

**BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON**

IN THE MATTERS OF PACIFICORP)
DBA PACIFIC POWER, APPLICATION)
FOR TRANSPORTATION)
ELECTRIFICATION PROGRAMS)

DOCKET NO. UM 1810

CHARGEPOINT EXHIBIT 100

REPLY TESTIMONY OF DAVID PACKARD

May 24, 2017

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1 **I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS**

2 **Q: Please state your name.**

3 A: My name is David Packard.

4 **Q: By whom are you employed and in what position?**

5 A: I am the Vice President of Utility Solutions at ChargePoint, Inc.

6 **Q: Have you previously filed testimony before the Oregon Public Utility Commission?**

7 A: I filed Reply Testimony in Docket No. UM 1811, PGE's Application for Transportation
8 Electrification Programs.

9 **Q: Please describe your qualifications, including your background, experience, and
10 expertise.**

11 A: In my current role, I advise a team of Directors who work with electric utilities and other
12 key stakeholders in Europe and North America on electric vehicle market infrastructure
13 engagement and investment, and support the development of policies and programs to
14 accelerate the adoption of EVs and EV charging equipment and services.

15 I have been working in the electric vehicle market since 1993 and have been highly
16 involved in the evolution of standards and policy around EV infrastructure. Prior to joining
17 ChargePoint, I was founder and President of ClipperCreek, a company that designed,
18 developed and manufactured Electric Vehicle Supply Equipment (EVSE). Before
19 ClipperCreek, I was Vice President of EVI, an infrastructure company that served the
20 nascent EV infrastructure market through 2003.

21 I hold a Master of Science in Civil Engineering and a Bachelor of Science degree
22 from the University of Massachusetts. My statement of qualifications is attached as
23 ChargePoint/101 following my reply testimony.

1 **Q: Please describe ChargePoint and ChargePoint’s previous involvement in**
2 **transportation electrification efforts in Oregon.**

3 A: ChargePoint is the largest electric vehicle (EV) charging network in the world, with
4 charging solutions for every charging need and all the places EV drivers go: at home, work,
5 around town and on the road. With more than 35,000 independently owned charging spots
6 and more than 7,000 customers (including workplaces, cities, retailers, apartments,
7 hospitals and fleets), ChargePoint is the only charging technology company on the market
8 that designs, develops and manufactures hardware and software solutions across every
9 category. Leading EV hardware makers, automakers and other partners rely on
10 the ChargePoint network to make charging station details available in mobile apps, online
11 and in navigation systems for popular EVs. ChargePoint drivers have completed more than
12 21 million charging sessions, saving upwards of 21 million gallons of gasoline and driving
13 more than 525 million gas-free miles.

14 ChargePoint was the first company globally to launch and deploy a network in
15 support of EV charging, and is dedicated to providing a constant stream of innovation and
16 advancements. ChargePoint has more than 30 patents awarded to date. ChargePoint was
17 recently awarded Electrek’s Best of CES 2017 award for Best EV accessory. ChargePoint
18 was included on the CNBC Class of 2014 “Disrupter 50” list of innovative companies, an
19 honor shared with Uber, SpaceX, Dropbox, and Airbnb. The United Nations Framework
20 Convention on Climate Change honored ChargePoint with a Momentum for Change award
21 at the annual Conference of Parties (“COP21”) in Paris, France in December of 2015.
22 ChargePoint was one of 16 Lighthouse Activities¹ selected for its innovative and scalable

¹ http://unfccc.int/files/press/press_releases_advisories/application/pdf/mfc_press_release-

1 approach to tackling climate change, and one of only two companies highlighted from the
2 United States. ChargePoint received this award for its partnership program with BMW and
3 Volkswagen to create Express Charging Corridors along both coasts of the United States.²

4 ChargePoint was actively involved in both the development and passage of SB
5 1547 and in the rulemaking proceeding that resulted in the Commission's transportation
6 electrification rules.

7 **Q: What is the purpose of your Reply Testimony?**

8 A: The purpose of my testimony is to address the proposals for transportation electrification
9 programs from Pacific Power. ChargePoint has significant concerns with Pacific Power's
10 proposed Public Charging program, but largely supports the proposed Demonstration and
11 Development program and the Outreach and Education program.

12 **Q: Please summarize your recommendations for the Commission.**

13 A: I recommend that the Commission:

- 14 • Require Pacific Power to designate a certain amount of funding for the Demonstration
15 and Development pilot to transportation electrification projects for low-income and/or
16 multi-unit dwelling communities;
- 17 • Require Pacific Power, or its third-party grant manager, to develop a list of pre-
18 approved electric vehicle service equipment (EVSE) vendors and EVSE equipment that
19 is eligible for grant funding under the Demonstration and Development program to
20 streamline administration of the program;

[2015 lighthouse activities.pdf](#)

² <http://www.chargepoint.com/news/2015/0122/>

- 1 • Approve Pacific Power’s proposal for a Demonstration and Development program,
2 with the two modifications mentioned above;
- 3 • Deny Pacific Power’s Public Charging program proposal and direct Pacific Power to
4 reallocate the \$1.85 million it planned to spend on that program to the Demonstration
5 and Development program.
- 6 • Approve Pacific Power’s proposal for an Outreach and Education program.

7 **II. DEMONSTRATION AND DEVELOPMENT PILOT**

8 **Q: What will you discuss in this section of your testimony?**

9 A: In this section of my testimony, I will discuss Pacific Power’s proposal for a Demonstration
10 and Development pilot program. Through this program, Pacific Power proposes to offer
11 grant funding to its non-residential customers for transportation electrification projects that
12 customers propose.

13 **Q: What is ChargePoint’s position on Pacific Power’s Demonstration and Development
14 program proposal?**

15 A: ChargePoint largely supports the Demonstration and Development program. Though I
16 offer several recommendations for how the program can be improved to make it as effective
17 as possible, I believe that the Demonstration and Development program will accelerate
18 transportation electrification as required by SB 1547, and reflects an appropriate role for
19 Pacific Power to play in the transportation electrification market.

20 **Q: What aspects of the Demonstration and Development program does ChargePoint
21 support?**

22 A: Most importantly, ChargePoint supports and appreciates that this program will allow non-
23 residential customers to decide for themselves how to pursue their own unique

1 transportation electrification goals. Rather than offering a “one-size-fits-all” solution,
2 Pacific Power will encourage customers to propose creative projects based on each
3 customer’s needs. We also appreciate that the program will be technology-neutral, will
4 encourage customers to share the cost of the project proposal with Pacific Power, and will
5 rely on an independent third-party to manage grants awarded through the program.

6 **Q: Why is it important for customers to be able to design and propose their own**
7 **transportation electrification program under this program?**

8 A: Each non-residential customer decides to install EVSE for a different reason, and the
9 services or capabilities of the EVSE that is installed on a customer’s premises must be
10 adaptable to the particular needs of that customer, including how each customer chooses
11 to set pricing for charging at its facility. For example, a big-box retailer may want to offer
12 free charging for the first hour as an incentive to bring customers into its store, but then
13 require a nominal payment to encourage customers to move their vehicles and make the
14 EVSE available for another customer. A convenience store or gas station may decide that
15 a high-powered DC fast charger (DCFC) is the best way to attract customers to its store,
16 and may want to experiment with different pricing schemes after the EVSE is installed.
17 Employers may want to offer EVSE at the workplace as a way to attract and retain talent,
18 and may opt for Level 2 chargers since the vehicles they serve will be parked most of the
19 day. Municipalities and other local governments may want to offer public EVSE as a part
20 of their commitments to sustainability, and be more focused on visibility and ease of use.

21 In short, each potential EVSE site-host is different, and ChargePoint appreciates
22 that the Demonstration and Development program will allow its customers to propose and
23 receive funding support for the EVSE that will meet its unique needs.

1 **Q: Why is it important that the Demonstration and Development program be**
2 **technology-neutral?**

3 A: Utilities often procure goods and services through a request for proposals (RFP) process
4 that is focused solely on the lowest cost solution to meet the given need. An RFP works
5 well for interchangeable commodities, such as fuel or trucks, to ensure that ratepayers do
6 not overpay. However, because site-hosts install EVSE for a wide variety of reasons, as
7 just discussed, site-hosts may be more concerned about the network capabilities, reliability,
8 or brand-recognition of a particular technology than they are about sticker price. Allowing
9 site-hosts to choose the EVSE technology that best meets their needs will help ensure that
10 Pacific Power's grants will provide the most value possible to grant recipients.

11 Additionally, because it is technology-neutral, the Demonstration and Development
12 program is likely to stimulate innovation, competition, and customer choice, as required
13 by SB 1547. When customers can choose their own EVSE, competitive EVSE providers
14 will work to develop new and exciting products to meet customers' needs.

15 **Q: Why is it important to encourage customers to share the cost of their project proposal**
16 **with Pacific Power?**

17 A: In ChargePoint's experience, it is important that site-hosts have some "skin-in-the-game"
18 with their EVSE installations. When site-hosts are invested in the EVSE located on their
19 property, they are more likely to ensure that the EVSE is sited in the most optimal location
20 to promote utilization, more likely to select the optimum number and type of chargers
21 installed, and more motivated to ensure that the EVSE is well-maintained and functioning.
22 In short, site-hosts who have paid for part of the cost of their EVSE are invested in the
23 success and value of the EVSE.

1 That said, some potential site-hosts, such as non-profit organizations, may not be
2 able to invest in EVSE if they are required to share the upfront costs, so it makes sense that
3 Pacific Power will consider all grant proposals and encourages applicants to leverage other
4 sources of funding, as well.

5 **Q: Why is it important that Pacific Power rely on a third-party independent grant**
6 **manager to award grants?**

7 A: As Pacific Power’s witness, Mr. Eli Morris, says, it is possible that Pacific Power
8 “representatives may have existing relationships with some or all applicants.”³ An
9 independent third-party will be better positioned to evaluate and award grants based on the
10 merits of the proposal, rather than based on existing relationships or other factors. An
11 independent evaluator will help ensure the integrity and efficacy of the Demonstration and
12 Development program, and ChargePoint appreciates that Pacific Power has made an
13 independent evaluator part of its proposal.

14 **Q: Earlier you said that the Demonstration and Development pilot reflects an**
15 **appropriate role for Pacific Power to play in the transportation electrification**
16 **market. What do you mean by that?**

17 A: When it passed SB 1547, the Legislative Assembly recognized that utilities have a key role
18 to play in accelerating transportation electrification in Oregon. Transportation
19 electrification efforts are most successful when the utility plays the role that only it can
20 play. For example, providing the “make-ready” – by which I mean the wiring, conduit, and
21 trenching needed to install a charging station – fits within a utility’s core competency of
22 distributing electricity in a safe and reliable manner. Likewise, providing grants for

³ PAC/100, Morris/24.

1 innovative EVSE installations for its customers is something that the utility can do but that
2 the private market, including competitive EVSE vendors like ChargePoint, cannot. I
3 believe that transportation electrification programs that recognize and leverage the core
4 competencies and unique roles of all players involved are more likely to create a sustainable
5 transportation electrification market and will be much more successful.

6 **Q: What modifications do you recommend to the Demonstration and Development**
7 **program?**

8 A: Though ChargePoint supports the Demonstration and Development program as proposed,
9 I recommend two modifications that would improve the efficacy and overall success of the
10 program.

11 First, I recommend that Pacific Power designate a certain amount of the funding it
12 has planned for the Demonstration and Development program for grants to low-income
13 and/or multi-unit dwellings (MUD) projects. In our experience, these two areas are the
14 most difficult to reach with private investment alone, and would benefit the most from
15 additional utility funding.

16 Second, I recommend that either Pacific Power or the third-party grant manager
17 create a list of pre-approved EVSE vendors and EVSE equipment that is eligible for grant
18 funding. While we appreciate the flexibility that Pacific Power has built in to this program
19 by allowing customers to design their own project, some customers have difficulty
20 knowing how to get started. By providing a list of pre-approved EVSE vendors and
21 equipment, Pacific Power would preserve customer choice while streamlining the
22 customer's experience and reducing the program's administrative costs. Pacific Power or

1 the third-party grant manager should approve vendors and equipment on a rolling basis to
2 keep up with developments in technology.

3 **Q: What do you recommend?**

4 A: I recommend that the Commission make the two minor modifications I proposed above
5 and approve the Demonstration and Development program. If the Commission denies the
6 Public Charging program as I recommend and discuss below, I also recommend that the
7 Commission direct Pacific Power to reallocate the funds it would have spent on Public
8 Charging to the Demonstration and Development program.

9 **III. PUBLIC CHARGING PILOT**

10 **Q: What will you address in this section of your testimony?**

11 A: In this section of my testimony, I will discuss Pacific Power's proposal for a Public
12 Charging pilot program. Pacific Power has proposed to install, own, and operate seven
13 charging "pods," each consisting of four DCFCs and one Level 2 charger, throughout its
14 service territory.⁴

15 **Q: What is ChargePoint's position on the Public Charging program proposal?**

16 A: ChargePoint opposes the Public Charging program as proposed by Pacific Power. The
17 Public Charging program will dampen innovation, competition, and customer choice in EV
18 charging services and equipment, contrary to the requirements of SB 1547. Ratepayer
19 funds would be better spent on an expanded Demonstration and Development program,
20 and I recommend that Pacific Power reallocate the \$1.85 million that it proposes to spend
21 on Public Charging and spend that money on grants through the Demonstration and
22 Development program.

⁴ PAC/100, Morris/17.

1 **Q: Why do you believe that the Public Charging program would dampen innovation,**
2 **competition, and customer choice?**

3 A: Pacific Power proposes to procure the charging equipment, network services, installation,
4 and maintenance through an RFP process, and prefers a single vendor for all of these
5 components.⁵ In other words, Pacific Power will be choosing the EVSE for customers,
6 rather than letting customers choose the solution that works best for their individual needs.
7 Vendors will compete in the RFP, but they will be competing almost exclusively on price
8 rather than competing to offer the most attractive product. Because RFPs typically
9 emphasize costs over other considerations, vendors' ability to offer innovative solutions
10 will be restricted. Instead, they will be focused on tailoring their products to meet the
11 minimum requirements of the RFP, rather than providing solutions to best meet the needs
12 of site hosts and drivers. By focusing EVSE vendors on the RFP process, rather than on
13 the site hosts and drivers, the Public Charging proposal will do nothing to stimulate
14 innovation, competition, and customer choice, and is likely to hamper the competitive
15 market in Oregon.

16 In addition to these concerns with the proposed RFP process, Pacific Power's
17 participation in the competitive EVSE market using ratepayer funds will further dampen
18 innovation, competition, and customer choice. For example, when customers that may be
19 considering installing EVSE hear that their utility will be offering free charging stations
20 (i.e., at no cost to the site-host), they are much less likely to make the investment in EVSE
21 themselves. Why invest in a charging station to attract customers into your store if the
22 utility has installed a pod of chargers down the street? This has an unfortunate impact on a

⁵ *Id.* at 18.

1 variety of potential site hosts who may not receive the utility's free EVSE but who may
2 have been planning to invest in EVSE for their own reasons, including as a way to attract
3 more customers to their location. It is also very difficult for competitive EVSE vendors
4 such as ChargePoint to "compete with free." I also question whether allowing Pacific
5 Power to enter the competitive EVSE market is an appropriate or prudent use of ratepayer
6 funds.

7 **Q: Is it possible that the rate that Pacific Power plans to develop for charging at its Public**
8 **Charging sites will stimulate competition?**

9 A: No. Pacific Power seems to think that setting the rate it will charge drivers in the middle
10 of the market will somehow stimulate competition, as SB 1547 requires.⁶ Becoming
11 another competitor in the market is not a way to "stimulate" competition, even if Pacific
12 Power promises not to undercut other competitors. As the utility, Pacific Power would be
13 more effective at stimulating the market if it refrained from entering the market but
14 supported it in other ways, such as through the grants it has proposed for the Demonstration
15 and Development pilot.

16 **Q: Why do you question whether allowing Pacific Power to own and operate its own**
17 **charging stations is an appropriate or prudent use of ratepayer funds?**

18 A: Pacific Power is a regulated monopoly that enjoys captive customers. Under the regulatory
19 compact, Pacific Power is allowed to operate as a monopoly because it has been deemed
20 more economically efficient and socially desirable for a single entity to provide utility
21 services than to allow a competitive market to provide such essential services like

⁶ Application for Transportation Electrification Programs – Supplement ("Supplemental Application"), April 12, 2017, p. 59

1 electricity. However, if utilities were allowed to use ratepayer funds to create new business
2 models and compete with private companies, significant market distortions would occur.
3 The competitive EVSE market is no different. Not only is it fundamentally unfair to allow
4 a utility to use funds from captive ratepayers to compete with privately funded competitive
5 businesses, it will also distort the market and discourage private investment in that market.
6 In the long-term, I expect that Pacific Power's proposed Public Charging pods would
7 damage the market, rather than stimulate or support it.

8 Furthermore, the EVSE market is developing rapidly and technology is constantly
9 changing. Rather than allowing the utility to select and lock-in a particular technology, it
10 would be preferable to for the utility to support the competitive market and let the
11 competitive market determine the pace of innovation.

12 **Q: Won't ratepayers' risk be mitigated by Pacific Power's proposal to offset the cost of**
13 **the Public Charging program with revenues from drivers?**

14 **A:** I do not believe that offsetting the cost of the program with revenues from drivers will do
15 much to offset the cost or the risk of the Public Charging proposal. In ChargePoint's
16 experience, public charging stations make the most sense when there is another economic
17 justification for the station above and beyond revenues from drivers. For example, it would
18 be difficult for a gas station to cover the cost of installing a DCFC by charging drivers for
19 charging services, but the investment may be justified by the additional food and beverage
20 sales the gas station would enjoy from EV drivers. Pacific Power is very unlikely to be able
21 to cover much of the costs of its charging stations with revenue from drivers, so I expect
22 that ratepayers will be required to pay for nearly the entire estimated \$1.85 million cost of
23 the program. Further, incentivizing Pacific Power to offset costs with revenue collected

1 from drivers would require Pacific Power to adjust pricing to find a balance between
2 revenue and utilization. This price balancing would need to be done by trial and error and
3 would take years if Pacific Power needs to file an advice letter for every charging rate that
4 it wants to test with customers.

5 **Q: Pacific Power states that it plans to model its Public Charging pods on PGE's Electric**
6 **Avenue program.⁷ Do you believe that the Electric Avenue pilot is a viable model for**
7 **Pacific Power to replicate in its service territory?**

8 A: No. PGE allows drivers to charge for free at its existing Electric Avenue site in downtown
9 Portland, whereas Pacific Power plans to charge drivers for charging at its proposed Public
10 Charging locations. It is highly doubtful that many of the lessons learned from Electric
11 Avenue will be applicable to the Public Charging program, for the simple reason that
12 consumers respond to price signals. The Commission should not rely on the example of
13 the existing Electric Avenue as any assurance that the Public Charging program will be a
14 success for Pacific Power.

15 **Q: What kind of program would ChargePoint support for publicly available charging**
16 **stations?**

17 A: ChargePoint strongly believes that the \$1.85 million that Pacific Power plans to spend on
18 seven charging pods would be better spent on grants through the Demonstration and
19 Development program, especially if Pacific Power develops a list of pre-approved vendors
20 and equipment that is eligible for rebates or funding, as I have recommended. By
21 leveraging private investment from site-hosts, Pacific Power would support significantly
22 more charging stations than the seven pods it has proposed. Not only would ratepayers get

⁷ Supplemental Application, p. 36.

1 “more bang for their buck” through this type of program, it would also reduce risk because
2 funds would be invested in a variety of charging stations located at a variety of location
3 types. Diversifying assets is commonly seen as one of the best ways to reduce the risk of
4 an investment.

5 Pacific Power might consider addition criteria to ensure that ratepayer funds
6 achieves the goals that it hopes to achieve through its Public Charging program. For
7 example, Pacific Power could require that at least some of the charging stations that receive
8 funding be available to the public at non-discriminatory rates (so that companies could not
9 offer free charging to employees or their own customers, and charge exorbitant fees for
10 other drivers). Pacific Power could also require site-hosts to invest some of their own funds
11 in the charging station, for the reasons I discussed in the previous section of my testimony.

12 **Q: Doesn't SB 1547 allow Pacific Power to propose to own and operate its own charging**
13 **stations?**

14 A: Just because Pacific Power is allowed to own its own charging stations does not mean that
15 it is the best policy or that such a program is likely to be successful. Pacific Power also still
16 has an obligation to use ratepayer funds in a prudent manner. For the reasons I've discussed
17 in my testimony, it is also difficult to see how an own-and-operate program meets the other
18 statutory criteria in SB 1547, especially the requirement that a transportation electrification
19 program stimulate innovation, competition, and customer choice.

20 **Q: Won't Pacific Power be more motivated to create a successful charging program if it**
21 **owns the charging stations itself?**

22 A: ChargePoint recognizes that Pacific Power has an economic incentive to invest in its own
23 charging stations because those charging stations will be added to its rate base, on which it

1 earns its authorized rate of return. ChargePoint supports aligning Pacific Power's
2 incentives and ensuring that Pacific Power is motivated to develop and carry out a
3 successful transportation electrification program. However, ChargePoint believes these
4 goals can be achieved without Pacific Power actually owning charging stations.

5 I am not an attorney, but SB 1547 does seem to contemplate a utility earning a
6 return on its transportation electrification programs "in a manner that is similar to the
7 recovery of distribution system investments."⁸ Since Pacific Power earns its authorized rate
8 of return on its investments in distribution system assets, I see no reason why Pacific Power
9 could not earn a return on the value of the rebates or grants that it provides to customers
10 for EVSE. Allowing Pacific Power to earn a return will motivate Pacific Power to make
11 the program successful, while reducing risks to ratepayers.

12 **Q: If, contrary to your recommendations, the Commission approves the Public Charging**
13 **pilot, are there any modifications to the program itself that you would recommend?**

14 **A:** I strongly recommend that the Commission reject the Public Charging program for the
15 reasons I have discussed throughout my testimony.

16 If, however, the Commission is inclined to approve the program despite the
17 concerns I have identified, there is one modification I would recommend. Pacific Power
18 states that it plans to locate the Public Charging pods "in areas that are not well-served by
19 other market actors."⁹ If this pilot is approved, Pacific Power should be required to meet
20 with stakeholders to ensure that the pods are in fact located in areas where existing market
21 actors are not planning to deploy their own charging stations. If Pacific Power truly intends

⁸ SB 1547, Section 20(5)(a)(B).

⁹ PAC/100, Morris/17.

1 to support the transportation electrification market, it should be required to demonstrate
2 that its investments will not dampen the competitive market.

3 **Q: What do you recommend?**

4 A: I recommend that the Commission reject Pacific Power's proposed Public Charging
5 program and direct Pacific Power to reallocate the \$1.85 million it planned to spend on the
6 program to the Demonstration and Development program.

7 **IV. OUTREACH AND EDUCATION PILOT**

8 **Q: What will you address in this section of your testimony?**

9 A: In this section of my testimony, I will discuss Pacific Power's proposal for an Outreach
10 and Education pilot.

11 **Q: What has Pacific Power proposed for its Outreach and Education pilot?**

12 A: Pacific Power has proposed a variety of outreach and education activities related to electric
13 vehicles and transportation electrification. As Pacific Power explains, these activities fall
14 into four categories: customer communications, self-service resources, community events,
15 and technical assistance.¹⁰

16 **Q: What is ChargePoint's position on Pacific Power's proposed Outreach and Education
17 activities?**

18 A: ChargePoint supports Pacific Power's proposal for an Outreach and Education pilot.
19 Undertaking outreach and education activities is an appropriate role for a utility. Because
20 of their status as regulated monopolies, utilities have a unique relationship with their
21 customers, and customers generally see their utility as a knowledgeable resource on

¹⁰ Supplemental Application, p. 60.

1 anything related to the consumption of electricity. Given that the EV market is still in its
2 early stages, it makes sense for Pacific Power to leverage its customer relationships to
3 educate customers about the many benefits of EVs and transportation electrification
4 generally.

5 **Q: Do you believe that the proposed Outreach and Education pilot will accelerate**
6 **transportation electrification in Pacific Power's service territory?**

7 A: Yes, I expect that the activities that Pacific Power has proposed will accelerate
8 transportation electrification because they will promote the benefits of EVs generally. By
9 demonstrating to customers that it is available to answer questions and serve as a resource
10 for educational materials and technical assistance, customers are likely to feel more
11 comfortable purchasing an EV. Because of its educational focus, I expect that the Outreach
12 and Education pilot will stimulate innovation, competition, and customer choice, without
13 putting ratepayer funds at risk.

14 **Q: What do you recommend?**

15 A: I recommend that the Commission approve the Outreach and Education pilot as proposed
16 and approve Pacific Power's proposed budget for the pilot.

17 **V. CONCLUSION AND RECOMMENDATIONS**

18 **Q: Please summarize your recommendations to the Commission.**

19 A: I recommend that the Commission:

- 20 • Require Pacific Power to designate a certain amount of funding for the Demonstration
21 and Development pilot to transportation electrification projects for low-income and/or
22 multi-unit dwelling communities;

- 1 • Require Pacific Power, or its third-party grant manager, to develop a list of pre-
- 2 approved EVSE vendors and EVSE equipment that is eligible for grant funding under
- 3 the Demonstration and Development program to streamline administration of the
- 4 program;
- 5 • Approve Pacific Power’s proposal for a Demonstration and Development program,
- 6 with the two modifications mentioned above;
- 7 • Deny Pacific Power’s Public Charging program proposal and direct Pacific Power to
- 8 reallocate the \$1.85 million it planned to spend on that program to the Demonstration
- 9 and Development program.
- 10 • Approve Pacific Power’s proposal for an Outreach and Education program.

11 **Q: Does this conclude your Reply Testimony?**

12 A: Yes.