16BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of the Application of Pacific Gas and Electric Company for Approval of its Electric Vehicle Infrastructure and Education Program (U393E).	Application 15-02-009 (Filed Feb. 9, 2015)

THE OFFICE OF RATEPAYER ADVOCATES' OPENING BRIEF

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June 17, 2016

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Pursuant to Rule 13.11 of the California Public Utilities Commission's (Commission) Rules of Practice and Procedure (Rules), the Office of Ratepayer Advocates (ORA) files this Opening Brief.

I. INTRODUCTION AND SUMMARY OF RECOMMENDATION

Based on the record that has been developed, ORA recommends the Commission adopt Pacific Gas and Electric Company's (PG&E) "compliant" proposal as modified by the recommendations of the non-settling parties listed in Section II below because (1) the "compliant" proposal conforms to the Assigned Commissioner and Administrative Law Judge's (ALJs) Scoping Memo[1] and (2) the nonsettling parties'[2] recommendations help ensure that the "compliant" proposal is in the ratepayers' interest.

PG&E has presented a total of three proposals to install, own, and maintain electric vehicle infrastructure in its service territory. The programs' costs range from $654 million for PG&E's original proposal, to $222 million for its "enhanced" proposal and $87 million for its "compliant" proposal. After these proposals were filed, PG&E and some parties negotiated a settlement proposal called the "Charge Smart and Save" program (Charge/Save proposal) forecast to cost $160 million. The Settling Parties request that the

[1] Joint Assigned Commissioner and Administrative Law Judges' Scoping Memo and Ruling (Scoping Memo), Sept. 4, 2015, p. 7.

[2] The non-settling parties are ORA, The Utility Reform Network (TURN), the Joint Minority Parties (JMP), the Electric Vehicle Charging Association (EVCA), ChargePoint, Inc., TechNet, and Vote Solar.

Commission approve the Charge/Save proposal.[3] While the Charge/Save proposal is less costly than PG&E's original and "enhanced" programs, it still exceeds the Assigned Commissioner's and ALJ's directive that PG&E limit its program to 10% of that originally proposed.[4] Further, the Charge/Save proposal does not contain sufficient structural and operational detail for the Commission to determine that it is reasonable in light of the whole record, consistent with the law, and in the public interest. The Commission should reject PG&E's original, "enhanced" and the Charge/Save proposals.

II. BACKGROUND

A. PEV Rulemakings

In 2009 the Commission opened its first rulemaking to consider the impacts electric vehicles may have on the State's electric infrastructure and ensure that vehicle charging does not adversely affect the electrical system's reliability while recognizing how electric vehicles may help achieve California's climate change goals.[5] The process has since evolved to consider the role of California's investor-owned utilities in supporting the projected statewide market growth of plug-in hybrid and electric vehicles (PEVs).[6] The Commission has set out some guidelines for the process:

- The utilities should have an expanded role in EV infrastructure support and development to realize the potential benefits of widespread EV adoption.[7]

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[3] PG&E has not withdrawn the previous three proposals because the proposals will apparently inform Charge/Save.

[4] Scoping Memo, p. 7

[5] R. 09-08-009 Order Instituting Rulemaking (OIR) to Consider Alternative-Fueled Vehicle Tariffs, Infrastructure and Policies to Support California's Greenhouse Gas Emissions Reduction Goals, August 24, 2009.

[6] R. 13-11-007 OIR to Consider Alternative-Fueled Vehicle Programs, tariffs, and Policies, November 22, 2013.

[7] D. 14-12-079 Phase 1 Decision Establishing Policy to Expand the Utilities' Role in Development of Electric Vehicle Infrastructure, December 22, 2014, p.5.

- The benefits of utility ownership of PEV charging infrastructure must be balanced against the competitive limitation that may result from that ownership.[8]
- The balancing test will be applied on a case-specific basis.[9]
- It may be that certain programs are not appropriate for either ratepayer funding or ratepayer funding without shareholder contribution.[10]

B. Summary of Procedural History

As originally filed on February 9, 2015, PG&E's Electric Vehicle Infrastructure and Education Program (original proposal) sought $653,840,000 to deploy, own, and maintain 25,000 Level 2 (L2) charging stations and 100 DC Fast Chargers (DCFC) in public facilities, workplaces and multi-unit dwellings (MuDs) in its service territory.[11] The Assigned Commissioner and ALJs expressed concern about the size and implications of PG&E's original proposal. They reiterated the Commission's (1) requirement to protect against unfair competition and the demonstrated costs and benefits of any utility PEV proposal, and (2) conclusion that "it may be that certain programs are not appropriate for either ratepayer funding or ratepayer funding without shareholder contribution."[12] The Assigned Commissioner and ALJs directed PG&E to file a supplement proposing an initial phase of EV charging station deployment "limited to a maximum of 10% of the total originally-proposed number of charging stations, to be deployed over no more than 24 months."[13]

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[8] D.11-07-029 Phase 2 Decision Establishing Policies to Overcome Barriers to Electric Vehicle Deployment and Complying with public Utilities Code Section 740.2, July 25, 2011, p. 49.

[9] D.14-12-079, p. 6.

[10] D.14-12-079, p. 8.

[11] Exh. 2, PG&E's Electric Vehicle Infrastructure and Education Program Application, A.15-02-009, p. 1, 3.

[12] Scoping Memo, p. 4.

[13] Scoping Memo, p. 7.

PG&E responded with two proposals. The first, the "compliant" proposal, limits phase 1 to 2,460 L2 charging stations and 50 DCFCs over 24 months from the date of first construction, including 18 months of data collection and a comprehensive proposal for transitioning from Phase 1 to Phase 2.[14] PG&E forecast the "compliant" proposal to cost $70 million in capital costs and $17 million in expense amounts for a grand total of $87 million.[15]

PG&E also proposed a second, "enhanced" proposal: a maximum of 7,430 L2 charging stations and 100 DCFCs over 36 months from the date of first construction to collect and report 30 full months of information.[16] The "enhanced" proposal was forecast to cost $187 million in capital costs and $35 million in expenses for a grand total of $222 million.[17]

ORA, TURN, and Marin Clean Energy (MCE) moved to strike the portions of PG&E's supplemental testimony that reference the "enhanced" proposal because it was beyond the scope of this proceeding and not responsive to the Scoping Memo.[18] ALJ Farrar denied the motion.[19]

After submitting its three proposals, PG&E and several, but not all, parties developed a settlement agreement modifying PG&E's original and enhanced proposals. The new program presented in the settlement, would be called the Charge Smart and Save program (Charge/Save proposal) and proposes targets of 7,500 L2 charging ports to be set in charging stations and 100 DCFCs for $160 million.[20] PG&E "would own the charging

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[14] Exh. 3, PG&E's Supplement to Application Pursuant to Joint Assigned Commissioner and Administrative Law Judge's Scoping Memo and Ruling (Supplement), October 12, 2015, p. 7.

[15] Id., p. 7.

[16] Exh. 3, p. 10.

[17] Exh. 3 p. 13.

[18] Motion of TURN, MCE and ORA to Strike Portions of PG&E's Supplemental Testimony, October 23, 2015, p. 1.

[19] ALJ Ruling on Motion to Strike, November 2, 2015.

[20] Exh. t 1, Joint Motion for Adoption of Settlement Agreement by PG&E, Alliance of Automobile Manufacturers, American Honda Motor Co., Center for Sustainable Energy, Coalition of California Utility Employees, Greenlots, The Greenlining Institute, Marin Clean Energy, Natural Resources Defense Council,

stations on the same terms and conditions as the Commission approved for San Diego Gas & Electric (SDG&E) in D.16-01-045."[21]

The Commission held hearings during the week of April 25, 2016.

III. BURDEN OF PROOF AND LEGAL STANDARDS

Public Utilities Code[22] § 451 requires all charges demanded or received by any public utility be just and reasonable. Section 728 provides that whenever the Commission, after a hearing, finds that the rates are unjust and unreasonable, the Commission shall determine and fix by order the just, reasonable or sufficient rates.

The utility bears the burden of proving that the requested rates and charges are just and reasonable.[23]

Section 740.3(c) requires Commission policies authorizing utilities to develop equipment or infrastructure needed for electric powered vehicles to ensure that the costs and expenses of those programs are not passed through to ratepayers unless the Commission finds and determines that those programs are in the ratepayers' interest. The Commission's policies shall also ensure that utilities do not unfairly compete with nonutility enterprises.

Section 740.8 defines "interest of ratepayers" as direct benefits that are specific to ratepayers consistent with both of the following:

> (a) Safer, more reliable, or less costly gas or electrical service, consistent with section 451, including electrical service that is safer, more reliable, or less costly due to either improved use of the electric system or improved integration of renewable energy generation.
>
> (b) Any one of the following:
>
> (1) Improvement in energy efficiency of travel.

Plug In America, General Motors LLC, Sierra Club, and Sonoma Clean Power Authority (Joint Motion), March 21, 2016, p. 1.

[21] Exh. 1, p. 1.

[22] Unless otherwise specified, all references shall be to the Public Utility Code.

[23] D.10-09-018, Order Denying Rehearing of D.10-01-0125, September 7, 2010, p.16.

(2) Reduction of health and environmental impacts from air pollution.

(3) Reduction of greenhouse gas emissions related to electricity and natural gas production and use.

(4) Increased use of alternative fuels.

(5) Creating high quality jobs or other benefits, including in disadvantaged communities identified pursuant to Section 39711of the Health and Safety Code.

The Commission considers utility ownership of PEV charging infrastructure on a case by case basis using the balancing test established in D.11-07-029: the benefit of utility ownership must outweigh the potential competitive limitation that may result from that ownership.[24]

As part of the process to determine whether a settlement can be approved and adopted, Rule 12(c) requires the Commission to determine if the settlement is reasonable in light of the whole record, consistent with the law, and in the public interest.

IV. KEY RECOMMENDATION ELEMENTS

ORA shares the Commission's commitment to support Governor Brown's goal of 1.5 million zero-emission vehicles (ZEVs) on California roads by 2025.[25] ORA also recognizes that the costs of utility infrastructure programs to meet this goal will be borne by ratepayers whether they own electric vehicles or not. To maximize the use of ratepayer dollars and minimize the impacts on competition, ORA recommends the following:

A. The Commission Should Reject PG&E's Original Proposal

The Assigned Commissioner and ALJs Scoping Memo and Ruling rejected PG&E's original proposal because "it does not allow for adequate review and evaluation to determine whether its costs are just and reasonable, whether it results in ratepayer benefits, and whether potential anticompetitive impacts are adequately prevented/mitigated."[26] ORA recommends the Commission affirm the Scoping Memo.

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[24] D.11-07-029, p. 49.

[25] Executive Order B-16-2012; Amended Scoping Memo and Ruling of the Assigned Commissioner and Administrative Law Judge, R. 13-11-007, March 30, 2016 p. 2.

[26] Scoping Memo, p. 4

B. The Commission Should Reject PG&E's "Enhanced" Proposal

PG&E's "enhanced" proposal raises a threshold question: Can the Commission consider issues beyond those set forth in the scoping memo? In their Motion to Strike, ORA, TURN and MCE cited *Southern California Edison v. P.U.C.* to answer no. In that case, a party added an issue which was not included in the scoping memo after the scoping memo was issued. The California Court of Appeal held that the Commission failed to proceed in the manner required by law when it violated its own procedural rules by permitting consideration of issues beyond those set out in the scoping memo.[27] ORA recommends the Commission find the Scoping Memo expressly limited this proceeding to "Phase 1 of PG&E's EV Program as proposed in PG&E's supplement."[28] PG&E's "enhanced" proposal exceeds the scope of Phase 1 and thus is beyond the scope of this proceeding. The Commission should reject the "enhanced" proposal.

C. The Commission Should Reject the Charge/Save proposal

If the Commission rejects both the original and "enhanced" proposals, then two proposals remain: the Charge/Save and the "compliant" proposals. ORA recommends the Commission reject the Charge/Save proposal because PG&E has failed to carry its burden of proving it is reasonable in light of the whole record, consistent with the law, and in the public interest.

First, the Charge/Save proposal does not comply with Section 451. It would result in unjust and unreasonable charges to ratepayers because it is too large. The Scoping Memo directed PG&E to reduce its original proposal to a maximum of 10% of the total originally-proposed number of charging stations, to be deployed over no more than 24 months."[29] Ten percent of 25,000 amounts to 2,500 charging stations. Under the Charge/Save

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[27] *Southern California Edison v. P.U.C.* (2006) 140 Cal.App.4th 1085, 2006 Cal. PUC LEXIS 948.

[28] See R.12-03-014, Assigned Commissioner and ALJ's Ruling Partially Granting Motion to Strike Testimony, July 17, 2012, pp. 1-2, in which the AC and ALJ partially granted SCE's motion to strike portions of Women's Energy Matters' opening testimony in track 1 it addressed issues that were to be considered in track 2 of the proceeding and thus were beyond the scope of track 1.

[29] Scoping Memo, p. 7.

proposal, PG&E would install 7,500 charging ports over 36 months after initial construction. Max Baumhefner of the Natural Resources Defense Council (NRDC), one of the settling parties, testified that the Charge/Save proposal would use dual ports.[30] But not all charging stations will have dual ports.[31] Nevertheless, assuming two ports per station yields 3,750 stations, the Charge/Save proposal may exceed the Assigned Commissioner's and ALJ's directive by as many as 1,250 charging stations and 12 months.

Second, PG&E's ownership of 7,500 charging ports fails the balancing test set forth in D. 11-07-029 since PG&E's ownership may have a detrimental effect on:

- third-party market participants' ability to provide a variety of innovative and creative charging station offerings;
- private investment because electric vehicle service providers (EVSPs) will not be able to compete with ratepayer-funded PG&E facilities;
- nonutility EVSPs because they don't have a an existing market of PG&E customers.

Third, the Charge/Save proposal is not in the ratepayer's interest under Section 740.8 because:

- PG&E lacks the experience to manage a large scale program;
- Too many important elements of the Charge/Save proposal have been left to an undefined Program Advisory Council (PAC) to determine. [32]

Without specific operational details, PG&E cannot show that the Charge/Save proposal will yield "safer, more reliable, or less costly gas or electrical service, consistent with Section 451 [of the Public Utilities Code], due to either the improved use of the electrical system or improved integration of renewable energy generation."[33] Nor does the Charge/Save proposal have sufficient detail for the Commission to determine if it will

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[30] Tr. p. 47, ll. 12-13.

[31] Tr. p. 264-265.

[32] Tr. p. 80, ll. 10-14.

[33] Pub. Util Code § 740.8(a).

improve the energy efficiency of travel; reduce the health and environmental impacts from air pollution; reduce greenhouse gas emissions related to electricity and natural gas production and use; increase use of alternative fuels; and create high-quality jobs or other economic benefits including in disadvantaged communities.[34]

PG&E's ill-defined Charge/Save proposal is not the most prudent, cost-effective and efficient use of ratepayer dollars. The Commission should reject the "enhanced" proposal and the Charge/Save proposal.

D. The Commission Should Approve the "Compliant" Proposal as Modified By the Non-Settling Parties

While the "compliant" proposal is more responsive to the Scoping Memo, improvements can be made to ensure it meets the Commission's policy goals for electric vehicles. The active non-settling parties, which includes ORA, TURN, representatives of low-income and underrepresented communities, providers of EVSE and related services, site hosts and the tech industry, and environmental and alternative energy advocates have recommended alternatives to PG&E's Program in testimony.[35] The non-settling parties are generally aligned on the following important principles and key components of program design:

- PG&E's Phase 1 program should comply with the September 4, 2015 Joint Assigned Commissioner and Administrative Law Judges' Scoping Memo and Ruling.
- The program should focus on the underserved customer segments of multi-unit dwellings (MuDs) and disadvantaged communities.
- The total budget should not exceed $87 million, the cost of PG&E's "compliant" proposal. Costs should be recovered via a one-way balancing account. PG&E may use any cost

[34] Pub. Util. Code § 740.8(b).

[35] Specifically, the non-settling parties are the Electric Vehicle Charging Association, ChargePoint, Inc., TechNet, and Vote Solar, ORA, TURN, and the Joint Minority Parties (National Asian American Coalition, Ecumenical Center for Black Church Studies, Jesse Miranda Center for Hispanic Leadership, Christ Our Redeemer AME Church, National Hispanic Christian Leadership Conference, Los Angeles Latino Chamber of Commerce, and Orange County Interdenominational Alliance)

savings, that is, funds remaining after deployment of the maximum number of EVSE, for additional deployment consistent with these recommendations and, if relevant, for continued deployment during the transition period.

- The Commission should authorize PG&E to install 2,500 Level 2 EV charging stations, which may include up to 5,000 ports, utilizing dual port charging technology when possible.
- The Commission should authorize PG&E to install up to 10 DCFCs.
- The Phase 1 program should target a minimum of 50% of Level 2 charging stations in MuDs.
- The Commission should direct PG&E to establish an open and unconstrained process for site hosts to choose equipment and network services. At all sites, the site host will be PG&E's customer of record.
- The site host may determine the rate structure and amount charged to drivers for EV charging services, subject to the obligation to implement a load management plan reflecting best practices.
- At all sites PG&E may ratebase "make ready" infrastructure[36] up to but not including the EVSE.
- If the Commission deems utility ownership of EVSE necessary, then PG&E should own the infrastructure only in the underserved markets of MuDs and low-income communities.
- Site hosts should make a meaningful contribution to the project as a condition of participation.
- The program should be overseen by a program advisory council that includes representatives from local and state government (including the Commission's Energy Division), industry, labor and other stakeholder participants, ratepayer, consumer, and environmental advocates, and representatives of disadvantaged communities.

[36] Make-ready infrastructure includes one or more service drops, panels and junction boxes, as well as electrical conduit, transformers, metering and electrical wiring which can support at least one EVSE.

- If the Commission has not issued a Phase 2 decision before the close of Phase 1, then it should permit PG&E to file an advice letter to extend Phase 1 by a period of up to one year, with funding limited to the allocated $89.1 million Phase 1 budget.
- Disadvantaged communities shall be defined as the top quartile of "Disadvantaged Communities" identified by CalEnviroScreen 2.0 on a PG&E service territory basis. For locations within eligible disadvantaged communities, only MuDs, not other customer segments, shall enjoy a full waiver of customer contribution to costs.
- PG&E's site selection criteria will coordinate with and leverage PG&E's distribution resources plan ("DRP") and related programs, including PG&E's DRP Integration Capacity Analysis, to integrate distributed energy resources, including EVs, onto PG&E's grid at optimal locations and to maximize grid benefits. Giving site hosts the discretion to control EV charging at the site and integrate EV charging with other forms of on-site Distributed Energy Resources ("DER") and energy management systems, PG&E's Phase 1 program will help minimize infrastructure costs, enable site hosts to provide necessary grid services and maximize net benefits for all customers in compliance with Public Utilities Code Section 769.

ORA recommends that the Commission adopt the "compliant" proposal modified by the recommendations listed above.

V. ANALYSIS OF ISSUES

A. Program Scope, Duration and Cost

PG&E has failed to establish that the Charge/Save proposal is the most cost-effective and efficient means to test the hypothesis that an increase in charging stations will increase EV ownership. PG&E offered no evidence to support its belief that a program of this size will promote the accelerated adoption of EVs. Nor could PG&E establish that ratepayer funding, as opposed to private investment, will promote EV adoption.

Q: So do you have any evidence that ratepayer funding of infrastructure will promote EV adoption?

A: We don't have any specific survey data of that nature.[37]

The Assigned Commissioner and ALJs recognized this and instead directed the consideration of a pilot that consists of 10% of the scope of a full scale program.[38] To ensure the prudent, cost-effective and efficient use of ratepayer dollars, the Commission should direct PG&E to implement the non-settling parties' recommendations outlined above. A program conforming to the recommendations, especially in terms of size, will allow the Commission, PG&E and stakeholders the opportunity to examine results, verify assumptions and offer meaningful program modifications that would increase the likelihood that this program will be successful.

1. PG&E Has Yet to Develop Several Critical Program Elements

Cross examination revealed that the Settling Parties and PG&E have not developed many key significant elements in the Charge/Save proposal such as siting methodology[39], the differences between market segments[40], which site hosts will be exempt from the participation payment and which will not[41], the site host's role[42], the number of network providers[43], how the Charge/Save proposal will manage loads[44] and other elements.

Each of these issues should be addressed before the Commission approves an EV pilot program for PG&E. PG&E should use the non-settling parties' recommendations to develop these elements.

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[37] Tr. 251, ll. 10-14.

[38] Scoping Memo, p. 7.

[39] Tr. p. 253-256, ll. 19-28; ll. 1-9.

[40] Tr. p. 252-253.

33Tr. p. 76, ll. 11-15.

34 Tr. p. 78, ll. 8-18.

35 Tr. p. 71, ll. 14-17.

2. Technological Innovations Support A Smaller Program

The Commission should direct PG&E to implement the "compliant" program as modified by the non-settling parties' recommendations to enable PG&E to better respond to the rapid technological innovations in the EVSE industry.

Ms. Corey recognized that battery technology is steadily improving:

> Q: Ms. Corey, would you agree that the battery, the technology for EV batteries, is steadily improving?
>
> A: Yes.
>
> Q: And that the battery capacity will continue to improve?
>
> A: Yes.[45]

Increased battery capacity would decrease range anxiety and may reduce the need to deploy large scale workplace charging infrastructure. PG&E's Charge/Save proposal does not consider how advances in technology could change the EV charging market, charging station deployment, or the size of infrastructure needed to meet the goal of 1.5 million ZEVs on California's roads by 2025. With improved battery capacity, EV drivers may ultimately be able to charge their vehicles at home and not require workplace charging. If technology innovations improve at home charging, then large-scale EV workplace charging infrastructure is at risk of being underutilized. If the EVSE assets have been rate based, the ratepayers will continue to pay for the infrastructure even if they are underutilized. Any infrastructure deployed at workplaces should be evaluated on a small scale to adapt to evolving technology and avoid stranded assets.

Furthermore, PG&E acknowledged the growing development of hydrogen fuel cell technologies and the significant private investment that has been made in this technology that is an alternative for reaching California's ZEV goals:

> Q: So were you aware that Toyota is investing $4.2 billion in hydrogen fuel cell vehicles?

[45] Tr. p. 269, ll. 16-22.

> A: I was not aware of the exact number, but I was aware of the fact that Toyota is "quite interested in fuel cell research."[46]

Ms. Corey was also aware that Hyundai and Honda each plan to introduce a fuel cell vehicle in California this year.[47]

In response to a question whether fuel cell vehicles are a viable alternative to electric vehicles, Ms. Corey stated:

> A: The Air Resources Board has an assumption that hydrogen fuel cell vehicles play an important role in our GHG reduction and air quality goals for the state of California. Again the fuel cell technology is one technology. It is a decade out before it will come to scale of any sort like the electric vehicles. So it is an important technology.[48]

Investments in charging infrastructure are long-term assets which need targeted deployment at location types that drive EV adoption and will continue to be used throughout the useful life of the equipment. An important factor for consideration is the dynamic nature of EV-related research.

The Advanced Metering Infrastructure (AMI) proceeding which Ms. Corey cited as a large program in which PG&E negotiated contracts that sought to incorporate new innovations[49] is an argument in favor of a pilot-sized program so that PG&E can (1) correct, adjust, and refine program elements before proposing Phase 2 and (2) nimbly adapt to technology changes.

The Commission opened R. 02-06-001 to establish policies to develop demand response as a resource to enhance electric system reliability, reduce power purchase and

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[46] Tr. p. 270, ll. 17-23.

[47] Tr. p. 270-271, ll. 24-28, 1-6.

[48]

[49] Tr. p283-284, ll. 24-28, 1-10.

individual consumer costs, and protect the environment.[50] The Commission authorized PG&E to deploy its AMI project. This included automation of its gas and electric metering and communications network (5.1 million electric meters and 4.2 million gas meters). It consisted of metering and communications infrastructure and related computerized systems and software.[51] The Commission "adopted as reasonable a project budget of $1.7394 billion, inclusive of a risk-based allowance, or contingency, of $128.8 million and $49 million for pre-deployment costs approved in D. 05-09-044."[52]

As it turns out, $1.7394 billion was not quite enough. On December 12, 2008, PG&E filed A.07-12009 seeking additional funding of $572.5 million to upgrade three elements of the AMI program's (rebranded the SmartMeter Program) technology -- the home area network (HAN) gateway device, the integrated load limiting connect/disconnect switch, and the advanced solid state meter.[53] PG&E claimed that subsequent to the Commission approving its initial application, technological advances required a program upgrade and increased rates.[54]

The evidence showed that PG&E's AMI program was "in serious trouble." According to ORA's Opening Brief:

- PG&E had already spent one third of its initial $1.7 billion authorization, but had only activated 2% of the electric meters;
- PG&E had exhausted $70 million of its $88 million Project Management budget for a project that was barely off the ground; and
- PG&E's information technology (IT) expenses were already 33% over budget.[55]

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[50] R. 02-06-001 OIR on policies and practices for advanced metering, demand response, and dynamic pricing, June 6, 2002, closed by D.05-11-009.

[51] D.06-07-027.

[52] D.09-03-026, pp. 3-4.

[53] A.07-12-009, p. 1.

[54] A.07-12-009, p.4.

[55] A.07-12-009, Opening Brief of the Division of Ratepayer Advocates, pp. 4-5.

The Commission authorized technological upgrades[56] but reduced the amount PG&E sought to recover from ratepayers.[57] To avoid a potential repeat of similar challenges experienced with the AMI program, the Commission should direct PG&E to implement the "compliant" proposal as modified by the non-settling parties.

B. UTILITY OWNERSHIP

1. The Charge/Save Proposal Does Not Minimize Anti-Competitive Impacts

The structure of the Charge/Save proposals does not minimize or prevent the potential anti-competitive impacts of utility ownership of EV charging infrastructure on the EVSE market. The proposal fails to distinguish between the impact of encouraging competition among third-parties who would act as suppliers under the Charge/Save proposal and the potential negative impact on third-party EVSPs' ability to provide services outside of the Charge/Save proposal. If the Charge/Save proposal diminishes the ability of EVSPs to offer non-utility-owned charging infrastructure and services, then efforts to meet the goal to place 1.5 million ZEVs on California roads by 2025 will be less successful and ratepayers will not be able to see the GHG reductions provided by a robust EVSE market.

The Charge/Save proposal allows PG&E to control the request for proposal (RFP) process, which will determine the details of the charging station design that is selected.[58] Those vendors willing to go beyond the specifications of the RFP process and offer complementary services must satisfy a list of requirements to be considered in order to offer services to the site hosts. PG&E's control of the process may have a detrimental effect on third-party market participants' ability to provide a variety of innovative and creative charging station offerings. Further, during the early stages of charging station deployment, potential customers would more likely choose PG&E's EV Program over that

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[56] The Commission approved deployment of HAN gateway devices and providing all customers with integrated load limiting connect/disconnect switches and advanced solid state meters. D.09-03-026, p. 17, 18.

[57] D.09-03-026, p. 189.

[58] Exh. 1, Charge Smart and Save Settlement Agreement, Appendix C.

offered by a third party provider because PG&E's program is the ratepayer subsidized option.[59] Consequently, the non-utility charging stations market could see fewer customers than PG&E-owned stations, constricting the competitive field.

2. PG&E's Advantages as the Incumbent Utility Restrict Competition

As the incumbent utility, PG&E possesses inherent advantages over third-party charging station infrastructure providers. PG&E's relationship with millions of existing customers endows it with superior name and brand recognition that can be leveraged to advertise new services. Furthermore, PG&E will be able to attain cost recovery from ratepayers for investments in EVSE infrastructure. Conversely, EVSPs that are not participants in the Charge/Save proposal will not have the ability to offer potential clients the same cost savings that result from participation in the Charge/Save proposal. PG&E's brand recognition and existing relationship with customers will give it an inherent advantage over other providers, making it a first choice for site hosts to obtain EVSEs. ORA agrees with ChargePoint witness Charles Cicchetti's statement that utility ownership of EVSE's would have a negative impact on EVSP's "because they can't compete with 'free' regulated utility offerings."[60]

The Charge/Save proposal requires site hosts to make a participation payment. Based on the percentage cost of the EV Charger, the participation payment would be 10 percent for MuDs and 20 percent for private, nonprofit entities. The revenue collected from the participation payments is intended to be credited against program operation and maintenance costs. [61] While the Charge/Save proposal's participation payment requirement would require potential program enrollees to have "skin in the game," and lessen the inequity inherent in the choice between a ratepayer-subsidized charging station and a non-subsidized charging station, it is difficult to determine the extent to which this participation

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[59] Exh. 1, Charge Smart and Save Settlement Agreement, Appendix C.

[60] Exh. 62 , Prepared Testimony of Charles J. Cicchetti on behalf of ChargePoint, Inc. Regarding Application of Pacific Gas & Electric Company for Approval of its Electric Vehicle Infrastrucure and Education Program, p. 34. (November 30, 2015).

[61] Exh.1, Charge Smart and Save Settlement Agreement, p. 6; Tr. p. 64-65.

payment could mitigate the chilling effect of the Charge/Save proposal on the market. ORA agrees with the testimony of ChargePoint witness Cicchetti who states that the addition of a participation payment doesn't address the fact that, "PG&E would not take utilization risk, and it would use ratepayer or captive customer finance."[62]

3. PG&E Does Not Need To Own the EVSE

PG&E justifies its proposal to own the entirety of the electric vehicle infrastructure by arguing that PG&E will be able to provide potential site hosts a "turnkey solution."[63] However, PG&E's inability to articulate the operational mechanics of the relationship between EV drivers and the site host as indicated above undercuts the assertion that PG&E's ownership of the charging stations is necessary or even desirable.

> Q: What would you expect to be the average time that the customer would be at this establishment?
>
> A: I have no idea.[64]
>
> Q: Will the charging stations at an MuD be attached to a specific apartment?
>
> A We haven't determined our go-to market strategy for MuDs at this time. So I don't know.[65]

The Charge/Save proposal's vague outline fails to demonstrate that PG&E's ownership of the EVSE is required to ensure that all ratepayer-funded charging stations are working and remain accessible. PG&E asserts that utility ownership of EV charging stations is valuable because PG&E can, "bundle up all the operations, maintenance, purchasing equipment, installation services."[66] Under the Charge/Save proposal, PG&E will sign contracts with EVSPs to engage in the operations and maintenance (O&M) of charging stations. PG&E's role will be to monitor EVSP compliance with these O&M contract agreements. This could add another administrative layer if program customers

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[62] Tr. p. 358.

[63] Tr. p. 285-286, ll. 22-28, 1-2

[64] Tr. p. 70, ll. 23-26.

[65] Tr. p. 264, ll. 6-10.

[66] Id.

wish to address any reliability concerns. PG&E's witness, Ms. Corey, testified that "[t]he RFP will be open to all providers who want to bid on the work [of installing charging stations]."[67] However, Ms. Corey conceded that PG&E does not need to own the charging stations to contract with EVSPs.[68] PG&E admits that each of the individual components of the Charge/Save proposal can be contracted out and provided by non-utility third-parties,[69] and that PG&E plans to rely on non-utility third-parties to provide these elements. Given that customers could bring their concerns directly to the third-parties who provide these individual services regardless of who owns the charging stations, there is no need for PG&E ownership, especially when measured against the potential anti-competitive impacts of utility ownership on the EVSE market. If adopted, the Charge/Save proposal the Charge/Save proposal should be modified to mitigate the potential anti-competitive effects of PG&E's ownership of EV charging stations in every market segment. Thus, if the Commission permits PG&E to own, install, and maintain the electric vehicle infrastructure, ORA recommends this role be limited to MuDs and disadvantaged communities.

D. CHOICE AND SELECTION OF EVSE AND NETWORK SERVICES; SUPPLIER DIVERSITY

Neither the Settlement Agreement nor Ms. Corey could definitively state the number of network providers under the Charge/Save proposal.

> Q: It appears that in your original proposal you were intending to have a single network provider, is that correct?
>
> A: I'm not sure what was reflected in the original proposal, but it is possible that we will have multiple network providers.
>
> Q: Is it possible that you will have a network provider who also provides the equipment that they would provide both at a location?

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[67] Tr. p. 287.

[68] Tr. p. 287, ll. 11-24.

[69] Id. At 286-289.

A: That is very possible.[70]

The Charge/Save proposal anticipates that "procurement of EV charging equipment and services will be subject to advisory review by non-market participant members of the Charge/Save proposal Advisory Council [PAC]."[71] The problem with this strategy is that the PAC members called to review the solicitations will have no experience with network providers.

The proposed PG&E Program describes the PAC as an:

> independent advisory council [that] will include representatives from local and state government (including representation from the Energy Division and Community Choice Aggregation programs), industry and other stakeholders, ratepayer and environmental advocates, and representation from Disadvantaged

Ms. Corey testified that "nonmarket participant members of the advisory council would have a voice about the process, not the final selection of the equipment providers."[72] The Charge/Save proposal defines a nonmarket participant as "an entity that is not engaged in the sale and ownership of EV charging equipment and services."[73] ORA has no objections to the PAC including the participants identified by PG&E. However, the entities with experience in designing, siting, installing and maintain EV charging infrastructure are excluded from participating in the PAC.

Q: Will the members be able to review this [confidential] information even if they have no financial or technical expertise in the matters that they are reviewing?

A: Yes[74]

ORA supports site host choice with regard to EVSE selection to maintain a competitive environment in the EVSE market. All of PG&E's proposals prior to the Charge/Save proposal use a procurement structure in which PG&E would solicit requests

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[70] Tr. p. 78, ll. 8-18.

[71] Exh. 1, Charge Smart and Save Settlement Agreement, p. 5.

[72] Tr. p. 80, ll. 19-22.

[73] Exh. 1, Section 3.

[74] Tr. p. 80, ll. 10-14

for proposals and then determine which EVSP would be permitted to implement its EVSE at a potential site. Utility management of the EVSE procurement process may have a chilling effect on the EVSE market, especially if a program the size of the Charge/Save proposal were to be adopted.

In D.16-01-045, the Commission found that the option of allowing site hosts to choose the EVSE equipment would mitigate anti-competitiveness.[75] ORA supports granting site hosts, even hosts that apply to install DCFC, the ability to select the EVSE model that best suits their individual needs, so long as that EVSE meets or exceeds the requirements set by PG&E in the RFP process.

E. SITE SELECTION CRITERIA; SITE HOST ROLE; AND CUSTOMER PAYMENTS

1. The Charge/Save Proposal Has Not Specified Site Selection Criteria

PG&E has not demonstrated how the challenges of site selection will be surmounted. Ms. Corey stated that the operational mechanics of implementing a site-selection methodology have yet to be developed.

> Q: [Ms. Corey] has PG&E developed a siting methodology for MuDs?
>
> A: Not yet.[76]
>
> Q: Have you built a siting methodology for fleets?
>
> A: Again, we are in the exploratory phases of siting for all the sectors, and we do not have firm plans at this time.[77]
>
> Q: Have you noticed differences in the methodologies say for fleets versus MuDs?
>
> A: At this point the siting criteria are really fairly global policy objectives. . . . So we are really just exploring the different cost utilization and public policy objectives of the siting.[78]

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[75] D.16-01-045, p. 67.

[76] Tr. p. 253.

[77] Tr. p. 254.

[78] Tr. 255.

Q: Has PG&E developed a charging use profile for MuDs?

A: I'm not entirely clear on what a charging use profile would be for an MuD specifically as differentiated maybe from a residential customer.[79]

Q: Is there a user profile for public locations?

A: I'm not familiar with one, no.[80]

Nor was Ms. Corey prepared to answer questions regarding the contracts for the manufacture of charging stations.

Q: And the RFP will lead to a contract for the manufacture of the charging stations?

A: That is correct.

Q: And do you know what the terms of that contract will be?

A: Not at this time. We haven't determined that.[81]

The most Ms. Corey could offer was that PG&E anticipates using the PAC's experience to develop siting criteria.[82] But as noted above, the PAC members may not have the experience or knowledge to develop a siting methodology.

2. The Charge/Save Proposal Has Not Determined the Difference Between Market Segments

Despite admitting that a number of factors are critical to determining a site selection methodology, PG&E is still in the process of examining and contemplating the differences between market segments. Ms. Corey testified:

Q: How do you distinguish a fleet location from a workplace?

A: I think a workplace is where the labor force parks their personal vehicles.

Q: Ms. Corey, do you think that employees drive to UPS facilities?

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[79] Tr. p. 256, ll. 1-6.

[80] Tr.p. 256-57, ll. 27-28, ll.1.

[81] Tr. p. 283, ll. 16-23.

[82] Tr. p. 255.

A: Yes.

Q: So how do you distinguish where the employees park from where the UPS trucks are located?

A: I agree that is complicated. I would venture to guess every site location is different where the employees park their vehicles and where the fleets park their vehicles. I don't think there is a specific answer to a -- one single answer to that question.[83]

3. The Charge/Save Proposal Has Not Specified the Site Host's Role

Equally undefined is the role of the site host. Parking access and management of parking access is a critical component to ensuring utilization of the EVSE infrastructure. EV drivers will not be able to reliably charge unless the parking access considerations of each particular site are examined and access barriers such as parking space assignment (e.g. Are the parking spaces assigned on a first-come first-serve basis or are they unassigned?; Are the parking spaces deeded to a particular unit?). PG&E has failed to delineate the role that the site host will play in managing parking:

Q: I just asked you: Is the obligation to manage the parking . . . going to be a contractual obligation imposed on the site host?

A: I don't know.[84]

If there is no contractual obligation to maintain the EVSE parking, there is a heightened risk that the parking at the EVSE locations will not be managed efficiently and the associated EVSE's could either be poorly utilized or become stranded assets.

4. The Participation Payment Exemption Should Not Necessarily Apply to All Nonprofit Organizations Alike

The purpose of the Participation Payment is "help offset a portion of EV charging infrastructure costs."[85] In order to allow workplaces and MuDs to have easier access to

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[83] Tr. p. 252-253, ll. 13-28, 1-5.

[84] Tr. p. 75-76, ll. 11-15.

[85] Exh. 1, Joint Motion for Adoption of Settlement Agreement, p. 23.

EVSE's, the Charge/Save proposal exempts from the participation payment site hosts located in disadvantaged communities, sites owned or leased by government agencies or non-profit entities; and DCFC sites.[86] Because PG&E's definition of "disadvantaged communities" includes a broad geographical area, it does not differentiate between nonprofits that serve disadvantaged communities and those that do not.[87]

But Ms. Corey testified:

> Q: So assume a nonprofit like NRDC, for example, that has $150 million in annual revenue. Would the participation payment be waived for NRDC?
>
> A: Under the settlement, yes, it would.[88]
>
> Q: Assume a nonprofit like the NFL, for example. . . . The NFL has revenues of $7 billion. Would the participation payment be waived for the NFL?
>
> A: Yes it would, Mr. Wheatland.[89]
>
> Q: I just want to give you one more example, Kaiser Hospitals and health plans, they have an annual revenue of $25 billion. They are also a nonprofit. You would waive the participation fee for them?
>
> A: Yes, we would[90]

Once again, Ms. Corey's testimony spotlights the poorly thought-out siting methodology. In the following, PG&E relies on a PAC that hasn't been formed yet:

> Q: But you are incapable of distinguishing . . . between those [nonprofits] that are well endowed and can afford [to pay a participation fee] and those that cannot?
>
> A: Well, as mentioned previously, we are working with our advisory committee to determine the appropriate criteria for qualifying a site.[91]

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[86] Exh. 1, Charge Smart and Save Settlement Agreement, p. 6.

[87] Exh. 1, Charge Smart and Save Settlement Agreement, p. 5.

[88] Tr. p. 66, ll. 5-10.

[89] Tr. p. 66, ll. 11-17.

[90] Tr. p. 66-67, ll. 26-28, ll. 1-3.

TURN raised the concern "that companies like Google, LinkedIn, Twitter, Uber and Hotwire had their headquarters located in areas the settlement designates as disadvantaged communities".[92] According to the definition set in PG&E's proposals, those businesses would be eligible to have their participation payments waived. This loophole would go against the spirit of the waivers, which is to allow disadvantaged workplaces and MuDs to have easier access to EVSE's.

The Commission should direct PG&E to redefine "disadvantaged communities" as the top quartile of "Disadvantaged Communities" identified by CalEnviroScreen 2.0 on a PG&E service territory basis. For locations within eligible disadvantaged communities, a full waiver of customer contribution to costs shall be provided only to MuDs, not other customer segments.

F. LOAD MANAGEMENT, TIME OF USE RATES, PRICING TO EV DRIVERS

PG&E has not fully developed a plan for how its "Charge Smart and Save" proposal will manage loads and mitigate excessive demand on the grid.

First, PG&E has not studied how Time of Use (TOU) price signals are used for electric vehicle loads.

> Q: Has PG&E tested using the TOU price signals as a load management strategy?
>
> A: Yes. Generally speaking, TOU is a load management strategy is very widely used.
>
> Q: My question was: have you studied how it is used?
>
> A: Not for electric vehicle loads.[93]

Second, the Charge/Save proposal allows the site host to operate under the "Rate-to-Host" option, in which the site host must provide a load management plan to PG&E.[94] However, the requirements for the load management plan are undefined and do not require

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[91] Tr. p. 69, ll. 11-19.

[92] Tr. p. 26, ll. 28- p.27, 4

[93] Tr. p. 97, ll. 6-13.

[94] Exh. 1, Charge Smart and Save Settlement Agreement, p. 6.

that the EV drivers be informed of the TOU rates. For example, Ms. Corey testified that a site host could choose to allow EV drivers to charge their vehicles on a per hour basis, or even for free.[95] This type of billing structure could potentially run counter to the Charge/Save proposal's goals to help reduce demand during on-peak hours and to encourage EV charging during periods of intermittent renewable energy over-generation.

Nor has PG&E defined its own load management programs. Ms. Corey testified that "our program doesn't directly propose a load management program per se."[96] but that PG&E would do some load management programs "when we get these vehicles and this infrastructure at scale"[97] and "when we get to the point where we are proposing a load management program we will be able to identify the appropriate locations for those programs."[98]

An undefined load management plan does not support PG&E and the Settling Parties' claim that the Charge/Save proposal will result in less costly electrical service.[99]

Third, PG&E has yet to identify a plan that reconciles the conflict between the time periods when there is over-generation and the time periods when TOU rates would be highest. PG&E has only mentioned that this is an issue that would be resolved by innovation and experimentation during the pilot program.

> A: We expect that as the electric vehicle deployment or adoption gets to scale where there are a lot of electric vehicles in the market that we will be able to craft appropriate programs that will allow us to use those vehicles for grid support.[100]

Fourth, PG&E has not provided a concrete explanation as to how it intends to communicate TOU rates to drivers.

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[95] Tr. p. 98, ll. 13-16.

[96] Tr. p. 194, ll. 15-16.

[97] Tr. p. 68, ll. 19-22.

[98] Tr. 71, ll. 14-17.

[99] Exh. 1 Joint Motion for Adoption of Charge Smart and Save Program, p. 4.

100 Tr. p. 193, ll. 22-27.

Q: How is the time-of-use rate communicated to the driver?

A: Well, one of our education and outreach elements to is provide information to the workplaces to deliver that information to their drivers so the drivers know when the pricing is – what the pricing is.[101]

PG&E discussed the possibility of having price indicators listed on the charging stations and distributing marketing collateral, but thus far PG&E's plans for making that information available to EV drivers are unclear and appear to be purely speculative.

Q: What about at an MuD?

A: An MuD, similarly we would expect to provide collateral to the driver at the location so that they will know what the pricing is.

Q: What does "collateral" mean?

A: Flyers, promotional information, brochures, that is what is marketing collateral.

Q: And if the drivers don't pick up this collateral they won't know what the time-of-use rate is?

A: I guess it is possible that part of the equipment purchase would have some sort of indicator on the equipment itself about the price at the time.[102]

Finally, nothing in the Charge/Save proposal requires EV drivers to charge when the time of use rate is low.[103]

It is unclear what, if any, benefit utility ownership of EVSE provides in helping to manage the load and implement TOU rates unless PG&E creates price signals that are available to EV drivers.

G. MARKET SEGMENTS

The Charge/Save proposal commits PG&E "to 20 percent of deployment sites serving MuDs, with a non-binding target of 50 percent for MuDs."[104] ORA proposes that

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[101] Tr. 98, ll. 17-24.

[102] Tr. p. 98-99, ll. 25-28, ll.1-12.

[103] Tr. 99-100. ll. 27-28, 1-5.

[104] Ex. 1, Charge Smart and Save Settlement Agreement, p. 9.

at least 50% of charging stations be deployed in MuDs with a target of 75% during the first phase of the Charge/Save proposal. Ms. Corey testified that "there are tenant/landlord issues that make it extremely difficult to bring charging infrastructure to those marketplaces."[105] Therefore, due to the slow rate of development of the EV market in MuDs, it is imperative that utility pilot programs make a high priority of gathering data on usage patterns and adoption tendencies in MuDs as opposed to workplaces or other market segments. In its wide-ranging service area,[106] both in terms of diverse geography and customer segments, PG&E has a unique opportunity to develop an understanding of PEV tendencies in MuDs through its pilot program. Furthermore, the high tech industry located in PG&E's service territory is already receptive to electric vehicles and installs workplace charging infrastructure without the need for incentives.[107]

If there is insufficient interest among MuD owners to install chargers, then PG&E can file an advice letter to request modification of the scope of the pilot. Additionally, it should file a report on why MuD site hosts were uninterested in the program and identify barriers, other than EV infrastructure deployment, that need to be overcome to enable larger EV adoption.[108]

H. DISADVANTAGED COMMUNITIES

1. The Charge/Save Proposal's Alleged "High Quality" Jobs in Disadvantaged Communities are Undefined

The Settlement Agreement claims that the Charge/save proposal will "create high quality jobs or other economic benefits, including in disadvantaged communities by using union labor and deploying in disadvantaged communities."[109] But when Joel Espino of The

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[105] Tr. 36, ll. 16-19

[106] Tr. 303, ll. 2-4. Ms. Corey states in her testimony regarding PG&E that "we have 40 counties that we serve in our enormous service territory."

[107] Ex. 63 Prepared Testimony of Michael Jones on behalf of ChargePoint, Inc. Regarding Application of Pacific Gas & Electric Company for Approval of its Electric Vehicle Infrastructure and Education Program, p. 9-10. (November 30, 2015).

[108] Decision Regarding Underlying Vehicle Grid Integration Application and Motion to Adopt Settlement Agreement (SDG&E Settlement) A. 14-04-014, p. 73, footnote 22.

[109] Exh. 1, p. 2.

Greenlining Institute on behalf of the Settling Parties was questioned about the nature of the specific jobs he could describe only one.

> Q: Can you describe the jobs that would be offered to people in disadvantaged communities?
>
> A: So I'm less familiar with the details of the types of jobs. I can speak generally about jobs dealing with infrastructure. So the actual digging that is going to happen and the installation of charging equipment.
>
> Q: Would you call "digging" a high quality job?
>
> A: I guess it would depend on the pay and benefits created.

Additional questions about how people in disadvantaged communities would learn of these jobs produced equally indeterminate answers including that the Charge/Save proposal does not require contractors to hire members of disadvantaged communities.

> Q: How will people in disadvantaged communities find out about these jobs?
>
> A: So our intent here is to ensure that whatever job contractor applies for the RFP, that they have a process or a way to outreach to these communities with respect to these jobs.
>
> Q: What is that process?
>
> A: So it could look like just job fairs. It could look like partnering with some of these workforce community-based organizations that kind of already have training, and then tap into those types of...
>
> Q: How are you going to make sure that the contr actors participate in the job fairs?
>
> A: So I would say this is not a requirement. I would say that this is more of a, I guess, guiding principle.[110]

[110] Tr. 88-89, ll.21-28, 1-9.

L. MONITORING, DATA COLLECTION AND REPORTING

If the Commission adopts the Charge/Save or the "compliant" proposals, ORA recommends PG&E provide two Interim Progress Reports, to be submitted one year and two years after initiation of the program. Metrics in the quarterly reports and interim progress reports, in addition to those already outlined in the Settlement Agreement, should reflect information, data trends, and findings related to fuel savings and GHG reductions, in order to be most consistent with the goals of D.16-01-045 and 740.8(b).[111] The market segments used to report data should be specified to include MUDs, workplaces, event centers/destinations, fleet locations, and other commercially accessible charging stations, and should be thoroughly and clearly defined; these market segments should also be further categorized for those in disadvantaged communities and those that are not.

P. SAFETY

Throughout this proceeding, PG&E has yet to identify how utility ownership will improve the safety of installing and maintaining charging stations. PG&E has stated that it intends to provide maintenance services via third party contractors.[112] Specifically, PG&E has mentioned that utility ownership would ensure safety because PG&E would hire licensed labor to maintain the EVSE.[113] However there is no substantial reason as to why maintenance services could not be contracted through the site host instead. Unless PG&E intends to commit its own personnel and equipment for O&M services, it is unclear what additional value to safety is added in comparison to allowing the site host to select and contract maintenance services directly.

VI. CONCLUSION

The Commission should reject PG&E's original, "enhanced" and Charge Smart and Save proposals. They do not comply with the Assigned Commissioner's Scoping Memo limiting deployment to 10% of the original proposal. They lack sufficient fundamental operational detail for the Commission to determine that they are in the ratepayers' interest and do not

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[111] Exh. 1, Charge Smart and Save Settlement Agreement, p. 1-2.

[112] Tr. p. 286.

[113] Tr. p. 91.

adversely impact competition. Instead, the Commission should adopt the "compliant" proposal as modified by the non-settling parties to minimize the anti-competitive impacts of utility ownership, ensure that costs are just and reasonable, and provide some ratepayer benefit.

Respectfully submitted,

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June 17, 2016