E addresses these *seriatim* below.

A. ORA’s concerns about clarity are misplaced and do not require hearings to resolve

ORA (comments at 10-12) lists items it asserts require hearings to resolve. SDG&E shows below that ORA’s items are clearly addressed in the Settlement Agreement and require no additional evidence for the Commission to resolve. ORA’s matters can be submitted based on argument, which ORA’s comments and testimony have already provided.

1. How will the Commission Review the VGI Program (for suspension or off-ramping)?

ORA (comments at 10) complains that:

The Settlement Agreement does not provide for Commission review of the VGI Program before SDG&E submits a program effectiveness report two years after the program begins. An early program assessment would help the Commission determine if the program is meeting its objectives. In addition, the Settlement Agreement does not include a provision for suspension or off-ramping if the VGI Program falls short of program objectives, including incentivizing EV adoption.

ORA’s complaint does not require an evidentiary hearing for the Commission to determine whether the settlement adequately addresses program review or off-ramps. The Settlement Agreement directly addresses ORA’s concern in two regards. First, in order to provide an assessment of the VGI Program consistent with the Guiding Principles, SDG&E will file an Interim Progress Report two years after the VGI Program is launched. Parties may file comments and reply comments on the report. Settlement Agreement, ¶ III. P. Second, in consultation with the VGI Program Advisory Council, SDG&E will make programmatic changes as needed during the course of the VGI Program, in line with the Settlement Agreement’s

Guiding Principles, recognizing that certain changes may require filings with the Commission for approval. Programmatic changes will be made on an on-going basis, running concurrent with the VGI Program, so as not to impact its overall progress.⁹⁵

In sum, SDG&E will consult with stakeholders with regards to any program changes, and submit such changes to the Commission for approval as required. SDG&E will further submit an interim report, in response to which parties may file with the Commission a round of comments. Parties are free in this context to recommend further Commission action (e.g., ORA’s “suspension”) or program changes if they so desire. In addition, nothing prevents ORA or any party from asking the Commission to act on the program at any time in the future; indeed, the Commission may act on its own motion at any time.

ORA’s concerns are consistent with its general approach of recommending delay. But there is no hard evidence that can illuminate this issue. The Settlement Agreement is clear as to the process for project modification. The Commission can decide now whether this process is reasonable and in the public interest.

2. How will SDG&E measure VGI Program’s impact on competition?

ORA (comments at 10) asks “... how will the VGI Program impact competition in the ESVP market in the San Diego area? How will SDG&E measure the impact of the VGI Program on non-utility ESVP installation according to the balancing test reaffirmed in ... [D.]14-12-079?” The question misstates the balancing test and defies logic.

The referenced balancing test is not an ongoing competition impact evaluation. The balancing test aims to guide the Commission and parties in their review of utility EV charging

⁹⁵ Settlement Agreement, Appendix A. “Overall, the key role and purpose of the PAC will be to provide input to SDG&E for programmatic changes as needed during the course of the VGI Program.” *Id.* See also ¶¶ K, L.

application to determine whether an application should be granted. It does not prescribe an ongoing review of program operations. Nonetheless, the VGI Program will generate significant data on a transparent basis - far more data than is currently available - that the Commission and other agencies such as the CEC can use to study EV market development, including impact on non-VGI Program EVSPs. In any event, there is nothing about the VGI Program that places SDG&E in a position to access non-VGI Program EVSP data, so any such requirement would be futile. Again, no additional hearings are necessary for the Commission to determine whether such a requirement is warranted.

3. How will SDG&E measure the VGI Rate-to-Host option?

ORA (comments at 11) asks:

How will SDG&E measure how site hosts that have subscribed to the VGI Rate-to-Host option (e.g., be structured to provide net benefits to ratepayers) comply with load management tactics identified by the Settling Parties?

The Settlement Agreement directly addresses how SDG&E will determine compliance and measurement. First, in order to enroll in the VGI Program, a site host must provide SDG&E with a load management plan. The measurement of VGI Rate-to-Host performance is detailed in the Settlement Agreement, Appendix B. Appendix B (p. 1) specifically recognizes that “there is a need for additional data collection in order to compare and contrast the performance of the two VGI options (i.e., VGI Rate-to-Driver and VGI Rate-to-Host).” To this end, “the Research Plan⁹⁶ will include, but not be limited to [*id.*, Appendix B]:”

- Customer (EV drivers and site Hosts) enrollment by site and VGI pricing plan (*i.e.*, VGI Rate-to-EV driver and VGI Rate-to-Host)

⁹⁶ Appendix B adopts the Research Plan (Data Collection and Analysis) described in SDG&E’s prepared direct testimony, Ex. SDG&E-6 (Martin) JCM-35:9-37:13, and provides that the Research Plan will be supplemented “pursuant to the Settlement Agreement’s modifications to SDG&E’s VGI Program proposal. Data collection identified in this testimony specifically relate to measuring VGI Program performance and cost-effectiveness.” Settlement Agreement Appendix B, p. 1.

- Under the VGI Rate-to-Host, load management plans and pricing or fees, including those measures taken that encourage the facilitation of the integration of renewable energy
- Estimates of fuel cost savings through the use of the VGI Facility, under both the VGI Rate-to-EV Driver and VGI Rate-to-Host pricing plans
- VGI Facility utilization rates
- Deployment of VGI Facilities within or adjacent to a Disadvantaged Community, including EV car-sharing deployment

Such data will measure the effectiveness of a load management plan at a VGI Rate-to-Host site; it will not specifically measure compliance as ORA suggests. But the Settlement Agreement, Appendix A (p. 1), provides for examining the data to see whether program changes are warranted: “The VGI PAC will employ a process for examining the data described in Appendix B to determine if a program modification should be implemented to improve the performance of the VGI Program.” Again, the Commission has all the information it needs to determine whether the data collection and measure provided with the Application, as modified by the Settlement Agreement, is reasonable, without hearings.

4. How will SDG&E track Rate-to-Host implementations prices or rates for drivers?

ORA (comments at 11) asks how SDG&E will track Rate-to-Host implementation prices and rates to drivers. The Settlement Agreement, Appendix B, as noted in the previous section, provides that, for this option, data collection will include site usage patterns and site host “pricing or fees.” The “how” is an implementation detail. To the extent this detail is not covered in Appendix B or in the SDG&E testimony cited therein, it does not require hearings, and to the extent guidance is needed or issues arise in this regard, it can be vetted through the VGI PAC.

5. How will SDG&E determine necessity and track costs for complementary services provided by Service Providers?

ORA (comments at 11) asserts:

The Settlement Agreement proposes that the costs of additional services will not be borne by the VGI program unless they are complementary and are necessary to support VGI program objectives (Settlement Agreement Provision F). Hearings are necessary to explore possible additional costs, how SDG&E proposes to determine if they are necessary to VGI Program function, and how SDG&E proposed to account for the costs in the VGI Program budget.⁹⁷

ORA's concerns are addressed in the Settlement Agreement (¶ III. F), which states, "Third party vendors of EV supply equipment and services pre-qualified by SDG&E for the VGI Program may offer and contract with the VGI Facility site host to provide any additional or complementary services, as long as these services do not interfere with the objectives of the VGI Program." The "additional or complementary services" will be those offered by vendors pre-qualified by SDG&E to help meet the objectives of the VGI Program in line with the Settlement Agreement's Guiding Principles. The types of services envisioned are best answered by those vendors, once they are qualified to participate. The purpose of ¶ F is to foster the development and provision of innovative services to site hosts and EV drivers that potentially can have a positive impact on the VGI Program, make it more attractive to site hosts, and improve the overall program experience.

With respect to costs, as stated in ¶ F, "... [t]he costs of these additional services will not be borne by the VGI Program, unless they are complementary services necessary to support the VGI Program objectives." An obvious example of such a "necessary" complementary service

⁹⁷ TURN (comments at 10-11) asserts a similar concern that the settlement fails to specify the services a third party vendor may offer a site host. The discussion in this section applies equally to TURN's concern.

would be one that facilitates load management. Any such “necessary” costs would be a program expense against the \$103 million program cap.⁹⁸

Hearings are simply unnecessary to address the implementation detail of what such “complementary” services might be. Only the “necessary” services would be program costs, and inquiry into what sort of items might be necessary would be purely speculative. The whole point of this pilot, and of the settlement, is to encourage innovation by third parties in meeting program objectives. Trying to guess what the market might yield in a hearing room has little value in terms of protecting ratepayers in this context.

6. How will SDG&E determine the impact of program participation payments?

ORA (comments at 11-12, footnote omitted) states:

The Settlement Agreement allows third party vendors to charge VGI Rate-to-Host customers a fee for EV charging services (Settlement Agreement Provision B). How will SDG&E verify the impact of the additional fee on VGI Program enrollment? Will SDG&E moderate fees if they adversely affect the program’s goals?

The Settlement Agreement, ¶ III. D, answers most of ORA’s question. This paragraph provides that “... [i]n developing the proposed participation payment [what ORA calls a “fee”], factors that will be considered include, but are not limited, to the following: customer commitment, avoiding adverse impacts to deployment, total VGI Facility cost and customer segment.” It is expected that this will be one of the first topics considered by the PAC. The roles and responsibilities of the PAC are described in Appendix A of the Settlement Agreement. The data collection described in the Settlement Agreement, Appendix B will be used to indicate

⁹⁸ The last paragraph of Settlement Agreement, Appendix C, points to the encouragement of vendors “to explore with SDG&E the funding of innovative opportunities that may exceed the minimum implementation requirements of the VGI Program, and have the potential to enhance and improve the grid-integration outcomes of the VGI Program overall.”

program progress. The VGI PAC, as described in Appendix A, will examine the data (collected pursuant to Appendix B) to see whether program changes are warranted, and the effect of the participation payment level could be examined in this context.⁹⁹ Accordingly, under the Settlement Agreement, SDG&E cannot unilaterally set or modify the participation payment amount, but must, pursuant to the Settlement Agreement provisions just cited, work through the VGI PAC to establish or change the participation payment.

Again, to determine whether the process described above is reasonable requires no evidentiary hearings.

7. What is the scope of the VGI PAC's authority?

ORA (comments at 12) asks "... [w]hat is the scope of the VGI PAC's authority?" This is fully addressed in the Settlement Agreement. As stated in the second paragraph of Appendix A to the Settlement Agreement:

Overall, the key role and purpose of the PAC will be to provide input to SDG&E for programmatic changes as needed during the course of the VGI Program (e.g., VGI Rate – as originally proposed, or with VGI host site prioritization for an equitable deployment of VGI Facilities), to improve the performance of the VGI Program, in line with the Guiding Principles and consistent with any applicable Commission orders, tariff rules, regulations, etc. SDG&E will give careful consideration to all programmatic modifications recommended by the PAC at their meetings and implement such changes deemed feasible and necessary. Programmatic changes will be made on an on-going basis, running concurrent with the VGI Program, so as not to impact its overall progress.

ORA (comments at 12) wants to know how this authority will "impact program modification." To the extent not answered by or inferred from the cited settlement provisions, the answer to this question can only be found through the experience of implementation. It cannot be answered by speculative testimony in hearings.

⁹⁹ Settlement Agreement, Appendix A provides that: "The VGI PAC will employ a process for examining the data described in Appendix B to determine if a program modification should be implemented to improve the performance of the VGI Program."

B. TURN’s assertions of vagueness are misplaced and do not justify hearings

TURN (comments at 10-11) cites certain key terms of the Settlement Agreement and alleges they are vague, or explicitly delay resolution of material issues, and are not clarified in either the text of the Settlement Agreement or its accompanying appendices. The following shows that TURN is wrong with respect to each Settlement Agreement paragraph it cites:

1. Site host “load management tactics” will be innovative and should not be prescribed

According to TURN (comments at 10):

¶ III.B. – “load management tactics” – The settlement will require hosts to submit a “load management plan” consistent with the Guiding Principles. The applicable Guiding Principle is presumably principle number 10,¹⁰⁰ which specifies that the program should “facilitate the integration of renewable energy resources, as well as deliver other grid benefits.” The Settlement paragraph leaves it up to SDG&E to determine whether “the load management plan is consistent with the Guiding Principles.” These terms do not provide much clarity regarding the potential requirements of any load management tactics. It is TURN’s impression that parties have different and conflicting views on what services advance “the integration of renewable energy resources.”

As TURN notes, under the cited provision of the Settlement Agreement, site hosts under the VGI rate-to-Host option are simply required to submit a load management plan consistent with the settlement’s Guiding Principles. There is no provision for SDG&E to second-guess whether the proposed load management plan will be effective; however, SDG&E intends to evaluate the load impacts at sites where the site host chooses the VGI Rate-to-Host option. Bottom line, TURN wants SDG&E – and the Commission – to speculate as to what sort of load management a site host might propose, and to impose specific criteria for judging offered load management plans in advance of any market response. This approach would thwart one of the

¹⁰⁰ SDG&E submits that Guiding Principles 1, 2, and 9 to apply to this situation as well.

purposes of the pilot, especially the settlement's VGI Rate-to-Host option, which is to observe the effectiveness of a variety of load management tactics.

Remember that, under the VGI Rate-to-Host option, participating site hosts will pay a separately-metered VGI Rate for the charging at the VGI Facility on the site. As demonstrated in SDG&E's testimony, this rate has already proven to incent driver behavior in a small pilot to shift charging times.¹⁰¹ Therefore the record shows that there is an incentive for site hosts under this option to manage on-site charging.

TURN's assertion implicitly calls for an enumeration of potential load management tactics. The range of potential load management tactics is best answered and demonstrated by the load management plans to be offered by a combination of site hosts and EV service providers who will qualify to participate in the program. Any examples offered here by SDG&E are necessarily speculative, and cannot anticipate the range of creative approaches site hosts and EV service providers might devise. To at least orient the Commission to the possibilities, SDG&E offers here the following examples:

1. Requesting the service provider to power down the rate of charge (or curtail charging) for each EV during hours of the day with high pricing, and correspondingly, increasing the rate of charge during hours of the day with low pricing.
2. Sending an email alert to EV drivers who use a given VGI Facility to voluntarily avoid or limit charging during hours of the day with high pricing, and correspondingly, increasing the rate of charge during hours of the day with low pricing.
3. Integrating stationary energy storage system interconnected with the VGI Facility to provide the stored energy during hours of the day with high pricing, and correspondingly, increasing the rate of charge during hours of the day with low pricing.

Again, the Commission must decide if it wants a prescriptive approach to implementing managed charging, or whether it wants to allow the market to come forward with innovative

¹⁰¹ Ex. SD-12 (Martin) JCM-7:1-12.

solutions in response to the VGI Rate. In other words, the Commission must balance the small risk to ratepayers that the rate will not incent effective solutions, against the value of getting the charging equipment installed, the data generated on load management, and incenting creative market solutions. There is no evidence obtainable in evidentiary hearings that that can illuminate this point.

2. The VGI Proposal is clear on ownership and cost recovery

TURN (comments at 10) states:

¶ III.C. – EVSE Equipment – The settlement is silent on the issue of cost recovery and ownership. TURN assumes that this paragraph simply reiterates SDG&E’s application proposal to have the utility pay for EVSE construction and installation and to own the charging stations.

TURN’s assertion, that the settlement is “silent” on the issues of ownership and cost recovery, is misleading. As discussed above, the Settlement Agreement accepts SDG&E’s proposal, except to the extent the agreement recites explicit modifications to the original proposal. But TURN’s assumption is accurate. Ownership and cost recovery remain as the Application originally proposed; *i.e.*, SDG&E owns the charging equipment,¹⁰² and cost recovery remains subject to the \$103 million cap and other cost recovery provisions in SDG&E’s testimony.¹⁰³ Evidentiary hearings have already been held on this portion of the proposal, and TURN offers no reason why the settlement requires revisiting these issues in additional hearings.

¹⁰² See discussion at section V. B. above on ownership.

¹⁰³ The derivation of the \$103 million program expenditure cap is discussed at Ex. SD-4 (Atun) JBA-4:2-7 and Table JBA-5. The application of this cap in the context of the program’s 550 charging station goal at is clarified at T. (Schimka) 534:5-23 (April 29, 2015), where SDG&E witness Randy Schimka confirmed that SDG&E will not build over the 550 charging stations if the spending cap is not reached with that rollout level.

3. The Settlement Agreement site host participation payment process is reasonable and does not require hearings

TURN (comments at 10) states:

¶ III.D. – Participation Payment – The settlement introduces a participation payment, but delays determination of the level of any such payment until a future Tier 2 advice letter. The cost recovery implications are not specified.¹⁰⁴ It also appears that SDG&E seeks to have discretion to require different participation payments from different customers.

Nothing in TURN’s assertion requires evidentiary hearings. The cited portion of the Settlement Agreement provides a clear method for arriving at a participation payment level with stakeholder participation (*i.e.*, the Program Advisory Council) and includes factors to guide the decision. As TURN notes, the selected participation payment will be submitted to the Commission for approval. There is nothing in the Settlement Agreement that gives SDG&E any discretion to set participation payments at different levels for different customers, or any unilateral discretion at all with respect to the level of participation payments.¹⁰⁵

The Settlement Agreement establishes an agreed-upon process for resolving a difficult issue, and gives all parties the opportunity to weigh-in and for the Commission to ultimately determine the appropriate payment size and structure. There is evidence in the record on the value of the site host having “skin-in-the-game” – which is what the participation payment addresses.¹⁰⁶ In such circumstances, with a process for subsequent stakeholder input and

¹⁰⁴ TURN drops a footnote here: “¹⁹TURN assumes that any such payments would be credited against program costs, but this is not specified in the Settlement.”

¹⁰⁵ The Settlement Agreement, ¶ III.D, provides that certain customers – those in Disadvantaged Communities – will not pay a participation payment. And the Settlement Agreement does not rule out that the referenced advice letter might propose to the Commission participation payment levels that vary by customer type.

¹⁰⁶ *E.g.*, Quinn, T. 647:13-648:11 (April 30, 2015). *See also*, UCAN comments (at 22) which discuss the “skin-in-the-game” issue.

Commission review and approval, there is nothing to be gained with additional evidentiary hearings on this point.

In sum, the commenters call for evidentiary hearings in order to prescribe services and outcomes the Settlement Agreement leaves to market innovation and specific processes. In such circumstances, the best additional hearings can offer is more speculation about what the market might yield, and, in the case of the participation payment, short-circuiting a stakeholder process that culminates in Commission review and approval. There is simply no additional useful information to be yielded from more hearings in this situation.

IX. THE COMMISSION SHOULD AUTHORIZE FUNDING FROM CAP AND TRADE ALLOWANCES PER D.12-12-033

As part of its request for approval of this proposed project, SDG&E requests a determination that this project is eligible to receive funding from the revenues generated by the sale of cap-and-trade allowances consistent with P.U. Code § 748.5(c). In order to receive such a designation, D.12-12-033 states the Commission must determine that the proposed project will (1) have a goal of reducing Greenhouse Gas (“GHGs”)¹⁰⁷ and (2) be administered by the electrical corporation and is not otherwise funded by another funding source.¹⁰⁸ In addition to the VGI Program GHG reduction potential, charging infrastructure is one of the project types in

¹⁰⁷ D.12-12-033, p. 198, Conclusion of Law 46: “Should the Commission decide at a later date to direct GHG revenues toward energy efficiency or clean energy programs or projects, such projects should have as a stated and measurable goal a reduction in GHG emissions.”

¹⁰⁸ D.12-12-033, p. 191, Conclusion of Law 7 states: “Section 748.5(c) states that the Commission may allow investor-owned utilities to use up to 15% of the revenues, including any accrued interest, received by an electrical corporation as a result of the direct allocation of GHG allowances to electrical distribution utilities pursuant to subdivision (b) of Section 95890 of Title 17 of the California Code of Regulations, for clean energy and energy efficiency projects established pursuant to statute that are administered by the electrical corporation and that are not otherwise funded by another funding source.”

the California Air Resources Board's Investment Plan for GHG reductions.¹⁰⁹ As stated in the Application, the project would be administered by SDG&E and is currently not funded. Ex. SD-1 (Avery) LK-14:5-16.

TURN (comments at 58-60) objects to this request, largely on grounds that the program is not otherwise in the public interest. TURN states that the request must fail because SDG&E cannot demonstrate that adding 5500 chargers will "cause" increased EV adoption (*id.*, at 59).¹¹⁰ Given the nascent technologies – including EVs – that the state relies on for future GHG reduction, what could meet TURN's burden of proof here for causation? The state and the Commission have identified lack of charging infrastructure as a barrier to EV adoption.¹¹¹ That is more than enough proof of causation.

In addition, TURN (comments at 59) argues that SDG&E has failed to demonstrate that its VGI proposal, as modified by the settlement, meets the statutory requirement governing the use of cap-and-trade allowances, because the allowances:

... shall be used exclusively for the benefit of retail ratepayers of each electrical distribution utility, consistent with the goals of AB 32, and may not be used for the benefit of entities or persons other than such ratepayers.¹¹²

TURN reasons that the settlement violates this rule because it allows any EV driver to benefit from the program if the site owner selects the VGI Rate-to-Host option, "since there is no requirement that, for example, the employee of some company located in the SDG&E service

¹⁰⁹ California Air Resources Board, *Cap-and-Trade Auction Proceeds Investment Plan: Fiscal Years 2013-14 through 2015-16* (May 14, 2013), Appendix B, p. B-7. Available at http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/final_investment_plan.pdf

¹¹⁰ TURN (*id.*) concedes that "... [t]here is no dispute that replacing gasoline cars with electric cars reduces emission in California, due to the relatively low GHG emissions profile of the state's electric sector."

¹¹¹ See Executive Order B-16-2012 (March 2012) at <http://gov.ca.gov/news.php?id=17472>, which sets a goal of deploying the infrastructure necessary to support up to 1 million EVs by 2020.

¹¹² *Citing*, 17 Cal. Code of Regulations, § 95892(d)(3).

territory likewise be an SDG&E ratepayer.” TURN Comments at 59. This is silly. A guest using the lights or refrigerator in an SDG&E’s customer’s house must “likewise be an SDG&E ratepayer” to qualify under TURN’s rationale. Under the settlement, the customer paying the bill under either option is an SDG&E ratepayer, and meets the cited requirement.

TURN’s arguments should be rejected and SDG&E should be permitted to use the cap-and-trade allowances as requested.

X. CONCLUSION

As shown herein, the Settlement Agreement is reasonable in light of the whole record, is consistent with law, promotes the public interest, and should be approved by the Commission. Given that most issues raised by comments have already been covered in the evidentiary hearings previously held in this proceeding, and that any additional evidence that could be adduced would necessarily be speculative or cumulative, SDG&E requests that the Commission expeditiously approve the Settlement Agreement without modification or further hearings, and make the findings set forth in Part VIII. of the joint motion.

Respectfully submitted,

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