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

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| In the Matter of the Application of Pacific Gas and Electric Company for Approval of its Electric Vehicle Infrastructure and Education Program<br><br>U 39 E | A.15-02-009<br>(Filed Feb. 9, 2015) |

# JOINT MOTION FOR ADOPTION OF SETTLEMENT AGREEMENT BY PACIFIC GAS AND ELECTRIC COMPANY (39E), ALLIANCE OF AUTOMOBILE MANUFACTURERS, AMERICAN HONDA MOTOR CO., INC., CENTER FOR SUSTAINABLE ENERGY, COALITION OF CALIFORNIA UTILITY EMPLOYEES, GREENLOTS, THE GREENLINING INSTITUTE, MARIN CLEAN ENERGY, NATURAL RESOURCES DEFENSE COUNCIL, PLUG IN AMERICA, GENERAL MOTORS LLC, SIERRA CLUB, AND SONOMA CLEAN POWER

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## I. INTRODUCTION AND BACKGROUND

### A. Summary of Settlement

Pursuant to Article 12 and Rule 1.8 (d) of the Commission's Rules of Practice and Procedure, Pacific Gas and Electric Company ("PG&E"), Alliance of Automobile Manufacturers, American Honda Motor Co., Inc., Center for Sustainable Energy, Coalition of California Utility Employees ("CCUE"), Greenlots, The Greenlining Institute ("Greenlining"), Marin Clean Energy, Natural Resources Defense Council ("NRDC"), Plug In America, General Motors LLC, Sierra Club, and Sonoma Clean Power, (collectively, the "Settling Parties") hereby move the Commission to adopt the "Charge Smart and Save" Settlement Agreement Regarding Pacific Gas and Electric Company's Electric Vehicle Infrastructure and Education Program Application, A.15-02-009 ("Settlement Agreement"), which is appended to this Joint Motion as Attachment 1. The Settling Parties also move to suspend the current procedural schedule pending Commission review and decision on the merits of the Settlement Agreement in accordance with Commission Rule 12. PG&E has been authorized by the other Settling Parties to file and serve this Joint Motion on their behalf.

The Settlement Agreement, if approved by the Commission, would resolve issues raised in PG&E application (A.15-02-009) consistent with the standard of review established by Public

Utilities Code 740.8 and the Commission's guidance and compliance requirements in this proceeding and in Commission Decision Nos. (D.) 14-12-079 and 16-01-045. In addition, the Settlement Agreement furthers the objectives of (a) Public Utilities Code 701.1 which establishes that, "in addition to other ratepayer protection objectives," a "principal goal" of electric utility "investment shall be…to improve the environment and to encourage the diversity of energy resources through improvements in energy efficiency, development of renewable energy resources, and widespread transportation electrification," (b) the Charge Ahead California Initiative (Senate Bill 1275, De León), and (c) Governor Brown's Executive Order B-16-2012 and ZEV Action Plan.[1/]

The Settlement Agreement significantly modifies PG&E's "Electric Vehicle Infrastructure and Education Program" proposal, submitted for Commission consideration in Application A.15-02-009 and supporting testimony dated February 9, 2015 (the "Application"), Supplemental Testimony dated October 12, 2015 ("Supplemental Testimony"), and Rebuttal Testimony dated December 21, 2015 ("Rebuttal Testimony"), to create the "Charge Smart and Save" program.

The Settling Parties agree that the cost of the Charge Smart and Save program should be reduced by 28 percent from PG&E's $222 million "Enhanced Proposal," to a cost cap of no more than $160 million with a target of 7,500 Level 2 charging ports and a target of 100 DC Fast Chargers. PG&E will seek to achieve these cost-effective deployment goals by offering site-appropriate additional technologies, such as dual-port Level 2 charging stations, and seeking cost reductions through the procurement, site selection, and implementation process. Any cost savings on site-specific deployment costs will be used for additional deployment not to exceed the cost cap. Based on PG&E's current electric revenue requirements, the Settling Parties agree that the maximum estimated cost of the program to the typical residential ratepayer of PG&E using 500 kilowatt hours per month in PG&E's service territory would be approximately $2.64

1/ https://www.opr.ca.gov/docs/Governor's_Office_ZEV_Action_Plan_(02-13).pdf.

annually, four percent less than the $2.75 per year typical residential customer cost with full rollout of the program approved as reasonable by the Commission in for SDG&E in Decision No. (D.) 16-01-045. Those cost estimates do not account for the downward pressure on rates that would result from widespread EV charging that takes advantage of spare capacity in the generation, transmission, and distribution system.

PG&E would own the charging stations on the same terms and conditions as the Commission approved for San Diego Gas & Electric (SDG&E) in D.16-01-045. The duration of Charge Smart and Save will be three years from the beginning of construction. The Settling Parties appreciate the policy guidance and criteria provided by the Commission and the settling parties in the SDG&E and Southern California Edison (SCE) electric vehicle proceedings. Consistent with the Commission's findings in D. 16-01-045, the Charge Smart and Save program proposed by the Settling Parties is in the interest of ratepayers, as defined by Public Utilities Code Section 740.8 because it will provide, under §740.8(a):[2/]

1. Safer electrical service because "all of the construction and installation of the EV charging infrastructure will be performed safely, and to code, by licensed electrical contractors with EV infrastructure training certification;"[3/]
2. More reliable electrical service by using time-of-use price signals and other load management strategies that shift EV load to hours of the day when there is spare capacity in the grid;
3. More reliable electrical service by leveraging PG&E's Distributed Resource Plan Integration Capacity Analysis to improve site selection;
4. Less costly electrical service due to improved integration of renewable generation that will result from using time-of-use rates as a foundation for load management

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2/ Note: while Charge Smart and Save is designed to provide all of these enumerated benefits, §740.8(a) only requires a showing of one of these benefits.

3/ D.16-01-045, p. 114.

upon which more sophisticated forms of load will be evaluated to identify an "Advanced EV Grid Support" program to be deployed in Phase 2;

5. Less costly electrical service due to the improved use of the electric system that will result from time-of-use price signals and other load management strategies that shift EV load to hours of the day when there is spare capacity in the grid; and
6. Less costly electrical service due to the improved use of the electric system that will result from leveraging PG&E's Distributed Resource Plan Integration Capacity Analysis to improve site selection.

Likewise, consistent with D.16-01-045, Charge Smart and Save will, under 740.8(b):[4/]

1. Promote the accelerated adoption of EVs which will promote the efficiency of travel;
2. Reduce the health and environmental impacts from air pollution because vehicle electrification results in "over 85 percent fewer ozone-forming air pollutants emitted;"[5/]
3. For every mile driven on electricity in a typical EV, reduce emissions of greenhouse gases by a factor of four relative to the average new conventional vehicle in PG&E service territory;[6/]
4. Deploy EV charging stations that will increase the use of an alternative fuel; and
5. Create high-quality jobs or other economic benefits, including in disadvantaged communities, by using union labor and deploying in disadvantaged communities.

The Settling Parties also agree that the Charge Smart and Save Program addresses the key reasonableness criteria adopted for SDG&E's Vehicle Grid Integration (VGI) program approved in D. 16-01-045. In particular, the Commission applied four criteria in D.16-01-045 to evaluate

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4/ Note: while Charge Smart and Save is designed to provide all of these enumerated benefits, §740.8(b) only requires a showing of any one of these benefits.

5/ PU Code § 740.12(a)(1)(I).

6/https://www.fueleconomy.gov/feg/Find.do?zipCode=94102&year=2016&vehicleId=37066&action=bt3

the reasonableness of SDG&E's settlement under the balancing test of D.14-12-079,[7/] which the Settling Parties have addressed in this Settlement Agreement:

1. Site host ability to choose among pre-qualified EV equipment and services;
2. Pricing flexibility and the ability of site hosts to choose a "rate-to-host" option;
3. Requiring participation payments by site hosts; and
4. An average bill impact on non-participating customers not to exceed $2.75 annually.

In addition to incorporating these common programmatic elements, the Settling Parties agree that Charge Smart and Save includes substantial improvements and will test certain alternatives to the SDG&E approved VGI program and the SCE approved Charge Ready pilot, in order to provide additional benefits and useful information consistent with the Commission's EV policies and standards as adopted in D.16-01-045 and D.14-12-079. For example, relative to SDG&E's VGI Pilot and SCE's Charge Ready pilot, PG&E's Charge Smart and Save will:

- Test the use of time-of-use price signals seen by EV drivers as an alternative to hourly dynamic pricing as a simpler means of providing foundational load management, upon which more sophisticated forms of load management will be evaluated during Phase 1 to identify an "Advanced EV Grid Support" program potentially to be deployed in Phase 2.
- Deploy DC Fast Charging stations, which are needed to accelerate the market, especially for pure battery electric vehicles, and test the use of DC Fast Charging as a means to increase access to the use of electricity as a transportation fuel.
- Increase the targeted share for charging station deployment in Disadvantaged Communities by 50 percent relative to the SDG&E and SCE programs, with a stretch goal of doubling the target in disadvantaged and low-income communities relative to the SDG&E or SCE programs.

7/ D.16-01-045, pp. 103- 111.

- Set aside an additional $5 million to fund complementary and innovative programs to further the goals of the Charge Ahead California Initiative (SB 1275) and increase access to clean transportation in Disadvantaged Communities.
- Explore how collaboration with Community Choice Aggregators (CCAs) will further enhance both the deployment rate of EV equipment and services, and the usage rate of electricity as a transportation fuel.

Table 1, below, summarizes and compares the major provisions of Charge Smart and Save with PG&E's prior proposals in this proceeding.

**TABLE 1 –**
**COMPARISON BETWEEN CHARGE SMART AND SAVE AND PRIOR PG&E PROPOSALS**

| | **PG&E Original Proposal, February 9, 2015** | **PG&E Supplemental Testimony, Enhanced Proposal, October 12, 2015** | **Charge Smart and Save Settlement Agreement, March 21, 2016** |
|---|---|---|---|
| **Guiding Principles** | General | General | 13 Guiding Principles added from D. 16-01-045 |
| **Size** | 25,000 L2, 100 DCFC | 7,430 L2, 100 DCFC | 7,500 L2 ports, 100 DCFC |
| **Cost** | $654 million | $222 million | $160 million (4% lower average annual rate impact than approved in D. 16-01-045) |
| **Duration** | 7 years | 3 years after initial construction | 3 years after initial construction |
| **Segment Targets** | None | None | 20% minimum at MUDs; 50% MUD stretch goal |
| **Renewables Integration, Load Management, and Integration with Distributed Energy Resources** | TOU rates | TOU rates | TOU rates; site host load management plans; site selection informed by Distributed Resource Plan Integration Capacity Analysis; |

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| | | | and commitment to evaluate more sophisticated forms of load management during Phase 1, such the Electric Power Research Institute's "Open Vehicle Grid Integration Platform" and the PG&E/BMW "iChargeForward" pilot, to identify an "Advanced EV Grid Support" program to be deployed in Phase 2. |
| **Site Host Flexibility in Rate Plans** | No | No | Yes, site host flexibility to choose "Rate to Host" or "Rate to Driver" options, consistent with D.16-01-045 |
| **Site Host Participation Payments** | No | No | Yes, 10% of EVSE cost for MUDs; 20% of EVSE cost for private entities; waived for disadvantaged communities, school districts, public agencies, non-profit agencies |
| **Site Host Choice of Charging Technology** | No | No | Yes, consistent with D.16-01-045 |
| **Improving Cost Effectiveness and Efficiency through Dual Port EVSE and Site Specific DCFC Deployment** | No | No | Yes, use of dual port L2 EVSE where appropriate and varying the number of DCFC per site to account for likely use cases |
| **Disadvantaged Communities** | 10%, plus $5 million for additional | 10%, budget for additional programs in | 15% minimum in disadvantaged |

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| **Deployment and Support** | programs in disadvantaged communities | disadvantaged communities reduced to $3.7 million | communities, plus additional 5% stretch goal in disadvantaged and CARE communities, plus $5 million for additional programs in disadvantaged communities, plus vendor and contractor diversity provisions, plus coordination with federal, state and local EV programs in disadvantaged communities |
| **Customer Education and Outreach** | Yes | Yes | Yes |
| **Express Competitive Procurement Criteria** | No | No | Yes, same as SDG&E/D.16-01-045 |
| **Program Advisory Council** | No | Yes | Yes, including specific duties and responsibilities approved in D.16-01-045 |
| **Coordination and Collaboration with CCAs** | No | No | Yes |
| **Independent Review of EVSE Procurement** | No | No | Yes, similar to "Procurement Review Groups" for utility energy procurement, non-market participants in PAC will review EVSE procurement |
| **Data Collection, Monitoring and Reporting** | Yes | Yes | Yes, modified to be comparable to D.16-01-045 |
| **Supplier Diversity** | Not specific | Not specific | Specific, consistent with D.16-01-045 |
| **Safety Considerations** | Not specific | Not specific | Specific, consistent with D.16-01-045 |

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| **Phasing** | None | Yes | Yes |

These improvements and others made by the Settlement as compared to PG&E's prior proposals further enhance the program for PG&E customers, deliver greater benefits to disadvantaged communities, enable coordination and collaboration with CCA service providers, improve safety and will promote the innovation and expertise of existing and future EV Service Providers.

The Settling Parties also agree that Charge Smart and Save incorporates the views of stakeholders and supports Governor Brown's 2020,2025, and 2050 electric vehicle adoption and infrastructure goals, as well as California's broader clean air, equity, and climate change objectives.

The Settling Parties agree that the Settlement Agreement is reasonable in light of the whole record, consistent with law, and in the public interest. The Settling Parties request that the Settlement Agreement be approved by the Commission without change.

### B. Procedural History and Positions of Settling Parties

On February 9, 2015, Pacific Gas and Electric Company (PG&E) filed Application (A.) 15-02-009, seeking approval of its proposed Electric Vehicle Infrastructure and Education Program (EV Program). Parties filed responses and protests on March 11, 12, and 13, 2015.

On May 5, 2015, the assigned Commissioner held an all-party meeting in this and two related proceedings. Motions filed across the proceedings and the merits of consolidating the proceedings were discussed at the all-party meeting. On June 12, 2015, the Administrative Law Judge (ALJ) held a prehearing conference (PHC) to determine the parties, issues, schedule, and other procedural matters. At the PHC, parties were asked to consider more formally phasing PG&E's proposed EV Program. By ruling dated June 16, 2015, the ALJ requested comments on more formally phasing PG&E's proposed EV Program. Parties filed comments on July 2 and 3, 2015 and reply comments on July 10, 2015.

On September 4, 2015, the Assigned Commissioner and Assigned Administrative Law Judges issued a Scoping Memo and Ruling requiring PG&E to file and serve a supplement to its application no later than October 12, 2015 that included: 1) an initial phase of electric charging

station deployment, limited to a maximum of 2,510 charging stations, to be deployed over no more than 24 months; 2) a transition plan that provides at least 18 months of data for evaluation by the Commission, and that identifies steps to minimize market uncertainty and discontinuity during the regulatory review period; and 3) responses to specific questions described in the Scoping Memo and Ruling.

On October 12, 2015, PG&E filed its supplemental testimony and responses to the questions in the Scoping Memo and Ruling. PG&E's supplemental testimony stated that a Phase 1 deployment of only 2,510 charging stations over 24 months does not meet the stated program objectives or provide sufficient data or learnings to adequately inform a potential Phase 2 deployment. PG&E's supplemental testimony provided a more phased deployment approach to its originally proposed program, including both a requested "compliant" proposal and enhanced proposal. PG&E's compliant proposal would limit Phase 1 to 2,510 charging stations (10 percent of original proposal), deployed 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. PG&E's compliant proposal would total $70 million in capital costs and $17 million in expense amounts, with deployment over a 24-month timeframe. PG&E's enhanced proposal would deploy a maximum of 7,530 EV charging stations over no more than 36 months from the date of first construction, in order to collect and report 30 full months of information from deployed EV stations to better inform PG&E's Phase 2 EV Program proposal. The enhanced proposal would total $187 million in capital costs and $35 million in expense amounts, with deployment over a 36-month timeframe.

As required by the Scoping Memo Ruling, both PG&E's compliant and enhanced proposals included a "bridge funding" transition mechanism to minimize market uncertainty and discontinuity during the Phase 2 Commission review period. In addition, both the compliant and enhanced proposals provided for collection of specific data and information during Phase 1 similar to data collection proposals agreed to by parties in the Southern California Edison Company (SCE) and San Diego Gas & Electric Company (SDG&E) settlements, as well as

creation of a formal Advisory Committee of stakeholders to advise PG&E on its Phase 1 and Phase 2 programs.

On November 30, 2015, 14 parties filed intervenor testimony in response to PG&E's supplemental testimony, including the following members of the Settling Parties: American Honda Motor Co.; the Coalition of California Utility Employees; General Motors LLC; The Greenlining Institute; Marin Clean Energy; Natural Resources Defense Council (NRDC); and Plug In America. Of the 14 parties filing intervenor testimony, none expressed support for PG&E's "enhanced" program proposed in its supplemental testimony without change. NRDC, The Greenlining Institute, the Coalition of California Utility Employees, and Plug In America, only expressed support for PG&E's effort to provide the Commission with two options, noting that even the "enhanced" proposal would fall short of the infrastructure required to meet Governor Brown's infrastructure deployment goals.[8/]

On December 21, 2015, PG&E filed rebuttal testimony.

On January 25 and 28, 2016, the Commission issued decisions approving with modifications alternative electric vehicle programs proposed by SCE and SDG&E, respectively (D.16-01-023 and D.16-01-045). Following issuance of both these decisions, the Settling Parties and other parties engaged in intensive settlement discussions, seeking to take into account the guidance provided by the Commission in the SDG&E and SCE decisions in order to settle the issues in dispute in this proceeding. Following the settlement discussions, PG&E convened a formal settlement conference on March 11, 2016 in accordance with the Commission's settlement rules. Effective March 21, 2016, the Settling Parties executed the Settlement Agreement that is the subject of this Joint Motion.

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8/ Testimony of Max Baumhefner on Behalf of the Natural Resources Defense Council, Coalition of California Utility Employees, The Greenlining Institute, and Plug In America, November 30, 2015, p. 20: "By offering both the "Compliant" and "Enhanced" options in its supplemental testimony, PG&E has given the Commission the opportunity to consider how it might better facilitate progress toward state goals. Unfortunately … even PG&E's 'Enhanced Option' will only provide 7,530 charging stations by 2020, far short of a proportional share of what is required to meet Executive Order B-16-2012, given the size of PG&E's service territory."

## II. SECTION-BY-SECTION SUMMARY OF SETTLEMENT AGREEMENT

Section 1 – Introduction and Background – Section 1 of the Settlement Agreement provides a summary of the background and rationale for the settlement, and the modifications and compromises among the parties that are included in the settlement.

Section 2 – Guiding Principles for Charge Smart and Save – Section 1 of the Settlement Agreement adopts the same Guiding Principles to guide implementation of the Charge Smart and Save program as provided in the SDG&E settlement in A.14-04-014 and approved by the Commission in D.16-01-045.

Section 3 – Definitions – Section 3 of the Settlement Agreement provides definitions of the technical terms and acronyms used in the Settlement Agreement, comparable to those applicable to the SDG&E settlement and approved in D.16-01-045.

Section 4 – Budget and Structure – Section 4 of the Settlement Agreement adopts a program cost cap of $160,324,000 ($132,191,000 capital and $28,132,000 expense) for a three year program beginning after initial construction with the same ownership structure as adopted in D.16-01-045. PG&E's proposed revenue requirements for 2017- 2019 will be as described in Tables 1 and 2 in Appendix E, including the revenue requirement equivalent of $5 million to provide a Disadvantaged Communities vehicle-equity set-aside equivalent to PG&E's original proposed amount of $5 million. The costs of the Charge Smart and Save Program will be recovered in accordance with the cost recovery and rate design proposal in Chapter 7 of PG&E's February 9, 2015, prepared testimony. The Program will extend for a three year period following initial construction of charging stations, and unexpended funds remaining at the end of the three year period may continue to be expended to install and operate additional charging stations for customers and/or site hosts enrolled as of the end of the three year period.

Section 5 – Number of Level 2 and DC Fast Charging Stations – Section 5 provides that the Charge Smart and Save Program will aim to achieve a non-binding goal of installing 7,500 Level 2 EV charging ports and 100 DC Fast Chargers (DCFC). PG&E will commit to 20 percent of deployment sites serving MUDs, with a non-binding target of 50 percent for MUDs.

Section 6 – Fuel Savings, Load Management and Renewables Integration – Section 6 intends that the Charge Smart and Save program will allow EV drivers to realize the potential fuel cost savings of electric vehicles, and that Charge Smart and Save will support load management and renewables integration objectives. It provides for a "TOU Rate-to-Driver" option, under which EV drivers will pay CPUC-approved TOU rates that encourage charging when there is spare capacity in the grid and provide the opportunity to realize fuel savings relative to gasoline. Consistent with D.16-01-045, Charge Smart and Save also provides for a "TOU-Rate-to-Host" option coupled with site host load management plans consistent with the Guiding Principles. Charge Smart and Save also specifies that PG&E will aim to leverage existing or planned load management pilots and programs, such as the Electric Power Research Institute's "Open Vehicle Grid Integration Platform" and the PG&E/BMW "iChargeForward" pilot to facilitate the integration of variable renewables and supporting the electric distribution system. PG&E agrees to create or have identified and adopted an "Advanced EV Grid Support" program, at the end of Phase 1, to be deployed in Phase 2.

Section 7 – Site Selection Criteria to Support Distributed Energy Resources – Section 7 provides that, consistent with the guidelines in D.16-01-045, PG&E in its site selection criteria will coordinate with and leverage the utility's Distribution Resources Plan (DRP) and related programs, including PG&E's DRP Integration Capacity Analysis, for integrating distributed energy resources onto PG&E's grid at optimal locations. Further, PG&E will leverage the results of its EPIC 1.22 DC Fast Charging Siting Research, conducted in partnership with researchers from UC Davis, to inform site selection of DCFCs. PG&E also will seek to align program planning to the extent possible with state and regional transportation planning efforts through engagement with parties such as Caltrans, the Metropolitan Transportation Commission, and regional Councils of Governments and Air Districts.

Section 8 – Site Host Participation Payment – Section 8 requires PG&E to assess participation payments on EV Facility Site Hosts that elect to participate in Charge Smart and Save. Based on percentage of the cost of the EV Charger, the participation payment will be 10

percent for MUDs and 20 percent for private, for-profit entities. The participation payment will be waived for EV Facilities at sites located in Disadvantaged Communities as identified in Appendix D and at sites owned or leased by school districts, government agencies or non-profit entities.

Section 9 – Selection and Choice of Level 2 Equipment and Service Providers – Section 9 provides that Site Hosts may choose Level 2 (L2) EVSE and services from a list of pre-qualified options that meet the goals of the Charge Smart and Save Program, including providing for base charging functionality and load management capability, a positive driver experience, and prudent expenditure of ratepayer funds.

Section 10 – Changes in Site Host – Section 10 provides that, in the event that ownership or control of a Site Host changes, the new Site Host shall have the option to select a billing and rate plan, consistent with current utility tariff and billing practices.

Section 11 – Competitive Pre-qualification of Equipment and Service Providers – Section 11 provides that PG&E will establish an annual qualification process in order to foster innovation and competition in EV products and services. PG&E will contract with third parties to provide operating systems and related hardware to control EVSE networks to implement the PG&E program. It is PG&E's aim to specify "what" is required to be achieved per the objectives of the Program, and not "how" these requirements are met. This is intended to leverage the EVSP market expertise and foster innovation. EV charging equipment and service providers pre-qualified by PG&E for the Charge Smart and Save Program may offer and contract with the EV Site Host or PG&E to provide any additional or complementary services, as long as these services do not interfere with the objectives of the Program. As noted in Appendix C, PG&E will encourage discussions during the qualification process that allow equipment and service providers to explore with PG&E the funding of innovative opportunities that may exceed the minimum implementation requirements of the Charge Smart and Save Program, and have the potential to enhance and improve the grid integration and clean energy benefits of the Program overall. PG&E's procurement of EV charging equipment and services will be subject to advisory

review by non-market participant members of the Program Advisory Council.

Section 12 – Cooperation and Coordination Among PG&E, CCAs and Third Party Service Providers – Section 12 provides that third party EV charging equipment and service providers pre-qualified by PG&E for the Program, in coordination with PG&E customer contact personnel and CCAs (where applicable), will have the opportunity to market and sign up potential EV Site Hosts to participate in the Charge Smart and Save Program in the targeted customer segments, and in any other customer sub-segments identified in the Settlement Agreement (e.g., Disadvantaged Communities and housing or sites that support car-sharing entities or EV fleets). This section also provides additional detail regarding how PG&E will coordinate and collaborate with CCAs to enhance the program deployment.

Section 13 – Vendor and Contractor Safety – Section 13 provides that construction, installation and maintenance contractors will have Electric Vehicle Infrastructure Training Program (EVITP) certification, and PG&E will require that all construction, installation and maintenance of EV Facilities that is not performed by employees of PG&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 PG&E and the IBEW.

Section 14 – Vendor and Contractor Diversity – Section 14 provides that the Charge Smart and Save program will be included within PG&E's WMDVBE goal. As such, the Charge Smart and Save program and contracts will request a subcontracting plan that meets PG&E's goal of reflecting the diversity of the communities it serves.

Section 15 – Disadvantaged Communities and Coordination with SB 1275 Goals and Programs – Section 15 provides that at least 15 percent of EV Facilities will be installed in Disadvantaged Communities and PG&E will pursue an additional 5 percent stretch goal that can be met with a combination of the same areas that qualify for the 15 percent minimum requirement and areas identified in the settlement that have a high concentration of customers eligible for PG&E's CARE program. Further, $5 million of the Charge Smart and Save budget will be set aside for additional equity programs aimed at increasing access to clean transportation

in Disadvantaged Communities. These strategies 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., EFMP Plus Up, Low and Moderate Income Clean Vehicle Rebate Project rebates, Financing Assistance, EV car-sharing services, etc.).

Section 16 – Hiring from Disadvantaged Communities – Section 16 provides that all Charge Smart and Save contractors shall use their best efforts to reflect the communities PG&E serves in their hiring practices, including utilizing best practices to ensure maximum outreach and opportunities to Disadvantaged Communities to increase the pool of eligible candidates for employment for EV projects, including considering first-source hiring for projects in Disadvantaged Communities. The Program Advisory Council will also monitor and provide recommendations to contractors or subcontractors associated with the increase of hiring from Disadvantaged Communities, including best practices for hiring in Disadvantaged Communities.

Section 17 –Program Advisory Council; Improving Cost Effectiveness and Increasing Access to EV Charging – Section 17 requires PG&E to solicit the participation of a broad and diverse stakeholder advisory group (the "Program Advisory Council" or "PAC") in planning and implementing the Charge Smart and Save Program following its approval by the Commission, including reviewing progress reports by PG&E on actual costs and deployment under Charge Smart and Save and opportunities to improve the cost effectiveness of the program and increase access to EV charging.

Section 18 – Program Changes by Advice Filing – Section 18 provides that, with guidance from the PAC, PG&E will make programmatic changes by advice filing as needed during the course of the Charge Smart and Save Program in line with the Guiding Principles. The Settling Parties recognize that certain changes may require advice filings with the Commission for approval.

Section 19 –Schedule for Phase 1 Program; Bridge Funding – Section 19 provides for contingency funding to prevent economic harm to contractors and disruption to program

implementation in the event the Commission has not issued a decision regarding Phase 2 of the Charge Smart and Save program in a timely manner.

Section 20 – Quarterly and Interim Progress Reports – Section 20 provides that, in order to provide an assessment of the Charge Smart and Save Program consistent with the Guiding Principles, after the Program begins installation of EV infrastructure, PG&E will file quarterly progress reports with the Commission, the PAC, and serve the reports on all parties to A.14-04-014 and R.13-11-007, as described in PG&E's supplemental testimony. PG&E also will file and serve an Interim Progress Report at the end of the second year following the beginning of construction.

Section 21 – Additional Terms and Conditions – Section 21 provides standard settlement terms and conditions, including required support by Settling Parties and an express finding that the Settlement Agreement is non-precedential under Commission Rule 12.

Appendix A – Roles and Responsibilities of PG&E Program Advisory Council – Appendix A provides for the specific roles and responsibilities of the Charge Smart and Save Program Advisory Council, consistent with the roles and responsibilities of the Program Advisory Council approved by the Commission for SDG&E's EV program under D.16-01-045.

Appendix B – Data Collection and Metrics – Appendix B provides for the collection and reporting of data and metrics regarding the Charge Smart and Save program, comparable to similar data and metrics required by the Commission for the SDG&E and SCE programs.

Appendix C – RFP Process Clarification – Appendix C provides details on the Request for Proposal (RFP) process to be followed by PG&E in procurement of EVSE equipment and services. The RFP process described in Appendix C is consistent with the RFP Process approved for SDG&E's EV program in D.16-01-04.

Appendix D – Disadvantaged Communities and CARE Customer Locations – Appendix D provides a map that identifies the boundaries of the Disadvantaged Communities and CARE customer locations which govern PG&E's obligation to site charging stations within the boundaries of such locations pursuant to Section 15 of the Settlement Agreement.

Appendix E – Settlement Costs and Revenue Requirements Tables – Appendix E provides the cost and forecast revenue requirements tables for the Charge Smart and Save Program, comparable to Tables 6 and B-4 provided for PG&E's earlier proposals in its Supplemental Testimony.[9/]

## III. COMPLIANCE WITH THE RELEVANT STATUTORY STANDARD OF REVIEW AND THE COMMISSION'S POLICY CRITERIA

The Commission's D.16-01-045, approving SDG&E's EV Program as modified, lists four principal considerations in analyzing a utility EV program:[10/]

Applicable Public Utilities Code Sections and other Relevant State Policies Goals for Transportation Electrification. California's clean energy and transportation electrification policies are included in various laws that address the deployment of EVs, EV charging infrastructure, GHG reductions, and the amount of energy that is to come from renewable sources of energy. In addition, Governor Brown's Executive Order and ZEV Action Plan provide further guidance concerning these various code sections, and what action needs to be taken. However, SB 350 (De León, 2015), which added or amended four sections of the Public Utilities Code related to transportation electrification is the most recent, most specific, and most comprehensive legislative directive for how the Commission should encourage and review utility transportation electrification programs. SB 350 amended Pub. Util. Code § 701.1 to change the mission of the utility industry, placing widespread transportation electrification on par with energy efficiency and renewable energy:

> *The Legislature finds and declares that, in addition to other ratepayer protection objectives, a principal goal of electric and natural gas utilities' resource planning and investment shall be … to improve the environment and to encourage the diversity of energy sources through improvements in energy efficiency, development of renewable energy resources, …and widespread transportation electrification.*

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9/ PG&E Supplemental Testimony, Table 6, p. 15; Table B-4, pp. B-7 to B-9

10/ D.16-01-045, pp. 88-89.

The law also defined transportation electrification in Pub. Util. Code § 737.5 as follows:

> *"Transportation electrification" means the use of electricity from external sources of electrical power, including the electrical grid, for all or part of vehicles, vessels, trains, boats, or other equipment that are mobile sources of air pollution and greenhouse gases and the related programs and charging and propulsion infrastructure investments to enable and encourage this use of electricity*

Senate Bill 350 also added Pub. Util. Code § 740.12, which directs the Commission and the utilities under its jurisdiction:

> *…to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, achieve the goals set forth in the Charge Ahead California Initiative, and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050.*

Meeting fast approaching 2023 Federal Clean Air air quality standards, deploying one million electric vehicles by 2023, increasing access to clean vehicles in disadvantaged communities as required by the Charge Ahead California Initiative, and meeting those very aggressive 2030 and 2050 greenhouse gas emissions reduction targets will require a level of EV charging infrastructure deployment that goes well beyond Phase 1 of Charge Smart and Save. However, Pub. Util. Code § 740.12 is not applicable to Phase 1 of Charge Smart and Save, because it does not meet either of the two conditions specified in Pub. Util. Code § 740.12(d).

Nevertheless, SB350 also amended Pub. Util. Code § 740.8 to clarify the standard of review for utility transportation electrification proposals, including Phase 1 of Charge Smart and Save:

> *740.8. As used in Section 740.3 or 740.12, "interests" of ratepayers, short- or long-term, mean 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.*
>
> *(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 economic benefits, including in disadvantaged communities identified pursuant to Section 39711 of the Health and Safety Code.*

Consistent with D.16-01-045, the Charge Smart and Save program proposed by the Settling Parties is in the interest of ratepayers, as defined by Public Utilities Code Section 740.8 because it will provide, under §740.8(a):[11/]

1. Safer electrical service because "all of the construction and installation of the EV charging infrastructure will be performed safely, and to code, by licensed electrical contractors with EV infrastructure training certification;"[12/]
2. More reliable electrical service by using time-of-use price signals and other load management strategies that shift EV load to hours of the day when there is spare capacity in the grid;
3. More reliable electrical service by leveraging PG&E's Distributed Resource Plan Integration Capacity Analysis to improve site selection;
4. Less costly electrical service due to improved integration of renewable generation that will result from using time-of-use rates as a foundation for load management upon which more sophisticated forms of load will be evaluated to identify an "Advanced EV Grid Support" program potentially to be deployed in Phase 2;
5. Less costly electrical service due to the improved use of the electric system that will result from time-of-use price signals and other load management strategies that shift EV load to hours of the day when there is spare capacity in the grid; and

11/ Note: while Charge Smart and Save is designed to provide all of these enumerated benefits, §740.8(a) only requires a showing of one of these or other benefits.

12/ D.16-01-045, p. 114.

6. Less costly electrical service due to the improved use of the electric system that will result from leveraging PG&E's Distributed Resource Plan Integration Capacity Analysis to improve site selection.

Likewise, consistent with D.16-01-045, Charge Smart and Save will, under 740.8(b):[13/]

1. Promote the accelerated adoption of EVs which will promote the efficiency of travel;
2. Reduce the health and environmental impacts from air pollution because vehicle electrification results in "over 85 percent fewer ozone-forming air pollutants emitted;"[14/]
3. For every mile driven on electricity in a typical EV, reduce emissions of greenhouse gases by a factor of four relative to the average new conventional vehicle in PG&E service territory;[15/]
4. Deploy EV charging stations that will increase the use of an alternative fuel; and
5. Create high-quality jobs or other economic benefits, including in disadvantaged communities, by using union labor and deploying in disadvantaged communities.

Furthermore, the Settlement Agreement, including the Guiding Principles set forth in the Settlement, make clear that the overarching objective of the Charge Smart and Save is to help implement other relevant goals set by Governor Brown and the State of California including:

- Deploy EV charging infrastructure to support one million ZEVs by 2020,
- Deploy 1 million ZEVs by 2023 and increase access to clean vehicles in disadvantaged and low and moderate income communities pursuant to the Charge Ahead California Initiative (SB 1275, De León),
- To have 1.5 million ZEVs on California roads by 2025, and

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13/ Note: while Charge Smart and Save is designed to provide all of these enumerated benefits, §740.8(b) only requires a showing of any one of these benefits.

14/ PU Code § 740.12(a)(1)(I).

15/https://www.fueleconomy.gov/feg/Find.do?zipCode=94102&year=2016&vehicleId=37066&action=bt3

- To ensure that all new vehicles sold by 2050 be ZEVs.[16/]

Through deployment of EV charging infrastructure, and promoting the adoption of EVs in California, the Charge Smart and Save program will help to achieve California's goal of reducing greenhouse gas emissions by reducing the number of vehicles that use fossil fuels and increasing the use of renewable sources of energy – just as the Commission found for SDG&E's similar EV program in D.16-01-045.

Reasonableness of Program Costs. Public Utilities Code Section 451 requires that the charges to ratepayers to pay for the program must be just and reasonable. (D.16-01-045, p. 88.) The cost of PG&E's Charge Smart and Save Program is capped at approximately $160 million, compared to PG&E's original proposal of $654 million and its revised "enhanced proposal" of $222 million. More importantly, the estimated cost of the Program to the typical residential ratepayer using 500 kilowatt hours per month in PG&E's service territory would be approximately $2.64 annually, 4 percent less than the $2.75 per year typical residential customer cost approved as "just and reasonable" by the Commission in the SDG&E decision. (D.16-01-045, p.129.)

Directive Set Forth in D.14-12-079. In D.14-12-079, the Commission endorsed an expanded role for the electric utilities to develop and support EV charging infrastructure, and eliminated the blanket prohibition in D.11-07-029 against electric utility ownership of EVSE, citing the fact that "parties' comments represent near unanimity that the utilities should have an expanded role in EV infrastructure support and development in order to realize the potential benefits of widespread EV adoption."[17/] To evaluate whether a utility should be permitted to own EVSE, the Commission in D.14-12-079 determined that this should be decided on a case-specific approach, and that a balancing test weighing the benefits of electric utility ownership of EVSE against the potential competitive limitation that may result from that ownership, should be

16/ Office of Governor Edmund Brown - https://www.gov.ca.gov/news.php?id=19235.

17/ D.14-12-079, p. 5.

used. Applying that balancing test in the SDG&E proceeding, the Commission concluded as a matter of law, "the EVSE ownership by SDG&E should be permitted in a scenario as proposed by SDG&E in the Proposed Settlement, or in a scaled down VGI pilot program patterned after the Proposed Settlement, and that such ownership would be in the ratepayers' interests and outweigh the disadvantages that could result from a lack of competition."[18/]

The Charge Smart and Save program incorporates every element upon which the Commission relied in declaring that both the $103 million settlement proposed in the SDG&E proceeding and the scaled down version of the SDG&E program adopted by the Commission passed the balancing test established by D.14-12-079:

- Under Charge Smart and Save, "site hosts or their designees, can choose the [TOU] Rate-to-Host option, which allows site hosts to offer a similar [TOU] rate or other pricing option to EV charging customers" (Language pulled from D.16-01-045 with "VGI" replaced with "TOU").[19/]
- Likewise, as in D.16-01-045, Charge Smart and Save, "allows the site host or its designee to select the EVSE and related EV charging services from preapproved vendors, which allows third party providers to offer competing EVSE and EV charging services."[20/]
- Likewise, as in D.16-01-045, under Charge Smart and Save, "the site host would have to pay a participation fee which will help offset a portion of EV charging infrastructure costs." (Also consistent with D.16-01-045, revenue from the Charge Smart and Save participation payment will be used to defray operation and maintenance expenses.)

It should also be noted that Charge Smart and Save incorporates significantly higher commitments to deploy charging stations in disadvantaged communities, a demonstrably underserved market, than either the SCE or SDG&E approved programs.

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18/ D.16-01-045, p. 177.

19/ D.16-01-045, p. 109.

20/ *Ibid*.

As explained in D.16-01-045: "As part of the balancing test adopted in D.14-12-079, the weighing of the benefits of utility ownership is to rely heavily on the guidance set forth in Public Utilities Code Section 740.8."[21/] As noted above in this Joint Motion, Charge Smart and Save far exceeds the requirements of Public Utilities Code Section 740.8, upon which the Commission should rely heavily.

Reasonableness of Settlement. Under the Commission's precedents and Rule 12.1(c), the Settlement Agreement must be reasonable in light of the whole record, consistent with the law, and in the public interest. This consideration is addressed in the next section.

## IV. THE SETTLEMENT AGREEMENT IS REASONABLE IN LIGHT OF THE WHOLE RECORD, CONSISTENT WITH LAW, AND IN THE PUBLIC INTEREST

Commission Rule 12.1(d) states that the Commission will not approve a settlement "unless the settlement is reasonable in light of the whole record, consistent with law, and in the public interest." Factors that the Commission has considered in reviewing settlements include: (1) whether the settlement negotiations were at arms-length; (2) whether major issues were addressed; and (3) whether the parties were adequately represented. As discussed below, the Settlement Agreement meets these criteria. The Settling Parties are represented by experienced CPUC practitioners, or are otherwise well-resourced and sophisticated entities. They negotiated in good faith, bargained aggressively, and, ultimately compromised. The result is a comprehensive settlement of the major issues raised by the Settling Parties and other parties. The Settlement Agreement reduces the risk that litigation will waste time and resources of the parties and the Commission.

### A. The Settlement is Reasonable In Light of the Whole Record

The Settlement Agreement is a product of substantial negotiation efforts and compromise on behalf of the Settling Parties. The Settlement Agreement is based on the prepared testimony of the Settling Parties as well as the Commission's decision and findings regarding the similar

21/ D.16-01-045, p. 105.

EV program proposed by SDG&E and approved as modified in D.16-01-045. The Settling Parties have relied extensively on the guidance and findings of the Commission in D.16-01-045 as well as their own prepared testimony and positions, including positions that have resulted in significant improvements to the "model" for a utility EV program adopted by the Commission in D.16-01-045.

In addition, the Settling Parties have included in the Settlement Agreement specific modifications and compromise changes to PG&E's proposed EV program in order to take into account the positions of parties who are not Settling Parties but who supported the resolution of certain disputed issues in the SDG&E EV settlement and D.16-01-045 that are identical to the issues in dispute in this proceeding.

In light of the testimony by the Settling Parties and other parties in this proceeding, along with the record of the Commission's resolution of identical or comparable disputed issues in the SDG&E proceeding and D.16-01-045, the Settlement Agreement in this proceeding is reasonable in light of the whole record.

**B. The Settlement Agreement is Consistent with Law and in the Public Interest.**

As discussed in detail in Section III, above, the Settlement Agreement is in the public interest because it fully supports California's transportation electrification, electric vehicle, and greenhouse gas reduction goals, and will make a significant contribution to achieving Governor Brown's Executive Order and ZEV Action Plan goals as well as goals adopted by the California Legislature, such as those enacted in the Charge Ahead California Initiative of deploying one million ZEVs by 2023 and increasing access to clean transportation in disadvantaged and low and moderate income communities.

In addition, the Settlement Agreement meets and exceeds the Commission's statutory and decisional criteria for approval of utility EV deployment programs under the Public Utilities Code.

For these reasons, the Settling Parties find that PG&E's Charge Smart and Save program, including the significant modifications to PG&E's original proposals, is consistent with law and in the public interest.

## V. REQUESTED FINDINGS AND RELIEF

For the reasons stated above and based on the record in this proceeding and the Commission's findings and guidance in D.14-12-079, D.16-01-045 and D.16-01-023, the Settling Parties request the following findings and relief:

1. The Settlement Agreement is reasonable in light of the whole record, consistent with law, and in the public interest.

2. The Settling Parties' Joint Motion to Adopt the Settlement is granted.

3. The Settlement Agreement is adopted in its entirety with no modifications, and the Charge Smart and Save Program is approved.

## VI. CONCLUSION

The Settling Parties appreciate the compromises and good faith negotiation that have led to the Settlement Agreement. The Settling Parties respectfully request that the Commission expeditiously grant this Joint Motion and approve the Settlement Agreement and Charge Smart and Save Program without modification.

Respectfully Submitted,

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By: */s/ Christopher J. Warner*
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Dated: March 21, 2016

**CHARGE SMART AND SAVE SETTLEMENT AGREEMENT REGARDING PACIFIC GAS AND ELECTRIC COMPANY'S ELECTRIC VEHICLE INFRASTRUCTURE AND EDUCATION PROGRAM APPLICATION, A.15-02-009**

Pursuant to California Public Utilities Commission's Rules of Practice and Procedure, Article 12, Rule 12.1, Pacific Gas and Electric Company ("PG&E"), Alliance of Automobile Manufacturers, American Honda Motor Co., Inc., Center for Sustainable Energy, Coalition of California Utility Employees, General Motors, LLC , Greenlots, The Greenlining Institute, Marin Clean Energy, Natural Resources Defense Council, Plug In America, Sierra Club, and Sonoma Clean Power (collectively, together with PG&E, the "Settling Parties") enter into this settlement agreement ("Settlement Agreement") modifying PG&E's Electric Vehicle Infrastructure and Education Program proposal, submitted for Commission consideration in Application A.15-02-009 and supporting testimony dated February 9, 2015 (the "Application"), Supplemental Testimony dated October 12, 2015 ("Supplemental Testimony"), and Rebuttal Testimony dated December 21, 2015 ("Rebuttal Testimony") as the "Charge Smart and Save" program.

Except as otherwise identified, citation references in this Settlement Agreement are to the materials filed with or issued by the Commission in connection with the Application and Supplemental Testimony.

The Settling Parties believe that the Settlement Agreement is reasonable in light of the whole record, consistent with law, and in the public interest.

## SECTION 1. Introduction and Background

The Settling Parties appreciate the policy guidance and criteria provided by the Commission and the settling parties in the San Diego Gas & Electric (SDG&E) and Southern California Edison (SCE) electric vehicle proceedings. The Settling Parties agree that PG&E's "Electric Vehicle Infrastructure and Education Program" should be substantially modified to create the "Charge Smart and Save" program to take into account the ratepayer interest and key reasonableness criteria adopted for SDG&E's Vehicle Grid Integration (VGI) program approved in Decision No. (D.) 16-01-045 issued on January 28, 2016.

Consistent with D. 16-01-045, the Charge Smart and Save program proposed by the Settling Parties is in the interest of ratepayers, as defined by Public Utilities Code Section 740.8 as modified by Senate Bill 350 (De León, 2015) because it will provide, under §740.8(a):[1/]

1. Safer electrical service because "all of the construction and installation of the EV charging infrastructure will be performed safely, and to code, by licensed electrical contractors with EV infrastructure training certification;"[2/]

1/ Note: while Charge Smart and Save is designed to provide all of these enumerated benefits, §740.8(a) only requires a showing of one of these or other benefits.

2/ D.16-01-045, p. 114.

2. More reliable electrical service by using time-of-use price signals and other load management strategies that shift EV load to hours of the day when there is spare capacity in the grid;
3. More reliable electrical service by leveraging PG&E's Distributed Resource Plan Integration Capacity Analysis to improve site selection;
4. Less costly electrical service due to improved integration of renewable generation that will result from using time-of-use rates as a foundation for load management upon which more sophisticated forms of load will be evaluated to identify an "Advanced EV Grid Support" program to be deployed in Phase Two;
5. Less costly electrical service due to the improved use of the electric system that will result from time-of-use price signals and other load management strategies that shift EV load to hours of the day when there is spare capacity in the grid; and
6. Less costly electrical service due to the improved use of the electric system that will result from leveraging PG&E's Distributed Resource Plan Integration Capacity Analysis to improve site selection.

Likewise, consistent with D.16-01-045, Charge Smart and Save will, under 740.8(b):[3/]

1. Promote the accelerated adoption of EVs which will promote the efficiency of travel;
2. Reduce the health and environmental impacts from air pollution because vehicle electrification results in "over 85 percent fewer ozone-forming air pollutants emitted;"
3. For every mile driven on electricity in a typical EV, reduce emissions of greenhouse gases by a factor of four relative to the average new conventional vehicle in PG&E service territory;[4/]
4. Deploy EV charging stations that will increase the use of an alternative fuel; and
5. Create high-quality jobs or other economic benefits, including in disadvantaged communities, by using union labor and deploying in disadvantaged communities.

The Commission applied criteria in D.16-01-045 to evaluate the reasonableness of SDG&E's settlement under the balancing test of D.14-12-079,[5/] which the Settling Parties have addressed in this Settlement Agreement:

1. Site host ability to choose among pre-qualified EV equipment and services;

2. Pricing flexibility and the ability of site hosts to choose a "rate-to-host" option;

3. Requiring participation payments by site hosts; and

4. An average bill impact on non-participating customers not to exceed $2.75 annually.

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3/ Note: while Charge Smart and Save is designed to provide all of these enumerated benefits, §740.8(b) only requires a showing of any one of these benefits.

4/https://www.fueleconomy.gov/feg/Find.do?zipCode=94102&year=2016&vehicleId=37066&action=bt3

5/ D.16-01-045, pp. 103- 111.

In addition to incorporating these common programmatic elements, the Settling Parties agree that Charge Smart and Save includes substantial improvements and will test certain alternatives to the SDG&E approved VGI program and the SCE approved Charge Ready pilot, in order to provide additional benefits and useful information consistent with the Commission's EV policies and standards as adopted in D.16-01-045 and D.14-12-079. For example, relative to SDG&E's VGI Pilot and SCE's Charge Ready pilot, PG&E's Charge Smart and Save will:

- Test the use of time-of-use price signals seen by EV drivers as an alternative to hourly dynamic pricing as a simpler means of providing foundational load management, upon which more sophisticated forms of load management will be evaluated.

- Deploy DC Fast Charging stations, which are needed to accelerate the market, especially for pure battery electric vehicles, and test the use of DC Fast Charging as a means to increase access to the use of electricity as a transportation fuel.

- Increase the targeted share for charging station deployment in Disadvantaged Communities to 15% of sites, a 50% improvement relative to the SDG&E and SCE programs, with a stretch goal of 20% for disadvantaged and low-income communities.

- Set aside an additional $5 million to fund complementary and innovative programs to further the goals of the Charge Ahead California Initiative (SB 1275) and increase access to clean transportation in disadvantaged communities.

- Explore how collaboration with Community Choice Aggregators (CCAs) will further enhance both the deployment rate of EV equipment and services, and the usage rate of electricity as a transportation fuel.

These improvements and others made by the Settlement further enhance the program for PG&E customers, deliver greater benefits to disadvantaged communities, and will promote the innovation and expertise of existing and future Electric Vehicle Service Providers (EVSPs).

The Settling Parties also agree that the Charge Smart and Save program is desirable to incorporate the views of stakeholders and to support the Governor's 2020, 2025, and 2050 electric vehicle adoption and infrastructure goals, as well as California's broader clean air, equity, and climate change objectives.

The 18 modifications and improvements to PG&E's Program made by the Settlement are summarized below and addressed in detail in the terms and conditions of the Settlement. For convenient comparison to the Commission's decision on the SDG&E settlement, the modifications and improvements follow the same major topical headings as D.16-01-045.

- **Rationale for Charge Smart and Save**– The Settling Parties agree that the Charge Smart and Save program will focus on increasing access to reliable and affordable electric vehicle charging to help implement the goals set by Governor Brown and the California Legislature to deploy EV charging infrastructure in support of one million ZEVs by 2020, to deploy 1 million ZEVs by 2023 and to increase access to clean

vehicles in disadvantaged communities pursuant to the Charge Ahead California Initiative (SB 1275, De León), to have 1.5 million ZEVs on California's roads by 2025, and to ensure that 100 percent of all new vehicles sold in 2050 are ZEVs. In addition, the Settling Parties agree that the Program will seek to ensure EV drivers realize the benefits of potential fuel cost savings from EVs and that EV benefits are coordinated with additional benefits relating to integration of renewables and load management programs that also provide savings from clean energy.

- **Cost, Size, Structure and Duration of Charge Smart and Save** – The Settling Parties agree that the cost of Charge Smart and Save should be substantially reduced from PG&E's $222 million "Enhanced Proposal," to a cost cap of no more than $160 million as described in Appendix E, with a target of 7,500 Level 2 charging ports and a target of 100 DC Fast Chargers. PG&E will seek to achieve these cost-effective deployment goals by offering site-appropriate additional technologies, such as dual-port Level 2 charging stations, and seeking cost reductions through the procurement, site selection, and implementation process. Any cost savings on site-specific deployment costs will be used for additional deployment not to exceed the cost cap. Based on PG&E's current electric revenue requirements, the Settling Parties agree that the maximum estimated cost of the program to the typical residential ratepayer of PG&E using 500 kilowatt hours per month in PG&E's service territory would be approximately $2.64 annually, less than the $2.75 per year typical residential customer cost with full rollout of the program approved as reasonable by the Commission in the SDG&E decision. Those cost estimates do not account for the downward pressure on rates that will result from properly managed widespread transportation electrification. PG&E would own the charging stations on the same terms and conditions as the Commission approved for SDG&E in the SDG&E decision, D.16-01-045. The duration of Charge Smart and Save will be three years from the beginning of construction.

- **Guiding Principles –** PG&E will follow the same guiding principles adopted by the Commission in the SDG&E decision, D.16-01-045.

- **Targeting of Multi-Unit Dwellings (MUDs) and Workplaces –** To ensure adequate deployment at MUDs, without hindering program implementation that will remain demand driven, PG&E will aim for 50 percent of sites to be MUDs, and commits to deploy at least 20 percent of EV Sites at MUDs. Deployment will be limited to the market segments identified in PG&E's testimony, which include MUDs, workplaces, fleet locations, and public facilities such as government buildings and community destinations.

- **Choice of Charging Technology –** PG&E will contract with third parties to provide Electric Vehicle Supply Equipment (EVSE) operating systems, network services and related hardware to implement the PG&E program. It is PG&E's aim to specify "what" is required to be achieved per the objectives of Charge Smart and Save, and not "how" these requirements are met. This approach is intended to leverage the EVSP market expertise and foster innovation. Site hosts may choose L2 EVSE and services from a list of pre-qualified providers that meet the goals of this program, including providing for

base charging functionality and load management capability, a positive driver experience, and prudent expenditure of ratepayer funds. PG&E will establish an annual qualification process in order to foster innovation and competition for EV charging products and services. PG&E's procurement of EV charging equipment and services shall be subject to advisory review by Non-Market Participant members of the Program Advisory Council.

- **DC Fast Chargers –** In deploying a target of 100 DCFC, PG&E will select DCFC site equipment and network providers through a competitive solicitation process. DCFC site hosts will not be subject to participation payments. EV drivers will be charged applicable CPUC-approved rates for DCFC charging. To improve site selection and to ensure Charge Smart and Save is complementary to other efforts, PG&E will coordinate with the California Energy Commission and others administering or implementing DCFC programs in PG&E's service territory. PG&E will also leverage the results of its EPIC 1.22 DC Fast Charging Siting Research, conducted in partnership with researchers from UC Davis, to inform site selection of DCFCs. PG&E will also evaluate potential DCFC load management strategies. The number of DCFC ports per site will be varied to suit the attributes of individual sites and likely driver use cases.

- **Disadvantaged Communities and Furthering Goals of the Charge Ahead California Initiative (SB 1275, De León) –** PG&E increases its commitment to require a minimum of 15 percent of the charging station deployment to be located in the top quartile of Disadvantaged Communities identified by CalEnviroScreen 2.0 on a PG&E service territory basis (see Appendix D). PG&E will seek to meet an additional 5 percent stretch goal in a combination of the same areas that qualify for the 15 percent commitment and areas identified that have a high concentration of low-income PG&E customers eligible for PG&E's California Alternate Rates for Energy (CARE) program. To improve the effectiveness of the program, PG&E will work with the Program Advisory Council to identify priority areas of focus for EV infrastructure deployment, education and outreach (e.g., EV ride and drive events, etc.) and related activities. DCFC charging stations located outside of Disadvantaged Communities may count towards the 15 percent minimum deployment if they demonstrate co-benefits to the disadvantaged communities. Further, $5 million of the Charge Smart and Save budget will be set aside for additional equity programs increasing access to clean vehicles in Disadvantaged Communities. The Disadvantaged Communities elements in Charge Smart and Save should be implemented in a manner that complements statewide low-income programs being implemented under SB 1275 (2014, De León).

- **Supplier Diversity –** Charge Smart and Save will be included within PG&E's WMDVBE goal. As such, the program and supplier contracts will request a subcontracting plan that meets PG&E's goal of reflecting the diversity of the communities it serves.

- **Data Collection, Monitoring, and Reporting –** PG&E shall collect, monitor, and report data under similar requirements as required for SDG&E in D.16-01-045. In addition to data reporting elements required in D.16-01-045 (adapted to the specific rates and

services provided under Charge Smart and Save), PG&E will collect, monitor, and report on additional elements proposed in the Supplemental Testimony and proposed herein. Additionally, data collected within communities served by CCAs will be made available to those communities' CCA service providers.

- **Metering and Billing - "TOU Rate-to-Driver" and "TOU Rate-to-Host" Billing Options** – PG&E will offer Site Hosts an option of "Time-of-Use (TOU) Rate-to-Driver" or "TOU Rate-to-Host" billing. Under the default TOU Rate-to-Driver option, PG&E will serve electricity to service providers who will then pass the TOU price signals directly to EV drivers to ensure that drivers who charge in a manner that supports the grid have the opportunity to realize the fuel cost savings. Under the "TOU Rate-to-Host" option, Site Hosts will receive the TOU price signals, and will be able to propose alternative pricing and load management tactics consistent with Program Guiding Principles.

- **Program Advisory Council –** PG&E will solicit, form and support a Program Advisory Council (PAC) under the same terms, conditions and responsibilities as adopted by the Commission for the SDG&E PAC in D.16-01-045, Attachment 2, Appendix A. As specified in the SDG&E decision, after consulting with the PAC, PG&E will use Tier 2 advice letters for mid-course program modifications that require Commission authorization.

- **Participation Payment –** Site hosts will be required to make a participation payment. Based on the percentage cost of the EV Charger, the participation payment shall be 10 percent for MUDs and 20 percent for private, for-profit entities. The participation payment will be waived at sites located in Disadvantaged Communities as identified in Appendix D; at sites owned or leased by government agencies or non-profit entities; and at DCFC sites. After consultation with the Program Advisory Council, PG&E may file for modification of the participation payment by way of a Tier 2 advice letter, subject to protest by any party. The revenue collected from participation payments shall be credited against program operation and maintenance costs.

- **Safety Considerations** – Construction, installation and maintenance contractors will have Electric Vehicle Infrastructure Training Program (EVITP) certification, and PG&E will require that all construction, installation and maintenance of EV Facilities that is not performed by employees of PG&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 PG&E and the IBEW. Consistent with D.16-01-045, requiring that, "all of the construction and installation of the EV charging infrastructure will be performed safely, and to code, by licensed electrical contractors with EV infrastructure training certification" meets the interest of ratepayers as defined by Public Utilities Code 740.8.

- **Balancing Account, Phasing and Future Expanded EV Programs under Public Utilities Code Section 740.12** – The rate design, cost recovery and balancing account provisions in PG&E's Supplemental Testimony will apply to the ratemaking for Charge

Smart and Save. In addition, in order to balance oversight of Charge Smart and Save with the need to avoid disruptive gaps in EV infrastructure deployment in the event that the Commission has failed to issue a decision on a PG&E Phase 2 Charge Smart and Save proposal before the termination of Phase 1, PG&E by advice filing may extend Charge Smart and Save by one year at the average monthly cost of the program for the previous 12 months, subject to balancing account treatment. Any funding remaining unexpended from the Phase 1 budget will be credited against the "bridge funding" request. Any PG&E Phase 2 proposal to expand Charge Smart and Save will be consistent with guidance or rulings provided by the Commission under the statutory criteria adopted for programs and investments to accelerate widespread transportation electrification under Public Utilities Code Section 740.12.

**SECTION 2. Guiding Principles.** The Settling Parties have developed the following Guiding Principles, which have informed the proposed modifications and should guide Charge Smart and Save implementation:

1. Must support the Governor's and California state goals to:
    a. Achieve installation of EV infrastructure to support 1 million zero emission vehicles by 2020;
    b. Accelerate the adoption of 1.5 million zero emission vehicles by 2025;
    c. Support clean air and climate change objectives.
2. Must be structured to provide net benefits to all ratepayers.
3. Must protect ratepayers by ensuring that assets continue to be used and useful.
4. Must provide EV drivers the opportunity to maximize fuel cost savings relative to conventional transportation fuels.
5. Must provide equitable deployment of services to all ratepayers, including statutory requirements and directives to serve disadvantaged communities and increase access to clean transportation
6. Must provide customer choice. CCAs will provide generation services for EV Facilities in CCA jurisdictions, subject to ability of Site Host to opt-out consistent with CCA rules and regulations.
7. Must support broad-based investment in electric vehicle charging equipment and services by public, private and utility entities and avoid anticompetitive impacts on the markets for EV charging equipment and related services.
8. Must manage program costs
9. Must incorporate learning-by-doing and make adjustments to Charge Smart and Save, as needed.
10. Must provide data to help inform State policy.
11. Must utilize rate design and load management practices to facilitate the integration of renewable energy resources, as well as deliver other grid benefits.

12. The Charge Smart and Save Program will be included within PG&E's WMDVBE goal. As such, the Charge Smart and Save Program and supplier contracts will request a subcontracting plan that meets PG&E's goal of reflecting the diversity of the communities it serves.

13. Must complement other utility clean energy programs and other non-utility programs, such as those being implemented pursuant to the Charge Ahead California Initiative (Stats. 2014, Ch. 530), which will build consumer demand for clean energy and zero emission vehicles.

**SECTION 3. Definitions**

"Air Resources Board" means the California Air Resources Board of the California Environmental Protection Agency.

"Application" means PG&E's Application A.15-02-009 filed with the Commission February 9, 2015.

"Commission" means the California Public Utilities Commission.

"DBE" means a diverse business enterprise certified by The Supplier Clearinghouse pursuant to Commission General Order 156.

"DC Fast Charging" means a method of quickly charging certain electric vehicles with a high power direct current (DC) charging source.

"Disadvantaged Communities" means disadvantaged communities as identified by the

California Environmental Protection Agency's EnviroScreen 2.0 tool developed pursuant to SB 535 (De León, 2012), on a PG&E service territory basis.

"Energy Division" means the Energy Division of the California Public Utilities Commission.

"EV Driver" means a person using EV Facilities to charge an EV.

"EV" means an electric vehicle that is capable of being charged using EVSE.

"EVSE" means electric vehicle supply equipment used for charging EVs

"Guiding Principles" means those guiding principles agreed by the Settling Parties to guide Charge Smart and Save implementation, as set forth in Section III below.

"MUD" means multi-unit dwelling.

"Non-Market Participant" means an entity that is not engaged in the sale and ownership of EV charging equipment and services.

"PAC" means Charge Smart and Save Program Advisory Council formed pursuant to this Settlement Agreement.

"PG&E" means Pacific Gas and Electric Company, a California regulated public utility.

"Settlement Agreement" means this Settlement Agreement dated as of March 21, 2016 by and among the Settling Parties.

"Settling Parties" means the parties' signatory to this Settlement Agreement.

"EV Facility" means a group of EVSE or charging stations installed with a separate electric service per Charge Smart and Save.

"Provider" means a third-party EV services or equipment provider.

"Charge Smart and Save" means PG&E's Electric Vehicle Infrastructure and Education Program set forth in the Application, as modified by this Settlement Agreement.

"EV Site Host" or "Site Host" means the owner of the site at which the EV Facility is located.

"TOU Rate" means the time-of-use rates described in PG&E's direct testimony.

"TOU Rate-to-Driver" means the billing option where the TOU Rate is billed to the Provider and the Provider passes TOU price signals directly to the driver.

"TOU Rate-to-Host" means the billing option where the TOU Rate is billed to the EV Facility site host as outlined in this Settlement Agreement.

**SECTION 4. Budget and Structure.** The Settling Parties find reasonable, as modified, PG&E's proposal for the implementation of Charge Smart and Save, ownership of EV Facilities and EVSE, and cost recovery as described in PG&E's Application and Supplemental Testimony, subject to the modifications identified in this Settlement Agreement including a reduction in the approved cost of the Program to $160,324,000 ($132,191,000 capital and $28,132,000 expense). PG&E's proposed revenue requirements for 2017- 2019 will be as described in Tables 1 and 2 in Appendix E, including the revenue requirement equivalent of $5 million to provide the Disadvantaged Communities vehicle-equity set-aside equivalent to PG&E's original proposed amount of $5 million. The costs of Charge Smart and Save will be recovered in accordance with the cost recovery and rate design proposal in Chapter 7 of PG&E's February 9, 2015, prepared testimony. PG&E's Program will extend for a three year period following initial construction of charging stations, and unexpended funds remaining at the end of the three year period may continue to be expended to install and operate additional charging stations for customers and/or site hosts enrolled as of the end of the three year period.

**SECTION 5. Number of Level 2 and DCFC Charging Stations.** PG&E's Program shall aim to achieve a non-binding goal of installing 7,500 Level 2 EV charging ports and 100 DC Fast Chargers (DCFC). PG&E's Program shall commit to 20 percent of deployment sites serving MUDs, with a non-binding target of 50 percent for MUDs. Deployment will be limited to the market segments identified in PG&E's testimony, which include MUDs, workplaces, fleet locations, and public facilities such as government buildings and community destinations.

**SECTION 6. Fuel Savings, Load Management, & Renewables Integration.** It is the intention of the Settling Parties that Charge Smart and Save will allow EV drivers to realize the potential fuel cost savings of electric vehicles, and that Charge Smart and Save will support load management and renewables integration objectives.

Under the "TOU Rate-to-Driver" option, EV drivers will pay CPUC-approved TOU rates that encourage charging when there is spare capacity in the grid and provide the opportunity to realize fuel savings relative to gasoline. The EVSP will be served at an applicable, commercial, time-of-use rate, such as Schedule A-6 (if less than 75 kilowatt), Schedule A-10 or Schedule E-

19 (voluntary service), as PG&E's customer of record. The Provider will then deliver energy to drivers at the price per kWh reflected in the selected rate at that time.

Consistent with D.16-01-045, where the Program site host opts to receive the TOU Rate (i.e., the Rate-to-Host pricing plan), the site host, or its selected vendor, will be required to submit to PG&E the load management tactics it will implement at its EV Facility, including the prices or fees that it intends to levy on EV drivers, and any communication methods to be used to implement the load management tactics. Site hosts that do not submit load management plans consistent with the Guiding Principles will be asked by PG&E to revise accordingly and will be ineligible to participate in the Program until PG&E determines that the load management plan is consistent with the Guiding Principles. Load Management tactics may include, but are not limited to, charging curtailment during peak system usage, communications with drivers to voluntarily avoid or limit charging during peak system usage, or integration with other demand-management technologies (such as stationary energy storage). PG&E expects this will foster innovative approaches by site hosts and service providers to develop and propose load management under the Rate-to-Host option. Participation in the Rate-to-Host option will not be unreasonably withheld. As with Site Hosts that opt for the TOU Rate-to-Driver pricing plan, site usage patterns will be monitored, and in addition, site host determined prices or fees (to use the EV Facility) will be tracked for those site hosts that opt for the TOU Rate-to-Host pricing plan. These data will be used to inform Commission policy.

PG&E will aim to leverage existing or planned load management pilots and programs, such as the Electric Power Research Institute's "Open Vehicle Grid Integration Platform" and the PG&E/BMW "iChargeForward" pilot. Program network and equipment solicitation requirements will include system load management capability. EV load management will focus on facilitating the integration of variable renewables and supporting the electric distribution system. PG&E agrees to create or have identified and adopted an "Advanced EV Grid Support" program, at the end of Phase 1 subject to any necessary regulatory approvals including cost recovery. The Advanced EV Grid Support program, once available, will be implemented as necessary to further the clean air, climate change and load management objectives identified in Guiding Principles 1 and 6, and the load management and renewable energy benefits described in testimony (PG&E Opening Testimony, p. 1-12, l. 6-10; PG&E Supplemental Testimony page 3, l. 25-30).

**SECTION 7. Site Selection Criteria.** Consistent with the guidelines in D.16-01-045, PG&E in its site selection criteria will coordinate with and leverage the utility's Distribution Resources Plan (DRP) and related programs, including PG&E's DRP Integration Capacity Analysis, for integrating distributed energy resources onto PG&E's grid at optimal locations. Further, PG&E will leverage the results of its EPIC 1.22 DC Fast Charging Siting Research, conducted in partnership with researchers from UC Davis, to inform site selection of DCFCs. PG&E will also seek to align program planning to the extent possible with state and regional transportation planning efforts through engagement with parties such as Cal Trans, the Metropolitan Transportation Commission, and regional Councils of Governments and Air Districts.

**SECTION 8. Site Host Participation Payment**. PG&E will assess participation payments on EV Facility Site Hosts that elect to participate in Charge Smart and Save. Based on percentage

of the cost of the EV Charger, the participation payment shall be 10 percent for MUDs and 20 percent for private, for-profit entities. The participation payment will be waived for EV Facilities at sites located in Disadvantaged Communities as identified in Appendix D and at sites owned or leased by school districts, government agencies or non-profit entities. After consultation with the Program Advisory Council, PG&E may file for modification of the participation payment by way of a Tier 2 advice letter, subject to protest by any party. Consistent with D.16-01-045, the revenue collected from participation payments shall be credited against Operations and Maintenance (O&M) costs incurred for EV charging stations under Charge Smart and Save.

**SECTION 9. Selection and Choice of Level 2 Equipment and Service Providers.** Site Hosts may choose Level 2 (L2) EVSE and services from a list of pre-qualified options that meet the goals of Charge Smart and Save, including providing for base charging functionality and load management capability, a positive driver experience, and prudent expenditure of ratepayer funds.

**SECTION 10. Changes in Site Host.** In the event that ownership or control of a Site Host changes, the new Site Host shall have the option to select a billing and rate plan, consistent with current utility tariff and billing practices.

**SECTION 11. Competitive Pre-qualification of Equipment and Service Providers.** PG&E will establish an annual qualification process in order to foster innovation and competition in EV products and services. PG&E will contract with third parties to provide operating systems and related hardware to control EVSE networks to implement the PG&E program. It is PG&E's aim to specify "what" is required to be achieved per the objectives of the Program, and not "how" these requirements are met. This is intended to leverage the EVSP market expertise and foster innovation. EV charging equipment and service providers pre-qualified by PG&E for the Charge Smart and Save may offer and contract with the EV Site Host or PG&E to provide any additional or complementary services, as long as these services do not interfere with the objectives of the Program. The costs of these additional services will not be borne by the Program, unless they are complementary services necessary to support Charge Smart and Save objectives. As such, as noted in Appendix C, PG&E will encourage discussions during the qualification process that allow equipment and service providers to explore with PG&E and the resident CCA (where applicable) the funding of innovative opportunities that may exceed the minimum implementation requirements of Charge Smart and Save, and have the potential to enhance and improve the grid integration and clean energy benefits of the Program overall. PG&E's procurement of EV charging equipment and services shall be subject to advisory review by Non-Market Participant members of the Program Advisory Council.

**SECTION 12. Cooperation and Coordination among PG&E, CCAs and Third Party Service Providers.** Third party EV charging equipment and service providers pre-qualified by PG&E for the Program, in coordination with PG&E customer contact personnel and CCAs (where applicable), will market and sign up potential EV Site Hosts to participate in Charge Smart and Save in the targeted customer segments, and in any other customer sub-segments identified in the Settlement Agreement (e.g., Disadvantaged Communities and housing or sites that support car-sharing entities or EV fleets). Responses to the RFP should reflect this requirement. Competitively neutral descriptions of Charge Smart and Save will be prepared by

PG&E and shall be used by third parties; third parties shall be permitted to develop and utilize their own marketing materials at their own expense, consistent with and subject to PG&E's Co-branding Policy and approval process. Marketing conducted for the Charge Smart and Save program, whether by PG&E or any third party, will not discriminate against or adversely impact CCA programs or their customers pursuant to CCA rules and regulations. In order to create and maintain a positive customer experience with the EV Program, the third parties will be required to describe how they will share the initial and ongoing customer relationships with PG&E, the resident CCA (where applicable) and the EV Facility site host, operator and EV driver. Vendors will be permitted to contract directly with site hosts for services as long as these services do not interfere with the objectives of Charge Smart and Save (as stated above). For EV charging equipment and service deployment efforts within communities participating in CCA programs, PG&E staff will collaborate and coordinate with the corresponding CCA to further enhance these deployment efforts within these communities. Furthermore, any marketing efforts to promote Charge Smart and Save within such communities will be presented in a manner that highlights the collaborative efforts of PG&E and the resident CCA.

**SECTION 13**. **Vendor and Contractor Safety.** Construction, installation and maintenance contractors will have Electric Vehicle Infrastructure Training Program (EVITP) certification, and PG&E will require that all construction, installation and maintenance of EV Facilities that is not performed by employees of PG&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 PG&E and the IBEW. Consistent with D.16-01-045, requiring that, "all of the construction and installation of the EV charging infrastructure will be performed safely, and to code, by licensed electrical contractors with EV infrastructure training certification" meets the interest of ratepayers as defined by Public Utilities Code 740.8.

**SECTION 14. Vendor and Contractor Diversity.** The Charge Smart and Save program will be included within PG&E's WMDVBE goal. As such, the Charge Smart and Save program and contracts will request a subcontracting plan that meets PG&E's goal of reflecting the diversity of the communities it serves.

**SECTION 15. Disadvantaged Communities and Coordination with SB 1275 Goals and Programs.** At least 15 percent of EV Facilities by the number of sites shall be installed in the top quartile of Disadvantaged Communities identified by CalEnviroScreen 2.0 on a PG&E service territory basis (See blue areas identified in Appendix D); and PG&E shall pursue an additional 5 percent stretch goal that can be met with a combination of the same areas that qualify for the 15 percent minimum requirement (see blue areas identified in Appendix D) and areas identified in the settlement that have a high concentration of customers eligible for PG&E's CARE program (see aqua areas identified in Appendix D). Further, $5 million of the Charge Smart and Save budget will be set aside for additional equity programs supporting Disadvantaged Communities. DCFC stations outside of Disadvantaged Communities will count towards the 15 percent deployment minimum if they can demonstrate co-benefits. PG&E will consult with the Program Advisory Council to identify priority areas of focus for EV infrastructure development, education and outreach (e.g., EV ride and drive events) and related activities, as well as pre-qualifying and signing-up site hosts for participation in Charge Smart and Save. In addition, PG&E will work with the Program Advisory Council, including

representatives from automobile manufacturers, to advance strategies to increase access to EVs in low and moderate income communities. These strategies 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., EFMP Plus Up, Low and Moderate Income Clean Vehicle Rebate Project rebates, Financing Assistance, EV car-sharing services, etc.).

**SECTION 16. Hiring for Disadvantaged Communities**. All Charge Smart and Save contractors shall use their best efforts to reflect the communities PG&E serves in their hiring practices, including utilizing best practices to ensure maximum outreach and opportunities to disadvantaged communities to increase the pool of eligible candidates for employment for EV projects, including considering first-source hiring for projects in Disadvantaged Communities. The Program Advisory Council will also monitor and provide recommendations to contractors or subcontractors associated with the increase of hiring from Disadvantaged Communities, including best practices for hiring in Disadvantaged Communities.

**SECTION 17. Program Advisory Council; Improving Cost Effectiveness and Increasing Access to Charging**. PG&E will solicit the participation of a broad and diverse stakeholder advisory group (the "Program Advisory Council" or "PAC") in planning and implementing Charge Smart and Save following its approval by the Commission, including reviewing progress reports by PG&E on actual costs and deployment under Charge Smart and Save and opportunities to improve the cost effectiveness of the program and increase access to EV charging. The Charge Smart and Save PAC will include representatives from local and state government (including representation from the Energy Division and Community Choice Aggregation programs), industry, labor and other stakeholder participants, ratepayer and environmental advocates, and representatives of Disadvantaged Communities. PG&E shall consult on a confidential basis with Non-Market Participant members of the PAC on the specifications, bid criteria and results of procurement of EV charging stations and related equipment from third-party EVSE suppliers. Ongoing cost details that are market-sensitive shall be reviewed only by Non-Market Participant members. Details regarding the roles, responsibilities and frequency of meetings are described in Appendix A to this Settlement Agreement.

**SECTION 18. Program Changes by Advice Filing**. With guidance from the PAC, PG&E will make programmatic changes as needed during the course of Charge Smart and Save in line with the Guiding Principles noted above. The Settling Parties recognize that certain changes may require advice filings with the Commission for approval. Programmatic changes will be made by advice filing on an on-going basis, running concurrent with Charge Smart and Save, so as not to impact its overall progress. Data collection and Program assessment criteria used to determine the need for any programmatic change are identified in PG&E's prepared supplemental testimony, as further described in Appendix B. Information will be provided to the PAC in a manner similar to PG&E's Procurement Review Group.

**SECTION 19. Schedule for Phase 1 Program; Bridge Funding.** PG&E will continue to enroll customers in the program for three years from the beginning of construction. If sufficient

funds remain at the end of the three year sign-up period, PG&E will extend the sign-up period to increase the number of site installations and charging stations with the remaining budget.

As detailed in PG&E's supplemental testimony, if PG&E has not received a decision from the Commission regarding Phase 2 of Charge Smart and Save, PG&E will file a Tier 2 Advice Letter to authorize bridge funding to extend the program for up to 1 year or until a decision is reached. PG&E will credit any remaining Phase 1 funds not spent during the three-year period against its request for bridge funding. PG&E's bridge funding mechanism is modified to restrict the bridge funding to the average monthly cost and deployment rate of the Program for the previous 12 months of Charge Smart and Save, less any unspent funds from the budget at the end of the third year.

**SECTION 20. Quarterly and Interim Progress Reports.** In order to provide an assessment of Charge Smart and Save consistent with the Guiding Principles, after Charge Smart and Save begins installation of EV Facilities, PG&E will file quarterly progress reports with the Commission, the PAC, and serve the reports on all parties to A.14-04-014 and R.13-11-007, as described in PG&E's supplemental testimony. PG&E also will file and serve an Interim Progress Report at the end of the second year following the beginning of construction. The progress reports will include data as described in PG&E's supplemental testimony and Appendix B and a description of any Programmatic changes implemented by PG&E prior to the date of the report. Parties will be permitted to file informal comments and reply comments on the progress reports.

**SECTION 21. Additional Terms and Conditions.**

Performance. The Settling Parties agree to support this Settlement Agreement before the Commission, and shall perform diligently, and in good faith, all actions reasonably required of each Settling Party, including the execution of any other documents required to effectuate the terms of this Settlement Agreement, and the preparation of exhibits for, and presentation of witnesses at, any required hearings to obtain the approval and adoption of this Settlement Agreement by the Commission. No Settling Party will contest in this proceeding, or in any other forum with jurisdiction to review the Settlement Agreement, or in any manner before this Commission, the recommendations contained in this Settlement Agreement. The Settling Parties will use best efforts before the Commission to ensure that this Settlement Agreement is approved by the Commission as soon as possible. In this regard, Settling Parties agree that they will not seek or support through written or oral public statements or pleadings before this Commission, or in any other forum with jurisdiction to review the Settlement Agreement, any measure that would delay immediate Commission consideration and disposition of the motion filed submitting this Settlement Agreement for the Commission's approval.

Non-Precedential Effect. This Settlement Agreement is not intended by the Settling Parties to be precedent for any other proceeding, whether pending or instituted in the future. The Settling Parties have assented to the terms of this Settlement Agreement only for the purpose of arriving at the settlement embodied in this Settlement Agreement. Each Settling Party expressly reserves its right to advocate, in other current and future proceedings, or in the event that the Settlement Agreement is rejected by the Commission, positions, principles, assumptions, arguments and

methodologies which may be different than those underlying this Settlement Agreement, and the Settling Parties expressly declare that, as provided in Rule 12.5 of the Commission's Rules of Practice and Procedure, this Settlement Agreement should not be considered as a precedent for or against them.

Remedy**.** The Settling Parties' sole and exclusive remedy for breach of this Agreement shall be an action for specific performance or injunction. In no event shall any party be entitled to monetary damages for breach of this Settlement Agreement. In addition, no legal action for specific performance or injunction shall be brought or maintained until (a) the non-breaching party provides written notice to the breaching party which explains with particularity the nature of the claimed breach, and (b) within thirty (30) days after receipt of said notice, breaching party fails to cure the claimed breach or, in the case of a claimed breach which cannot reasonably be remedied within a thirty (30) day period, breaching party fails to commence and thereafter diligently complete the activities reasonably necessary to remedy the claimed breach.

Indivisibility, General Provisions. This Settlement Agreement embodies compromises of the Settling Parties' positions in this proceeding. No individual term of this Settlement Agreement is assented to by any Settling Party, except in consideration of the other Settling Parties' assents to all other terms. Thus, the Settlement Agreement 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. The Settling Parties agree, however, to negotiate in good faith with regard to any Commission-ordered changes in order to restore the balance of benefits and burdens, and to exercise the right to withdraw only if such negotiations are unsuccessful.

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. This document sets forth the entire agreement of Settling Parties on all of the subject matters addressed herein and may only be modified in writing subscribed by all Settling Parties.

No Settling Party has relied, or presently relies, upon any statement, promise, or representation by any other Settling Party, whether oral or written, except as specifically set forth in this Agreement.

This Settlement Agreement may be executed in counterparts by the Settling Parties with the same effect as if all Settling Parties had signed one and the same document. All such counterparts shall be deemed to be an original and shall together constitute one and the same Settlement Agreement.

IN WITNESS WHEREOF, the Settling Parties have duly executed this Settlement Agreement by their authorized representatives as of this 21st day of March, 2016.

**PACIFIC GAS AND ELECTRIC COMPANY**

By. _____
Name: Jana Corey
Title: Director, Electrification & Alternative Fuels

**COALITION OF CALIFORNIA UTILITY EMPLOYEES**

By: _____
Name: Marc D. Joseph/Jamie L. Mauldin
Title: Attorney

**THE GREENLINING INSTITUTE**

By: _____
Name: Joel Espino
Title: Environmental Equity Director

**GREENLOTS**

By: _____
Name: Thomas Ashley
Title: Senior Director, Government Affairs & Public Policy

**PLUG IN AMERICA**

By: _____
Name: Jay Friedland
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Name: Marc D. Joseph/Jamie L. Mauldin
Title: Attorney

**THE GREENLINING INSTITUTE**

By: _____
Name: Orson Aguilar
Title: President

**GREENLOTS**

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Title: Attorney

**THE GREENLINING INSTITUTE**

By: _____
Name: Joel Espino
Title: Environmental Equity Director

**GREENLOTS**

By: _____
Name: Brett Hauser
Title: Chief Executive Officer

**PLUG IN AMERICA**

By: _____
Name: Jay Friedland
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Name: Jana Corey
Title: Director, Electrification & Alternative Fuels

**COALITION OF CALIFORNIA UTILITY EMPLOYEES**

By: _____
Name: Marc D. Joseph/Jamie L. Mauldin
Title: Attorney

**THE GREENLINING INSTITUTE**

By: _____
Name: Joel Espino
Title: Environmental Equity Director

**GREENLOTS**

By: _____
Name: Thomas Ashley
Title: Senior Director, Government Affairs & Public Policy

**PLUG IN AMERICA**

By: _____
Name: Jay Friedland
Title: Legislative Director

ALLIANCE OF AUTOMOBILE MANUFACTURERS

By: Steven P. Douglas 18-MAR-2016
Name: Steven Douglas
Title: Senior Director, Environmental Affairs

GENERAL MOTORS, LLC

By: _____
Name: Alexander Keros/James Hall
Title: Advanced Vehicle and Infrastructure Policy, Public Policy

AMERICAN HONDA MOTOR CO., INC.

By: _____
Name: Ryan Harty
Title: Manager of Environmental Business Development

CENTER FOR SUSTAINABLE ENERGY

By: _____
Name: Sachu Constantine/Paul Hernandez
Title: Director of Policy

ALLIANCE OF AUTOMOBILE MANUFACTURERS

By: _____
Name: Steven Douglas
Title: Senior Director, Environmental Affairs

GENERAL MOTORS, LLC

By: _____
Name: Alexander Keros
Title: Advanced Vehicle and Infrastructure Policy, Public Policy

AMERICAN HONDA MOTOR CO., INC.

By: _____
Name: Ryan Harty
Title: Manager of Environmental Business Development

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Name: Sachu Constantine/Paul Hernandez
Title: Director of Policy

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Name: Steven Douglas
Title: Senior Director, Environmental Affairs

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Name: Alexander Keros/James Hall
Title: Advanced Vehicle and Infrastructure Policy, Public Policy

**AMERICAN HONDA MOTOR CO., INC.**

By: _____
Name: Ryan Harty
Title: Manager of Environmental Business Development

**CENTER FOR SUSTAINABLE ENERGY**

By: _____
Name: Sachu Constantine/Paul Hernandez
Title: Director of Policy

**ALLIANCE OF AUTOMOBILE MANUFACTURERS**

By: _____
Name: Steven Douglas
Title: Senior Director, Environmental Affairs

**GENERAL MOTORS, LLC**

By: _____
Name: Alexander Keros/James Hall
Title: Advanced Vehicle and Infrastructure Policy, Public Policy

**AMERICAN HONDA MOTOR CO., INC.**

By: _____
Name: Ryan Harty
Title: Manager of Environmental Business Development

**CENTER FOR SUSTAINABLE ENERGY**

By: _____ 3/18/16
Name: Sachu Constantine/Paul Hernandez
Title: Director of Policy

NATURAL RESOURCES DEFENSE COUNCIL

By: _____
Name: Max Baumhefner
Title: Attorney

SIERRA CLUB

By: _____
Name: Joseph Halso
Title: Legal Fellow

MARIN CLEAN ENERGY

By: _____
Name: Jeremy Waen
Title: Senior Regulatory Analyst

SONOMA CLEAN POWER

By: _____
Name:
Title:

**NATURAL RESOURCES DEFENSE COUNCIL**

By: _____
Name: Max Baumhefner
Title: Attorney

**SIERRA CLUB**

By: _____
Name: Joshua Stebbins
Title: Managing Attorney

**MARIN CLEAN ENERGY**

By: _____
Name: Jeremy Waen
Title: Senior Regulatory Analyst

**SONOMA CLEAN POWER**

By: _____
Name:
Title:

**NATURAL RESOURCES DEFENSE COUNCIL**

By: _____
Name: Max Baumhefner
Title: Attorney

**SIERRA CLUB**

By: _____
Name: Joseph Halso
Title: Legal Fellow

**MARIN CLEAN ENERGY**

By: _____
Name: Jeremy Waen
Title: Senior Regulatory Analyst

**SONOMA CLEAN POWER**

By: _____
Name:
Title:

**NATURAL RESOURCES DEFENSE COUNCIL**

By: _____
Name: Max Baumhefner
Title: Attorney

**SIERRA CLUB**

By: _____
Name: Joseph Halso
Title: Legal Fellow

**MARIN CLEAN ENERGY**

By: _____
Name: Jeremy Waen
Title: Senior Regulatory Analyst

**SONOMA CLEAN POWER**

By: _____
Name: Geof Syphers
Title: CEO

## Appendix A
## Roles, Responsibilities of the PG&E Program Advisory Council

PG&E will solicit the participation of a broad and diverse stakeholder PG&E Program Advisory Group ("PG&E Program Advisory Council" or "PAC") in the planning and implementation of Charge Smart and Save, once it has been approved by the Commission. This independent advisory council 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 Communities. Participation in the PAC will not be funded by Charge Smart and Save. The PAC does not have formal decision-making authority. The PAC will meet twice a year and make recommendations and/or provide key information and materials to the PG&E Program Managers at PG&E, who will organize and chair PAC meetings. Information will be provided to the PAC in a manner similar to PG&E's Procurement Review Group.

Overall, the key role and purpose of the PAC will be to provide input to PG&E for Programmatic changes as needed during the course of the PG&E Program (e.g., PG&E Rate - as originally proposed, or with PG&E host site prioritization for an equitable deployment of PG&E Facilities), to improve the performance of Charge Smart and Save, in line with the Guiding Principles and consistent with any applicable Commission orders, tariff rules, regulations, etc. PG&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 Charge Smart and Save, so as not to impact its overall progress.

To fulfill this role, the PG&E PAC and its members will have the following responsibilities:

1. Attend all PG&E Program Advisory Council meetings, planned to take place at least twice per year over the three-year PG&E Program period). Members' individual representatives will be authorized by the sponsoring member organization to accurately represent the member's position or perspectives. There will be only one representative per member organization. Participation in the PAC will not affect a member's right to speak individually.

2. Examine Charge Smart and Save data and findings presented by PG&E and PAC members in order to make informed recommendations.

3. Timely vet recommendations for PG&E Program modifications.

4. Actively participate in PAC meetings, and related assignments; contribute resources (e.g., data, expertise, and related) to the PAC where applicable.

5. PG&E PAC meeting locations will be at a location in San Francisco, as determined by the PG&E PAC.

## Appendix B

## Data Collection and Metrics

On a quarterly basis, Pacific Gas and Electric Company (PG&E) will issue a report to the Commission and the Program Advisory Council on the data collection and monitoring for Charge Smart and Save. Data collection identified in this settlement specifically relate to measuring Charge Smart and Save's status, activities and performance to determine the Program is consistent with the Guiding Principles in the Settlement and to identify the need for any programmatic changes going forward. The Quarterly Reports will form the basis of the Interim Progress Report that PG&E will submit to the Commission after 2 years of the Program.

The proposed metrics list includes components significant for evaluation of Charge Smart and Save deployment of charging infrastructure as well as operational components that can inform future Program development to encourage EV adoption by increasing access to charging, optimize charging deployment, and implement load management. The data collection plan includes all elements approved in SDG&E's settlement, to the extent they are applicable to PG&E's Program, as well as additional metrics determined relevant and reasonably attainable. Data metrics will include but will not be limited to:

| | **Charge Smart and Save**<br>**Data Collection, Monitoring, and Reporting** |
|---|---|
| **Deployment Metrics** | Where applicable, report metrics by market segment including disadvantaged communities<br><br>• Site host enrollment (# of applications and # of sites installed)<br>• EVSEs installed (including make and model)<br>• Deployment time<br>• Installation and charger costs (total, avg, by charger type)<br>• Operating costs<br>• Deployment within or adjacent to Disadvantaged Communities<br>• Supplier diversity and workforce objective achievement |

| | |
|---|---|
| **Operational Metrics** | Where applicable, report metrics by market segment including Disadvantaged Communities<br><br>• EV Driver Enrollment (total and by site)<br>• Utilization rate by site, by type of charger<br>• Charger Uptime (avg)<br>• Pricing and load management approaches for TOU Rate-to-Host sites<br>• kWh usage by price<br>• Other usage data: plugged in time, charging duration, charging power level<br>• Charging load profiles (aggregate and by charger)<br>• Load impacts<br>• Customer Experience and Satisfaction (convenience, ease of use) (by survey of site hosts an EV drivers)<br>  o Charging station preferred features<br>• EV rate adoption<br>• EV Adoption in Service Territory |
| **Descriptive Elements** | • Sales/outreach efforts<br>• Key barriers to deployment of EV charging infrastructure and the Program's approaches to overcome these barriers<br>• Identification of grid benefits and other impacts<br>• Insights on effect of the program on the EVSE and EV market |

PG&E will partner with the PAC to refine the data collection and reporting plan and to ensure that the plan maintains confidentiality. The PAC will have the flexibility to determine if additional data collection and reporting objectives are of interest and will help to inform Commission policy. The PAC will then articulate the purpose behind these objectives, specify these additional data collection requirements, and determine how they will be funded and resourced.

## Appendix C
## RFP Process Clarification

With respect to the selection process and selection criteria for pre-qualifying vendors who will be authorized to provide Program operating systems and EVSE hardware, PG&E intends to carry out a competitive solicitation that encourages innovation and competition. PG&E will identify general functional requirements that will achieve the objectives of its Program and will not specify precisely "how" these requirements must be met. This is intended to foster innovation, while enhancing the driver's experience and ensuring site-host choice of vendor, equipment and services. Beyond the qualified EV charging hardware and services, providers will be permitted to contract directly with site hosts for additional services, as desired by the customer, as long as these services do not interfere with the objectives of the Program. PG&E will use a multi-faceted approach to evaluating proposals in the qualification process. All responses will be evaluated based on, but not limited to, the following criteria (not listed in order of importance):

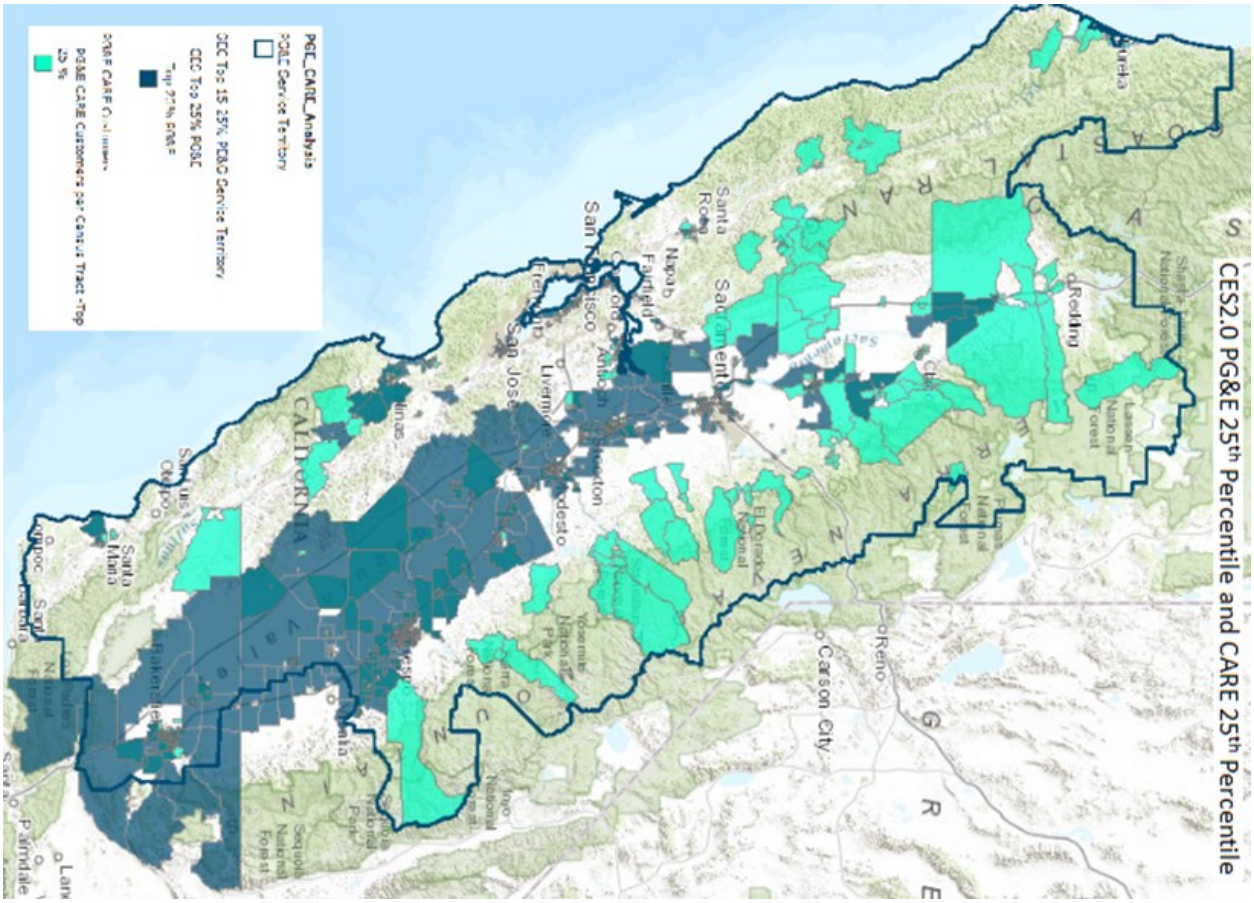
- Ability to meet safety, reliability, operational and Program requirements
- Total cost of ownership over the lifecycle of the EVSE and its operating system, including all indirect and direct costs
- Responsiveness to the RFP (including response to PG&E's Terms and Conditions included in the RFP)
- Overall product and service offering including cost, quality, warranty and capability
- Demonstrated ability to provide innovative functionality to enhance the Program experience for the customer while meeting Program objectives
- Minimum requirements met for EVSE and operating systems
- Program value-added features
- Performance history
- Proposed schedule/time required to complete the required deliverables
- Prior experience in providing EVSE services as described in the RFP
- Financial strength of the service provider
- Sustainability ("green")
- DBE proposals and plans to achieve stated targets

The RFP and qualification process will occur annually to allow for and encourage participation from new providers over time. PG&E in collaboration with the resident CCAs (where applicable) will seek out discussions with providers throughout the Program and RFP process in order to explore new opportunities that may, at that time, exceed the general functional requirements of the Program but have the potential to enhance and improve the grid-integration outcomes of the Program overall.

PG&E reserves the right to investigate the references and past performance of any bidders/vendors with respect to, among other factors, compliance with specifications, safety, completion or delivery on schedule, and lawful payment of suppliers, sub-suppliers, and workers prior to any contract award.

With respect to the installation and maintenance of the Program Facilities, PG&E plans to seek the most effective form of Program Facility development, installation and maintenance, consistent with utility standards and practices. Construction, installation and maintenance contractors will have Electric Vehicle Infrastructure Training Program (EVITP) certification, and PG&E will require that all construction, installation and maintenance of Program Facilities that is not performed by employees of PG&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 PG&E and the IBEW.

## Appendix D – Disadvantaged Communities and CARE Customer Locations



# Appendix E – Settlement Costs and Revenue Requirements Tables

**PACIFIC GAS AND ELECTRIC COMPANY**
**ELECTRIC VEHICLE INFRASTRUCTURE AND EDUCATION PROGRAM APPLICATION (A.15-02-009)**
**PROGRAM DETAILED COST SUMMARY**
**WORKPAPER SUPPORTING CHAPTER 2**

**ELECTRIC VEHICLE INFRASTRUCTURE AND EDUCATION PROGRAM DETAILED COST SUMMARY**
**(Nominal $ - Including Contingency as Shown)**

| DESCRIPTION | Witness | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|
| **L2 Infrastructure Costs** | | | | | | | | | |
| L2 Site Service Connection | Jeffrey P. Borders | $ - | $ 2,561,984 | $ 5,699,408 | $ 7,777,434 | $ 2,602,719 | $ - | $ - | **$ 18,641,545** |
| L2 Site EV Supply Infrastructure | Jeffrey P. Borders | - | 3,712,611 | 8,259,100 | 11,270,399 | 3,771,640 | - | - | **27,013,750** |
| L2 EV Charger & Network Operations | Jana R. Corey | - | 4,162,405 | 9,182,090 | 12,570,811 | 4,198,795 | - | - | **30,114,101** |
| L2 Site Service Connection Capital Replacement | Jeffrey P. Borders | - | 11,380 | 37,070 | 72,828 | 11,561 | 11,921 | 12,288 | **157,049** |
| L2 Site EV Supply Infrastructure Capital Replacement | Jeffrey P. Borders | - | 11,380 | 37,070 | 72,828 | 11,561 | 11,921 | 12,288 | **157,049** |
| L2 Capital Contingency | Jeffrey P. Borders + Jana R. Corey | - | 1,348,108 | 2,954,378 | 4,040,852 | 1,347,069 | 4,769 | 4,915 | **9,700,091** |
| *Capital Subtotal* | *Jeffrey P. Borders + Jana R. Corey* | - | *11,807,869* | *26,169,117* | *35,805,153* | *11,943,344* | *28,611* | *29,491* | ***85,783,586*** |
| L2 EV Charger & Network O&M | Jana R. Corey | - | 986,005 | 2,464,416 | 3,802,049 | 988,931 | 245,769 | 250,478 | **8,737,647** |
| L2 Site Service Connection Maintenance | Jeffrey P. Borders | - | 10,734 | 28,613 | 47,803 | 10,535 | 4,835 | 4,927 | **107,446** |
| L2 Site EV Supply Infrastructure Maintenance | Jeffrey P. Borders | - | 10,734 | 28,613 | 47,803 | 10,535 | 4,835 | 4,927 | **107,446** |
| L2 Expense Contingency | Jeffrey P. Borders | - | 201,494 | 504,328 | 779,531 | 202,000 | 51,088 | 52,067 | **1,790,508** |
| *Expense Subtotal* | *Jeffrey P. Borders + Jana R. Corey* | - | *1,208,967* | *3,025,969* | *4,677,185* | *1,212,002* | *306,526* | *312,399* | ***10,743,048*** |
| **DCFC Infrastructure Costs** | | | | | | | | | |
| DCFC Site Service Connection | Jeffrey P. Borders | - | 82,308 | 1,402,698 | 2,194,741 | 679,385 | - | - | **4,359,132** |
| DCFC Site EV Supply Infrastructure | Jeffrey P. Borders | - | 153,803 | 2,621,119 | 4,101,151 | 1,269,517 | - | - | **8,145,590** |
| DCFC EV Charger & Network Operations | Jana R. Corey | - | 123,305 | 2,236,805 | 3,319,212 | 1,027,466 | - | - | **6,706,789** |
| DCFC Site Service Connection Capital Replacement | Jeffrey P. Borders | - | 350 | 6,329 | 15,873 | 2,890 | 2,980 | 3,072 | **31,495** |
| DCFC Site EV Supply Infrastructure Capital Replacement | Jeffrey P. Borders | - | 350 | 6,329 | 15,873 | 2,890 | 2,980 | 3,072 | **31,495** |
| DCFC Capital Contingency | Jeffrey P. Borders + Jana R. Corey | - | 90,029 | 1,568,320 | 2,411,712 | 745,537 | 1,490 | 1,536 | **4,818,625** |
| *Capital Subtotal* | *Jeffrey P. Borders + Jana R. Corey* | - | *450,146* | *7,841,601* | *12,058,562* | *3,727,686* | *7,451* | *7,680* | ***24,093,125*** |
| DCFC EV Charger & Network O&M | Jana R. Corey | - | 10,576 | 184,769 | 385,571 | 84,343 | 48,745 | 49,679 | **763,685** |
| DCFC Service Connection Maintenance | Jeffrey P. Borders | - | 330 | 5,730 | 11,336 | 2,634 | 1,209 | 1,232 | **22,471** |
| DCFC EV Supply Infrastructure Maintenance | Jeffrey P. Borders | - | 330 | 5,730 | 11,336 | 2,634 | 1,209 | 1,232 | **22,471** |
| DCFC Expense Contingency | Jeffrey P. Borders + Jana R. Corey | - | 4,022 | 70,791 | 155,886 | 32,078 | 22,651 | 23,085 | **308,513** |
| *Expense Subtotal* | *Jeffrey P. Borders + Jana R. Corey* | - | *15,259* | *267,021* | *564,129* | *121,689* | *73,814* | *75,228* | ***1,117,140*** |
| **Infrastructure Cost Subtotal (DCFC + L2)** | | | | | | | | | |
| *Capital Subtotal* | *Jeffrey P. Borders + Jana R. Corey* | - | *12,258,015* | *34,010,718* | *47,863,715* | *15,671,030* | *36,062* | *37,171* | **109,876,711** |
| *Expense Subtotal* | *Jeffrey P. Borders + Jana R. Corey* | - | *1,224,226* | *3,292,990* | *5,241,314* | *1,333,691* | *380,340* | *387,628* | **11,860,188** |
| **Site Acquisition Support and Market Education and Outreach** | | | | | | | | | |
| EV Cost of Ownership Tool Set | David B. Almeida | - | 1,221,488 | - | - | - | - | - | **1,221,488** |
| Site Host Online Application Portal | David B. Almeida | - | 1,048,534 | - | - | - | - | - | **1,048,534** |
| E&O Information Technology Capital Contingency | David B. Almeida | - | 1,135,011 | - | - | - | - | - | **1,135,011** |
| *Capital Subtotal* | *David B. Almeida* | - | *3,405,033* | - | - | - | - | - | ***3,405,033*** |
| Energy Solutions & Services Support | David B. Almeida | - | 737,977 | 1,003,938 | 589,692 | 383,403 | - | - | **2,715,010** |
| EV Program Call Center Support | David B. Almeida | - | 151,682 | 188,642 | 134,076 | 51,489 | - | - | **525,889** |
| EV Program Web Content | David B. Almeida | - | 232,096 | - | - | - | - | - | **232,096** |
| EV Program Web Content O&M | David B. Almeida | - | - | 53,995 | 55,064 | - | - | - | **109,059** |
| EV Program External Outreach | David B. Almeida | - | 1,292,915 | 1,075,086 | 1,013,765 | - | - | - | **3,381,766** |
| Disadvantaged Communities | David B. Almeida | - | 3,372,479 | 1,111,659 | 520,724 | - | - | - | **5,004,861** |
| Education, Outreach & Support Expense Contingency | David B. Almeida | - | 578,715 | 343,332 | 231,332 | 43,489 | - | - | **1,196,868** |
| *Information Technology* | | | | | | | | | |
| EV Cost of Ownership Tool Set (Project Expense Cost) | David B. Almeida | - | 298,559 | - | - | - | - | - | **298,559** |
| Site Host Online Application Portal (Project Expense Cost) | David B. Almeida | - | 256,051 | - | - | - | - | - | **256,051** |
| E&O Information Technology Project Expense Contingency | David B. Almeida | - | 277,305 | - | - | - | - | - | **277,305** |
| EV Cost of Ownership Tool Set - O&M | David B. Almeida | - | 98,681 | 152,591 | 155,611 | 39,627 | - | - | **446,509** |
| Site Host Online Application Portal - O&M | David B. Almeida | - | 55,168 | 112,496 | 114,722 | 29,214 | - | - | **311,601** |
| E&O Information Technology O&M Contingency | David B. Almeida | - | 76,924 | 132,544 | 135,167 | 34,420 | - | - | **379,055** |
| *Expense Subtotal* | *David B. Almeida* | - | *7,428,553* | *4,174,283* | *2,950,152* | *581,642* | - | - | ***15,134,630*** |
| **Program Management Organization** | | | | | | | | | |
| Program Management Organization Labor | Jana R. Corey | 561,439 | 3,255,048 | 4,937,093 | 5,219,423 | 1,933,896 | - | - | **15,906,900** |
| L2 Site Easements (fees and services) | Jana R. Corey | - | 84,315 | 187,568 | 255,956 | 85,656 | - | - | **613,495** |
| L2 Site Easements (fees and services) Contingency | Jana R. Corey | - | 16,863 | 37,514 | 51,191 | 17,131 | | | **122,699** |
| DCFC Site Easements (fees and services) | Jana R. Corey | - | 2,594 | 44,212 | 69,177 | 21,414 | - | - | **137,398** |
| DCFC Site Easements (fees and services) Contingency | Jana R. Corey | - | 649 | 11,053 | 17,294 | 5,353 | | | **34,349** |
| Billing and Reporting Integration | Jana R. Corey | - | 1,396,604 | - | - | - | - | - | **1,396,604** |
| Billing and Reporting Integration Contingency | Jana R. Corey | - | 698,302 | - | - | | | | **698,302** |
| *Capital Subtotal* | *Jana R. Corey* | *561,439* | *5,454,375* | *5,217,440* | *5,613,042* | *2,063,450* | - | - | ***18,909,747*** |
| Billing and Reporting Integration (Project Expense Cost) | Jana R. Corey | - | 340,670 | - | - | - | - | - | **340,670** |
| Billing and Reporting Integration (Project Expense Cost) Conting | Jana R. Corey | - | 170,335 | - | - | | | | **170,335** |
| Billing and Reporting Integration - O&M | Jana R. Corey | - | 73,937 | 150,768 | 153,752 | 39,153 | - | - | **417,610** |
| Billing and Reporting Integration O&M Contingency | Jana R. Corey | - | 36,969 | 75,384 | 76,876 | 19,577 | | | **208,805** |
| *Expense Subtotal* | *Jana R. Corey* | - | *621,911* | *226,152* | *230,628* | *58,730* | - | - | ***1,137,420*** |
| | | | | | | | | | |
| **CAPITAL TOTAL** | **Michael D. Della Penna** | **561,439** | **21,117,423** | **39,228,158** | **53,476,757** | **17,734,480** | **36,062** | **37,171** | **132,191,491** |
| **EXPENSE TOTAL** | **Michael D. Della Penna** | **-** | **9,274,689** | **7,693,425** | **8,422,093** | **1,974,062** | **380,340** | **387,628** | **28,132,238** |
| **PROGRAM TOTAL** | **Michael D. Della Penna** | **$ 561,439** | **$ 30,392,112** | **$ 46,921,583** | **$ 61,898,850** | **$ 19,708,543** | **$ 416,402** | **$ 424,799** | **$ 160,323,728** |
| | | | | | | | | | |
| **CAPITAL TOTAL EXCLUDING CONTINGENCY** | | $ 561,439 | $ 18,544,275 | $ 34,705,459 | $ 47,024,192 | $ 15,641,875 | $ 29,803 | $ 30,720 | **$ 116,537,764** |
| **CAPITAL CONTINGENCY** | | $ - | $ 2,573,148 | $ 4,522,698 | $ 6,452,565 | $ 2,092,606 | $ 6,259 | $ 6,451 | **$ 15,653,727** |
| **CAPITAL CONTINGENCY AS PERCENTAGE OF CAPITAL TOTAL** | | | | | | | | | **13%** |
| | | | | | | | | | |
| **EXPENSE TOTAL EXCLUDING CONTINGENCY** | | $ - | $ 8,136,228 | $ 6,642,431 | $ 7,120,178 | $ 1,662,075 | $ 306,601 | $ 312,476 | **$ 24,179,988** |
| **EXPENSE CONTINGENCY** | | $ - | $ 1,138,461 | $ 1,050,994 | $ 1,301,915 | $ 311,988 | $ 73,739 | $ 75,152 | **$ 3,952,250** |
| **EXPENSE CONTINGENCY AS PERCENTAGE OF EXPENSE TOTAL** | | | | | | | | | **16%** |
| | | | | | | | | | |
| **PROGRAM TOTAL EXCLUDING CONTINGENCY** | | **$ 561,439** | **$ 26,680,502** | **$ 41,347,890** | **$ 54,144,371** | **$ 17,303,949** | **$ 336,404** | **$ 343,196** | **$ 140,717,752** |
| **TOTAL CONTINGENCY** | | **$ -** | **$ 3,711,610** | **$ 5,573,693** | **$ 7,754,480** | **$ 2,404,594** | **$ 79,998** | **$ 81,603** | **$ 19,605,977** |
| **CONTINGENCY AS PERCENTAGE OF TOTAL** | | | | | | | | | **14%** |

**2017- 2022 CHARGE SMART AND SAVE REVENUE REQUIREMENT**
**(THOUSANDS OF DOLLARS)**

| Line No. | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|
| 1 | 6,822 | 17,092 | 24,983 | 25,341 | 22,450 | 19,853 |