

PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: July 25, 2017

REGULAR X CONSENT _____ EFFECTIVE DATE July 25, 2017

DATE: June 8, 2017

TO: Public Utility Commission

FROM: Nadine Hanhan ^{NRH}

THROUGH: Jason Eisdorfer ^F and John Crider ^{JC}

SUBJECT: IDAHO POWER COMPANY: (Docket No. UM 1815) Idaho Power Application for Electric Vehicle Awareness and Education Program.

STAFF RECOMMENDATION:

Staff recommends that the Commission approve Idaho Power's Application for Electric Vehicle Awareness and Education Program, subject to Staff's proposed conditions.

DISCUSSION:

Issue

Whether Idaho Power's (the Company) inaugural application for Transportation Electrification programs, as required by Oregon Laws Chapter 28, Section 20, should be approved by the Commission.

Applicable Law

Oregon Laws Chapter 28, Section 20(4)(a)-(f)¹ directs the Commission to consider the following when assessing an electric company's proposed investments or expenditures in transportation electrification programs:

- a) Within the service territory of the electric company;
- b) Prudent as determined by the Commission;

¹ SB 1547 was enacted in 2016 as Oregon Laws Chapter 28, Section 20; the 2017 version of Oregon Revised Statutes has yet to be released.

- c) Reasonably expected to be used and useful as determined by the Commission;
- d) Reasonably expected to enable the electric company to support the electric company's electrical system;
- e) Reasonably expected to improve the electric company's electrical system efficiency and operational flexibility, including the ability of the electric company to integrate variable generating resources; and
- f) Reasonably expected to stimulate innovation, competition and customer choice in electric vehicle charging and related infrastructure and services.

With the passing of SB 1547, the legislature authorized Oregon's electric companies to participate in the electric vehicle (EV) market for the purpose of accelerating "transportation electrification," which is specifically defined in the law.² Idaho Power submitted an application to accelerate transportation electrification on December 30, 2016 in order to comply with the requirement that initial program proposals be filed by December 31, 2016.³

Staff reviewed Idaho Power's proposal and evaluated the proposed transportation electrification program in accordance with the six statutory considerations (a)-(f), and provides its recommendation below.

Analysis

Summary of Idaho Power's Application

Idaho Power's Electric Vehicle Awareness and Education Program (EV Program) is composed of three main elements, listed below. Currently, Idaho Power is not seeking to recover costs of the program in customer rates. Instead, the Company is opting to expense the EV Program costs, explaining that it *may* seek cost recovery for the program in a future rate case.⁴

² See Oregon Laws Chapter 28, Section 20(1)(b)(A)-(C). Transportation electrification means: "(A) The use of electricity from external sources to provide power to all or part of a vehicle," "(B) Programs related to developing the use of electricity for the purpose described in subparagraph (A) of this paragraph," and "(C) Infrastructure investments related to developing the use of electricity for the purpose described in subparagraph (A) of this paragraph."

³ Oregon Laws Chapter 28, Section 29 states that "The Public Utility Commission shall direct each electric company in this state to file applications as required by section 20 of this 2016 Act on or before December 31, 2016."

⁴ Docket No. UM 1815, Idaho Power's Application for Electric Vehicle Awareness & Education Program, p. 19.

The three main elements that comprise the Company's EV program are:

- 1) Actions to increase the visibility of EVs
- 2) EV Materials & Resources
- 3) EV Training⁵

For item 1), the Company has identified a number of potential events at which it plans to showcase its EV fleet. The Company has stated that it will showcase its fleet twice a year throughout the EV Program.⁶

For item 2), Idaho Power has opted to leverage its existing EV pamphlets and resources to educate its Oregon customers about EVs. The Company provided examples of these resources in Appendix A of its application. Staff reviewed these materials and expressed concern through a Staff data request that the materials may be too Idaho-specific and asked the Company to address this concern. In its response, Idaho Power stated that it would tailor relevant materials to Oregon-specific information.⁷ Staff notes that the Company developed Oregon-centric advertisements when it hosted an EV event in Ontario, Oregon in 2016, and indicated that it plans on taking a similar approach to the materials it distributes as part of its proposed EV Program. Staff agrees with this approach—namely that a comprehensive new marketing program is not warranted, but the educational materials should be tailored to an Oregon-centric audience.

For Item 3), the Company has opted to provide training and education on EVs to its trade allies. The Company briefly explained a list of potential training events:⁸

- A continuing education course for electricians on residential and/or commercial EV charging station installation and maintenance;
- A safety course for first responders to provide training for incidents involving alternative fuel vehicles, including electric and hybrid vehicles; and
- Training for dealership sales team members on EV technology and the benefits of EV ownership.

Idaho Power has not yet determined which event is most optimal for hosting a training and education program. In short, the Company's EV proposal is an education program that attempts to raise awareness and understanding about electric vehicles. The goal of

⁵ Docket No. UM 1815, Idaho Power's Application for Electric Vehicle Awareness & Education Program, pp. 2-3.

⁶ See p. 2 of the application for a full list of potential events identified.

⁷ See Company Response to Staff DR No. 8.

⁸ Docket No. UM 1815, Idaho Power's Application for Electric Vehicle Awareness & Education Program, p. 3.

the program is to “address common concerns and misconceptions that hinder [EV] adoption.”⁹

Below is Idaho Power’s table projecting the costs of the EV program elements and the cost to evaluate the effects of such elements.¹⁰

Table 1 – Idaho Power’s Projected EV Program Costs

Category	Cost	Activities Funded
Events & Training	\$5,000	Two community events & one training event per year, includes participation fees
Marketing	\$2,000	Advertising – online & print
Administration	\$500	Travel
Evaluation/Research	\$500	Focus Groups, Surveys

As noted earlier, Idaho Power is not seeking to recover costs of the program in customer rates at this time. Instead, the Company will expense the EV Program costs for the time being, but *may* seek cost recovery for the EV Program in a future rate case.¹¹

Compliance with Statutory Considerations

Staff prefaces its analysis by stating that Staff believes that Idaho Power’s proposed EV Program fails to fully satisfy most of the six considerations outlined in the transportation electrification law. However, Staff does recognize that Idaho Power is attempting to comply with a new law that, on the one hand, is instructing regulation-constrained electric companies to accelerate transportation electrification, but on the other hand, recognizes that electric companies are regulated entities and are restricted, primarily through prudence considerations, as to the amount of ratepayer funds it can commit and to what end.¹² Staff believes that at this iterative stage of utility-sponsored transportation electrification in Oregon, fully meeting all of the six considerations is a difficult task, particularly due to the nascent industry of electric vehicles and especially in Idaho Power’s rural service territory.

Thus, even though the Company’s EV Program does not meet all of the statutory considerations in Staff’s opinion, it is a good-faith effort by Idaho Power that Staff can

⁹ Docket No. UM 1815, Idaho Power’s Application for Electric Vehicle Awareness & Education Program, p. 4.

¹⁰ UM 1815 – Idaho Power’s Application for Electric Vehicle Awareness & Education Program, p. 18.

¹¹ Docket No. UM 1815, Idaho Power’s Application for Electric Vehicle Awareness & Education Program, p. 19.

¹² See Oregon Laws Chapter 28, Section 20(4)(b) where the law expressly states that the Commission consider whether the investment is “prudent as determined by the commission.”

recommend to be conditionally approved as a pilot program. The Commission has leeway to approve pilot programs subject to a lower standard, so long as they are time-limited, cost-limited, and produce deliverable objectives, particularly in data-gathering.

Below Staff discusses how the Company's proposal meets or fails to meet each of the six statutory considerations.

Consideration (a): Within the company's service area

The first consideration states that the Commission shall consider whether the investment or expenditure is within Idaho Power's service territory. In this case, Idaho Power's proposal will reach its customers in Malheur, Baker, and Harney counties.¹³ Its EV community events and trainings will also be within the Company's service territory. Because of the limited nature of the Company's program, Staff believes this consideration is satisfied.

Consideration (b): Prudent as determined by Commission Consideration

Although Idaho Power states in its application that its program is prudent, Staff cannot confidently agree with this. Since it is a relatively small education program with no measurable direct system benefits, Staff hesitates to make a concrete recommendation as to prudence. However, because Staff is approaching this EV Program proposal as a pilot program, and because the Company is trying to meet the goals of the statute, Staff holds this proposal to the lesser standard of a pilot program. As a result, Staff expects that Idaho Power will end the program as proposed in 2019 having collected specific data, and produce deliverable observations about the program's success or failure. The Company has already provided some examples of these deliverable observations, which Staff will highlight in this memorandum.

Consideration (c): Reasonably expected to be used and useful as determined by the Commission

"Used and useful" is a term that generally comes up in the context of capital investments made by the utility, rather than for expense items such as the Company's proposed events, training, and marketing of educational materials proposed in this filing. Therefore, Staff questions whether this consideration is applicable in this particular instance.¹⁴ Nonetheless, similar to Staff's analysis regarding Consideration (b), Staff will hold this program to the lesser standard of a pilot program, and as such, expects the Company to produce deliverable observations regarding the impacts of the program.

¹³ Docket No. UM 1815, Idaho Power's Application for Electric Vehicle Awareness & Education Program, p. 22.

¹⁴ The legislature clarified that "[f]or the purposes of ORS 757.355, electric vehicle *charging infrastructure* provides utility service to the customers of an electric company." Oregon Laws Chapter 28, Section 20(6) (emphasis added). Staff believes that Consideration (c) is referring to charging infrastructure and infrastructure investments made by the electric company.

Consideration (d): Reasonably expected to enable the electric company to support the electric company's electrical system

Consideration (e): Reasonably expected to improve the electric company's electrical system efficiency and operational flexibility, including the ability of the electric company to integrate variable generating resources

Consideration (f): Reasonably expected to stimulate innovation, competition and customer choice in electric vehicle charging and related infrastructure and services

For Considerations (d), (e), and (f), the Company acknowledges in its application that its EV educational program is unlikely to support its electrical system, improve Idaho Power's electrical system efficiency and operational flexibility, or stimulate innovation, competition and customer choice. Staff appreciates this candid acknowledgment and agrees with the Company.

Market Barriers

In its EV Program proposal, Idaho Power goes into some detail regarding the market barriers to accelerating transportation electrification, specifically limited driving range, lack of public charging infrastructure, and EV purchase price. The Company explains that not only is there a lack of EV dealerships that sell electric vehicles in its service territory, but even among the dealerships that do, the cars seem to be rarely available for purchase.¹⁵ In addition, the Company explains that its service territory is a designated "high poverty hotspot"¹⁶ where the median income is \$27,760, demonstrating that income level appears to be a significant barrier to purchasing EVs in Idaho Power's service territory. Finally, there is a lack of public charging infrastructure in the Company's service territory to support EV utilization. These barriers demonstrate that Idaho Power's Oregon service territory is not presently indicating market viability for electric vehicles.

In Staff's opinion, the market barriers in Idaho Power's service territory seem to be significant. When combined with the small number of total Oregon customers and limited income levels,¹⁷ complying with SB 1547 does not warrant that Idaho Power propose a large or expansive program. Therefore, Staff believes that Idaho Power's proposed program is a reasonable compliance approach and recommends that the program be approved as a pilot program subject to the conditions outlined below.

¹⁵ UM 1815 – Idaho Power's Application for Electric Vehicle Awareness & Education Program, p. 7.

¹⁶ UM 1815 – Idaho Power's Application for Electric Vehicle Awareness & Education Program, p. 8.

¹⁷ 18,772 total. See p. 5 of Docket No. UM 1815, Idaho Power's Application for Electric Vehicle Awareness & Education Program.

Staff's Conditions for Approval

Idaho Power has put a time limit of three years, inclusive, of 2017-2019 on its EV program and has provided a list of "evaluation sources" to measure program impacts. Staff believes this to be a reasonable initial list for evaluation of the program, but Staff believes the Company can and should go further. Below is Idaho Power's table for the intended EV Program impact and evaluation sources.

Table 2 – Idaho Power's Program Impact and Evaluation Sources Table¹⁸

Program Impact	Evaluation Sources
Number of Customers Reached	<ul style="list-style-type: none"> • Attendees at events • Social media click-through rates • Attendees at trainings
Awareness Achieved	<ul style="list-style-type: none"> • Empowered Community Online Panel • Company-facilitated focus groups • Surveys
Number of EVs	<ul style="list-style-type: none"> • Data from the Oregon DEQ
Availability of EVs	<ul style="list-style-type: none"> • Dealership contact
Number of Public Charging Stations	<ul style="list-style-type: none"> • Plugshare.com

Staff is highly interested in tracking the yearly progress of the program. In order for the Commission to gain understanding about the effects of the program, Staff believes that Idaho Power should not only use these evaluation sources, but also expand them, and provide the statistics of these evaluations as a yearly report—one in 2018 (to evaluate the 2017 statistics), one in 2019 (to evaluate the 2018 statistics), and a final report in 2020 that evaluates the 2019 occurrences, in addition to an evaluation of the program as a whole. In its application, the Company states that at the end of the program, it would assess the market to determine "if continuation is warranted, or if modifications are necessary."¹⁹ Staff believes that evaluation of the market is not targeted enough and instead recommends that the Company provide a more detailed evaluation. Below is Staff's recommended table of expanded evaluation statistics that the Company should compile and provide to the Commission in a yearly report.

¹⁸ Docket No. UM 1815, Idaho Power's Application for Electric Vehicle Awareness & Education Program, p. 21.

¹⁹ Docket No. UM 1815, Idaho Power's Application for Electric Vehicle Awareness & Education Program, p. 3.

Table 3 – Staff's Expanded List of Evaluation Statistics

Program Impact	Evaluation Source
<p>Number of customers reached</p>	<ul style="list-style-type: none"> • Description of the event, why that site/event was chosen, and description of other EV-related hosts/tablers at the event other than Idaho Power • Location, time, and name of any event the Company held or attended • Sign-in logs of event attendees and number of attendees • Social media click-through rates • Materials provided at the events (including brochures, food, beverages, and giveaways provided by Idaho Power) • The vehicles in Idaho Power's fleet at the events (if applicable) • Sign-in logs of attendees at trainings, number of trainees, and description of the trainees (e.g., electricians, dealership salespersons, etc.) or trade allies involved (e.g., Forth) • Materials provided at the trainings (including any curriculum materials, food, beverages, and giveaways provided by Idaho Power) • Description of the customer interactions at the events—e.g., what was the main concern among the attendees, did those concerns appear to assuage upon interaction with the Company, etc.
	<ul style="list-style-type: none"> • Survey Questions asked in the Empowered Community Online Panel • Summary statistics of the

Awareness achieved	Empowered Community Online Panel ²⁰ <ul style="list-style-type: none"> • Summary of the Company-facilitated focus groups, including when these events were held, where they were held, and materials provided (if applicable)
Number of EVs	<ul style="list-style-type: none"> • Data from Oregon DEQ, DOT
Availability of EVs	<ul style="list-style-type: none"> • Dealership contact • Dealerships that sell EVs in the Idaho Power service territory and whether any EVs were sold, and whether those EVs were new or used • Number of EVs for sale and sold in the Idaho Power Oregon service territory
Number of Public Charging Stations	<ul style="list-style-type: none"> • Plugshare.com
Costs	<ul style="list-style-type: none"> • Line-item breakdown of the yearly \$8,000 cost of the program²¹
Miscellaneous	<ul style="list-style-type: none"> • Estimated labor hours in running the EV program

For each of the items above—both program impacts and evaluation sources—Staff recommends that the Company provide the above detailed list of data, where applicable, in a yearly report to the Commission. In addition, Staff recommends that Oregon PUC Staff and the UM 1815 service list be notified at least 30 days before one of the public events occurs as Staff is interested in attending one or more of these events.

Summary of Stakeholder Informal Comments

Staff requested informal feedback from parties on Idaho Power's EV Program application. Two parties, the Citizens' Utility Board of Oregon (CUB) and Forth (formerly Drive Oregon), provided comments to Staff.

CUB's Informal Comments: CUB also recognized Idaho Power's market barriers, noting the rural and remote nature of Idaho Power's service territory, low income levels, and

²⁰ Staff appreciated the summary provided on page 4 of Idaho Power's application. Staff envisions a similar summary in the yearly report.

²¹ See *Table 1* above.

lack of electric vehicle dealerships. CUB stated that it believes that the Company's approach to increase awareness and education before making capital investments in EV infrastructure and charging stations is sound. CUB recognized that the other Oregon utilities (PGE and PacifiCorp) had more robust EV program applications, but attributed this to the fact that their customer profiles and service areas are vastly different than Idaho Power's. Ultimately, CUB recommended that the Commission grant Idaho Power's request to implement its EV Program.

Forth's Informal Comments: Forth applauded Idaho Power's EV Program and the work it has already done in increasing awareness of EVs. Forth explained that it was a partner in crafting SB 1547 and was deeply involved with the utilities in developing the transportation electrification plans. Forth identified that it is looking forward to working with Idaho Power in a ride and drive event in 2018 and suggested that the cost of an effective ride and drive event is \$10,000.²² Forth also recognized the market barriers in Idaho Power's service territory, but noted that with technological advancements, driving range limitations are being diminished, and used EVs (ranging from \$6-8000 to purchase) are more economical than new ones. Forth also suggested that Idaho Power use the International Brotherhood of Electrical Workers as an EV trainer for electricians on both commercial and residential charging stations. Finally, Forth recommended that due to expected advancements in EV technology, Idaho Power should move its program implementation back by one year, beginning in 2018 and ending in 2020.

Conclusion

Staff is supportive of Idaho Power's EV Program proposal. Staff believes the Company's approach is reasonable at this time based on its service territory characteristics and current market barriers. However, Staff also believes that it is important to track in detail what the Company does and how its program affects EV acceleration and awareness.

In summary, Staff recommends that the Commission approve the Company's application subject to these conditions:

1. Staff proposes that the Company provide the data listed in *Table 3* of this memorandum, in a yearly report to the Commission in 2018, 2019, and a final report in 2020 that outlines the program's 2019 impacts and the impacts of the EV Program over the three-year pilot period.

²²Staff notes that Idaho Power did not explicitly state in its EV program proposal that it would work with Forth.

2. Staff recommends that Oregon PUC Staff and the UM 1815 service list be notified at least 30 days before any of the EV Program public events occur.²³
3. Approval of the Company's application does *not* indicate that Idaho Power's projected EV Program costs will necessarily be recoverable in customer rates.

PROPOSED COMMISSION MOTION:

Staff recommends that the Commission approve Idaho Power's Application for Electric Vehicle Awareness and Education Program, subject to the conditions outlined above.

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²³ Staff realizes that some of the EV visibility events proposed on page 2 of the EV program application have passed or may have passed by the time the Commission issues an order in this docket. As such, for the first EV visibility event only, the Company need not notify the Commission 30 days prior to hosting the event but should notify Staff as soon as practicable.