CASE: UM 1811 WITNESS: JASON R. SALMI KLOTZ

PUBLIC UTILITY COMMISSION OF OREGON

STAFF EXHIBIT 400

Reply Testimony to ChargePoint and Electric Vehicle Charging Association Objections

September 19, 2017

1	Q.	Please state your name, occupation, and business address.
2	A.	My name is Jason R. Salmi Klotz. I am a Principle Executive Manager
3		employed in the Energy Resources and Planning Division of the Public Utility
4		Commission of Oregon (OPUC). My business address is 201 High Street SE.,
5		Suite 100, Salem, Oregon 97301.
6	Q.	Have you previously provided testimony in this case?
7	A.	Yes. I provided Reply Testimony (Exhibit Staff/100) filed on April 24, 2017, as
8		well as the Joint Testimony in Support of the Stipulation (Stipulating
9		Parties/100) drafted together by the nine Stipulating Parties filed June 27,
10		2017.
11	Q.	What is the purpose of your testimony?
12	A.	The purpose of this testimony is to respond to the Testimony Opposing
13		Stipulation of David Packard (ChargePoint Exhibit 200), filed August 25, 2017,
14		as well as the Direct Testimony of Dr. Abdellah Cherkaoui on behalf of the
15		Electric Vehicle Charging Association (EVCA) (EVCA/100), also filed August
16		25, 2017.
17	Q.	Did you prepare an exhibit for this docket?
18	A.	Yes. I prepared Exhibit Staff/ 401, consisting of ChargePoint Responses to
19		Staff Data Request Nos. 1, 3, 4, 6, 8, and 9.
20	Q.	Please describe your educational background and work experience.
21	A.	Please see my witness qualification statement found at Exhibit Staff/101.
22	Q.	How is your testimony organized?
23	A.	My testimony is organized as follows:

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SUMMARY

Q. Could you please summarize your testimony?

A. Yes. First, I discuss my concerns that ChargePoint and EVCA have not offered evidence to substantiate the claims made in their testimony objecting to the Stipulation filed in this docket. For example, I explain Staff's position that ChargePoint and EVCA's objections are premature because they operate on an assumption that the Stipulating Parties have agreed to a much broader and larger investment in public charging infrastructure than is actually the case in the filed Stipulation.

Second, I discuss why the public charging infrastructure investment contemplated in the Stipulation is the right investment at this point in time. One reason is because it provides an opportunity for Portland General Electric (PGE) to enter the market only to acquire necessary data and lessons in such a manner as to better inform possible subsequent programmatic actions and

investments, while at the same time protecting ratepayers from unreasonable expense.

Third, I offer that ChargePoint and EVCA appear to mischaracterize the intent of the nine stipulating parties and the substance of their collaborative agreement, as well as the requirements of Senate Bill 1547, Section 20.

Last, I present why Staff does not agree with ChargePoint and EVCA that a "make ready" and "incentive" approach to public charging investment by Oregon's utilities is the better programmatic approach at this time.

ISSUE 1. CHARGEPOINT AND EVCA'S OBJECTIONS ARE UNFOUNDED

Q. To be clear, which pilot programs in the Stipulation has ChargePoint and EVCA objected to?

A. Staff understands that ChargePoint and EVCA have only objected to one aspect of the Stipulation—the Electric Avenue Network Pilot.¹ There are two other pilot projects in the Stipulation, as well as two future programs and evaluation metrics that the nine stipulating parties of Staff, PGE, CUB, ICNU, ODOE, Tesla, TriMet, Forth, and Greenlots (Stipulating Parties), were able to reach agreement on that ChargePoint and EVCA have not objected to. Staff points this out so the record is clear that the objections raised apply only to one pilot program and not the entire Stipulation. In other words, the positions that ChargePoint and EVCA have taken concern one aspect of a much larger Stipulation.

¹ ChargePoint/200, Packard/5, lines 10-11. ChargePoint Response to Staff DR No. 9.

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Q. What is your assessment of the objections raised in ChargePoint and EVCA's August 25, 2017 testimony, namely that PGE's Electric Avenue Pilot as outlined in the Stipulation will negatively affect the public charging market and force out other private competitive public charging market entities?

A. ChargePoint and EVCA's concerns regarding negative market affects caused by the Electric Avenue Pilot is unsubstantiated and premature. This is because ChargePoint's concern centers on a vision that the Electric Avenue Pilot will be turned into a full-fledged program identical to its current design, which is not what the nine singing parties stipulated to, nor does it present a clear or likely risk at this time. In fact, ChargePoint's claims are completely contrary to Staff's reasoning with regard to the pilots agreed to in the Stipulation.

Staff and the other eight stipulating parties agreed that PGE's Electric Avenue proposal (as modified by the Stipulating Parties) should go forward as *a pilot program*—in other words, with clear limits on spending to protect ratepayers, clear limits on the duration of the program, and specific data and information to be gathered in order to best inform future programs to accelerate transportation electrification. None of these limiting factors can be taken to mean that the Electric Avenue Pilot, which consists of only six new charging stations, will become a full-fledged utility business model that will "severely distort and hamper the market over the medium- and long-term" as ChargePoint argues in its testimony.² Therefore, ChargePoint and EVCA's

² ChargePoint/200, Packard/11-12.

position, perhaps unintentionally, misrepresents the Stipulating Parties' goals in reaching the Stipulation that allows for the piloting of three, and eventually a total of five, different approaches to accelerating transportation electrification all with cost caps that protect ratepayers—so that information that does not currently exist in Oregon, or is currently limited, can be collected.

Moreover, neither EVCA nor ChargePoint have presented compelling data or other evidence to substantiate their assertion that the agreed upon investment in six utility-owned public chargers (Electric Avenue Pilot) at small, incremental investments of ratepayer dollars over a ten-year period will foundationally alter or harm the public charging market.³

Q. Could you further explain what you mean by incremental investments over a ten-year period?

A. Yes. As noted above, the Stipulation caps PGE's total investment in the Electric Avenue Pilot at \$2.6M over a 10-year period. In other words, the total investment breaks down to *less than \$260,000* in ratepayer dollars per year. The Stipulating Parties worked diligently and collaboratively to minimize the impact of the Electric Avenue Pilot to customers and to the market by further reducing the cost of the investment—by reaching agreement that the cost of the pilot will be offset by the value the of the Low Carbon Fuel Standard Credits produced from the six charging stations and any tax credits for the equipment. Further, all of the pilot costs are subject to a prudence review.

³ Exhibit Staff/401, ChargePoint Response to Staff DR Nos. 1, 3, 4, 6, 8, 9.

Additionally, over the ten-year pilot period, PGE has both annual reporting requirements to the Commission and must have the pilot evaluated.⁴ The required annual reporting and evaluation allows Staff, stakeholders, and the Commission to evaluate the effectiveness of the investment, including the opportunity to assess the implications of approving this pilot, and determining where and how PGE can make reasonable direct investments in the public charging market in its service territory.⁵

In sum, the investment for the Electric Avenue Pilot, which is incremental over a period of ten years and capped at minimal expense to ratepayers, and also includes and yearly check-ins and evaluation, is a thorough, necessary, and reasonable approach for PGE's first transportation electrification filing. Such components are traditional tools the Commission can employ to assure that the pilot meets performance goals and produces information and benefits that can be relied on to inform future utility activity and Commission decisions.

Q. Can you explain what you meant earlier when you said ChargePoint and EVCA's concerns are premature?

A. Yes. ChargePoint and EVCA's concern that PGE's investment in the Electric
 Avenue Pilot is unsubstantiated and premature. First, neither ChargePoint nor
 EVCA has produced data supporting their position that PGE's pilot project will
 irreversibly damage the natural market incentive for the private sector to invest

⁵ See Oregon Laws 2016, Chapter 28 (SB 1547), Section 20(3) ("A program proposed by an electric company may include prudent investments in . . . electric vehicle charging and related infrastructure."), and Section 20(5)(a) ("Tariff schedules and rates allowed pursuant to subsection (3) of this section: (A) May allow a return of and a return on an investment made by an electric company").

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⁴ UM 1811 Stipulation filed June 27, 2017 at 6 para. 26, at 7 para. 32.

in public charging in PGE's service territory. One of the reasons the Stipulating Parties agreed to the pilot approach is because there is currently a lack of sufficient data specific to PGE's service territory and to Oregon on which to base large investments in transportation electrification.

Therefore, Staff viewed the initial filing as an opportunity to start small with pilots that will produce data to inform future programs, including adjustments or improvements going forward. As Staff explained in its Reply Testimony, "Owing in large part to the novelty of the subject matter, the newness of the program activity proposed, questions raised by the statute, and the lack of current data, Staff found evaluation of PGE's proposed programs difficult. Staff proposes treating the proposed programs as pilot programs, whereby PGE will be allowed to conduct some of the proposed programs in part to collect necessary data that would enable PGE to propose larger programs supported by data, well developed program theories, the ability to track attribution, evaluate cost effectiveness, and propose programs that fit within a transportation electrification long-term plan."⁶ Here Staff was expressing that, because there is minimal market information concerning PGE investment in transportation electrification, we should refrain from full on programmatic investment at this time. As a result, Staff believes the Electric Avenue Pilot approach of making a limited investment of no more than \$2.6M over ten years to acquire necessary data and learnings is important at this time and is a reasonable step to help advance our understanding of the best way to

⁶ Staff Exhibit/100, Klotz/2, lines 19-27.

accelerate transportation electrification in Oregon and in the individual electric company service territories.

Second, ChargePoint and EVCA assert that PGE's \$2.6M pilot is so detrimental to the electric vehicle charging market that it will essentially crowd out private sector investment. Staff finds this assertion illogical, and unsupported by fact. The electric vehicle charging market is undoubtedly going to be much larger than PGE's \$2.6 million over the next ten years. IHS Markit forecasts that by 2020, the EV charging market is expected to grow to more than 12.7 million units.⁷ Globe Newswire states that by 2020, the DC (direct current) electric vehicle charger market is predicted to reach 2.13 million units, growing at a compound annual growth rate of 34.53%.⁸ Additionally, ChargePoint is the largest EV charging network in North America with over 22,000 ports or roughly 15% of the current US market.⁹ EVCA also supports that charging station deployment in North America is expected to see extraordinary growth.¹⁰ According to EVCA, North America had roughly 9,000 charging stations in 2012. In 2017, that number grew to 149,047, and is expected to grow to over 315,000 charging stations by 2020.¹¹ By contrast, PGE's is seeking to pilot six charging stations.

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⁷ Global EV Charging Stations to Skyrocket by 2020, IHS Report Says. Available at http://news.ihsmarkit.com/press-release/automotive/global-ev-charging-stations-skyrocket-2020-ihs-report-says.

 ⁸ Globe Newswire, *Global Electric Vehicle Charger Market* 2015-2017 & 2022, April 26, 2017. Available at https://globenewswire.com/news-release/2017/04/26/972059/0/en/Global-Electric-Vehicle-Charger-Market-2015-2017-2022.html.
 ⁹ Id

¹⁰ Managing the World's Electric Vehicle Charging Ecosystem, a presentation by Scott Jarus of EVCA. Available at http://www.evassociation.org/resources.html.

¹¹ Id

1 Furthermore, in their 2015 ZEV Action Plan, EVCA suggests that one of 2 the necessary actions to bolster the zero emission vehicle market is to 3 "consider funding data collection and survey development on charging 4 infrastructure costs, market and financing trends and other relevant data to 5 inform and make recommendations that improve infrastructure planning and subsequent reductions in infrastructure costs."¹² This call by EVCA seems 6 7 starkly similar to the Stipulating Parties' goals and design of the Stipulation-to 8 fund data collection on charging infrastructure, and better understand the 9 market to inform future decisions related to utility participation in transportation 10 electrification in Oregon. EVCA's other recommendation in its 2015 ZEV Action 11 Plan included developing a database of "best practices information, and case studies."¹³ Again, this approach is consistent with the shared vision of the 12 13 Stipulating Parties. 14 Based in part on the above information, Staff simply cannot conclude that 15

PGE's efforts to place a small number of public charging stations into service for the purposes of acquiring data over a 10 year period—a period during which we can expect as forecasted by EVCA, rapid market growth—would be detrimental to the market, or to an entity as large as ChargePoint. However, Staff does not disagree that if the Commission were to approve a massive scale, utility-owned charging program (for example, on a multi-billion dollar scale), it could negatively affect private and competitive investment in the

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¹² Draft 2015 ZEV Action Plan, EVCA. Available at

http://www.evassociation.org/uploads/5/8/0/5/58052251/draft_2015_zev_action_plan_042415.pdf ¹³ *Id.*

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marketplace. But to be clear, no such proposal has been offered, assessed, or agreed to in the Stipulation. Therefore, ChargePoint and EVCA's objections are premature and delay the implementation of reasoned pilot programs that will help advance transportation electrification in Oregon and are supported by a wide range of stakeholders including ratepayer advocates, EV advocates, EVSE providers, public transportation providers, and the utility.

Q. Have other states addressed similar issues?

A. Yes. California similarly struggled with this issue and ChargePoint agreed with the California Public Utility Commission (CPUC) on the appropriateness of utility-owned charging infrastructure under certain circumstances. In 2014, the CPUC received an application from San Diego Gas and Electric regarding electric vehicle integration.¹⁴ In Phase 1 of the CPUC proceeding, the California Commission issued a decision setting aside a requirement that utilities demonstrate a "market failure" or "underserved market" as part of any request for authority to own charging infrastructure.¹⁵ The Commission instead adopted an approach that allowed a case-by-case determination with various requirements a utility must demonstrate. One of the reasons the Commission adopted this new more flexible approach, as opposed to a utility ownership moratorium, was because, "Given the early stage of current PEV market development, it may well be premature to reasonably assess 'market failures' or whether 'underserved markets' exist when the electric vehicle market as a

¹⁴ CPUC Application 14-04-014.

¹⁵ CPUC Decision 14-12-079, December 18, 2014 at 2.

Staff/400 Klotz/11

whole is relatively new."¹⁶ Additionally, in that decision, the California Commission noted that a requirement to protect against unfair competition must be considered, along with the demonstrated costs and benefits of any utility proposal.¹⁷ This perspective is similar to Staff's perspective that this initial investment must be used to better understand the market, collect data, and amass lessons, but also be balanced with the cost to ratepayers. Likewise, on a cost-limited basis, as stipulated in the Electric Avenue Pilot, it is reasonable to allow the utility to make an investment in charging infrastructure

Q. Can you clarify what you mean when you say that you do not disagree with ChargePoint and EVCA regarding the future possibility for PGE to negatively affect the public charging market under certain circumstances?

A. Yes. I agree with ChargePoint and EVCA that PGE does have access to capital through ratepayers that companies like ChargePoint do not. Investments for traditional utility assets can reach hundreds of millions of dollars or more, and are typically recovered over long periods of time. I agree that this scale of access to capital would be very difficult for the private sector to compete against. So, viewing the situation from ChargePoint's perspective, it is conceivable that *if* the Commission were to allow PGE to make commensurately large investments in public charging infrastructure, those investments very likely would disrupt private market investment and activity. However, Staff and the Stipulating Parties have been trying to express that this

¹⁶ *Id.* at 6. ¹⁷ *Id* at 8. scenario is not what is being contemplated or proposed with the Stipulation.
To be clear, ChargePoint is objecting to one aspect of the full Stipulation—the
Electric Avenue Pilot. This investment is very modest (as are the other pilots in
the Stipulation) and requires detailed progress reporting and evaluation to
show the reasonableness of the pilot progress.

Issue 2. THE PROPOSED INVESTMENT IS REASONABLE AT THIS TIME

Q. Can you then explain why Staff feels that the Electric Avenue Pilot investment as presently structured is reasonable at this point in time?

A. Yes. First, the investment is modest. Second, the investment is made over a long period of time, allowing for continued assessment of market health and redirection of the investment approach or activity if necessary. Third, this pilot is necessary to acquire data to better inform the utility, the Commission, Staff, and stakeholders about the effective ways for PGE to accelerate transportation electrification, the health and development of the market, the needs of the market, future program activity and structure as well as efficacy, and data to assess attribution of the activity. Fourth, although the appropriate place for interpretation of the legislature's intent with regard to the Transportation Electrification section of SB 1547 is in legal briefing, Staff notes that utility investment in charging infrastructure is expressly allowed in the law.¹⁸ Lastly, Staff feels that the structure of the ratepayer investment in public charging is a

¹⁸ See Oregon Laws 2016, Chapter 28 (SB 1547), Section 20(3) ("A program proposed by an electric company may include prudent investments in . . . electric vehicle charging and related infrastructure."), and Section 20(5)(a) ("Tariff schedules and rates allowed pursuant to subsection (3) of this section: (A) May allow a return of and a return on an investment made by an electric company").

unique opportunity to allow the utility to capture the necessary learnings and data outlined above and share it with the Commission and stakeholders, while opening the opportunity for the ratepayer to see a partial or whole return of their investment in the public charging infrastructure.

Q. What do you mean by the ratepayer will see a partial or whole return of their investment in the public charging infrastructure?

A. I mean that, under PGE's public charging pilot as agreed to in the Stipulation,
PGE has agreed to capture the Clean Fuels Program (Low Carbon Fuel
Standard) Credits from the electricity sales from the six public charging units.
These credits will then be monetized and used as a source of revenue to offset
the pilot. This approach integrates Commission and Department of
Environmental Quality programs and represents a unique opportunity to reduce
the ratepayer capital necessary for the pilot or even return it to ratepayers.

Q. Why is it important to Staff that the Electric Avenue Pilot present an

opportunity for ratepayer to receive a return of their investment?

A. Often Staff will recommend and the Commission will approve pilot activity investments because they present other benefits, such as the development of data and learnings as seen here. But the Electric Avenue Pilot presents both an opportunity to conduct such investigatory activity and possibly a return of that investment over the pilot period or life of the charging infrastructure. Thus, it allows the Commission to balance the interest of the ratepayer against the need to better understand the market that the legislature has asked the utilities to invest in and accelerate.

1 **Issue 3. CHARGEPOINT AND EVCA MISCHARACTERIZATION OF** 2 SB 1547, SECTION 20 AND THE STIPULATING PARTIES' INTENTIONS 3 Q. Is Staff planning to address the legal requirements of SB 1547, Section 4 20? 5 A. Yes. The legal requirements of SB 1547, Section 20, including the six 6 considerations, will be addressed in legal briefing because they require 7 interpretation of legislative intent through statutory construction methodology. 8 ChargePoint's expert, Mr. Packard, speaks at length as to the legislative intent 9 behind the law, the requirements of specific considerations, and the 10 Commission's legal authority and discretion to approve the Electric Avenue Pilot. However, Mr. Packard is not an attorney or legal expert,¹⁹ therefore, his 11 12 testimony should be weighted accordingly. 13 Q. Do you believe that ChargePoint and EVCA have mischaracterized 14 Section 20 of SB 1547? 15 A. Yes. Both ChargePoint and EVCA have mischaracterized Section 20 of 1547. 16 In testimony, Staff explained that there is simply not enough data to make 17 large-scale program investment decisions without further market information 18 and data, therefore, it was pragmatic to approve PGE's Electric Avenue 19 proposal as a pilot because it did offer value for customers, the Commission, 20 Staff, and stakeholders. SB 1547 does not remove the ability of the 21 Commission to approve a settlement offered by stipulating parties as either (a)

¹⁹ ChargePoint/100, Packard/1 (Mr. Packard's witness qualification statement).

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a pilot program or (b) under the decision considerations outlined in Section 20(4).

Q. Do you believe that ChargePoint and EVCA have misinterpreted the stipulating parties' intentions in having reached agreement on the public charging pilot?

A. Yes. ChargePoint and EVCA have misinterpreted the stipulating parties' intentions in the settlement with regard to the Electric Avenue Pilot. It appears that ChargePoint and EVCA argue in testimony that the purpose of the Electric Avenue Pilot is to pilot a program that would eventually be rolled out on a much broader scale, backed by much more substantial amounts of ratepayer investment. This is not stated anywhere in the Stipulation or Joint Testimony in Support of the Stipulation. All of the nine Stipulating Parties agreed that the settlement is not precedential and the pilot will be used to acquire necessary information, data, and learnings in order to better understand the most effective future activities for PGE to potentially engage in to accelerate transportation electrification with ratepayer-backed utility investments.²⁰ Rather than do nothing at all to accelerate transportation electrification, the parties to this docket worked hard at settlement to understand the different positions on how to best structure PGE's first attempt at offering transportation electrification programs in a way that moves us forward, limits risk to ratepayers, and produces the information that we need for future programs. Staff is fully aware of ChargePoint and EVCA's concerns regarding the capacity of the utility to

²⁰ UM 1811 Stipulation filed June 27, 2017 at 9 para. 36.

make significant disruptive investments in the public charging market, but that is not what is in the Stipulation before the Commission. Not only are PGE's proposed investments minimal, no party, including Staff, stipulated that the Electric Avenue Pilot would or should be more broadly rolled-out, or that additional investment dollars would be leveraged beyond those necessary for the pilot to deliver data, knowledge, and lessons to the utility, the Commission, Staff, and stakeholders.

ISSUE 4. STAFF DISAGREES WITH CHARGEPOINT AND EVCA'S PROPOSAL FOR "MAKE READY" AND PRIVATE COMPANY PUBLIC CHARGER INCENTIVES AT THIS POINT IN TIME

Q. Do you believe that ChargePoint and EVCA's proposal for the utilities to provide "make ready" charger platforms and incentives for private company investment in public charging has merit?

A. Yes and no. I find some good points in ChargePoint and EVCA's proposal for the utilities to offer "make ready" charger platforms and to provide incentives for private company investment. However, these were not the proposals offered by PGE that were carefully evaluated and modified by the Stipulating Parties and I do not believe that the pilots outlined in the Stipulation cause harm or unnecessary risks. Moreover, at this time, the proposal by ChargePoint and EVCA to provide "make ready" platforms and incentives is not persuasive. First, it is currently conducted in other states that already have collected the necessary data and knowledge through prior pilot activity and market studies; therefore, such state transportation electrification activities are much more advanced both in experience and knowledge as to what works for their particular utilities and customers.

Second, ChargePoint and EVCA's proposal to fund such activity does not account for the compounding and perhaps more important concern of ratepayer interests and protection. SB 1547's directive for utilities to participate in accelerating transportation electrification in Oregon places ratepayer investment in a new paradigm, yet the Commission must still prioritize protection of ratepayer interests. Staff is not persuaded by the arguments raised by the objectors that—in the present state of market maturity and knowledge in Oregon—transferring wealth from ratepayers directly to private entities (like ChargePoint) in a competitive market, without an opportunity to recover such investment²¹ makes sense. Staff is not saying that it is unwilling to entertain and review ChargePoint and EVCA's proposal at a more appropriate time, especially with developed market data to inform how the Commission could structure such action and investment in a way that also serves ratepayer interests.

As Staff has stated in prior testimony, there is a dearth of market information and market data for the PGE service territory to inform best practices or effective practices going forward. The activity outlined in the Electric Avenue Pilot, and the remainder of the Stipulation for that matter, allows ratepayers to make a minimal investment in pilot activity which may be returned to the ratepayers over the ten-year period. This presents an

²¹ The Electric Avenue Pilot may achieve this through offsetting CFP and tax credits.

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opportunity to mitigate the cost of the investment that Staff and the other eight Stipulating Parties find necessary to acquire the necessary data, knowledge, and lessons to move forward with transportation electrification as outlined in SB 1547.

Q. Does this conclude you testimony?

A. Yes.

CASE: UM 1811 WITNESS: JASON R. SALMI KLOTZ

PUBLIC UTILITY COMMISSION OF OREGON

STAFF EXHIBIT 401

Exhibits in Support of Reply Testimony to ChargePoint and EVCA Objections

September 19, 2017

OPUC 1. At ChargePoint 200, Packard/6, Mr. Packard states: "it is crucial to allow charging station site-hosts to choose the charging station infrastructure and services that best meet the needs of the drivers they expect will use the charging station because the site-host – and not PGE – is best equipped to understand those drivers' needs and preferences."

Please provide factual evidence, data, analysis, and/or reports that site-hosts (as the term is used by ChargePoint) are *the best* equipped entity, over the utility or any other entity, to understand their drivers' needs and preferences.

Please also provide factual evidence, data, analysis, and/or reports that it is "crucial" that site-hosts (as the term is used by ChargePoint) select the charging infrastructure and services.

Response:

Mr. Packard's statement is based on his 19 years of experience in the EV charging industry.

The drivers who use a particular charging station are typically the customers, tenants, or constituents of the site-host. As a result, the site-host is likely already familiar with the drivers who would use a charging station. The site-host would have regular contact and interactions with the drivers who use the charging station, including in-person conversations about drivers' needs and preferences. No other entity has such close contact with the drivers who visit a charging station, including the utility.

Sponsor: Dave Packard Response Date: September 18, 2017 OPUC 3. At ChargePoint 200, Packard/6-7, Mr. Packard states: "There is simply no reason to think that a utility would be effective at determining the needs of particular EV drivers, and regardless, different EV drivers have different preferences."

Please provide factual evidence, data, analysis, and/or reports supporting the conclusion that there is no reason to think that a utility would be effective at determining the needs of EV drivers. Please also provide the factual evidence, data, analysis, and/or reports that ChargePoint has relied on to determine that Portland General Electric in particulate would not be effective at determining the needs of EV drivers in its service territory.

Response:

Mr. Packard's statement is based on his 19 years of experience in the EV charging industry.

Sponsor: Dave Packard **Response Date:** September 18, 2017 OPUC 4. At ChargePoint 200, Packard/8, Mr. Packard states: "Adding PGE to the market will do much more to dampen competition than to stimulate it."

Please provide the factual evidence, data, analysis, and/or reports that Mr. Packard relied on to reach the above-quoted conclusion, particularly as it pertains to Portland General Electric.

Response:

Mr. Packard's statement is based on his 19 years of experience in the EV charging industry.

For additional analysis on this topic, please see ChargePoint's Objections to Stipulation and Request for Hearing, pages 10-11, where ChargePoint stated as follows:

"An RFP is admittedly a competitive process, but as discussed, the RFP that PGE proposes for Electric Avenue would incorporate competition exclusively on the basis of cost and would occur only once at the outset of the program. As a result, PGE and its ratepayers would only receive one benefit of competition, namely, a low-cost product. PGE, and by extension, EV drivers, would lose out on the other consumer benefits that typically arise from a competitive market, such as innovative products and a variety of options to meet drivers' unique needs and preferences.

Further, by selecting a single "winner" in the RFP, PGE will completely eliminate site-hosts' ability to choose the EVSE equipment and network services provider that best fits their individual needs. This approach also stifles potential cost reductions that would occur in the future, because a robust, competitive market with multiple vendors competing for customers is essential to driving price reductions in product and services over the long-term.

PGE and the Stipulating Parties have implicitly acknowledged that the Electric Avenue program would do nothing to stimulate competition in the market for EV charging infrastructure and services, and that PGE's proposal has the potential to damage and distort the market. The Stipulating Parties' testimony supporting the Stipulation focuses on whether "the proposed pilots will hamper the market for electric vehicle charging in PGE's service territory." To support their misguided argument that the pilots will not hamper the market, PGE and the Stipulating Parties point to the fact that PGE designed its proposed pricing for Electric Avenue "to avoid undercutting the market-based pricing offered by other providers."

Notably, the Legislative Assembly did not direct PGE to try not to "hamper" the market for EV charging infrastructure and services – rather, it directed PGE to "stimulate" that market. The choice of the word "stimulate" in SB 1547 was deliberate, and it indicates that the Legislative Assembly contemplated that PGE would play a unique role that only a utility could play to support and enhance the market. PGE cannot stimulate the public EV charging market by entering that market, especially given PGE's builtin advantages of being a monopoly utility.

Likewise, PGE will not stimulate the EV charging market merely promising not to undercut other providers, because PGE (backed by its ratepayers) will inevitably take market share away from competitive providers. These competitive providers, like ChargePoint, do not have captive ratepayers who can cover their costs if revenues fall short. Moreover, PGE's focus on pricing to drivers ignores the business model and value streams of competitive EVSE providers. As ChargePoint explained in its Reply Testimony, many charging station site-hosts (such as big box retailers or convenience stores) install stations not because they want to make a profit on charging services, but to attract EV drivers to visit their businesses. By promising not to undercut other public charging stations, PGE would do nothing to stimulate the market and would do little to mitigate the massive market distortion that its participation in the market will cause. Instead, PGE would be competing with charging station site-hosts for drivers, which would actually discourage market expansion from non-utilities such as competitive EVSE providers."

Sponsor: Dave Packard Response Date: September 18, 2017 ChargePoint Discovery Responses to the Oregon Public Utilities Commission Staff

OPUC 6. At ChargePoint 200, Packard/10, Mr. Packard states: "If the Commission approves the Electric Avenue program contrary to ChargePoint's recommendations, prospective site-hosts who may be considering investing in publicly available charging stations would be much less likely to do so when they learned that PGE was providing charging stations for free (i.e., without any investment from site-hosts)."

Please provide factual evidence, data, analysis, and/or reports, including the names of prospective specific site-hosts, that prospective site-hosts "would be much less likely" to invest in publically available charging stations in PGE's service territory if the Commission approves the Electric Avenue pilot.

Response:

ChargePoint objects to this request on the grounds that it requests proprietary, confidential, and competitively sensitive information, the release of which would cause competitive harm to ChargePoint. ChargePoint further objects to this request on the grounds that it would require ChargePoint to conduct a special study.

Sponsor: Scott Dunbar Response Date: September 18, 2017 OPUC 8. At ChargePoint 200, Packard/11-12, Mr. Packard states: "I expect that PGE's participation in the publicly available charging station market would severely distort and hamper the market over the medium- and long-term, resulting either in far fewer charging stations or resulting in PGE taking over the entire market."

Please provide factual evidence, data, analysis, and/or reports that Mr. Packard relied on in coming to the conclusion that PGE' participation in the publically available charging market as proposed in the Electric Avenue pilot (as described in the Stipulation) would "severely distort and hamper the market over the medium- and long-term." Please also explain in detail how ChargePoint defines "the market" in the above-mentioned quote.

Response:

Mr. Packard's statement is based on his 19 years of experience in the EV charging industry.

Mr. Packard's testimony explains in detail his reasons or making the prediction that he has made in the referenced testimony.

The "market" that Mr. Packard refers to is the publicly available EV charging market in PGE's service territory.

Sponsor: Dave Packard **Response Date:** September 18, 2017 OPUC 9. Please confirm that in this proceeding (UM 1811), ChargePoint only objects to the Electric Avenue Pilot in the Stipulation. In other words, ChargePoint does not object to the other pilots in the Stipulation.

Response:

Confirmed.

Sponsor: Dave Packard Response Date: September 18, 2017