

Docket No. UM 1810
Exhibit PAC/300
Witness: Eli M. Morris

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

PACIFICORP

Reply Testimony of Eli M. Morris

October 2017

REPLY TESTIMONY OF ELI M. MORRIS

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ATTACHED EXHIBITS

Exhibit PAC/301 – ChargePoint Response to PacifiCorp Data Request 5

Exhibit PAC/302 – ChargePoint Response to PacifiCorp Data Request 16

Exhibit PAC/303 – ChargePoint Response to PacifiCorp Data Request 13

1 **Q. Are you the same Eli M. Morris who previously submitted testimony in this**
2 **proceeding on behalf of PacifiCorp d/b/a Pacific Power?**

3 A. Yes.

4 **I. PURPOSE AND SUMMARY OF TESTIMONY**

5 **Q. What is the purpose of your reply testimony?**

6 A. My testimony replies to response testimony filed on October 4, 2017, by ChargePoint
7 witnesses Mr. David Packard (ChargePoint/200) and Ms. Anne Smart
8 (ChargePoint/300). Specifically, my testimony responds to ChargePoint's misplaced
9 objections to PacifiCorp's proposed Public Charging Pilot program, as modified by
10 the August 11, 2017, Stipulation (the Stipulation).

11 **Q. Please briefly summarize PacifiCorp's proposal.**

12 A. As detailed in Stipulating Parties/101, PacifiCorp has proposed three limited-term
13 transportation electrification pilot programs:

- 14 1. Demonstration and Development Pilot: Grant funding to help non-residential
15 PacifiCorp customers develop creative, community-driven electric vehicle
16 service equipment (EVSE) projects.
- 17 2. Outreach and Education Pilot: Tactics and messages that increase exposure
18 and access to reliable information about electric transportation options and
19 benefits.
- 20 3. Public Charging Pilot: PacifiCorp will install, own, and operate a limited
21 number of public charging stations in its Oregon service territory.

22 **Q. Has ChargePoint, or any other party, objected to the proposed Demonstration**
23 **and Development or Outreach and Education pilot programs?**

24 A. No, those programs are not controversial and are supported by Public Utility
25 Commission of Oregon (Commission) Staff and all intervenors in this docket.
26 ChargePoint supports Commission approval of the Demonstration and Development

1 and Outreach and Education pilot programs, as modified by the Stipulation.¹

2 Similarly, ChargePoint has not objected to any of the non-program specific
3 components of the Stipulation. ChargePoint's objections are limited to PacifiCorp's
4 request for approval of the proposed Public Charging Pilot program.²

5 **Q. Do other electric vehicle charging equipment or service providers support the**
6 **proposed Public Charging pilot program?**

7 A. Yes. The proposed Public Charging pilot program is widely supported by the
8 industry. Greenlots, a provider of electric vehicle charging software and services, is a
9 party to the stipulation. Eight additional electric vehicle charging equipment and
10 service providers support PacifiCorp's proposed transportation electrification pilots.³
11 ChargePoint is the only electric vehicle charging equipment or service provider that
12 objects to the proposed Public Charging Pilot program.

13 **Q. Please summarize your reply testimony.**

14 A. First, I discuss the statutory language governing utility transportation electrification
15 programs and address the concerns regarding these statutory criteria raised by
16 Mr. Packard and Ms. Smart. Next, I discuss a relevant regulatory proceeding from
17 the Pacific Northwest that was omitted from Mr. Packard's response testimony.
18 Finally, I provide my recommendation to the Commission.

19 **II. SENATE BILL 1547 CRITERIA**

20 **Q. Is the Public Charging Pilot consistent with Senate Bill (SB) 1547?**

21 A. Yes, the record unambiguously demonstrates that the Public Charging Pilot is

¹ ChargePoint/200, Packard/5.

² See Prehearing Conference Memorandum and Ruling at 2 (Sept. 13, 2017).

³ Forth/102.

1 consistent with the Legislature’s intent. The pilot will accelerate transportation in
2 PacifiCorp’s Oregon service territory, which is predominately rural and underserved
3 by private charging companies, by increasing access to electricity as a transportation
4 fuel and providing new electric vehicle charging choices to customers. It is
5 reasonable to expect that this will, in turn, help to encourage public and private
6 investment and stimulate innovation and competition in PacifiCorp’s service territory.
7 The data generated as part of the pilot will be valuable for reviewing and assessing
8 future transportation electrification programs and the extent to which public charging
9 stations can be used to help manage the electrical grid.

10 III. CUSTOMER CHOICE

11 **Q. Does the Public Charging Pilot allow for adequate customer choice with regard**
12 **to charging infrastructure and charging services?**

13 A. Yes. Consistent with the legislative intent of SB 1547 to “provide consumers with
14 increased options in the use of charging equipment and in procuring services from
15 suppliers of electricity,”⁴ the proposed Public Charging Pilot program develops new
16 publicly available charging locations, including in areas of the state that have not
17 attracted private investment to date. Importantly, the Public Charging Pilot does not
18 preclude other parties from entering the market, a fact that ChargePoint does not
19 dispute.⁵ Simply put, the Public Charging Pilot program is designed to stimulate
20 customer choice and provide drivers with increased electric vehicle charging options.

⁴ SB 1547 Section 20 (2) (d).

⁵ Exhibit PAC/301, ChargePoint response to Data Request PAC-5.

1 **Q. Does stimulating customer choice require excluding utility-owned public**
2 **charging infrastructure and services?**

3 A. No. Mr. Packard testifies that SB 1547 defines stimulating customer choice as
4 explicitly excluding utility offerings,⁶ but this is simply not the case. Despite
5 Mr. Packard’s assertion, there is no such definition of customer choice in SB 1547 or
6 in the relevant statutes. Furthermore, Mr. Packard’s definition appears contrary to the
7 intent of SB 1547 because it would do the exact opposite of stimulating customer
8 choice by unnecessarily limiting market participation by a new service provider
9 (even on a pilot scale), and discouraging the development of new charging options for
10 customers.

11 **Q. When considering customer choice for the Public Charging Pilot, is it**
12 **appropriate to consider the entity that owns the land where the charging station**
13 **is located to be the customer?**

14 A. No. There is no evidence that the Legislature intended this novel interpretation and,
15 indeed, the focus of SB 1547 is on potential and actual users of plug-in electric
16 vehicles (PEVs).

17 **Q. Does ChargePoint object to considering the electric vehicle driver as the**
18 **customer when examining customer choice?**

19 A. No, Mr. Packard acknowledges that “it is also reasonable to interpret ‘customer
20 choice’ in SB 1547 to refer to EV drivers, because drivers are the ultimate end-users
21 of charging stations.”⁷

⁶ Mr. Packard’s testimony states that “[s]timulating customer choice, as defined by the legislation, requires a process by which vendors sell products to end-use customers (i.e., site-hosts, not utilities)...” ChargePoint/200 Packard/12.

⁷ ChargePoint/200 Packard/8.

1 **Q. How does defining “customer” as the driver of a plug-in electric vehicle inform**
2 **the discussion of customer choice for the Public Charging Pilot?**

3 A. As discussed in the Supplemental Application⁸ and in Stipulating Parties’ testimony,⁹
4 the Public Charging Pilot will create new vehicle charging options for drivers in
5 PacifiCorp’s Oregon service territory, including areas where few options exist today.
6 These new stations will not only increase choices in charging location for customers,
7 but will also allow more drivers to consider electricity as a viable transportation fuel,
8 potentially increasing adoption of PEVs. In addition to helping fulfill the
9 Legislature’s intent to accelerate transportation electrification, increasing the number
10 of miles driven on electricity will help build the market for public charging services,
11 which should improve the business case for private investment and further increase
12 customer choices in electric vehicle charging as the market matures.

13 **IV. COMPETITION**

14 **Q. Do you believe that the Public Charging Pilot would severely distort the market**
15 **for public charging services?**

16 A. No. In fact, precluding utility ownership of public charging infrastructure is precisely
17 the type of market distortion that ChargePoint claims is inappropriate. In addition,
18 and as shown in PAC/302, Mr. Packard has not provided any studies or data to
19 support this assertion. It is difficult to imagine how PacifiCorp owning public
20 charging equipment at up to seven locations across over 21,000 square miles of its
21 Oregon service territory will permanently distort the public charging market.

⁸ *Application for Transportation Electrification Programs*, April 12, 2017, p. 59.

⁹ Stipulating Parties/100 Morris-Klotz-Mullins-Jenks-Allen-Ashley-Avery/12.

1 **Q. Will PacifiCorp undercut the market as Mr. Packard fears?**¹⁰

2 A. No. Mr. Packard misrepresents the Public Charging Pilot’s pricing structure. As
3 described in the direct testimony of PacifiCorp witness Mr. Robert M. Meredith, the
4 charging rates will be not be based on PacifiCorp’s cost of service. Rather, the
5 charging rates will be specifically designed to reflect market prices while sending
6 appropriate price signals. This design is intended to avoid stifling competition in the
7 nascent public charging market by having rates that reflect what other providers
8 charge for comparable services.¹¹

9 **Q. Will PacifiCorp’s charging fees be subject to regulatory oversight?**

10 A. Yes, PacifiCorp’s charging fees will be established in a tariff subject to review and
11 approval by the Commission.¹² The Commission’s oversight will help ensure that the
12 rates PacifiCorp charges for public charging service appropriately stimulate
13 competition in the market.

14 **Q. Would you characterize the Public Charging Pilot as a “significant” foray for
15 PacifiCorp into the public charging market?**

16 A. Mr. Packard uses the term “significant” to refer to the size of the pilot and to the
17 precedent it would set.¹³ With regard to size, it strains credibility to see the no-more-
18 than seven charging locations proposed through the Public Charging Pilot as anything
19 other than modest when compared to the size of the public charging market in
20 Oregon. With regard to precedent, I fail to see how the Commission approving
21 PacifiCorp selling electricity to end use customers is a significant precedent, as this

¹⁰ ChargePoint/200 Packard/15.

¹¹ PAC/200 Meredith/5.

¹² PAC/200 Meredith/2.

¹³ ChargePoint/200 Packard/15.

1 has been the nature of PacifiCorp’s business for over 100 years.

2 That said, the pilot is “significant” for another reason—it is an initial step that
3 will help fulfill the Legislature’s intent of accelerating transportation electrification,
4 providing new choices in equipment and transportation fuels for customers, and in
5 gathering data that can be used to support future program and system planning.

6 **Q. Would PacifiCorp’s limited number of public charging pods hinder
7 ChargePoint’s ability to sell its electric vehicle charging stations?**

8 A. No. As PAC/303 reveals, Mr. Packard has not provided any studies or data to support
9 this assertion. Charging pods deployed under the pilot program will most likely be
10 deployed in areas not currently well-served by existing public fast charging stations.¹⁴
11 PacifiCorp will, in effect, be filling gaps and helping build a market where one
12 currently does not exist. Without these investments, it is unclear whether private
13 investments would otherwise be made in certain parts of our service territory.

14 **V. INNOVATION**

15 **Q. If the Public Charging Pilot is approved, does PacifiCorp plan to issue a request
16 for proposal (RFP) for equipment and services for the public charging stations?**

17 A. Yes.

18 **Q. Will PacifiCorp select the lowest cost option submitted in response to the RFP?**

19 A. Not necessarily. While cost is always a consideration in PacifiCorp procurement of
20 equipment and services, it is merely one of many factors that will be considered.
21 Non-cost factors to be considered are presented in Table 7 of PacifiCorp’s
22 Supplemental Application and include pod design, deployment plan, equipment

¹⁴ *Application for Transportation Electrification Programs*, April 12, 2017, p. 39.

1 specifications, maintenance plan, visibility, data, and future proofing (i.e. adapting to
2 changing charging technology).

3 **Q. Might potential electric vehicle drivers forego this option purely because of the**
4 **features offered at PacifiCorp's Public Charging Pilot stations?**

5 A. No, and Mr. Packard has provided no studies or data demonstrating that drivers may
6 forego adopting PEVs because certain features are absent from PacifiCorp's
7 equipment at up to seven locations throughout the state. As discussed above, we are
8 not merely looking for the lowest-cost option, but are rather looking for the best
9 combination of features and costs to support the objectives of the Public Charging
10 Pilot program. This includes a phased roll-out of charging stations over a two-year
11 period and future-proofing investments to take advantage of market feedback and
12 technological advancements.

13 **Q. Is there anything that will prevent ChargePoint from bidding into the RFP?**

14 A. No. On the contrary, I hope that all qualified electric vehicle charging equipment and
15 service vendors that meet the requirements of the RFP will submit responses. The
16 response to the RFP will be the appropriate venue for ChargePoint to demonstrate
17 how a higher-cost option could bring additional value to PacifiCorp's customers.

18 **Q. Is Mr. Packard's concern that the Public Charging Pilot will not allow site hosts**
19 **choice in charging station infrastructure valid?**

20 A. No. The most obvious fault with Mr. Packard's argument is that PacifiCorp cannot
21 unilaterally install charging infrastructure on a site host's property. The site host will
22 have to consent to the charging option PacifiCorp presents based on the RFP results.
23 If a site host believes that the PacifiCorp option does not meet its needs, it can simply

1 decline the company's offer and seek out market alternatives. The site host will also
2 be able to seek funding from PacifiCorp to help cover the cost of the chosen charging
3 solution through the Demonstration and Development Pilot.

4 Furthermore, there is a potential that some of the pilot stations will be located
5 on PacifiCorp property, in which case PacifiCorp will be the site host and able to
6 confirm that the charging infrastructure is tailored to its needs.

7 VI. PRUDENCY

8 **Q. Would the funds allocated to the Public Charging Pilot be better spent to offset**
9 **the cost of charging stations owned by other entities?**

10 A. No, and Mr. Packard has provided no studies or data to substantiate this claim. I
11 agree that providing funding to offset the upfront cost of the installation of electric
12 vehicle charging stations may also help increase the availability of charging stations,
13 which is precisely why we proposed the Demonstration and Development Pilot
14 program. The Demonstration and Development Pilot will provide competitive grant
15 funding to encourage the development of charging stations owned by PacifiCorp's
16 non-residential customers. Piloting both program concepts will allow PacifiCorp and
17 its stakeholders to investigate the effectiveness of each program design at stimulating
18 station development, accelerating transportation electrification, and acquiring data
19 that can be used for future program and system planning.

20 **Q. How would you characterize the market for vendors of electric vehicle charging**
21 **equipment and services?**

22 A. With "more than 35,000 independently owned charging spots and more than 7,000

1 customers,”¹⁵ ChargePoint has clearly been successful at selling charging stations;
2 however, this does not accurately reflect market activity in PacifiCorp’s Oregon
3 service territory. As of October 19, 2017, there are only *seven* locations with publicly
4 available ChargePoint direct current (DC) fast chargers in PacifiCorp’s Oregon
5 service territory.¹⁶ Of these seven locations:

- 6 • All seven are located in cities along the I-5 corridor,
- 7 • Six have only one port connection,
- 8 • Two are in Portland, and
- 9 • Only one is a dual-standard station capable of charging any PEV, as
10 planned in the Public Charging Pilot

11 While Mr. Packard’s experience more broadly may indicate that businesses and
12 municipalities are eager to invest in electric vehicle charging stations, it is not clear
13 this is the case in our rural and dispersed Oregon service territory. This is another
14 reason why we have proposed two distinct and complementary pilot programs
15 designed to test different means of stimulating infrastructure development.

16 **VII. NATIONAL EXAMPLES OF PUBLIC UTILITY TRANSPORTATION**
17 **ELECTRIFICATION PROGRAMS**

18 **Q. In his response testimony, Mr. Packard discusses regulatory activity in a**
19 **number of states, but does not mention any cases where public utility**
20 **commissions have approved programs where utilities procure, own, and operate**
21 **charging stations. Are you aware of any such programs?**

22 **A.** Yes, there is a particularly relevant example from the Pacific Northwest. In April of
23 2016, the Washington Utilities and Transportation Commission (WUTC) approved
24 Avista Utilities’ EVSE Pilot Program, authorizing the utility to procure, own, and

¹⁵ ChargePoint/100 Packard/4.

¹⁶ U.S. Department of Energy, Alternative Fueling Station Locator, <http://www.afdc.energy.gov/locator/stations/> (last visited Oct. 19, 2017).

1 operate Level 2 and DC fast chargers at residential, workplace, fleet, multi-unit-
2 dwelling and public locations. Drivers using DC fast chargers pay Avista at a tariffed
3 rate approved by the WUTC.

4 **Q. Did ChargePoint participate in Avista's proceeding?**

5 A. Yes. Ms. Smart filed three separate sets of comments, plus one redlined version of
6 Avista's filing.

7 **Q. What did the WUTC determine with regard to Avista's proposal?**

8 A. The WUTC determined that the proposed pilot program was consistent with the
9 public interest and approved the pilot, subject to conditions recommended by WUTC
10 Staff.¹⁷

11 **Q. Are you aware of any evidence that Avista's entrance into the electric vehicle
12 charging market has hindered other market actors?**

13 A. No.

14 **VIII. CONCLUSION**

15 **Q. Please summarize the recommendations in your reply testimony.**

16 A. I recommend the Commission approve PacifiCorp's proposed transportation
17 electrification pilot programs, as modified by the stipulation. The stipulation is
18 supported by a broad coalition of stakeholders and represents a reasonable resolution
19 to the issues raised in the docket. ChargePoint has not provided any compelling
20 studies, data, or other evidence that suggests that the Commission should reject the
21 stipulation. Indeed, when asked in discovery, ChargePoint failed to provide a single
22 study or report, or a shred of data; therefore, ChargePoint's outlier positions are

¹⁷ *Wash. Utils. & Transp. Comm'n v. Avista Corporation, d/b/a Avista Utilities*, Docket UE-160082, Order 01 at 9 (Apr 28, 2016).

1 exclusively predicated on Mr. Packard's opinion, rather than objective and verifiable
2 data.

3 **Q. Does this conclude your reply testimony?**

4 **A. Yes**