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 U 39 E	A.15-02-009 (Filed Feb. 9, 2015)

OPENING BRIEF OF PACIFIC GAS AND ELECTRIC COMPANY (U39E), 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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TABLE OF CONTENTS

Page

TABLE OF AUTHORITIES

Page(s)

STATUTES AND LEGISLATION

COMMISSION RULES OF PRACTICE AND PROCEDURE

TABLE OF AUTHORITIES (Continued)

Page(s)

COMMISSION DECISIONS

MISCELLANEOUS

BEFORE THE PUBLIC UTILITIES COMMISSION
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Pursuant to Article 12 and Rule 1.8 (d) of the Commission's Rules of Practice and Procedure, Settling Parties hereby file their opening brief requesting that the Commission adopt the "Charge Smart and Save" Settlement Agreement in A.15-02-009 ("Charge Smart and Save" or "Settlement Agreement").[1/] PG&E has been authorized by the other Settling Parties to file and serve this Opening Brief on their behalf.`

I. INTRODUCTION, BACKGROUND AND PROCEDURAL HISTORY

A. Introduction – The Charge Smart and Save Settlement Significantly Advances California's Transportation Electrification and Greenhouse Gas Reduction Goals.

Charge Smart and Save is the last of three multi-party electric vehicle ("EV") infrastructure settlements to be considered by the California Public Utilities Commission.[2/]

1/ Settling Parties are 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 Authority. PG&E has been authorized by the other Settling Parties to file and serve this Opening Brief on their behalf.

2/ See JOINT SETTLING PARTIES-1, designated as such per direction of Administrative Law

These settlements embody the Commission's leadership role in supporting ambitious initiatives by California Governor Jerry Brown and the California Legislature to electrify California's transportation sector and reduce petroleum use, in order to achieve California's climate, air quality and equity goals.[3/]

If the Charge Smart and Save settlement is approved, it will add approximately 7,600 EV charging stations and infrastructure at approximately 760 sites to the 3,500 charging stations at 350 sites already approved by the Commission to support San Diego Gas & Electric Company's customers, and the 1,500 charging stations at approximately 150 to 300 sites approved by the Commission to support Southern California Edison Company's customers.[4/]

Consistent with the Commission's findings that EV customers at workplaces and multi-unit dwellings (MUDs) are underserved, Charge Smart and Save will deploy EV charging stations at workplaces, MUDs and other public places.[5/] Consistent with California's goals to expand the availability of EVs to underserved low and moderate income customers, Charge Smart and Save also will seek to deploy 15-20 percent of its EV charging stations and infrastructure in Disadvantaged Communities – fifty percent more than under either SCE's or SDG&E's EV programs.[6/]

Although these Phase 1 utility EV programs represent only a small initial proportion of the EV charging stations needed to achieve California's Zero Emissions Vehicle (ZEV) goals,

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Judge, Tr. Vol. 2, 17:4 to 6, April 25, 2016); see also, D.16-01-023 (referencing Southern California Edison Company ("SCE") settlement); D.16-01-045 (referencing San Diego Gas and Electric Company ("SDG&E") settlement).

3/ R.13-11-007 and D.14-12-079, cited in D.16-01-045, pp. 5-6; *see also*, D.16-01-023, pp. 7-8, Finding of Fact 21, p. 54.

4/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, pp. 4, 9, Section 5; Exh. SCE-01, Vol. 2, p. 7, in record of D.16-01-023; D.16-01-045, Attachment 2, p. 4.

5/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 5, p. 9; D.16-01-023, p. 13; D.16-01-045, pp. 33, 35, 45, 79, 92, 99, 106, 116, 117, 133.

6/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement,* p. 3; Section 15, p. 12.

they represent a potential global model for collaboration among utilities, EV equipment suppliers, site hosts, EV drivers and utility customers to advance transportation electrification, using clean energy to replace petroleum use and its associated greenhouse gas (GHG) emissions.[7/]

The Charge Smart and Save settlement is proposed and supported by 13 parties in this proceeding and is modeled (in many cases verbatim) after both the SDG&E and SCE settlements as modified by the Commission in D.16-01-045 and D.16-01-023.[8/] While taking into account the guidance the Commission has provided in its SCE and SDG&E decisions, the Charge Smart and Save settlement contains distinguishing elements that now can be tested in the real world under the Commission's Phase 1 program, including:[9/]

- 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.

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

- An increased targeted deployment of charging stations in Disadvantaged Communities of 15 percent, a 50 percent increase relative to the SDG&E and SCE programs, with a stretch goal of an additional 5 percent (20 percent total) of sites located in Disadvantaged and low-income communities.

7/ Charge Smart and Save's 7, 600 charging stations represent a small proportion of the need for EV charging stations to support 400,000 EVs in PG&E's service territory by 2020, even assuming a higher "attach rate" than the 4-to-1 "attach rate" assumed by PG&E in its testimony (Compare, Exh. PGE-2, p.2-4, fn.4, with Exh. TURN-50 to 56.

8/ *E.g,* compare, D.16-01-045, Attachment 2, to Exh. JOINT SETTLING PARTIES-1. Also compare, D.16-01-023 to Exh. JOINT SETTLING PARTIES-1. Although the SCE settlement and decision use indirect financial rebates instead of direct utility investment to fund EV charging stations, both the SCE and Charge Smart and Save settlements include other substantially similar program elements.

9/ Exh. JOINT SETTLING PARTIES-1, *Joint Motion for Adoption of Settlement Agreement*, pp. 5-6.

- An additional $5 million to fund complementary and innovative programs to further the goals of the Charge Ahead California Initiative (Senate Bill 1275. De León) and increase access to clean transportation in disadvantaged and low- and moderate-income communities.

- A unique collaboration with Community Choice Aggregators (CCAs) to enhance both the deployment of EV equipment and services, and the usage rate of electricity as a transportation fuel.

The cost of Charge Smart and Save to PG&E customers is reasonable and consistent with the Commission's approval of other EV settlements.[10/] The cost and scale of Charge Smart and Save are slightly smaller, on a proportional per-customer basis, than the SDG&E EV program as modified by the Commission in D.16-01-045.[11/] The highest annual cost to typical residential customers of Charge Smart and Save is approximately $2.64, four percent *less* than the $2.75 per year highest annual cost approved as reasonable by the Commission in its SDG&E decision.[12/]

The Charge Smart and Save settlement includes 18 modifications to PG&E's original EV infrastructure proposals, in order to resolve issues raised by the Settling Parties.[13/] These modifications include, most prominently, reducing the size and cost of PG&E's original EV proposal by 75 percent, from $654 million to $160 million and proportional to the size and cost of the SDG&E approved program.[14/]

In addition, Charge Smart and Save includes modifications to PG&E's original proposal that make key changes that the Commission ordered to SDG&E's and SCE's original EV

10/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, p. 4.

11/ Joint Reply Comments of Settling Parties, A.15-02-009, April 18, 2016, p. 3 (SDG&E's VGI program cost per number of customer accounts is $32.14 ($45 million/1.4 million) and its number of charging stations per number of customer accounts is 0.0025(3,500/1.4 million). Charge Smart and Save program cost per number of PG&E customer accounts is $29.63 ($160 million/5.4 million) and its number of charging stations per number of residential customers is 0.0014 (7,600/5.4 million).).

12/ Exh. JOINT SETTLING PARTIES-1, *Joint Motion For Adoption of Settlement*, p. 22; D.16-01-045, p. 129.

13/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, p. 3.

14/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, p. 4; see also fn. 11, *supra*.

proposals. For example, Charge Smart and Save incorporates similar requirements regarding competitively-neutral choice of technology, load management, education and outreach, the role of an advisory committee, and data assessment and reporting requirements.[15/] Likewise, Charge Smart and Save includes the same utility ownership and site host choice of technology provisions that parties supported and the Commission approved in the modified SDG&E settlement in D.16-01-045.[16/] For example, the relevant Charge Smart and Save terms are nearly identical to the SDG&E decision:[17/]

- 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").[18/]
- 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."[19/]
- 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.)[20/]

In addition to the elements of Charge Smart and Save that are comparable to or provide enhancements to the SCE and SDG&E programs, Charge Smart and Save meets and exceeds the

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15/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Sections 6-17, pp. 9-13; D.16-01-023, pp. 20-42.

16/ Compare, Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Sections 4, 9, 11 and 12, pp. 9, 11- 12, to D.16-01-045, Attachment 2, Sections 9, 12 and 13, pp. 6-8.

17/ E.g., compare, Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement* Sections 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 16, 17, 18, 20 and Appendices and A, B and C, with D.16-01-045, Attachment 2, "Definitions," "Guiding Principles," "Modifications to SDG&E's VGI Framework," sections 5, 6, 8, 9, 10, 12, 13, 14, 16, 17, 18, 19, 22, 23, Appendices A, B and C.

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

19/ *Id*.

20/ *Id.*

"balancing test" competitive criteria applied by the Commission to utility ownership in D.16-01-045.[21/] On a statewide basis, PG&E's EV charging station market share would be only 7.5 percent of the 100,000 charging stations needed in PG&E's service territory to support the State's goal of deploying infrastructure to support 1 million Zero Emission Vehicles (ZEVs) by 2020, less than the 11 percent market share estimated by SDG&E and adjusted as approved by the Commission in its SDG&E decision.[22/] Charge Smart and Save's EV station deployment goal will be filled by pre-qualified, non-utility market participants able to be chosen by EV site hosts pursuant to the results of a competitive, fair Request for Offer procurement process comparable to the process approved by the Commission for SDG&E.[23/]

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).[24/] 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.[25/]

21/ D.16-01-045, pp. 107-110, 125.

22/ Exh. PGE-3, Table 7, p. 25; SDG&E Reply Brief, A.14-04-014, September 18, 2015, p. 24, adjusted as modified by D.16-01-045.

23/ *Joint Reply Comments of Settling Parties*, A.15-02-009, April 18, 2016, p. 5.

24/ A.15-02-009; Exh. PGE-2.

25/ See, *e.g.*, *Pacific Gas and Electric Company's Opening Comments on Potential Phasing of*

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.[26/]

On October 12, 2015, PG&E filed its supplemental testimony and responses to the questions in the Scoping Memo and Ruling.[27/] 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% 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

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Electric Vehicle Infrastructure Program, A.15-02-009, July 3, 2015; *Pacific Gas and Electric Company's Reply Comments on Potential Phasing of Electric Vehicle Infrastructure Program*, A.15-02-009, July 10, 2015.

26/ *Joint Assigned Commissioner and Administrative Law Judges' Scoping Memo and Ruling*, A.15-02-009, September 4, 2015, p. 15.

27/ Exh. PGE-3.

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.[28/]

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.[29/] 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 SCE and 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.[30/]

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.[31/] Of the 14 parties filing intervenor testimony, none expressed support for PG&E's "enhanced" program proposed in its supplemental testimony without modifications. 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.[32/] On December 21, 2015, PG&E filed rebuttal testimony responding to the intervenor testimony.[33/]

28/ *Id*., p. 1 (Corey).

29/ *Id*., p. 34 (Corey).

30/ *Id*., p. 33 (Corey).

31/ Exh. JOINT SETTLING PARTIES-1, *Joint Motion for Adoption of Settlement Agreement*, p. 11.

32/ Exh. NRDC-101, Testimony of Max Baumhefner on Behalf of the Natural Resources Defense Council, Coalition of California Utility Employees, The Greenlining Institute, and Plug In

On January 14 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. On March 21, 2016, the Settling Parties executed the Settlement Agreement and filed with the Commission their Joint Motion for Adoption of the Settlement Agreement.[34/]

On March 29, 2016, the Administrative Law Judge issued his *Ruling Setting Hearing Schedule and Directing Joint Settling Parties to Respond to Various Questions*. On April 12, 2016, Settling Parties filed and served their responses to the ALJ's questions.[35/] Also on April 12, 2016, eight non-settling parties filed and served their comments on the Charge Smart and Save settlement.[36/]

Of the eight non-settling parties, two (TURN and ORA) opposed Charge Smart and Save for largely the same reasons they opposed the SDG&E settlement, and for reasons rejected by the Commission in its SDG&E decision.[37/] One party (ChargePoint) opposed key elements of

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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."

33/ Exh. PGE-4.

34/ Exh. JOINT SETTLING PARTIES-1, *Joint Motion for Adoption of Settlement Agreement; Charge Smart and Save Settlement.*

35/ *Joint Response by Settling Parties to Administrative Law Judge's Ruling Directing Joint Settling Parties to Respond to Various Questions*, A. 15-02-009, April 12, 2016.

36/ TURN; ORA; ChargePoint; EVCA; TechNet; Consumer Federation of America; Joint Minority Parties; Green Power Institute.

37/ TURN Comments, pp. 2- 4; ORA Comments, pp. 6-9; D.16-01-045, pp. 108-111, 115-121, 123-

Charge Smart and Save that it expressly supported in the SDG&E proceeding and which were also approved by the Commission in its SDG&E decision.[38/] Two additional parties (EVCA and TechNet) were virtually indistinguishable from ChargePoint, which founded and remains the president of EVCA and which appears to be the only third-party Electric Vehicle Service Provider (EVSP) member of TechNet.[39/] The three remaining opposing parties (Consumer Federation of California, Joint Minority Parties, Green Power Institute) opposed Charge Smart and Save for cost or other reasons similar to reasons rejected by the Commission in its SDG&E decision.[40/]

On April 18, 2016, the 13 Settling Parties filed and served their reply comments to the opening comments on the Charge Smart and Save settlement.[41/]

Four days of evidentiary hearings on the Charge Smart and Save settlement and PG&E's application were held on April 25- 28, 2016.[42/] At the hearings, the 13 Settling Parties presented witnesses in support of the settlement, including a panel of witnesses addressing specific questions about the settlement at the request of the ALJ. Six opposing parties presented witnesses in opposition to the settlement.

129.

38/ Compare, ChargePoint Comments, A.15-02-009, April 12, 2016, to ChargePoint Opening Comments on Proposed Decision, A.14-04-014, January 12, 2016, p. 1 ("ChargePoint continues to support the Settlement Agreement and encourages the Commission to adopt it without change."); see also, D.16-01-045, pp. 123-129, approving utility ownership, site host technology choice, size and cost for SDG&E comparable to Charge Smart and Save Settlement.

39/ EVCA Comments, pp. 2-3; TechNet Comments, p. 2.

40/ D.16-01-045, pp. 53-57, 63, 65-66, 148-149.

41/ *Joint Reply Comments of Settling Parties to Opening Comments on Charge Smart and Save Settlement*, A. 15-02-009, April 18, 2016.

42/ Tr. Vol. 2-5, April 25-28, 2016, A. 15-02-009.

II. BURDEN OF PROOF AND LEGAL STANDARDS

A. Statutory Criteria and Commission Decisions

The Commission's D. 16-01-023 and D.16-01-045, approving modifications to SCE's and SDG&E's EV settlements, list the legal standards and principal criteria the Commission applies in evaluating a utility EV program and whether a utility has carried its burden of proof to demonstrate that the program complies with the legal standards and criteria:[43/]

Applicable Public Utilities Code Sections and other Relevant State Policy 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.[44/] 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.[45/] However, Senate Bill (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.[46/] 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 as principal goals:

43/ D.16-01-045, pp. 88-89; D.16-01-023, pp. 6-8.

44/ D.16-01-045, pp, 90-93.

45/ D.16-01-045, p. 90, citing Executive Order B-16-2012, issued on March 23, 2012, http://gov.ca.gov/news.php?id=17463 ; Governor's Interagency Working Group on Zero-Emission Vehicles, 2013 ZEV Action Plan (ZEV Action Plan), February 2013, http://opr.ca.gov/docs/Governorpercent27s_Office_ZEV_Action_Plan_percent2802-13percent29.pdf . See also, Edmund G. Brown, Jr., Inaugural address remarks as prepared January 5, 2015. http://gov.ca.gov/news.php?id=18828; see also, Exh. PGE-2, pp. 1-1 to 1-2 (Corey).

46/ Stats 2015, Ch. 547.

> *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.*

(Emphasis added.) The law also defined transportation electrification in Pub. Util. Code § 237.5 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(b), 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 Act standards, deploying one million electric vehicles by 2023, increasing access to clean vehicles in low- and moderate-income and 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.[47/] 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).[48/]

47/ The Commission at pp. 89-94 of D.16-01-045 has provided a summary of these goals.

48/ D.16-01-045, p. 92.

Nevertheless, SB 350 also amended Pub. Util. Code § 740.8 to clarify the standard of review for utility transportation electrification proposals, and is applicable to 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.*

In its decision approving modification of the SCE settlement, the Commission applied these statutory criteria through the following key findings, *inter alia*:

- EVs can result in a range of environmental and grid benefits such as are defined in Pub. Util. Code Sections 740.2, 740.3, and 740.8, and SB 350.[49/]
- The upfront costs of charging stations can be prohibitive to their installation.[50/]
- Customer participants located in disadvantaged communities may not have adequate private capital to invest in EV charging stations, which could discourage program participation by customer participants in disadvantaged communities.[51/]

49/ D.16-01-023, Finding of Fact 21, p. 54.

50/ D.16-01-023, Finding of Fact 3, p. 52.

51/ D.16-01-023, Finding of Fact 12, p. 53.

- EV charging is particularly needed in multi-unit dwellings to increase adoption consistent with the Governor's Zero Emission Vehicles Action Plan.[52/]
- The appropriate basis for defining disadvantaged communities (service territory or statewide) is the one that allows the broadest eligibility, as that will allow for the most equitable access to incentives.[53/]
- For Multi-Unit Dwelling participants, Phase 1 will provide data to determine whether demand response capabilities, time of use pricing for customer participants, and customer education components will incentivize prudent load management.[54/]
- For Fleet, Workplace, and Destination Center participants, load management strategies should be informed by SCE's Demand Response Pilots authorized in D.12-04-045.[55/]

Similarly, in its decision modifying the SDG&E settlement, the Commission applied the relevant statutory criteria through findings, *inter alia*:

- Governor Brown's Executive Order B-16-2012 set a target of creating infrastructure to support up to one million ZEVs by 2020, and to have 1.5 million ZEVs on California's roads by 2025.[56/]
- Among other things, SB 350 added provisions to the Public Utilities Code to promote the widespread use of electricity as a transportation fuel in order to

52/ D.16-01-023, Finding of Fact 13, p. 53.

53/ D.16-01-023, Finding of Fact 23, p. 54.

54/ D.16-01-023, Conclusion of Law 20, p. 57.

55/ D.16-01-023, Conclusion of Law 21, p. 57.

56/ D.16-01-045, Finding of Fact 1, p. 162.

achieve the goals of the Charge Ahead California Initiative as set forth in the Health & Safety Code.[57/]

- Health & Safety Code § 44258.4(b) states in part that the goal of the Charge Ahead California Initiative is to place in service at least one million ZEVs and near-ZEVs by January 1, 2023.[58/]
- The objective and goals behind SDG&E's…program are set forth in the Governor's Executive Order, and in various California statutes….[59/]
- The legislative direction to encourage the development of an EV charging infrastructure and to promote the widespread adoption of EVs so as to reduce GHG emissions, and to promote the use of renewable energy resources, must not be ignored.[60/]
- The deployment of EV charging infrastructure will help assure potential purchasers of EVs that EV charging will be available.[61/]
- The…proposal addresses the concerns in Public Utilities Code Section 740.2 about: (1) the widespread use of PEVs and EVs and the role and development of public charging infrastructure; (2) the impact of EVs and PEVs on grid stability and the integration of renewable energy resources; and (3) the widespread use of PEVs and EVs to achieve the state's goals regarding the reduction of GHGs, obtaining more electric generation from renewable sources of energy, and the

57/ D.16-01-045, Finding of Fact 5, p. 162.

58/ D.16-01-045, Finding of Fact 6, p. 162.

59/ D.16-01-045, Finding of Fact 24, p. 165.

60/ D.16-01-045, Finding of Fact 25, p. 165.

61/ D.16-01-045, Finding of Fact 26, p. 165.

shifting of emissions reductions responsibilities from the transportation sector to the electric industry.[62/]

- In applying the balancing test, the Commission stated in D.14-12-079 that the Commission will assess the likely competitive impact on the market segment targeted, and whether any anticompetitive impacts can be prevented or adequately mitigated through the exercise of existing rules or conditions.[63/]
- Under the Proposed Settlement, the site hosts or their designees, have two options that were not offered as part of SDG&E's original…proposal: (1) the site host or designee can choose to take service under the…Rate-to-Host billing option, and (2) they can choose the EVSE and related services that they want from preapproved vendors under either the…Rate-to-Driver or the…Rate-to-Host billing options.[64/]
- These two options appear to mitigate some of the concerns about anticompetitive impacts by offering the site host two billing options under the…rate, and allowing preapproved third party providers to offer EVSE and related services to site hosts, which promotes competition and innovation.[65/]
- Under the Proposed Settlement, the anticompetitive impacts would be reduced because site hosts would be allowed to choose the EVSE and related services from preapproved vendors, the site hosts could choose the…Rate-to-Host option, and the site host would be obligated to pay a participation fee.[66/]

62/ D.16-01-045, Finding of Fact 35, p. 167.

63/ D.16-01-045, Finding of Fact 47, pp. 168- 9.

64/ D.16-01-045, Finding of Fact 48, p. 169.

65/ D.16-01-045, Finding of Fact 49, p. 169.

66/ D.16-01-045, Finding of Fact 54, pp. 169- 170.

- If the cost and the size of the…program is reduced from what is being offered in the Proposed Settlement, that would strengthen the reasoning for finding that a scaled down…program will not result in SDG&E unfairly competing with nonutility enterprises because the number of EV site installations and charging stations owned by SDG&E would be reduced.[67/]

Consistent with these statutory and decisional criteria, 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:[68/]

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;"[69/]
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;[70/]
3. More reliable electrical service by leveraging PG&E's Distributed Resource Plan Integration Capacity Analysis to improve site selection;[71/]
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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67/ D.16-01-045, Finding of Fact 55, p. 170.

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

69/ Compare, D.16-01-045, p. 114, fn.30, to Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, p. 6 ("Safety Considerations").

70/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, p. 6 ("Metering and Billing – 'TOU Rate-to-Driver" and 'TOU Rate-to-Host' Billing Options.").

71/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 7, p. 10.

upon which more sophisticated forms of load will be evaluated to identify an "Advanced EV Grid Support" program to be deployed in Phase 2;[72/]

Likewise, Charge Smart and Save will, under 740.8(b):[73/]

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;"[74/]
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's service territory;
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, Charge Smart and Save, including the Guiding Principles set forth in the Settlement Agreement, makes clear that the overarching objective of 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 1 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

72/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement,* Section 6, p. 10.

73/ 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.

74/ PU Code § 740.12(a)(1)(I).

- To ensure that all new vehicles sold by 2050 be ZEVs.

As discussed further below, Charge Smart and Save also provides the following benefits consistent with the Commission's overall goals for reasonable, affordable and competitively-neutral electricity service:

1. Priority for siting EV charging stations and infrastructure in underserved EV market segments, including workplaces, MUDs and Disadvantaged Communities.[75/]
2. Lower overall cost and reduced size of the program, as well as site host choice of technology and rate options, comparable to the size, cost, choice of technology, rate and load management options approved by the Commission for SDG&E.[76/]

Through deployment of EV charging infrastructure, and promoting the adoption of EVs in California, Charge Smart and Save 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.[77/] 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

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75/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, p. 4 ("Targeting of Multi-Unit Dwellings (MUDs) and Workplaces.").

76/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, pp. 4- 5. "Cost, Size, Structure and Duration of Charge Smart and Save;" "Choice of Charging Technology.")

77/ Exh. JOINT SETTLING PARTIES-1, *Joint Motion for Adoption of Settlement Agreement*, Table 1, Row "Cost," p. 6.

cost approved as "just and reasonable" by the Commission in the SDG&E decision. (D.16-01-045, p.129.)[78/]

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."[79/]

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 used.[80/] 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."[81/]

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

78/ Exh. PGE- 1, *Charge Smart and Save Settlement Agreement*, p. 4 ("Cost, Size, Structure and Duration of Charge Smart and Save.") The scoping memo in R.13-11-007 provides that pilot programs initiated under the Rulemaking will not be required to demonstrate positive cost-benefit ratios as a condition of Commission approval. (*Assigned Commissioner's Scoping Memo and Ruling*, R.13-11-007, July 16, 2014, p. 11.)

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

80/ *Id.,* pp. 5- 6.

81/ D.16-01-045, Conclusion of Law 15, p. 177.

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").[82/]
- 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."[83/]
- 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.)[84/]

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.[85/]

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."[86/] As noted previously, Charge Smart and Save far exceeds the

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82/ D.16-01-045, p. 109; Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 6, pp. 9- 10.

83/ D.16-01-045, p. 109; Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement,* Sections 9, 11, p. 11.

84/ D.16-01-045, p. 109; Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 8, pp. 10- 11.

85/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 15, pp. 12- 13.

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

requirements of Public Utilities Code Section 740.8, upon which the Commission should rely heavily.

Reasonableness of Settlement. As outlined in the Commission's SCE decision, 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.[87/] 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.[88/]

Charge Smart and Save 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.[89/] The Settlement Agreement reduces the risk that litigation will waste time and resources of the parties and the Commission.

B. The Settlement is Reasonable In Light of the Whole Record

Charge Smart and Save 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 EV programs proposed by SDG&E and SCE and approved as modified in D.16-01-045 and D.16-01-023. The Settling Parties have relied extensively on the guidance and findings of the

87/ D.16-01-023, p. 6.

88/ *Id*., pp. 50- 51.

89/ Pursuant to Rule 12.1(a), settlements in Commission proceedings need not be joined by all parties, and may propose settlement on the resolution of any material issue of law or fact or on a mutually agreeable outcome to the proceeding, regardless of whether some parties oppose the settlement. For example, of the 16 other parties besides SDG&E that entered into the SDG&E settlement, only one party (ChargePoint) did not generally support SDG&E's pre-settlement proposal. SDG&E's settlement was opposed by 8 parties. (D.16-01-045, pp. 32- 87.)

Commission in D.16-01-045 and D.16-01-023, as well as their own prepared testimony and positions, including positions that have resulted in significant improvements to the "model" for a utility-owned EV infrastructure adopted by the Commission in D.16-01-045.

In addition, the Settling Parties have included in Charge Smart and Save 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.

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

As discussed in detail 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.

As outlined in the Commission's decision on the SCE settlement, the agreed-upon outcomes in the Charge Smart and Save settlement also represent negotiated outcomes that, for the most part, reasonably balance the competing interests of many different parties. The settlement will, among other things, allow for a smooth transition to a Phase 2, encourage the

growth of EV charging stations and competition among service providers, and provide useful information to the Commission to assess the EV Phase 1 pilot results.[90/]

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, Charge Smart and Save, including the significant modifications to PG&E's original proposals, is consistent with law and in the public interest. The Settling Parties have met their burden of proof and complied with all relevant Commission legal standards in proposing and supporting the Charge Smart and Save settlement.

III. STATUS OF PROPOSALS

The Settling Parties, including PG&E, fully support the Charge Smart and Save settlement as an improvement on and substitute for PG&E's prior proposals in this proceeding, except as required to support the specific provisions of the settlement or as incorporated by reference into the settlement. To that extent, PG&E's other proposals are no longer pending before the Commission in this proceeding.[91/]

IV. PHASE 1 PROGRAM ISSUES AND ELEMENTS

In the sections below, Settling Parties provide additional details on the specific provisions of the Charge Smart and Save Settlement. In addition, Appendix A to this brief provides a table that compares and contrasts Charge Smart and Save with PG&E's prior proposals in this proceeding.

A. Guiding Principles

PG&E's original proposals did not include specific "guiding principles" similar to those proposed and approved by the Commission in the SCE and SDG&E settlements. The Settling

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90/ D.16-01-023, pp. 50- 51.

91/ Exh. JOINT SETTLING PARTIES-1, *Joint Motion for Adoption of Settlement Agreement*, pp. 1-2.

Parties agreed to include in the Charge Smart and Save settlement the same "Guiding Principles to guide implementation of the settlement as approved by the Commission for SCE and SDG&E.[92/] No parties commented on or opposed the proposed guiding principles. The guiding principles provide a foundation for moving forward with the Charge Smart and Save settlement.

B. Program Scope, Duration and Cost

The Settling Parties agreed 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 the settlement with a target of 7,500 Level 2 charging ports and a target of 100 DC Fast Chargers.[93/] The Settlement Agreement provides specific cost and forecast revenue requirement 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.[94/] Charge Smart and Save requires PG&E to 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 savings on site-specific deployment costs will be used for additional deployment not to exceed the cost cap.[95/]

Based on PG&E's current electric revenue requirements, 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

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92/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 2, pp. 7- 8.

93/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, p. 4.

94/ Exh. JOINT SETTLING PARTIES, *Charge Smart and Save Settlement Agreement,* Appendix E; Exh. Exh. PGE-3, Table 6, p. 15; Table B-4, pp. B-7 to B-9.

95/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, p. 4.

Commission in the SDG&E decision.[96/] Those cost estimates do not account for the downward pressure on rates that will result from properly managed widespread transportation electrification.[97/]

PG&E will 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.

Consistent with the duration of the SCE and SDG&E pilot programs, the duration of Charge Smart and Save will be three years from the beginning of construction.

C. Ownership: Applying the EVSE Ownership Balancing Test

As discussed above, 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 EV supply equipment (EVSE), including EV charging stations. To evaluate whether a utility should be permitted to own EVSE, the Commission in D.14-12-079 determined 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 used. Also as discussed above, 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."[98/]

Applying the balancing test to the Charge Smart and Save settlement demonstrates that the settlement meets and exceeds the Commission's criteria for approving PG&E ownership of EVSE as proposed by the settlement. Charge Smart and Save program incorporates every

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96/ *Id*.

97/ *Id*.

98/ D.16-01-045, Conclusion of Law 15, p. 177.

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 and appropriately mitigated any potential competitive impacts:

- 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").[99/]
- 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."[100/]
- 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.)[101/]

In addition, as a further benefit to weigh in applying the balancing test, 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.[102/]

On solely a numerical market share basis, the *size* of PG&E's ownership under Charge

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99/ D.16-01-045, p. 109; Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 6, pp. 9- 10.

100/ D.16-01-045, p. 109; Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement,* Sections 9, 11, p. 11.

101/ D.16-01-045, p. 109; Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 8, pp. 10- 11.

102/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 15, pp. 12- 13.

Smart and Save compares favorably to the market concentration criteria presented in the record of the SDG&E proceeding – Charge Smart and Save's number of utility-owned chargers (7,500 Level 2 chargers) is only a fraction (three percent) of the infrastructure required to meet California's transportation electrification goals.[103/] PG&E's ownership of EV charging stations is more likely than not to actually *reduce* market concentration in EV charging station markets in PG&E's service area, thus *improving* competition.[104/]

Based on the record evidence and the reduced size of the PG&E program negotiated by the Settling Parties, the Commission should find that Charge Smart and Save fully meets the Commission's balancing test for competitive impacts.

D. Reasonableness of Costs; Ratepayer Costs and Benefits

As discussed above, the Settling Parties negotiated a significant reduction in the overall costs of PG&E's program, in order to ensure that the costs are reasonable and the benefits of the program are consistent with the Commission's requirements for utility-sponsored EV pilot programs. The key cost metric in the settlement is the cost of Charge Smart and Save to the typical residential electric customer. Charge Smart and Save will cost the typical residential electric customer a maximum of $2.64 for a single year of peak revenue recovery, less than the $2.75 per year cost metric approved by the Commission as reasonable in the SDG&E decision.[105/]

On the benefits side, the Charge Smart and Save settlement includes, in many cases *verbatim*, the same or similar data collection, monitoring, reporting and assessment requirements that the Commission has adopted in its SCE and SDG&E decisions, in order to ensure that the utility EV pilot programs provide results and customer experience that benefit all utility

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103/ Joint Reply Comments of Settling Parties, A.15-02-009, April 18, 2016, p. 5.

104/ Exh. PGE-3, pp. 24- 25, Table 7.

105/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, p. 4 ("Cost, Size, Structure and Duration of Charge Smart and Save.").

customers in future phases of the utility programs and under more robust deployment of EVs on the utilities' grids.[106/] These benefits include not only EV infrastructure siting and utilization metrics and data, but also data on grid impacts, time-of-use rates, and load management programs that may help integrate future EV loads on PG&E's grid more efficiently for the benefit of all customers, EV and non-EV alike.[107/]

In negotiating the Charge Smart and Save settlement, the Settling Parties understood that the Commission had provided specific guidance on ratepayer costs and benefits in its two prior decisions for SCE and SDG&E. Accordingly, Charge Smart and Save incorporates that guidance directly into ratemaking and programmatic elements in order to ensure that the costs and benefits of the settlement are comparable to and consistent with the EV programs approved for the other two utilities.

E. Choice and Procurement of Charging Technology; Supplier Diversity

Like the SDG&E and SCE programs, Charge Smart and Save ensures that PG&E contracts with third parties to provide Electric Vehicle Supply Equipment (EVSE) operating systems, network services and related hardware to implement the PG&E program.[108/] 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 Level 2 (L2, 240 volt) 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.[109/] PG&E will establish an annual

106/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, Sections 17, 18, 19, 20, pp. 13- 14; Appendices A and B.

107/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, Appendix B.

108/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, Sections 9 and 11, p. 11; Appendix C.

109/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, Section 11,

qualification process in order to foster innovation and competition for EV charging products and services.[110/] 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.[111/]

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.[112/] As noted in the Settlement Agreement, 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.[113/]

The Settling Parties have required that Charge Smart and Save be included within PG&E's women, minority, disabled veteran -owned business enterprise (WMDVBE) procurement 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.[114/]

In summary, the technology choice, procurement and quality assurance processes required for Charge Smart and Save are virtually the same as EVSPs and other parties have

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p. 11.

110/ *Id.*

111/ *Id*.

112/ *Id*.

113/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, Sections 11 and 12, pp. 11- 12.

114/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, Section 14, p. 12.

included in the SCE and SDG&E settlements, and as required by the Commission in its decisions on those settlements.

F. Site Selection Criteria and Participation Payments

In selecting site hosts, Charge Smart and Save requires PG&E to aim to achieve a non-binding goal of installing 7,500 Level 2 EV charging ports and 100 DC Fast Chargers (DCFC) at MUDs, workplaces and other public locations.[115/] PG&E will commit to 20 percent of deployment sites serving MUDs, with a non-binding target of 50 percent for MUDs.[116/] PG&E also will seek to align its site selection and program planning to the extent possible with state and regional transportation planning efforts through engagement with parties such as Caltrans, regional transportation organizations such as the Metropolitan Transportation Commission, regional Councils of Governments and Air Districts, the California Energy Commission, and local Plug-in Electric Vehicle Coordinating Councils.[117/]

PG&E is required 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.[118/] The participation payment will be waived for EV Facilities at sites located in Disadvantaged Communities as identified in Appendix D of the Settlement Agreement and at sites owned or leased by school districts, government agencies or non-profit entities.[119/] After consultation with the Program Advisory Council, PG&E may file for modification of the

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115/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, Section 5, p. 9.

116/ *Id*.

117/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, Section 7, p. 10.

118/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, Section 8, pp. 10- 11.

119/ *Id*.

participation payment by way of a Tier 2 advice letter, subject to protest by any party.[120/] Consistent with D.16-01-045, the revenue collected from participation payments will be credited against Operations and Maintenance (O&M) costs incurred for EV charging stations under Charge Smart and Save.[121/]

As also discussed in Section I, below, Charge Smart and Save also provides that at least 15 percent of EV charging stations 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.[122/]

Again, the Charge Smart and Save site selection and participation payment requirements meet and in many cases exceed the requirements of the SCE and SDG&E programs as approved by the Commission.

G. Load Management, Time of Use Rates, Pricing to EV Drivers

The Settling Parties agree with the Commission's SCE decision that load management is not only critical to materializing grid benefits of EV charging, but also necessary to avoid any negative impacts on the grid.[123/] The Settling Parties also agree with the Commission's reasoning in the SCE decision that utility EV programs should provide data on EV services to the MUD segment to determine whether the proposed demand response capabilities, TOU pricing for customer participants, and customer education components are enough to incentivize prudent load management by MUD customers.[124/]

120/ *Id*.

121/ *Id*.

122/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, Section 15, pp. 12- 13.

123/ D.16-01-023, Conclusion of Law 19, p. 57.

124/ D.16-01-023, pp. 34- 35.

Like the SDG&E program, Charge Smart and Save will allow EV drivers to realize the potential fuel cost savings of electric vehicles, and will support load management and renewables integration objectives.[125/] Charge Smart and Save provides for a "TOU Rate-to-Driver" option, under which EV drivers will pay prices based on 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.[126/] Consistent with the Commission's SCE and SDG&E decisions, 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.[127/] Charge Smart and Save also specifies that PG&E will aim to leverage existing or planned load management pilots and enabling 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. 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 in development of the "Advanced EV Grid Support" program.[128/] Consistent with the SCE decision, Charge Smart and Save's load management and TOU pricing elements will allow PG&E to work with the Program Advisory Committee to determine metrics needed to evaluate the effectiveness of the Load Management strategies in achieving the Guiding Principles of the settlement.[129/]

125/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, Section 6, pp. 9- 10.

126/ *Id*.

127/ *Id.*

128/ *Id*.

129/ D.16-01-023, pp. 36- 37.

In essence, the Settling Parties have incorporated into Charge Smart and Save the "best practices" and approved elements for load management, TOU pricing and pricing flexibility to EV drivers from both the approved SCE and SDG&E EV programs.

H. Targeting of Market Segments

Workplaces, MUDs and Disadvantaged Communities. Consistent with the Commission's findings in its SCE and SDG&E decisions, Charge Smart and Save targets the underserved EV market segments of workplaces, MUDs and Disadvantaged Communities.[130/] (The Disadvantaged Communities element of Charge Smart and Save is discussed in section I, below.)

Charge Smart and Save is intended to ensure adequate deployment of EV charging stations and equipment at MUDs, without hindering program implementation in other targeted segments that will remain demand driven. To this end, Charge Smart and Save requires PG&E to aim for 50 percent of sites at MUDs, and to commit to deploy at least 20 percent of EV sites at MUDs. The remainder of PG&E's sites will be at workplaces, fleet locations and public facilities such as government buildings and community destinations.[131/]

Charge Smart and Save's targeting of these underserved market segments will allow development of a sample of EV pilot data that will help inform the targeting of market segments in Phase 2 of PG&E's program. At the same time, however, the Settling Parties intend that Charge Smart and Save provide PG&E with sufficient flexibility in these underserved markets so that charging stations are deployed based on actual market demand and needs and maximize the potential utilization and promotion of EV deployment.

DC Fast Charging Stations. Unique among the three Phase 1 program proposed by the IOUs, PG&E's Phase 1 program includes a pilot deployment of 100 DC Fast Charging stations (DCFCs) in PG&E's service territory.[132/]

130/ Exh. JOINT SETTLING PARTIES-1, *Smart Charge and Save Settlement Agreement*, p. 4 ("Targeting of Multi-Unit Dwellings (MUDs) and Workplaces.")

131/ *Id*.

132/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement*, p. 4 and Section 5, p.

DCFCs' faster charging capacilities can provide significant benefits to EV drivers that are not currently being provided by other providers. PG&E's DCFCs will be co-located with a Level 2 station, allowing these stations to serve all EV drivers, but particularly Battery Electric Vehicle (BEV) drivers and those without residential charging capability (e.g., in MUDs). Charge Smart and Save provides that PG&E will competitively procure and deploy an initial number of 100 DCFCs in its Phase 1 Program at reasonable cost in order to meet this gap in current EVSE markets and provide significant benefits to BEV drivers, MUD residents, and EV market participants.[133/]

Benefits to BEV Drivers: BEV drivers now comprise a majority of EV drivers across PG&E's service territory. Many of these drivers, unlike Plug-In Hybrid Electric Vehicle drivers who rely on gasoline backup to extend their range, need a regional fast charging network separate from home charging in order to overcome BEV range anxiety. As of late 2015, 62 percent of EV drivers throughout PG&E's service territory have purchased or leased BEVs. Sales data for 2015 suggest that the market is moving more heavily towards BEVs. Furthermore, automotive manufacturers continue to announce new fast-charge capable models. Importantly, DCFCs may significantly reduce the range anxiety of BEV drivers toward longer inter-regional trips that would otherwise require a several-hour stop at a location with an L2 charging station.[134/]

Benefits to MUD Residents: In addition, DCFCs may serve a unique piece of the MUD market that L2 chargers may not. DCFCs allow faster chargers for more drivers in the same space, compared to multiple parking spaces needed for L2 chargers to support multiple drivers with much longer charging times. DCFCs thus are a promising option for MUDs that have limited parking for MUD residents. The more rapid charging capability of DCFCs provides an

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133/ Exh. PGE-3, p. 27 (Corey).

134/ Exh. PGE-3, pp. 27- 28 (Corey)

opportunity to significantly increase the availability and utilization of stations deployed in or near MUDs. Additionally, DCFCs placed in public locations within close proximity to residential areas have the potential to support customers who may not have access to residential charging, which is critical to increasing vehicle adoption and overcoming range anxiety in these areas.[135/]

Existing Market Participants Need Additional Support for DCFC Deployment: Although providing significant benefits to BEV drivers and MUD residents, DCFCs are relatively more expensive to install than L2 chargers. As a result, DCFC deployment has been severely limited in California.[136/] This overall benefit to EV market participants was reinforced by testimony at the hearings in this proceeding, in which Judge Farrar asked Ryan Harty, representing American Honda Motor Co., Inc. why the automakers were supporting Charge Smart and Save's pilot deployment of DCFCs:

> Judge Farrar: Let me ask your opinion on why the automakers support PG&E's direct DC fast charge program particularly in consideration of the automakers' existing DC fast charger investments?
>
> Harty: So there is several barriers to selling a plug-in electric vehicle. You could kind of think about it in terms of chickens and chicken feed. If you want robust healthy chickens, you've got to feed them, right? That is access to electricity for the vehicle drivers, and if you don't have that access to electricity you don't have those vehicle miles travelled on electricity.
>
> DC fast charging, it sells cars. In the same way that workplace charging and charging at home sells cars. When a customer hears about electric vehicle, they want to understand can that vehicle work for me. And at some point in their consideration a light bulb goes off. They realize aha, I can charge at home or, aha, I can charge at work, or when I have been driving and I've exceeded the range of my battery, I can stop at a DC fast charger and I can have enough range to get home. So removing those anxieties from the purchase decision of a vehicle, which is a very complicated purchase decision, but removing those anxieties allows people to consider an electric vehicle when they may not have otherwise.

135/ Exh. PGE-3, p. 28 (Corey).

136/ *Id*.

> And so, frankly, we were very happy to see that PG&E was planning to install DC fast charging as part of their program, because it sells cars.[137/]

Charge Smart and Save's pilot deployment of DCFCs is reasonable and will enhance the data and evidence available to assess and update the Commission and stakeholders on the needs of EV market participants for Phase 2 IOU programs.

I. Disadvantaged Communities

Compared to PG&E's original proposal, Charge Smart and Save requires PG&E to increase its commitment to require a minimum of 15 percent of 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.[138/] PG&E must 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.[139/]

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.[140/]

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.[141/] The

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137/ Tr. Vol.4, April 27, 2016, 458:24 to 460:7 (Honda/Harty).

138/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement*, p. 5 and Section 15, pp. 12- 13.

139/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement*, Section 15.

140/ *Id*.

141/ *Id*.

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).[142/]

By including these enhanced Disadvantage Communities programs in Charge Smart and Save, the Settling Parties are committed to supporting EV adoption for PG&E customers living in low and moderate income communities throughout the service territory. As a result, Charge Smart sets an ambitious target of installing a minimum of 15% of site hosts located in Disadvantaged Communities. Unlike SCE and SDG&E, PG&E's service territory includes five of the top ten most polluted regions with respect to air quality.[143/] In addition, approximately 26 percent, or 3.9 million of PG&E customers live in Disadvantaged Communities, as defined by the CalEnviroScreen2.0.[144/]

While the deployment goals included in the Charge Smart and Save settlement for Disadvantaged Communities are significantly greater than those adopted for SCE or SDG&E, the Settling Parties believe they are achievable in light of the size of PG&E's service territory and the absolute number of PG&E customers who live in Disadvantaged Communities. PG&E's Charge Smart and Save Program will help to support transportation electrification, which is critical to improving air quality throughout California, especially in the Central Valley.

The Charge Smart and Save settlement also specifies that the strategies employed by PG&E will "complement and coordinate with federal, state and locally funded Programs, such as those being developed by the Air Resources Board pursuant to SB 1275, that are expected to grow the demand for EVs in Disadvantaged Communities (e.g., EFMP Plus Up, Low and Moderate Income Clean Vehicle Rebate Project rebates, Financing Assistance, EV car-sharing

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142/ *Id*.

143/ www.**stateoftheair**.org/**2015**/assets/ALA_**State_of_the_Air_2015**.pdf.

144/ *Joint Response of Settling Parties to Administrative Law Judge's Ruling Directing Joint Settling Parties to Respond to Various Questions*, April 12, 2016, p. 6.

services, etc.)."[145/] In sum, there will be a collaborative relationship between programs that accelerate the deployment of plug-in electric vehicles in Disadvantaged Communities and the Charge Smart and Save program which will help provide the charging stations for those vehicles, thereby further accelerating vehicle adoption in those communities.

All Charge Smart and Save contractors will be required to 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.[146/] 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.[147/]

The Settling Parties agree with the Commission in its SCE decision that PG&E should coordinate its Disadvantaged Communities EV program with other low-income rate, demand-side management, or distributed generation programs, and engage local organizations to support outreach to the Disadvantaged Communities.[148/]

The Disadvantaged Communities elements of Charge Smart and Save are exciting and significant improvements on the pilot programs approved for SDG&E and SCE. The Settling Parties intend and expected Charge Smart and Save to break new ground on new methods for expanding the availability of clean vehicles to underserved low and moderate income

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145/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 15, pp. 12- 13.

146/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 16, p. 13.

147/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 15, pp. 12- 13.

148/ D.16-01-023, pp. 40- 41.

communities, where the costs and risks of pollution are great and the benefits of clean transportation are most needed and widespread.

J. Coordination with Distribution Resource Plans

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.[149/] 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.[150/] As discussed above, 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, regional transportation organizations such as the Metropolitan Transportation Commission, the California Energy Commission, regional Councils of Governments and Air Districts, and local Plug-in Electric Vehicle Coordinating Councils.[151/]

K. Education and Outreach

Similar to the approved SCE and SDG&E programs, Charge Smart and Save allocates significant resources to marketing, education and outreach (ME&O) to not only Disadvantaged Communities, but also to all the targeted segments for siting and customer support related to installation and operation of EV charging stations and infrastructure.[152/] These ME&O activities are required to be coordinated with the recommendations of the Program Advisory Council and

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149/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 7, p. 10.

150/ *Id*.

151/ *Id*.

152/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Appendix E.

other EV stakeholders, including community based organizations, state and local agencies, EV market participants, and Community Choice Aggregators (CCAs).[153/]

More specifically, third party EV charging equipment and service providers pre-qualified by PG&E for Charge Smart and Save, 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 by Charge Smart and Save, e.g., Disadvantaged Communities.[154/] 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.[155/]

Although Charge Smart and Save's ME&O activities and goals are similar to those approved by the Commission for SCE and SDG&E, the higher priority for promoting and deploying EVs in Disadvantaged Communities means that Charge Smart and Save is likely to provide the Commission and stakeholders with unique and valuable data on different methods and options for incenting much broader deployment of EVs to low and moderate income communities and customers.

L. Coordination and Collaboration with Community Choice Aggregators

Charge Smart and Save includes unique and new initiatives providing for collaboration among PG&E and CCAs in the promotion and deployment of EVs in northern and central California.[156/] Charge Smart and Save requires that marketing conducted for the Charge Smart

153/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 12, pp. 11- 12.

154/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Sections 11 and 12, pp. 11- 12.

155/ *Id*.

156/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Sections 12 and 17, pp. 11- 12, 13.

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. CCAs will provide generation services for EV Facilities in CCA jurisdictions, subject to the ability of Site Host to opt-out consistent with 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. 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, and CCAs will work with PG&E to market and sign up potential EV Site Hosts to participate in Charge Smart and Save in the targeted customer segments. 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.[157/]

Given the growth of CCA programs in PGE&'s service area, PG&E and the CCAs among the Settling Parties are pleased that this unique and innovative approach to utility-CCA collaboration and cooperation for the commonly-shared goal of EV deployment and GHG reduction is included in Charge Smart and Save.

M. Monitoring, Data Collection and Reporting

In order to provide an assessment of Charge Smart and Save consistent with the Guiding Principles and the Commission decisions approving the SCE and SDG&E programs, after Charge Smart and Save begins installation of EV Facilities, PG&E must file quarterly progress

157/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 12, pp. 11- 12.

reports with the Commission and the Program Advisory Council, and serve the reports on all parties to A.15-02-009 and R.13-11-007, as described in PG&E's supplemental testimony.[158/] PG&E also will file and serve an Interim Progress Report at the end of the second year following the beginning of construction.[159/] The progress reports will include data as described in PG&E's supplemental testimony and the Settlement Agreement 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.[160/]

These monitoring, data collection and reporting mirror the similar requirements adopted by the Commission in its SDG&E and SCE decisions, and have not been opposed by any parties. This provision of the Settlement Agreement should be approved without change.

N. Advisory Council

Charge Smart and Save requires a Program Advisory Council with members and duties virtually identical to the similar advisory boards approved by the Commission for SDG&E and SCE.[161/] No parties opposed this provision of the Settlement Agreement, and it should be approved without change.

O. Cost Recovery, Cost Allocation, Management, and Transition Mechanism

The costs of Charge Smart and Save will be recovered in accordance with the cost recovery, rate design and cost allocation proposal in PG&E's prepared testimony.[162/] These

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158/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 20, p. 14; Exh. PGE-3, pp. 19- 20.

159/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Sections 17, 18, 20, pp. 13- 14 and Appendices A and B.

160/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 20, p. 14.

161/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 17, p. 13 and Appendix A.

162/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 4, p. 9.

include a cap on overall costs of $160,324,000 as provided in the Settlement Agreement, as well as a balancing account consistent with traditional Commission ratemaking principles.[163/]

In addition, the September 4, 2015, *Joint Assigned Commissioner and Administrative Law Judge's Scoping Memo and Ruling* in this proceeding required PG&E to provide supplemental testimony recommending what transition mechanisms should be established between the initial phase and potential second phase of PG&E's EV program to allow adequate time for regulatory review of the initial phase while also minimizing market uncertainty and discontinuity during the review.[164/] Exhibit PGE-3 (pp. 32- 24) recommended a transition mechanism that includes a bridge funding mechanism to avoid interruption, customer confusion or market uncertainty or discontinuity if the event that the Commission for whatever reason has not issued a decision on PG&E's Phase 2 proposal before the end of PG&E's Phase 1 deployment.[165/] Accordingly, Charge Smart and Save includes a bridge funding mechanism which modifies PG&E's original transition proposal to restrict the bridge funding to the average monthly cost and deployment rate of the Charge Smart and Save program for the previous 12 months, less any unspent funds from the budget at the end of the third year.[166/]

PG&E customers will benefit from this bridge funding because it will lessen the incremental costs of re-mobilizing and re-starting Charge Smart and Save deployment activities in the event that there is a significant gap between end of Phase 1 deployment and beginning of Phase 2 deployment. For example, once the construction and installation crews have been assembled and are experienced, it would be wasteful to have them stop working for so long that the crews are forced to find other work. When the program is restarted, the efficiency of the

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163/ *Id*.

164/ *Joint Assigned Commissioner and Administrative Law Judge's Scoping Memo and Ruling,* A.15-02-009, September 4, 2015, p. 9.

165/ Exh. PGE- 3, p. 34 (Corey).

166/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 19, pp. 13- 14.

experienced workers would be lost and would have to be reestablished with new crews at potentially higher cost.

P. Safety

As required by the SCE and SDG&E decisions, Charge Smart and Save also requires safety and quality assurance for the work performed under the program.[167/] 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.[168/] 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.[169/]

V. OTHER ISSUES

N/A.

VI. CONCLUSION

The Settling Parties appreciate the compromises and good faith negotiation that have led to the Charge Smart and Save Settlement Agreement. The Settling Parties respectfully request that the Commission find 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.

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167/ Exh. JOINT SETTLING PARTIES-1, *Charge Smart and Save Settlement Agreement*, Section 13, p. 12.

168/ *Id*.

169/ *Id*.

Respectfully submitted,

CHRISTOPHER J. WARNER

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Dated: June 17, 2016

APPENDIX –
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% less 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; 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 Deployment and Support	10%, plus $5 million for additional programs in disadvantaged communities	10%, budget for additional programs in disadvantaged communities reduced to $3.7 million	15% minimum in disadvantaged communities, plus additional 5% stretch goal in 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

Coordination with CCAs	No	No	Yes
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
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
Phasing	None	Yes	Yes