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Send confidential information, voluminous reports, or energy utility Results of Operations Reports to PUC Filing Center, PO Box 1088, Salem, OR 97308-1088 or by delivery service to 201 High Street SE Suite 100, Salem, OR 97301.

LISA D. NORDSTROM
Lead Counsel
lnordstrom@idahopower.com

November 2, 2020

Public Utility Commission of Oregon
Filing Center
201 High Street SE, Suite 100
P.O. Box 1088
Salem, Oregon 97301

RE: UM 1815 - Idaho Power Company's 2019 TE Program Evaluation Report

Attention Filing Center:

Pursuant to OAR 860-087-0030 and Oregon Laws 2016, Chapter 028, Sections 20 and 29 (SB 1547), Idaho Power Company ("Idaho Power" or "Company") applied to the Public Utility Commission of Oregon ("Commission") for an order authorizing the Company to implement an Electric Vehicle Awareness & Education Program ("Program") on December 30, 2016. The Commission approved the Company's application for its Program in Order No. 17-286 of Docket No. UM 1815. Order No. 17-286 directed the Company to implement the Program beginning in 2018 and ending in 2020, and to provide a yearly Program evaluation report to the Commission in 2019, 2020 and 2021.

In compliance with Order No. 17-286 and pursuant to OAR 860-087-0040, the Company hereby submits to the Commission an evaluation report of the Company's Program for 2019. Idaho Power respectfully requests that the Commission issue an order acknowledging that the Program evaluation report meets the requirements of OAR 860-087-0040.

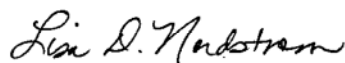
It is respectfully requested that all formal data requests to the Company regarding this filing be addressed to the following:

By email (preferred): dockets@idahopower.com

By regular mail:
Lisa Nordstrom
Lead Counsel
Idaho Power Company
1221 W. Idaho Street
Boise, Idaho 83702

If you have any substantive questions about the report, please contact Regulatory Analyst Nicole Blackwell at 208-388-5764 or nblackwell@idahopower.com.

Very truly yours.



Lisa D. Nordstrom

LDN/slb
Enclosure(s)
cc: UM 1815 Service List via email



Electric Vehicle Awareness & Education Program Evaluation

November 2, 2020

I. PROCEDURAL BACKGROUND

Pursuant to OAR 860-087-0030 and Oregon Laws 2016, Chapter 028, Sections 20 and 29 (SB 1547), Idaho Power Company (“Idaho Power” or “Company”) applied to the Public Utility Commission of Oregon (“Commission”) for an order authorizing the Company to implement an Electric Vehicle Awareness & Education Program (“Program”) on December 30, 2016. The Commission approved the Company’s application for its Program on July 27, 2017 in Order No. 17-286 of Docket No. UM 1815. Order No. 17-286 directed the Company to implement the Program beginning in 2018 and ending in 2020, and to provide a yearly Program report to the Commission in 2019, 2020 and 2021.

In compliance with Order No. 17-286 and pursuant to OAR 860-087-0040, Idaho Power hereby respectfully submits to the Commission an evaluation report of the Company’s Program for 2019.

Section 20 of Oregon Senate Bill 1547 (“SB 1547”), signed into law March 8, 2016, pertains to Transportation Electrification Programs. Within Section 20, the Legislative Assembly declares that transportation electrification (“TE”) is necessary to reduce petroleum use, achieve optimum levels of energy efficiency and carbon reduction, meet federal and state air quality standards, meet Oregon’s greenhouse gas emission reduction goals, and improve public health and safety. Section 20 also mandates that the Commission direct each Oregon electric utility to file applications, in a form and manner prescribed by the Commission, for programs to accelerate TE. As a result of this mandate, the Commission initiated a rulemaking in Docket No. AR 599 to establish rules concerning utilities’ applications for TE programs.

In Order No. 16-447 in Docket No. AR 599, the Commission adopted OAR 860-087-0030, which requires an electric company to file applications for TE programs, and identifies what each application must include. OAR 860-087-0040 was also adopted in Order No. 16-447, which requires an electric company to report the results of its evaluation for each TE Program approved by the Commission. In compliance with OAR 860-087-0040, Idaho Power submits this evaluation of its Program.

II. PROGRAM DESCRIPTION

Idaho Power’s TE Program is designed to increase electric vehicle (“EV”) awareness and educate customers on the potential benefits of EV ownership, including lower fuel costs, lower maintenance costs, little to no emissions, vehicle performance benefits, energy independence, and local economic benefits. The Program is also designed to help

customers understand vehicle and charging technology and the options that are available. Through awareness and education, Idaho Power believes it has and will continue to address key barriers to EV adoption within its Oregon service area, including customer perception surrounding driving range and price.

Program Elements

Idaho Power's Program aims to raise awareness of EVs and provide EV education through a multi-faceted approach, including (1) increasing the visibility of EVs in the Company's Oregon service area, (2) providing resources to customers interested in learning more about EVs, and (3) providing EV training to trade allies.

1. Increasing the Visibility of EVs

In an effort to increase the visibility of EVs in the Company's Oregon service area, the Company committed to showcasing its electric fleet vehicles in at least two events per year.

2. EV Materials & Resources

The Program also consists of providing EV materials and resources to customers interested in learning more about the costs and benefits of EVs. Idaho Power utilizes several mediums to communicate and educate customers on the benefits of EVs including, a Company webpage dedicated to EVs, EV marketing materials, and customer access to an EV subject matter expert.

3. EV Training

Another component of the Program includes providing training and education to trade allies. Idaho Power's Program commits to holding at least one training event annually to trade ally groups with a role in EV adoption.

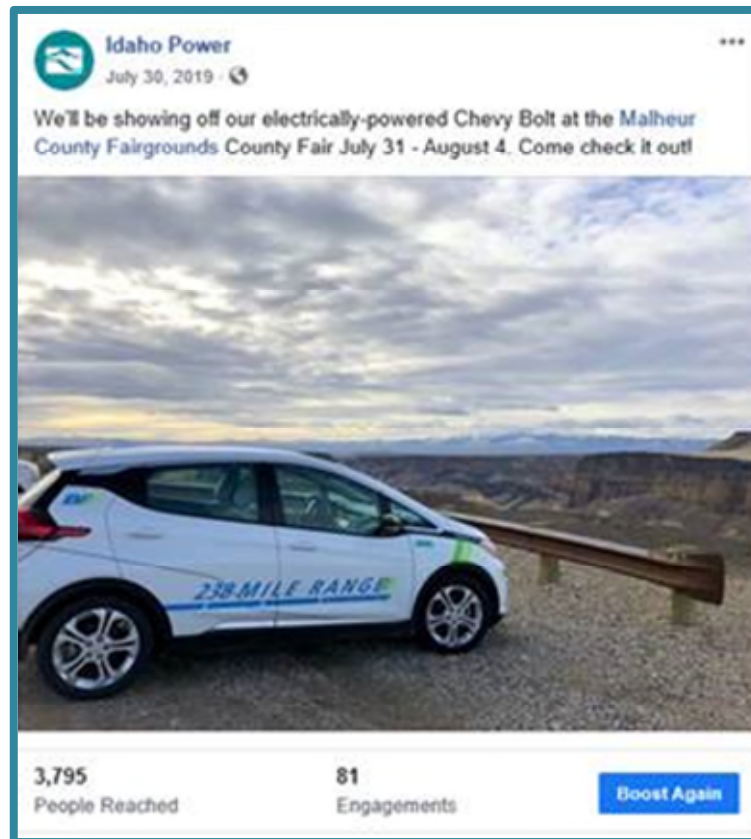
III. 2019 PROGRAM SUMMARY

In 2019, Idaho Power provided EV education through public events. Through these events the Company was able to reach multiple audiences and strived to achieve greater levels of awareness and knowledge of EVs. The Company hosted an EV informational booth at the Malheur County Fair, the Treasure Valley Community College ("TVCC") Block Party and TVCC's Student Day event. Idaho Power also attempted to hold a training course for contractors and electricians on installing electric vehicle supply equipment ("EVSE"). However, the Company did not receive any registrations, despite aggressive marketing for the training event, and consequently cancelled the event. The following sections detail Idaho Power's Program accomplishments for 2019.

A. Malheur County Fair

The Malheur County Fair is the biggest event in Idaho Power's Oregon service area with an estimated attendance of 23,000 over 5 days. For the 2019 Malheur County Fair, Idaho Power created an EV display and showcased its all-electric Chevy Bolt. The Chevy Bolt is wrapped to highlight the 238-mile vehicle range. The Chevy Bolt also had window posters highlighting the features of the vehicle and information on the Oregon state tax credits for EV purchases. Idaho Power also had three types of brochures on hand to provide information on the benefits of EVs and charging. The various brochures on EVs, Home Charging, and Workplace Charging, are provided in Attachments 1 - 3.

Idaho Power promoted its attendance at the Malheur County Fair through social media. Below is a Facebook post promoting Idaho Power's EV informational booth and the Chevy Bolt. The post was targeted to the Company's Oregon customers and reached 3,795 people.



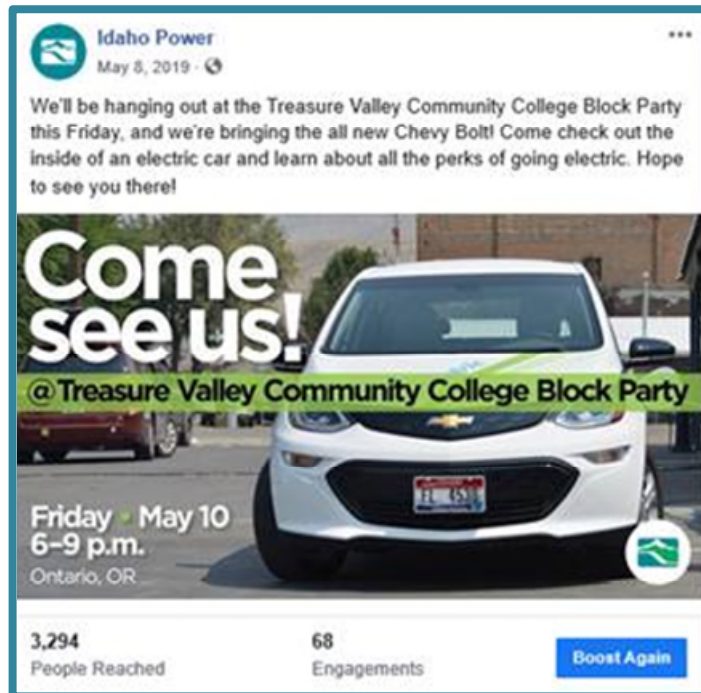
B. TVCC Block Party

Idaho Power set up an EV display at the TVCC Block Party on May 10, 2019. TVCC is a public community college located in Ontario, Oregon. The rural campus occupies 90 acres on the western edge of the Treasure Valley and serves approximately 3,000 students annually. Several hundred students and community

members attended the outdoor event which included booths supporting local vendors, live music and food. Idaho Power displayed the Chevy Bolt and hosted a booth with EV brochures and information. Idaho Power employees were prepped with talking points including information on the Oregon state tax credits for EV purchases.



Idaho Power promoted its presence at the event through social media. A boosted Facebook post targeted to Oregon customers reached 3,294 people.



C. TVCC Student Day

Idaho Power set up an EV display at TVCC's Student Day event on September 30, 2019. The event includes informational booths on student services and local businesses. Idaho Power displayed the Chevy Bolt and hosted an EV informational booth. Idaho Power employees had conversations with dozens of students and most of the vendors on the benefits of EVs and available tax credits for EV purchases.

D. Electrician Training

Idaho Power organized a training for contractors and electricians on EVSE. The training event was scheduled for December 3, 2019, in Ontario, Oregon. The course was intended to cover the benefits of EVs, trends in EV adoption, EVSE types, installation, and National Electric Codes (NEC). Idaho Power began marketing the event on November 5, 2019. Marketing efforts included the following:

- An email invitation was sent to contractors, electricians and suppliers on November 5, 2019, and November 20, 2019.
- An email invitation was sent to the county electrical inspections and permitting office on November 5, 2019, and November 20, 2019.
- Idaho Power Customer Representatives personally delivered invitations to 10 local contractors to discuss the training opportunity.

Despite aggressive marketing, the Company did not receive any registrations and cancelled the training.

E. Other Accomplishments

In addition to hosting an EV informational booth at three public events, in 2019 Idaho Power continued to promote its Choose EV Web Platform and utilized its customer newsletter to provide EV education to its Oregon customers. The Company also continued to work with stakeholders, such as Forth, to promote EV adoption in Oregon.

1. Choose EV Web Platform

The Choose EV web platform includes interactive tools to research EVs, compare cars and benefits, and learn about state and federal rebates. The site highlights the Oregon Clean Vehicle Rebate Program including the Charge Ahead Rebate. See www.idahopower.com/ev for more information on the Company-sponsored Choose EV web platform.

2. Customer Newsletter

Idaho Power featured EV content in its February 2019 Connections newsletter, which is sent to all Idaho Power customers. The EV article discusses the many benefits of EVs, including cost savings. The Customer Connections Newsletter is provided in Attachment 4.



3. Forth

Idaho Power’s EV subject matter expert, Patti Best, continues to serve on the Forth Board of Directors. Formerly known as Drive Oregon, Forth’s mission is to advance electric, smart and shared transportation in the Pacific Northwest and beyond through innovation, demonstration projects, advocacy and engagement. By having one of its employees on the Forth Board of Directors, Idaho Power is able to leverage information and ideas on promoting EVs in its Oregon service area.

4. Electrify America Fast Charging Site

On May 8, 2019, Idaho Power held a press conference to tout the benefits of EVs at the new Electrify America fast charging station in Boise, Idaho. While the event was held in Boise, Idaho, it led to an interview with a local news organization whose viewership reaches into eastern Oregon. In the interview Idaho Power employee, Patti Best, commented that the new, public fast charging station in Boise “is going to help connect a network that is going from Portland down to Salt Lake.” She also discussed the perks and speed of fast charging during the interview and provided information on how to find charging station locations.¹

IV. PROGRAM EVALUATION (OAR 860-087-0040)

Pursuant to OAR 860-087-0040, Idaho Power is required to evaluate and report the results of its Program. The Program evaluation is to include information required under OAR 860-087-0030(1)(g)(A)-(F), as well as, OAR 860-087-0040(1)(b)-(h).

A. OAR 860-087-0030(1)(g)(A)-(F)

¹ <https://www.ktvb.com/article/news/new-boise-charging-station-helps-keep-electric-car-owners-on-the-road/277-81f0162a-3e8b-4d25-bd08-c6743af479d5>

OAR 860-087-0030(1)(g)(A)-(F) specify how electric companies will evaluate their TE programs and are established as part of companies' TE program applications. In its application Idaho Power detailed how it would evaluate its Program and provides a recap below in compliance with OAR 860-087-0040.

Timeline of program evaluation and evaluation reporting schedule (OAR 860-087-0030 (1)(g)(A))

In compliance with Commission Order No. 17-286, Idaho Power will provide annual evaluation reports to the Commission in 2019, 2020 and 2021. The Program evaluation report will address all reporting requirements specified in ORS 860-087-0040.

Cost of evaluation (OAR 860-087-0030 (1)(g)(B))

In the Company's Program application, it estimated program evaluation costs of \$500 primarily for printing and focus group costs. Idaho Power incurred minimal costs to evaluate the Program for 2019. The evaluation costs primarily consisted of labor costs to conduct a survey among its Oregon Empowered Community² participants to assess EV awareness. The Company has not included labor expense in the 2019 Program costs as it relied on its existing workforce to conduct the survey.

How the evaluation was conducted and whether third-party evaluation was necessary (OAR 860-087-0030 (1)(g)(C))

In the Company's Program application, Idaho Power stated that it would conduct Program evaluation internally due to the cost of third-party evaluations for an education program of this size. As planned, Idaho Power conducted the Program evaluation internally.

How the evaluation addresses identified barriers (OAR 860-087-0030 (1)(g)(D))

As explained in Idaho Power's Program application, during the three-year Program period, Idaho Power expects to evaluate Program impact on market barriers by examining updated data and trends to identify and quantify the pace and extent of EV adoption in its service area. Specifically, evaluation efforts will attempt to determine if and how the Program impacted EV awareness, the number of EVs, the availability of EVs and access to EV charging stations within Idaho Power's Oregon service area. Data used for this evaluation is detailed in the following section.

A discussion of the method of data collection and how the data was used to evaluate the effectiveness of the program (OAR 860-087-0030 (1)(g)(E))

² The Empowered Community is an online survey group facilitated by Idaho Power, consisting of Idaho and Oregon customers in various rate classes.

As outlined in the Company’s TE Program application, Idaho Power used a combination of existing data sources and internal survey instruments to collect Program data. Those data sources and how they were used to evaluate Program effectiveness are provided in the table below.

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

Any other evaluative information requested by the Commission (OAR 860-087-0030 (1)(g)(F))

Not applicable.

B. OAR 860-087-0040(1)(b)-(h)

OAR 860-087-0040(1)(b)-(h) outline the information that must be included in companies’ TE program evaluation reports. The following section includes this information for Idaho Power’s Program.

Assessment of program costs and benefits realized by ratepayers and the electric company (OAR 860-087-0040(1)(b))

Idaho Power estimated total annual programs costs including delivery, marketing, administration and evaluation of \$8,000. For 2019, Program costs totaled \$1,230. Program expenses for 2019 were under budget as a result of the cancellation of the EVSE training event for electricians and contractors. As discussed previously, Idaho Power aggressively marketed the training event, but did not receive any registrations for the event. A breakdown of 2019 Program costs is provided below:

Group	Cost
Events & Training	\$679
Marketing	\$281
Administration	\$270

Total	\$1,230
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The Company did not seek cost recovery for the Program. Rather, all costs have been expensed.

As the proposed program is an awareness and education program, immediate financial benefits to customers are not quantifiable. However, the Company does believe the Program is providing intrinsic benefits to its customers. Although Idaho Power cannot quantify these types of benefits, there is value in EV education and awareness and its impact on barriers to adoption.

Tracking of program costs over the life of the program (OAR 860-087-0040(1)(c))

Program costs totaled \$7,076 in 2018 and \$1,230 in 2019, for a total cost of \$8,306 over the life of the Program. A breakdown of costs over the life of the Program is provided below:

Group	Cost
Events & Training	\$5,554
Marketing	\$331
Administration	\$2421
Total	\$8,306

Progress against identified market barriers and implementation barriers (OAR 860-087-0040(1)(d))

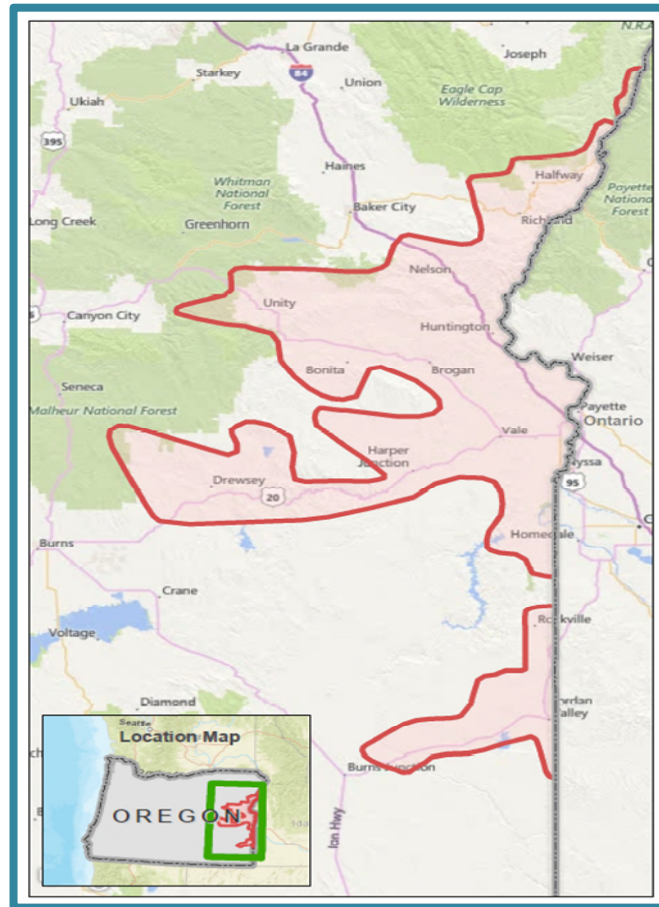
Identified barriers to EV adoption include driving range, access to public charging, dealership availability, and price. These barriers exist for Idaho Power’s Oregon customers, and are exacerbated by the characteristics of the service area.

Idaho Power’s Oregon service area spans some of the most remote landscape across eastern Oregon. The service area encompasses 4,744 square miles, and is largely comprised of rural communities. The largest town in Idaho Power’s Oregon service area is Ontario, which has a population of roughly 11,100. The next largest towns are Nyssa, with a population of approximately 3,200, and Vale with a population of approximately 1,800. The majority of the remaining towns in Idaho Power’s Oregon service area have populations of less than 300. As of year-end 2019, Idaho Power’s Oregon service area consisted of 19,312 total customers, 13,570 of which are residential customers.

Market Barrier: Driving Range

Idaho Power’s Oregon service area is located in a remote portion of eastern Oregon and is mostly comprised of rural communities. The closest metropolitan statistical area

is Boise, Idaho,³ which is 56 miles east of Ontario, Oregon. The closest metropolitan statistical area within Oregon is Bend,⁴ which is 260 miles west of Ontario. Below is a map of Idaho Power's service area in Oregon:



The rural nature of Idaho Power's Oregon service area presents a challenge to the range capabilities of midlevel EVs. In order to travel outside the rural area, or even between many of the towns within this area, customers would likely need a newer model EV with longer range capabilities, which comes at a higher cost, or access to public charging, which is limited.

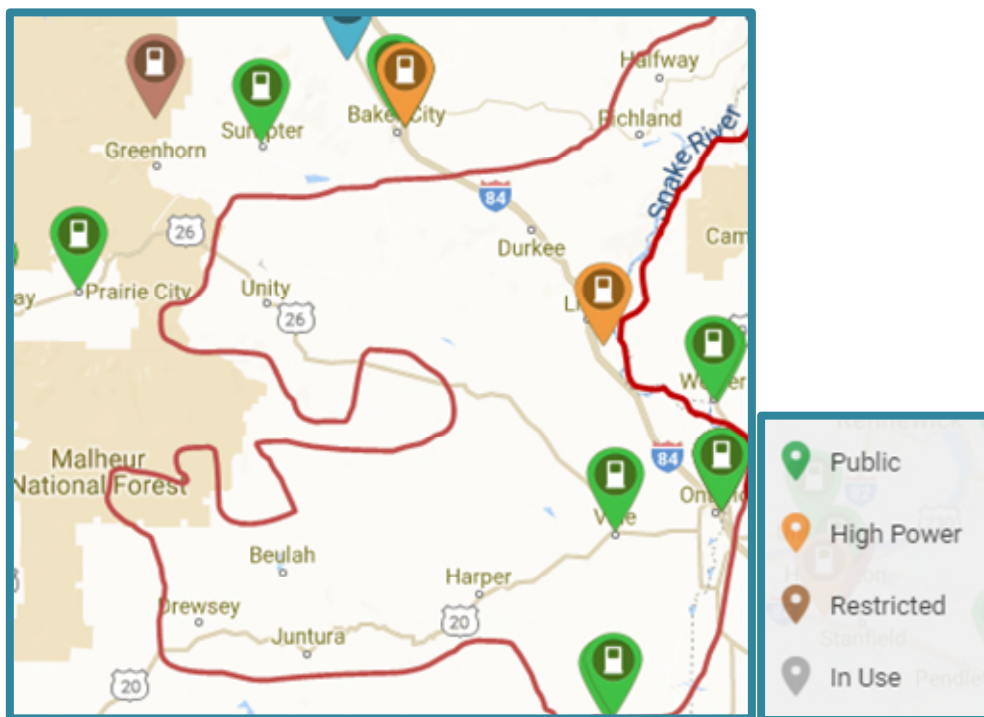
Idaho Power is encouraged by the improvements in battery technology and driving range in newer model EVs. The Company believes continued improvement in this area will ease this market barrier for its Oregon customers so long as it isn't cost prohibitive, another market barrier that will be discussed later.

³ "September 2018 Office of Management and Budget Bulletin No. 18-04." U.S. Census Bureau. <https://www.whitehouse.gov/wp-content/uploads/2018/09/Bulletin-18-04.pdf>

⁴ "September 2018 Office of Management and Budget Bulletin No. 18-04." U.S. Census Bureau. <https://www.whitehouse.gov/wp-content/uploads/2018/09/Bulletin-18-04.pdf>

Market Barrier: Public Charging

Public charging station availability is limited within Idaho Power's Oregon service area. As of October 2020, Plugshare.com, a website that allows users to find and review charging stations, reported five locations to charge EVs in the Company's Oregon service area. Of these five locations, two stations are designed for EV charging, including the Electrify America DC Fast Charging site located in Huntington, Oregon, and the Tesla Supercharger site located in Ontario, Oregon. While the Tesla Supercharger site is public, it is for Tesla vehicles only. The other three locations, including a hotel, RV park and state park, consist of electrical outlets that EV drivers can use. Below is a map of charging station availability in Idaho Power's Oregon service area, provided by PlugShare.com:



Market Barrier: Dealership Availability

As of December, 2019, the Oregon Department of Environmental Quality ("DEQ") reported that 29 EVs, including 18 Battery Electric Vehicles ("BEV") and 11 Plug-in Hybrid Electric Vehicles ("PHEV"), were registered in Idaho Power's Oregon service area. A contributing factor to the absence of EV's in eastern Oregon is the lack of availability. However, Idaho Power is optimistic about the progress being made towards this barrier. In October 2020, Idaho Power contacted the car dealerships located within its Oregon service area to assess the availability of EVs. Two dealerships had EVs onsite or in transit. One of the dealerships had three new Prius Primes onsite, a PHEV with a 25-mile all-electric range on a full charge.⁵ The other

⁵ <https://www.fueleconomy.gov/feg/Find.do?action=sbs&id=41489>

dealership had 2 new Chevy Bolt BEVs in transit. While the number and variety of EVs available is minimal, Idaho Power is hopeful that the presence of EVs at local dealerships will help spur interest and adoption in its Oregon service area. Additionally, as discussed further below, the current level of dealership availability reflects an improvement over prior years.

Idaho Power is particularly optimistic about the introduction of electric light-duty trucks in the future as trucks are very common in the Company's service area. Idaho Power's rural Oregon service area is home to many ranchers and farmers⁶ who rely on trucks as their primary vehicle. The rurality and nearby mountain ranges of this area also make it attractive to recreationists that pull trailers, boats, and other recreational equipment. The Company anticipates that electric trucks will have a positive impact on the acceleration of TE in its Oregon service area. Currently, there are many types of electric trucks in the works with a few models expected to enter the market within the next few years, including the Tesla Cybertruck, the Bollinger B2, the GMC Hummer EV, and the Rivian R1T, among others.⁷ However, it will be important for electric trucks to be powerful, have long-range capabilities, and most importantly, be affordable. Although there is progress being made in this segment of the EV market, many of the electric truck models in development may not be available to the mass market, and specifically to the eastern Oregon market, for many years. Idaho Power will be closely monitoring the development and launch of electric trucks so that it can promote these vehicles among its customers and local dealerships.

Market Barrier: Price

Although the range and cost of EVs are improving as technology advances, the price of EVs remains a barrier to adoption. This barrier is amplified when considering the income levels of Idaho Power's Oregon customers. According to the United States Census Bureau, the median household income for Ontario, Oregon is \$34,940, and the percentage of persons in poverty is 30.8 percent.⁸ In comparison, the median household income and poverty rate for Boise, Idaho are \$56,798, and 13.5 percent, respectively, and \$65,740, and 14.9 percent, respectively, for Portland, Oregon.⁹ Additionally, in 2018, the Oregon Department of Human Services identified Malheur County, the county in which the majority of the Company's Oregon customers reside, as a "high poverty hotspot,"¹⁰ or a geographic concentration of poor residents. The

⁶ Approximately 11 percent of Idaho Power's Oregon customers are irrigation customers.

⁷ <https://www.cnet.com/roadshow/news/hummer-ev-tesla-cybertruck-rivian-nikola-electric-pickup-truck-coming/>

⁸ For comparison the Chevy Bolt, which is the only BEV available in Idaho Power's Oregon service area, is priced at \$34,000 before tax rebates and state incentives.

⁹ Data derived from US Census Bureau. Median Household Income (in 2018 inflation-adjusted dollars). 2014-2018 American Community Survey 5-year estimates. Analysis derived data for Ontario, and separate analyses derived the same data for the cities of Boise and Portland for comparison purposes.

¹⁰ "High Poverty Hotspots – Malheur County" *Oregon.gov*. Oregon Department of Human Services Office of Forecasting, Research, & Analysis. Hotspot: The US Census Bureau's definition of a poverty area is a tract with a poverty rate of 20 percent or more. The Oregon Department of Human Services defines a high poverty hotspot as a census tract or contiguous group of tracts with poverty rates of 20 percent or more for two consecutive measurements. Poverty rates were measured in the Census Bureau's 2011-2015 and 2010-2014 American Community Surveys.

report states that Malheur County has three high poverty locations: Ontario, Nyssa and Vale, the three largest towns in Idaho Power's Oregon service area. The report states that 91 percent of Malheur County's poor and 90 percent of the county's Supplemental Nutrition Assistance Program (SNAP) clients live in these three towns.

Due to the educational nature of the Company's Program, it is difficult to measure direct impact the Program has had on driving range, public charging, dealership availability and price barriers. The Company is monitoring technological progress, dealership availability and available incentives so that it can market this information to customers and help address these barriers. Although Idaho Power doesn't have current plans to invest in charging infrastructure due to the costs it could impose on its customers, the Company will also continue to assess how it can leverage partnerships to promote and market public charging in its Oregon service area, similar to its work with Electrify America and the Huntington, Oregon public charging station, which is discussed in detail in Idaho Power's 2018 EV Program Evaluation Report .

Current risk that investment will result in stranded costs (OAR 860-087-0040(1)(e))

Not applicable.

Whether any program modifications are recommended to help meet expected outcomes (OAR 860-087-0040(1)(f))

Idaho Power did not make any modifications to the Program structure for 2020. However, the Company did reevaluate options for training events and public events in an effort to reach new audiences, maximize customer interactions and use Program funds most efficiently. One of the events identified by Idaho Power as having the potential to reach a new audience and dispel misconceptions about EVs was the Ontario Classic Car Show. The event was held in January 2020 at the Four Rivers Cultural Center in Ontario, Oregon. During the 2-day event, Idaho Power showcased one of its EVs and provided information and resources on the benefits of EVs, charging, and incentives.

Following the January 2020 event, the Company transitioned to virtual events due to the global coronavirus pandemic. Idaho Power explored various types of EV-related webinars with a focus on maximizing customer participation. Currently, Idaho Power has plans to sponsor a webinar on electrifying city fleets in the fall of 2020. Idaho Power partnered with Forth for the webinar, and both parties are actively marketing the event.

Idaho Power is exploring two other webinars for the fall and winter of 2020, including electrifying commercial fleets and EV education for car dealerships.

Updated market data, including a description of changes in the condition of the transportation electrification market within the electric company's service territory (OAR 860-087-0040(1)(g))

In Idaho Power's initial Program application, the Company explained that TE was essentially nonexistent in the region of eastern Oregon. While the Company believes that progress is being made in terms of awareness and education, it will be years before the TE market experiences significant change. Idaho Power includes a discussion below on updated market metrics as well as survey statistics.

As mentioned previously, Oregon DEQ reported there were 29 EVs registered in Idaho Power's service area as of December 2019. In comparison, 22 EVs were registered in Idaho Power's service area in December 2018, representing a 32 percent increase. As explained in Idaho Power's 2019 TE Plan, filed in Docket UM 2035, the Company is projecting that 37 EVs will be registered in its Oregon service area by December 2020 and approximately 130 EVs by December 2025.

As noted previously, Plugshare.com currently reports that there are five charging locations within the Company's Oregon service territory, consisting of 21 charging ports total. Compared to last year, this represents a 62 percent increase in the number of charging ports, which is attributable to the Tesla Supercharger station in Ontario, Oregon.

Two of the car dealerships located in the Company's Oregon service area now carry EVs. As of last year, none of the dealerships carried EVs or had plans to carry EVs. As mentioned previously, the number and variety of EVs available in Idaho Power's Oregon service area is minimal, but the introduction of EVs to these dealerships signifies progress in the market. Anecdotally, the dealership salesman that Idaho Power spoke with noted that he "should read up on the Chevy Bolt because he doesn't know anything about EVs." Idaho Power made note of this comment and is exploring an EV educational webinar for car dealerships in 2020.

A December 2018 survey of Idaho Power's Empowered Community revealed that 45 percent of the Oregon respondents were "not very familiar" or "not familiar at all" with EVs. The Company posed this survey question again to its Oregon members of the Empowered Community in December 2019 to gauge changes in the level of EV awareness. The December 2019 survey results showed that 50 percent of respondents were "not very familiar" or "not familiar at all" with EVs. However, in the December 2019 survey, when asked if they had ever been in an EV or seen an EV, 25 percent of respondents said no or were unsure, as compared to 55 percent in the December 2018 survey, representing an improvement in the visibility of EVs. Of the 50 percent of participants that said they were "very familiar" or "somewhat familiar" with EVs, 67 percent said they "have become more informed about EVs in the last two years". Finally, 8 percent of participants said they "love EVs and wished they owned one", compared to zero participants in the prior survey, and 58 percent said they "like EVs but have questions or concerns." Idaho Power is encouraged by the percentage

of respondents whose EV knowledge has increased in the last two years, as well as, the percentage of respondents who like EVs and would likely be open to further education and potential adoption. The December 2019 Empowered Community EV survey and response statistics are provided in Attachment 5.

Evaluation of whether and how the program has accelerated transportation electrification (OAR 860-087-0040(1)(h)(A))

As the Program emphasizes awareness and education, it is difficult to determine and measure how the Program has accelerated TE. Idaho Power continues to believe that market barriers to adoption for its eastern Oregon customers are significant and it will take years for market transformation to occur in this remote, rural area. Nonetheless, Idaho Power is committed to increasing awareness of the benefits of EVs and ensuring that its customers have access to the latest information.

Idaho Power believes that education and awareness is the first step in accelerating TE. The consumer purchase cycle begins with awareness of the technology, followed by consideration to determine if that vehicle will meet the consumer's needs. Once a customer has determined that the technology could work, they begin to evaluate the different options and eventually may purchase a vehicle. The Company's TE Program is a prudent first step towards accelerating TE and achieving the objectives established by the Legislative Assembly in SB 1547.

Evaluation of whether and how the program has stimulated innovation, competition and customer choice (OAR 860-087-0040(1)(h)(B))

As the Program emphasizes awareness and education of EVs, it is difficult to gauge the impact on innovation, competition, and customer choice. However, as discussed above, the availability of EVs at dealerships in the Company's Oregon service area has increased since the inception of the Program. Additionally, in the long-term the Program may have an indirect impact on these elements through increased consumer demand for EVs and charging equipment. Idaho Power will be attentive to these components in the future if/when the TE market in its Oregon service area has expanded and warrants more infrastructure.

Evaluation of whether and how the program has supported system efficiency and operational flexibility, including the ability to integrate variable resources (OAR 860-087-0040(1)(h)(C))

As the Program emphasizes awareness and education, and given the level of EV adoption in eastern Oregon, there has not been an impact on the Company's electrical system efficiencies and operational flexibility, including the ability to integrate variable generating resources.

V. **CONCLUSION & REQUEST FOR ACKNOWLEDGEMENT**

Idaho Power's Program intends to improve visibility and awareness of EVs in its Oregon service area through targeted education, including showcasing EVs at local events, providing resources to customers interested in learning more about EVs and offering EV training to trade allies. The Program is an essential first step to gaining customer understanding of the benefits of EVs, which will eventually lead to increased adoption and acceleration of TE. Idaho Power achieved its Program objectives for 2019 and looks forward to Program successes in 2020.

Want to learn more?

Visit idahopower.com/EV to:

- / Calculate savings
- / Compare cars
- / Learn about tax credits and incentives
- / Find charging stations
- / Learn about providing charging stations at your business



Chevy Bolt

Electric Vehicles



IDAHO POWERED™

With prices among the lowest in that nation, record reliable service and clean energy sources, Idaho Power proudly supports customer use of EVs. The company even has its own fleet of cost-effective, environmentally friendly EVs. These include passenger cars, pickup trucks, forklifts, bucket trucks and utility vehicles.

Idaho Power will continue to monitor EV technology and work with customers to add new charging stations so EVs can be enjoyed by all.

Thinking about adding an
EV TO YOUR FLEET?

Come see ours in **ACTION**

Email us at ev@idahopower.com.



Nissan Leaf

Chevy Volt



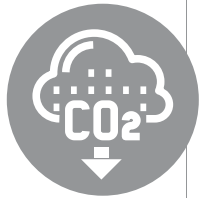
P.O. Box 70
1221 W. Idaho St.
Boise, ID 83702
idahopower.com

What are the benefits of electric vehicles (EV)?



Fuel savings

Mile for mile, it costs less than half to fuel an EV compared to a gas-powered vehicle. And with electricity prices among the lowest in the nation, Idaho Power makes charging EVs affordable.



Better air quality

With low or no tailpipe emissions, EVs reduce air pollution.



Less maintenance

All-electric vehicles have fewer moving parts and fewer fluids, resulting in lower maintenance costs. Also, most EVs come with a manufacturer warranty of up to 10 years or 100,000 miles.

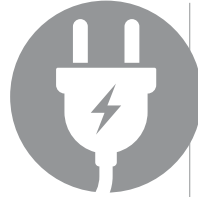


Performance

With instant acceleration, EVs are fun, quiet and easy to drive.

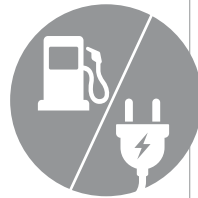


What are the types of EVs?



All-electric

All-electric vehicles have a battery and an electric motor instead of a gas tank and an internal combustion engine. They run entirely on electricity and do not produce exhaust from the burning of fossil fuels. They are “fueled” by plugging into an outlet.



Plug-in Hybrid

Hybrid EVs have a battery and an electric motor, as well as a gas-powered internal combustion engine. These EVs can run off the battery, then switch to gas power when the battery is depleted. Like all-electric EVs, hybrid EVs are plugged in to charge the battery.

How are EVs charged?

EVs can be fueled by simply plugging them into an outlet connected to the power grid. There are different types, or levels, of outlets that charge at different speeds. The time it takes to charge will depend on the size of the battery, how full it is and the type of charger. Since most people drive less than 30 miles a day, it may only take a short time to top off the battery each night.

A standard household 120-volt outlet (called a **Level 1 charger**) may be used but takes longer to charge — 9 to 24 hours for full charge.

A faster charging outlet (called a **Level 2 charger**) fully charges in 4 to 6 hours and can be installed in homes but require additional equipment.* More efficient chargers are labeled ENERGY STAR®.

Fast-charging stations (called **DC fast chargers**) are available along interstate corridors for long-distance travelers. In the time it takes to take a break or stop for lunch (25 to 40 minutes), EVs can fully recharge at these stations.



How far can EVs travel?

Different EVs can travel different distances before needing to be charged (called range), but most EVs can travel well over 100 miles per charge. Some EVs can even travel over 300 miles per charge! This range gets most drivers easily through their typical commute for several days.

TIP: Use the timer on your car or charger to manage when you charge. Charging after 9 p.m. helps keep prices lower for everyone.

Where can I charge my EV?

Outside of the home, EV charging stations are available to use throughout the country. You can find these stations by visiting idahopower.com/EV or plugshare.com.

*Idaho Power recommends talking to an electrician to see if electric-service changes are needed for any electrical work.

Compare EV options and federal tax credits at idahopower.com/ev

Fluctuating gas prices, advancements in battery technology, environmental concerns and federal incentives have all led to an increased interest in electric vehicles (EVs). As your electricity provider, Idaho Power is preparing for accelerated consumer adoption of EVs and wants to help our customers better understand the technology.

How much energy does it take to charge an EV?

It takes about 0.3 kilowatt hours (kWh) to go one mile in an EV. So for example, a 10-mile commute to work would require 3 kWh of electricity.

DOE's eGallon calculator provides up-to-date gasoline vs. electricity prices at: www.energy.gov/maps/egallon.



IDAHO POWERED™



What about Idaho Power's Time of Day plan?

We're encouraging EV owners to consider our Time of Day pricing plan instead of the Standard plan. The Time of Day plan has lower prices weekdays after 9 pm and all day on weekends and holidays. This option could save you money and, by charging during off hours, you'll help even out demand on the power grid. For more information, visit idahopower.com/TOD.

The first step to determining which plan is right for you is to register to use myAccount. Signing up is easy and you'll get access to detailed information about your account and energy use. To enroll, go to idahopower.com/register.

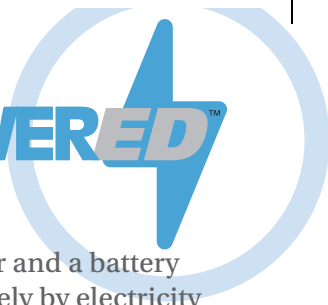
Electric Vehicle HOME CHARGING



Learn more at idahopower.com/ev



P.O. Box 70
1221 W. Idaho St.
Boise, ID 83702
www.idahopower.com



What is an EV?

EVs run off an electric motor and a battery pack. They're powered entirely by electricity and have low to no emissions. Also referred to as Battery Electric Vehicles (BEVs) or Plug-in Electric Vehicles (PEVs), EVs are charged by plugging into a charging station.

Example: Nissan Leaf

Plug-In Hybrid Electric Vehicles (PHEVs) are hybrids with larger battery packs and an Internal Combustion Engine. PHEVs can be plugged into a charging station to recharge their battery pack(s) or run off gasoline.

Example: Chevy Volt

What are the benefits of owning an EV?

Fuel savings: Electricity as a fuel can be significantly cheaper than gasoline or diesel.

Better air quality: EVs are low to no emissions vehicles, which improves air quality.

Local fuel: More than half of Idaho Power's energy is generated in our service area, meaning your fuel dollars stay at home.

Less maintenance: EVs have far fewer moving parts to be maintained than traditional vehicles.

Performance: Unlike traditional engines, EVs are always "on," meaning instant acceleration.



Nissan Leaf

Chevy Volt

I'm interested – how do I charge it?

EVs are powered all or in part by electricity. The time it takes for a full charge depends on the type of vehicle, temperature, driving habits and the type of charging station, among other factors.

There are three options for charging:

Level 1 – 120V, dedicated 15-20A circuit.

Used both at home and work, Level 1 charging draws a lower electrical demand but takes longer to charge a car than the other options.

Level 2 – 240V, dedicated 30-40A circuit.

Typically found at businesses and public sites, these units are also available for home use. This type of unit will recharge an EV much faster than Level 1, allowing multiple users throughout the day. Home EV charging stations typically range from \$600 to \$800 plus installation. Installation costs vary and will be higher if wiring or electrical service upgrades are needed.

DC Fast Charging – 480V.

These units are typically found at public facilities. Note that not all EVs are equipped for fast charging.



Visit www.PlugShare.com to find public charging locations in your area.

Charging at Home

EVs all come with a Level 1, 120 Volt charging cord that can be plugged into a standard electric socket, providing a slow charge. While the Level 1 may work well for a plug-in electric hybrid, it may not be sufficient for an all electric vehicle, which can take overnight or longer to fully charge at 120 Volts.

For faster charging, you'll want a Level 2 charging station. Level 2 stations require a dedicated 208/240 Volt circuit, similar to wiring used for electric clothes dryers.

Placement

Consider where you'll park your EV. Make sure the cord is long enough to reach your parking spot. For stations installed outdoors, ensure the unit is rated for outdoor weather.

Compatibility

Make sure the station you choose is compatible with the make, model and year of vehicle and your electrical service. The speed a car can charge is measured in kilowatts (kW) or Amps and can vary depending on the car. The more kilowatts or amps, the faster the charge. If your electrical service panel can handle it, you'll likely want a charging station that can charge as fast as your car can accommodate.

Where to buy a charging station

Charging stations can be purchased online through a variety of retailers. Your vehicle manufacturer may offer recommendations or discounts on specific products.

Idaho Power recommends using a licensed electrician for any home or workplace electrical work.

Fluctuating gas prices, advancements in battery technology, environmental concerns and federal incentives have all led to an increased interest in electric vehicles (EVs). As your electricity provider, Idaho Power is preparing for accelerated consumer adoption of EVs and wants to help our customers better understand the technology.

What is an EV?

EVs run off an electric motor and a battery pack. They're powered entirely by electricity and have zero tailpipe emissions. Also referred to as Battery Electric Vehicles (BEVs) or Plug-in Electric Vehicles (PEVs), EVs are charged by plugging into a charging station. **Example: Nissan Leaf.**

Plug-In Hybrid Electric Vehicles (PHEVs) are hybrids with larger battery packs and an Internal Combustion Engine. PHEVs can be plugged into a charging station to recharge their battery pack(s) or run off gasoline. **Example: Chevy Volt.**



Nissan Leaf

Chevy Volt

IDAHO POWERED™

Idaho Power's leading the way:

To get familiar with the technology, Idaho Power has added several passenger EVs to our fleet, as well as hybrid-electric bucket trucks, electric utility vehicles and battery-assisted trucks. We also installed five charging stations of varying make and model at our Downtown Boise office, specifically for employee workplace charging. We will continue to monitor advancements in EV and charging station technology to make sure our customers have the information they need.

Email ev@idahopower.com for information.

Want to see
CHARGING STATIONS?
in **ACTION?**
Schedule a visit.



Learn more at
idahopower.com/ev



P.O. Box 70
1221 W. Idaho St.
Boise, ID 83702
www.idahopower.com

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EV WORKPLACE Charging





Charging an EV

EVs are powered all or in part by electricity. The time it takes for a full charge depends on the type of vehicle, temperature, driving habits and the type of charging station, among other factors.

There are three options for charging:

Level 1 – 120V, dedicated 15-20A circuit.

Used both at home and work, Level 1 charging draws a lower electrical demand but takes longer to charge a car than the other options.

Level 2 – 240V, dedicated 30-40A circuit.

Typically found at businesses and public sites, these units are also available for home use. This type of unit will recharge an EV much faster than Level 1, allowing multiple users throughout the day.

DC Fast Charging – 480V.

These units are typically found at public facilities. Note that not all EVs are equipped for fast charging.



Compare EV options and Federal Tax Credits at www.fueleconomy.gov

Workplace Charging

Installing workplace charging stations for employee, customer and fleet vehicles offers a low-cost benefit that will expand your business' transportation and parking options. Charging at work or in public places can help EV drivers double their all-electric daily commuting range and provides a charging location for employees and customers without access to home charging. Level 1 and 2 charging stations cost anywhere from \$1,000 to over \$7,500, depending on the number of ports and functionality. Installation costs are additional.

For employees: Most employees spend 40 hours a week or more at work, and studies show that next to home, work is the preferred place to charge.

For your fleet: Adding EVs to your company fleet demonstrates your company's commitment to sustainability. EVs are fun to drive, easy to maintain, and may even reduce your business' transportation-related operating costs.

For your customers: Installing charging stations for customers with EVs provides a convenient way to recharge while they visit your business, and may encourage them to stay longer or visit more frequently.



How much energy does it take to charge an EV?

It takes about 0.3 kilowatt hours (kWh) to go one mile in an EV. So for example, a 10-mile commute to work would require 3 kWh of electricity.

DOE's eGallon calculator provides up-to-date gasoline vs. electricity prices at: www.energy.gov/maps/egallon.

I'm Ready to Buy – What's Next?

- ⚡ Choose the EV charging station that best suits your needs.
- ⚡ Consult with the product manufacturer on any special installation requirements.
- ⚡ Get bids from contractors and electricians before proceeding.
- ⚡ Ensure all local, state, and federal codes are met.



Visit www.PlugShare.com to find public charging locations in your area.

Idaho Power recommends using a licensed electrician for any home or workplace electrical work.

Environmental Leadership: Daly Creek Work Offers a Look at Idaho Power's Commitment



Standing on the bank of Daly Creek, looking upstream to where the creek disappears beneath sun-dappled willows, it's hard to imagine the scene was dominated by heavy equipment, silt fences, and a flurry of human activity only months earlier.

This creek south of Richland, Oregon, is one example of Idaho Power's ongoing efforts to improve habitat on the 11,400 acres of the Daly Creek Habitat Management Area. The company bought this property in 2005 to compensate for impacts to wildlife habitat from the Hells Canyon Hydroelectric Project.

Today, this stretch of Daly Creek flows more like it did when the first European settlers homesteaded the area, drawn by the cool waters that irrigated crops and livestock in an otherwise dry and unforgiving landscape.

Back then, it was common for these hardscrabble settlers to use all the water in Daly Creek. The creek was reduced to little more than an irrigation ditch in some sections. In others, it became a watering hole for cattle. Overgrazing along the streambank when the heat of summer had parched the upland grasses occurred year after year, removing woody vegetation. These changes to the ecosystem and agricultural pressure all but eliminated beavers from the area. This ensured their dams and ponds did

not block irrigation diversions or flood agricultural land.

Over a century later, resource management has evolved. We now understand confining a creek to a narrow channel, removing trees and shrubs from the streambank, and diverting water until a creek runs dry harms fish and other water-dependent creatures such as frogs and beavers. Overgrazing cattle can damage native plants in the summer. When beavers are removed, creeks cut deep, unstable banks that don't support plants, allowing sediment to fall into the creek. The combined effect can raise water temperatures to a point where native species cannot survive.

Idaho Power's management at Daly Creek focuses on passive restoration: avoiding activities that cause damage and allowing natural systems to flourish. In 2007, Idaho Power began limiting cattle grazing to late winter through early spring. This has allowed native plants to recolonize the creek banks. Beavers have returned, and these furry engineers continue to expand their dams. In some areas, Daly Creek restoration has accelerated with the establishment of beaver ponds, likely benefitting both aquatic and terrestrial wildlife, such as native redband trout and waterfowl.

Our habitat managers are also exploring strategies to re-establish upland habitat

by combatting noxious weeds and planting vegetation that benefits wildlife and insects. Idaho Power has removed miles of internal fencing to allow wildlife to move more freely within the management area, while upgrading external fences to reduce trespassing by cattle. Water conservation measures include taking lands out of agricultural production, switching from flood irrigation to sprinklers, and replacing open ditch irrigation with a pressurized system. These steps have decreased water diversions from Daly Creek by an estimated 50 percent.

In 2016, Idaho Power removed the first of three old diversions on the creek, replacing it with a new modern diversion and screen that keeps fish from being carried into irrigation channels and prevents the creek from drying out. Last fall, the company removed the two remaining diversions, restoring the creek channel to a more natural condition and giving fish access to the full length of the creek.

Daly Creek may not be exactly as the settlers found it, but Idaho Power continues to restore this waterway and the land around it. Learn more at idahopower.com/habitat.

Tracking Sturgeon Success in the Snake River

Even creatures with a history dating back more than 100 million years can use a helping hand. White sturgeon in the Snake River get plenty of help from Idaho Power biologists, who track their numbers, add to their population and move adults into good spawning areas.

In Idaho, the two largest reproducing populations of white sturgeon are below Bliss and Hells Canyon dams. Sturgeon in these areas can live to be 100 years old, grow up to 10 feet long and weigh more than 300 pounds.

Idaho Power biologists collaborate with state and tribal fisheries managers to study, protect and enhance Snake River sturgeon populations. This includes population surveys. Biologists weigh and measure the fish, take tissue samples for genetic identification, and implant tiny electronic tags that researchers use to identify fish that have been previously captured. This enables biologists to track abundance, growth and survival rates, and other information.

The company also nets (and releases) tiny sturgeon during their first or second year of life to determine how much natural reproduction is taking place in key areas. The last two years, with ample snowpack and high river flows, have been good for sturgeon spawning according to Ken Lepla, Idaho Power's lead sturgeon biologist.



In areas of the Snake River where sturgeon populations are not self-supporting, Idaho Power works with Idaho Department of Fish and Game and the College of Southern Idaho (CSI) to raise sturgeon from naturally produced eggs and larvae. Collecting eggs and larvae directly from the river provides stockable offspring that are more genetically diverse and more similar to the wild population.

Egg mats are one tool used to collect eggs for the conservation program. Picture a 2-foot-square metal frame with a furnace filter in the middle. These mats are placed downstream of known spawning areas where they collect fertilized eggs. Biologists take the eggs to the CSI sturgeon hatchery in Twin Falls. The fish stay there for about a year until they are about a foot long and can be released back into the river. From there, Idaho Power biologists follow their progress in the wild to ensure fish are doing well.

Another important tactic is moving reproductive adult fish from below C.J. Strike Dam upstream to more favorable spawning habitat in the Bliss reach of the Snake River. Learn more at idahopower.com/fish.

Our Fleet is Going Electric – and You Can, Too

Imagine cutting your driving costs by half or more. You could save hundreds of dollars every year. It's possible when you switch to electric vehicles (EVs).

"You'll pay about 95 cents for enough electricity to drive as far as a gallon of gas will take you," said John Bernardo, Idaho Power's Sustainability Program Manager.

Those savings are one reason Idaho Power is replacing fuel-burning cars, trucks and forklifts with vehicles powered by electricity.

In 2018, Idaho Power added eight plug-in hybrid electric pickups and three electric passenger cars. We bought six electric forklifts in the past three years, and we plan to add four more in 2019. In the years to come, we'll continue our transition toward an electric fleet.

Besides saving money on fuel, we're seeing lower costs for maintenance, Bernardo said, because EVs have fewer than half as many mechanical parts as fuel-powered vehicles. And they don't need as many fluids, like engine oil or transmission fluid.

Idaho Power customers will benefit from these savings with lower electricity rates.

"We also are doing it to show our customers these things work; they're reliable, and it's a good idea to switch over," Bernardo said.

Another important benefit of EVs is that they don't produce tailpipe emissions, Idaho Power is sensitive to the impact its operations have on the environment, so reducing emissions, including carbon emissions, is important to us.

And because about half of Idaho Power's electricity comes from clean hydroelectric power, charging an electric vehicle is cleaner than driving a gas-powered car or truck. Learn more at idahopower.com/EV.



From The Electric Kitchen

February 2019

Mixed-up Cuban Beans and Rice

Dinner

3 Tbsp olive oil	2 cans low-sodium black beans
½ medium red onion, chopped	1 cup mango, cubed
1 large bell pepper, chopped	½ cup pineapple, chopped
1 tsp cumin	1 cup frozen, shelled edamame
¼ tsp oregano	1 cup brown, long-grain rice
2 cloves garlic, minced	Salt and pepper to taste
1 can fire-roasted diced tomatoes	Fresh cilantro, chopped

Dietary information:

Calories: **250**
Fat: **6.6g**
Carbohydrate: **36g**
Protein: **12.2g**
Sodium: **61mg**
Fiber: **10.4g**
Potassium: **558mg**

Cook rice according to package directions. In a large skillet, heat oil over medium. Add onion and bell pepper, sautéing until softened, approx. 7 minutes. Add cumin and garlic, cook and stir until very fragrant, approx. 5 min. Add tomatoes, beans, fruit and edamame. Bring to a simmer, cover and cook for 15 minutes, stirring occasionally. Season with salt, pepper and oregano. Serve ½ cup of rice with ¾ cup bean mixture. Top with cilantro. Makes approx. 8 servings.

Recipes are selected for nutritional value and low energy use in preparation. They are approved by Registered Dietitian Erin Green from the Central District Health Department in Boise.



Empowered Community

2019 Oregon Member EV Survey Compared to 2018 Oregon Member EV Survey

2019 Oregon Electric Vehicle Survey vs. 2018 Oregon Electric Vehicle Survey Summary of Results

- 2019 survey sent to 62 members of empowered community who have an Oregon zip code.
- 24 of the 62 responded for a 39% response rate.
- Very small sample to evaluate.
- The majority of the respondents in the 2019 study were between the ages of 55 and 74.
- None of the respondents in either the 2019 or 2018 study currently own an EV.
- Respondents who are between the ages of 45 and 74 were the most familiar with EV.
- More women responded to both the 2019 and 2018 studies than men but in both years the men were more familiar with EVs than women.
- The respondents in both 2019 and 2018 that indicated they were most familiar with EVs were those with a college degree.
- More respondents in the 2019 study indicated they had seen or been in an EV than respondents in the 2018 study.
- Like in the 2018 study, of those in the 2019 study who indicated they had seen or been in an EV before, only two said they had actually driven one.
- Of those respondents in the 2019 study who said they are familiar with EVs, most said their knowledge of EV's had increased in the last two years and their primary sources for information included: the internet, family or friends, personal research, printed material or podcasts.
- The majority of respondents in both the 2018 and 2019 studies said they like EVs but they have some question or concerns. Only one respondent said they didn't like EVs.
- In the 2019 study, more respondents indicated that the attributes they liked most about EVs included "overall cheaper to operate" and "low maintenance". In the 2018 study none of the respondents indicated that what they liked about EVs included "overall cheaper to operate" and only one respondent in 2018 included "low maintenance" as one of the attributes they like about EVs.
- Like in the 2018 study, the attributes most disliked about EV's in the 2019 study were "not good for long trips," "purchase price," and "not very many public EV charging stations." However, in the 2019 study more respondents indicated they also didn't like the fact that EVs tend to be "too small for what they need to do" and that EVs "require special equipment for roadside assistance and emergencies". Several respondents commented that they frequently pull trailers or recreational vehicles and do not feel an EV could handle that kind of load.
- When asked how likely they would be to purchase an EV if the purchase price of the EV was the same as a gas or diesel fueled vehicle, almost half said "somewhat" or "very" likely in the 2019 study.
- As in the 2018 study, when asked in the 2019 study how likely they would be to purchase an EV if the distance you could drive on a battery charge of an EV was the same as the distance you could drive on a tank of gas diesel fuel, two-thirds of respondents said "somewhat" or "very" likely.
- The majority of respondents in both the 2018 and 2019 studies said they typically drive more than 50 miles at least monthly with thirteen percent of the respondents in the 2019 study saying they drive more than 50 miles on a daily basis compared to fifteen percent in 2018.

2019 compared to 2018 OR EV survey results
Summary Results

2019 Oregon Electric Vehicle Survey Compared to 2018 Survey

Do you already own an Electric Vehicle (EV)?		2018	2019
Total		20	24
1 Yes		0%	0%
2 No		100%	100%

How familiar are you with EVs? (again by EVs we are referring specifically to Plug-in Electric Vehicles or Plug-in Hybrid Electric Vehicles)		2018	2019
Total		20	24
1 Very familiar		5%	13%
2 Somewhat familiar		50%	38%
3 Not very familiar		30%	33%
4 Not familiar at all		15%	17%

Have you ever been in an EV or seen an EV? (asked only of respondents who indicated they are very or somewhat familiar with EVs)		2018	2019
Total		11	12
1 Yes		45%	75%
2 No		36%	25%
3 Not sure		18%	0%

Have you ever driven an EV? (asked only of respondents who indicated they have been in or seen an EV)		2018	2019
Total		5	9
Yes		40%	22%
No		60%	78%

2019 Overall what was your impression of the EV you drove? (not asked in 2018)

Over priced to fix. Not to mention the long term cost to title and registration
The car was very quiet and powerful.

Would you say you have become more informed about EVs in the last 2 years or has your knowledge of EVs not changed in the last 2 years? (asked only of respondents who indicated they are very or somewhat familiar with EVs)		2018	2019
Total		11	12
More informed about EVs		64%	67%
Knowledge of EVs not changed		36%	33%

2019 compared to 2018 OR EV survey results
Summary Results

Through what channels have you gained more information about EVs in the last 2 years? *(asked only of respondents who indicated they have become more informed about EVs in the last two years)*

	2018	2019
Total	7	8
Family or friends	57%	50%
Personal research	29%	63%
Car dealership	14%	25%
Television	43%	0%
Radio	0%	0%
Podcast	0%	13%
Car show	0%	0%
EV informational booth	0%	0%
Internet	71%	50%
Social Media (Facebook, Twitter, Instagram, etc.)	14%	0%
Printed material (newspaper, magazines, etc.)	29%	38%
Other (please specify)	0%	0%

Overall, what is your opinion of EVs? *(asked only of respondents who indicated they are very or somewhat familiar with EVs)*

	2018	2019
Total	11	12
I love them and I wish I owned one	0%	8%
I like them but I have questions or concerns	55%	58%
I don't like them	9%	8%
I don't know enough about them to form an opinion	18%	0%
Other (Please specify)	18%	25%

2018 Other (Please specify) Responses

I know I would not buy one based upon my transportation requirements
too small of a car, wish they had bigger ones!

2019 Other (Please specify) Responses

They need to come way down in price not to mention be able to hold and entire family plus half a horse trailer. They are too expensive to keep up and repair not to mention registration.
concerned about batteries and safety
Not in the market for a new car at this time.

You mentioned that you have some questions or concerns about EVs, what are those questions or concerns? *(asked only of respondents who said they like EVs but have questions or concerns) (not asked in 2018)*

I just need to do more research
The overall range is too low for rural areas.
Primarily I wonder whether an EV would work in rural Western locations where distances are greater.
Battery life, cost of replacement battery, range of travel on a charge.
Distance, safety
battery safety storage capacity
long distance

2019 compared to 2018 OR EV survey results
Summary Results

Which of the following do you like best about EVs? (asked only of respondents who indicated they love EVs and wish they owned one or those who indicated they like EVs but have some questions or concerns)

	2018	2019
Total	6	8
No, or low, vehicle emissions	83%	50%
No, or little, fossil fuel required to power vehicle	67%	63%
Overall cheaper to operate	0%	50%
Little noise output	33%	50%
Low maintenance	17%	38%
Other (Please specify)	0%	0%
None of the above	17%	0%

Which, if any, of the following do you like least about EV's? (asked only of respondents who indicated they love EVs and wish they owned one or those who indicated they like EVs but have some questions or concerns)

	2018	2019
Total	6	8
Not good for long trips	83%	88%
Needs special equipment to charge at home	33%	25%
Not very many public EV charging stations	67%	50%
Special equipment is needed for roadside assistance or emergencies	50%	0%
Sometimes it's too small for what I need to do	50%	13%
Purchase price	67%	75%
Other (Please specify)	0%	0%
None of the above	0%	0%

Which, if any, of the following are reasons why you don't like EVs? (asked only of respondents who indicated they dislike EVs)

	2018	2019
Total	1	1
Not good for long trips	100%	100%
Needs special equipment to charge at home	100%	0%
Not very many public EV charging stations	100%	0%
Special equipment is needed for roadside assistance or emergencies	100%	100%
Sometimes it's too small for what I need to do	100%	100%
Purchase price	100%	100%
Other (Please specify)	100%	100%
None of the above	0%	0%

2018 Other (Please specify) Responses

State fees too high are not durable enough to be a family car or haul a trailer

2019 Other (Please specify) Responses

Depreciate in resale value very fast. Expected life shorter than financing term.

2019 compared to 2018 OR EV survey results
Summary Results

If available in your area and the purchase price of a new vehicle of your choice was the same for an EV and a traditional gas or diesel powered vehicle, how likely would you be to purchase the electric powered version of the vehicle?

	2018	2019
Total	20	24
Very likely	10%	17%
Somewhat likely	45%	29%
Not very likely	25%	25%
Not likely at all	20%	29%

If available in your area and the distance you could drive on a tank of gas or battery charge was the same for an EV and a traditional gas or diesel powered vehicle, how likely would you be to purchase the electric powered version of the vehicle of your choice?

	2018	2019
Total	20	24
Very likely	25%	25%
Somewhat likely	40%	42%
Not very likely	20%	8%
Not likely at all	15%	25%

Why would you not consider purchasing an EV? *(asked only of respondents who said they are "Not very likely" or "Not likely at all" to purchase an EV) (not asked in 2018)*

Too much if a rural area
Power outage potential
The lack of range, living in a rural community the lack of charging stations, the inability of electric vehicles to tow and haul large loads.
I tow trailers for boats, ATVs, firewood, backhoe, etc. I go to remote mountain and desert areas to recreate. I also carry a lot of gear but rarely more than one passenger but occasionally 3 to 6 passengers. I need 4x4 for recreation and winter roads. I prefer to drive older used vehicles as they are cheaper to own and maintain. I do a lot of my own repairs or have my men do them. Electric cars and especially trucks are totally impractical. Plus they are over priced requiring longer term loans and then their value drops faster as the expected life is short, batteries being the weak link in longevity. I also resent the way they are being shoved down our throats by government, industry, tree huggers, Obama et al and environmentalists like that dummy phony Greta and all who worship her.
I keep my vehicles for a long time. I'd be concerned about battery safety and replacement costs.
If its not 4 wheel drive it wouldnt be very useful to me.
I like gas powered engines.
They are very underpowered at this point. We are usually pulling a trailer.

Overall, considering all driving you do, how often would you say you drive more than 50 miles in a day?

	2018	2019
Total	20	24
Daily	15%	13%
Weekly	20%	21%
Monthly	40%	38%
A few times per year	25%	25%
Never	0%	4%

2019 compared to 2018 OR EV survey results
2019 XTAB1

asked only of respondents who said they are very or somewhat familiar with Eves and who said they have been in or seen and EV

		Total	AGE_ROLLUP							Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
Have you ever driven an EV?	Base		9	0	0	1	1	3	4	0	4	5	0	1	3	0	3	0	2
			--	0%	0%	11%	11%	33%	44%	0%	44%	56%	0%	11%	33%	0%	33%	0%	22%
	Yes	COUNT	2	0	0	1	0	0	1	0	1	1	0	0	1	0	1	0	0
		COL %	22.2 %	0 %	0 %	100 %	0 %	0 %	25 %	0 %	25 %	20 %	0 %	0 %	33.3 %	0 %	33.3 %	0 %	0 %
	No	COUNT	7	0	0	0	1	3	3	0	3	4	0	1	2	0	2	0	2
		COL %	77.8 %	0 %	0 %	0 %	100 %	100 %	75 %	0 %	75 %	80 %	0 %	100 %	66.7 %	0 %	66.7 %	0 %	100 %

2019 compared to 2018 OR EV survey results
2019 XTAB1

asked only of respondents who said they are very or somewhat familiar with Eves and who said they have been in or seen and EV

		Total	AGE_ROLLUP							Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
Have you become more informed about EVs in the last 2 years or has your knowledge of EVs not changed in the last 2 years?	Base	12	0	0	1	1	4	6	0	7	5	0	1	4	0	5	0	2	
		--	0%	0%	8%	8%	33%	50%	0%	58%	42%	0%	8%	33%	0%	42%	0%	17%	
	More informed about EVs	COUNT	8	0	0	0	0	4	4	0	5	3	0	1	4	0	2	0	1
		COL %	66.7 %	0%	0%	0%	0%	100%	66.7%	0%	71.4%	60%	0%	100%	100%	0%	40%	0%	50%
	Knowledge of EVs not changed	COUNT	4	0	0	1	1	0	2	0	2	2	0	0	0	0	3	0	1
		COL %	33.3 %	0%	0%	100%	100%	0%	33.3%	0%	28.6%	40%	0%	0%	0%	0%	60%	0%	50%

2019 compared to 2018 OR EV survey results
2019 XTAB1

asked only of respondents who said they are very or somewhat familiar with EVs

		Total	AGE_ROLLUP							Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
Overall, what is your opinion of EVs?	Base		12	0	0	1	1	4	6	0	7	5	0	1	4	0	5	0	2
			--	0%	0%	8%	8%	33%	50%	0%	58%	42%	0%	8%	33%	0%	42%	0%	17%
	I love them and I wish I owned one	COUNT	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0
		COL %	8.3 %	0 %	0 %	0 %	0 %	25 %	0 %	0 %	14.3 %	0 %	0 %	0 %	25 %	0 %	0 %	0 %	0 %
	I like them but I have questions or concerns	COUNT	7	0	0	0	1	3	3	0	4	3	0	1	3	0	1	0	2
		COL %	58.3 %	0 %	0 %	0 %	100 %	75 %	50 %	0 %	57.1 %	60 %	0 %	100 %	75 %	0 %	20 %	0 %	100 %
	I don't like them	COUNT	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0
		COL %	8.3 %	0 %	0 %	0 %	0 %	0 %	16.7 %	0 %	14.3 %	0 %	0 %	0 %	0 %	0 %	20 %	0 %	0 %
	I don't know enough about them to form an opinion	COUNT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		COL %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
	Other (Please specify)	COUNT	3	0	0	1	0	0	2	0	1	2	0	0	0	0	3	0	0
		COL %	25 %	0 %	0 %	100 %	0 %	0 %	33.3 %	0 %	14.3 %	40 %	0 %	0 %	0 %	0 %	60 %	0 %	0 %

2019 compared to 2018 OR EV survey results
2019 XTAB1

		Total	AGE_ROLLUP							Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
If available and purchase price of a new vehicle of your choice was the same for an EV and a traditional gas or diesel powered vehicle, how likely would you be to purchase an EV?	Base	24	0	2	2	2	10	8	0	9	15	0	2	10	1	7	1	3	
		--	0%	8%	8%	8%	42%	33%	0%	38%	63%	0%	8%	42%	4%	29%	4%	13%	
	Very likely	COUNT	4	0	0	0	1	2	1	0	2	2	0	1	1	1	0	0	1
		COL %	16.7 %	0 %	0 %	0 %	50 %	20 %	12.5 %	0 %	22.2 %	13.3 %	0 %	50 %	10 %	100 %	0 %	0 %	33.3 %
	Somewhat likely	COUNT	7	0	1	0	0	4	2	0	2	5	0	0	4	0	2	0	1
		COL %	29.2 %	0 %	50 %	0 %	0 %	40 %	25 %	0 %	22.2 %	33.3 %	0 %	0 %	40 %	0 %	28.6 %	0 %	33.3 %
	Not very likely	COUNT	6	0	1	1	0	1	3	0	3	3	0	1	2	0	2	1	0
		COL %	25 %	0 %	50 %	50 %	0 %	10 %	37.5 %	0 %	33.3 %	20 %	0 %	50 %	20 %	0 %	28.6 %	100 %	0 %
	Not likely at all	COUNT	7	0	0	1	1	3	2	0	2	5	0	0	3	0	3	0	1
		COL %	29.2 %	0 %	0 %	50 %	50 %	30 %	25 %	0 %	22.2 %	33.3 %	0 %	0 %	30 %	0 %	42.9 %	0 %	33.3 %

2019 compared to 2018 OR EV survey results
2019 XTAB1

		Total	AGE_ROLLUP							Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
If available and distance on a tank of gas or battery charge was the same for an EV and a traditional gas or diesel powered vehicle, how likely would you be to purchase an EV?	Base		24	0	2	2	2	10	8	0	9	15	0	2	10	1	7	1	3
		--	0%	8%	8%	8%	42%	33%	0%	38%	63%	0%	8%	42%	4%	29%	4%	13%	
	Very likely	COUNT	6	0	0	0	1	3	2	0	3	3	0	1	3	1	0	0	1
		COL %	25 %	0%	0%	0%	50%	30%	25%	0%	33.3%	20%	0%	50%	30%	100%	0%	0%	33.3%
	Somewhat likely	COUNT	10	0	1	1	0	5	3	0	3	7	0	1	3	0	3	1	2
		COL %	41.7 %	0%	50%	50%	0%	50%	37.5%	0%	33.3%	46.7%	0%	50%	30%	0%	42.9%	100%	66.7%
	Not very likely	COUNT	2	0	1	0	0	0	1	0	1	1	0	0	1	0	1	0	0
		COL %	8.3 %	0%	50%	0%	0%	0%	12.5%	0%	11.1%	6.7%	0%	0%	10%	0%	14.3%	0%	0%
	Not likely at all	COUNT	6	0	0	1	1	2	2	0	2	4	0	0	3	0	3	0	0
		COL %	25 %	0%	0%	50%	50%	20%	25%	0%	22.2%	26.7%	0%	0%	30%	0%	42.9%	0%	0%

2019 compared to 2018 OR EV survey results
2019 XTAB1

		Total	AGE_ROLLUP							Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
Considering all driving you do, how often would you say you drive more than 50 miles in a day?	Base	24	0	2	2	2	10	8	0	9	15	0	2	10	1	7	1	3	
		--	0%	8%	8%	8%	42%	33%	0%	38%	63%	0%	8%	42%	4%	29%	4%	13%	
	Daily	COUNT	3	0	0	1	1	1	0	0	2	1	0	0	2	0	0	0	1
		COL %	12.5 %	0 %	0 %	50 %	50 %	10 %	0 %	0 %	22.2 %	6.7 %	0 %	0 %	20 %	0 %	0 %	0 %	33.3 %
	Weekly	COUNT	5	0	1	1	1	0	2	0	1	4	0	0	2	0	3	0	0
		COL %	20.8 %	0 %	50 %	50 %	50 %	0 %	25 %	0 %	11.1 %	26.7 %	0 %	0 %	20 %	0 %	42.9 %	0 %	0 %
	Monthly	COUNT	9	0	0	0	0	6	3	0	5	4	0	1	2	1	3	0	2
		COL %	37.5 %	0 %	0 %	0 %	0 %	60 %	37.5 %	0 %	55.6 %	26.7 %	0 %	50 %	20 %	100 %	42.9 %	0 %	66.7 %
	A few times per year	COUNT	6	0	1	0	0	2	3	0	1	5	0	1	3	0	1	1	0
		COL %	25 %	0 %	50 %	0 %	0 %	20 %	37.5 %	0 %	11.1 %	33.3 %	0 %	50 %	30 %	0 %	14.3 %	100 %	0 %
	Never	COUNT	1	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0
		COL %	4.2 %	0 %	0 %	0 %	0 %	10 %	0 %	0 %	0 %	6.7 %	0 %	0 %	10 %	0 %	0 %	0 %	0 %

2019 compared to 2018 OR EV survey results
2019 XTAB2

		Total	Q4_LENGTH_OF_SERVICE												
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent	
How familiar are you with EVs?	Base		24	7	9	8	0	15	5	0	4	0	0	21	1
			--	29%	38%	33%	0%	63%	21%	0%	17%	0%	0%	88%	4%
	Very familiar	COUNT	3	1	0	2	0	2	0	0	1	0	0	3	0
		COL %	12.5 %	14.3 %	0 %	25 %	0 %	13.3 %	0 %	0 %	25 %	0 %	0 %	14.3 %	0 %
	Somewhat familiar	COUNT	9	1	5	3	0	5	3	0	1	0	0	9	0
		COL %	37.5 %	14.3 %	55.6 %	37.5 %	0 %	33.3 %	60 %	0 %	25 %	0 %	0 %	42.9 %	0 %
	Not very familiar	COUNT	8	3	4	1	0	4	2	0	2	0	0	6	0
		COL %	33.3 %	42.9 %	44.4 %	12.5 %	0 %	26.7 %	40 %	0 %	50 %	0 %	0 %	28.6 %	0 %
Not familiar at all	COUNT	4	2	0	2	0	4	0	0	0	0	0	3	1	
	COL %	16.7 %	28.6 %	0 %	25 %	0 %	26.7 %	0 %	0 %	0 %	0 %	0 %	14.3 %	100 %	

asked only of respondents who said they are very or somewhat familiar with EVs

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own		
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent	
Have you ever been in an EV or seen an EV?	Base		12	2	5	5	0	7	3	0	2	0	0	12	0
			--	17%	42%	42%	0%	58%	25%	0%	17%	0%	0%	100%	0%
	Yes	COUNT	9	1	5	3	0	6	1	0	2	0	0	9	0
		COL %	75 %	50 %	100 %	60 %	0 %	85.7 %	33.3 %	0 %	100 %	0 %	0 %	75 %	0 %
	No	COUNT	3	1	0	2	0	1	2	0	0	0	0	3	0
		COL %	25 %	50 %	0 %	40 %	0 %	14.3 %	66.7 %	0 %	0 %	0 %	0 %	25 %	0 %
	Not sure	COUNT	0	0	0	0	0	0	0	0	0	0	0	0	0
		COL %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %

asked only of respondents who said they are very or somewhat familiar with EVs and who said they have been in or seen and EV

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own		
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent	
Have you ever driven an EV?	Base		9	1	5	3	0	6	1	0	2	0	0	9	0
			--	11%	56%	33%	0%	67%	11%	0%	22%	0%	0%	100%	0%
	Yes	COUNT	2	1	1	0	0	2	0	0	0	0	0	2	0
		COL %	22.2 %	100 %	20 %	0 %	0 %	33.3 %	0 %	0 %	0 %	0 %	0 %	22.2 %	0 %
	No	COUNT	7	0	4	3	0	4	1	0	2	0	0	7	0
		COL %	77.8 %	0 %	80 %	100 %	0 %	66.7 %	100 %	0 %	100 %	0 %	0 %	77.8 %	0 %

2019 compared to 2018 OR EV survey results
2019 XTAB2

asked only of respondents who said they are very or somewhat familiar with Eves and who said they have been in or seen and EV

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own		
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent	
Have you become more informed about EVs in the last 2 years or has your knowledge of EVs not changed in the last 2 years?	Base	12	2	5	5	0	7	3	0	2	0	0	12	0	
		--	17%	42%	42%	0%	58%	25%	0%	17%	0%	0%	100%	0%	
	More informed about EVs	COUNT	8	0	3	5	0	5	2	0	1	0	0	8	0
		COL %	66.7 %	0 %	60 %	100 %	0 %	71.4 %	66.7 %	0 %	50 %	0 %	0 %	66.7 %	0 %
	Knowledge of EVs not changed	COUNT	4	2	2	0	0	2	1	0	1	0	0	4	0
		COL %	33.3 %	100 %	40 %	0 %	0 %	28.6 %	33.3 %	0 %	50 %	0 %	0 %	33.3 %	0 %

2019 compared to 2018 OR EV survey results
2019 XTAB2

asked only of respondents who said they are very or somewhat familiar with EVs

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own		
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent	
Overall, what is your opinion of EVs?	Base	12	2	5	5	0	7	3	0	2	0	0	12	0	
		--	17%	42%	42%	0%	58%	25%	0%	17%	0%	0%	100%	0%	
	I love them and I wish I owned one	COUNT	1	0	0	1	0	0	1	0	0	0	0	1	0
		COL %	8.3 %	0 %	0 %	20 %	0 %	0 %	33.3 %	0 %	0 %	0 %	0 %	8.3 %	0 %
	I like them but I have questions or concerns	COUNT	7	0	4	3	0	6	1	0	0	0	0	7	0
		COL %	58.3 %	0 %	80 %	60 %	0 %	85.7 %	33.3 %	0 %	0 %	0 %	0 %	58.3 %	0 %
	I don't like them	COUNT	1	0	0	1	0	0	0	0	1	0	0	1	0
		COL %	8.3 %	0 %	0 %	20 %	0 %	0 %	0 %	0 %	50 %	0 %	0 %	8.3 %	0 %
	I don't know enough about them to form an opinion	COUNT	0	0	0	0	0	0	0	0	0	0	0	0	0
		COL %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Other (Please specify)	COUNT	3	2	1	0	0	1	1	0	1	0	0	3	0	
	COL %	25 %	100 %	20 %	0 %	0 %	14.3 %	33.3 %	0 %	50 %	0 %	0 %	25 %	0 %	

2019 compared to 2018 OR EV survey results
2019 XTAB2

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own		
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent	
If available and the purchase price of a new vehicle was the same for an EV and a traditional gas or diesel powered vehicle, how likely would you be to purchase an EV?	Base	24	7	9	8	0	15	5	0	4	0	0	21	1	
		--	29%	38%	33%	0%	63%	21%	0%	17%	0%	0%	88%	4%	
	Very likely	COUNT	4	1	2	1	0	3	1	0	0	0	0	4	0
		COL %	16.7 %	14.3 %	22.2 %	12.5 %	0 %	20 %	20 %	0 %	0 %	0 %	0 %	19 %	0 %
	Somewhat likely	COUNT	7	1	2	4	0	5	1	0	1	0	0	7	0
		COL %	29.2 %	14.3 %	22.2 %	50 %	0 %	33.3 %	20 %	0 %	25 %	0 %	0 %	33.3 %	0 %
	Not very likely	COUNT	6	4	1	1	0	5	1	0	0	0	0	4	0
		COL %	25 %	57.1 %	11.1 %	12.5 %	0 %	33.3 %	20 %	0 %	0 %	0 %	0 %	19 %	0 %
	Not likely at all	COUNT	7	1	4	2	0	2	2	0	3	0	0	6	1
		COL %	29.2 %	14.3 %	44.4 %	25 %	0 %	13.3 %	40 %	0 %	75 %	0 %	0 %	28.6 %	100 %

2019 compared to 2018 OR EV survey results
2019 XTAB2

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own		
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent	
If available and distance on a tank of gas or battery charge was the same for an EV and a traditional gas or diesel powered vehicle, how likely would you be to purchase an EV?	Base	24	7	9	8	0	15	5	0	4	0	0	21	1	
		--	29%	38%	33%	0%	63%	21%	0%	17%	0%	0%	88%	4%	
	Very likely	COUNT	6	1	4	1	0	5	1	0	0	0	0	6	0
		COL %	25 %	14.3 %	44.4 %	12.5 %	0 %	33.3 %	20 %	0 %	0 %	0 %	0 %	28.6 %	0 %
	Somewhat likely	COUNT	10	3	1	6	0	7	2	0	1	0	0	9	0
		COL %	41.7 %	42.9 %	11.1 %	75 %	0 %	46.7 %	40 %	0 %	25 %	0 %	0 %	42.9 %	0 %
	Not very likely	COUNT	2	2	0	0	0	1	1	0	0	0	0	1	0
		COL %	8.3 %	28.6 %	0 %	0 %	0 %	6.7 %	20 %	0 %	0 %	0 %	0 %	4.8 %	0 %
	Not likely at all	COUNT	6	1	4	1	0	2	1	0	3	0	0	5	1
		COL %	25 %	14.3 %	44.4 %	12.5 %	0 %	13.3 %	20 %	0 %	75 %	0 %	0 %	23.8 %	100 %

2019 compared to 2018 OR EV survey results
2019 XTAB2

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own		
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent	
Considering all driving you do, how often would you say you drive more than 50 miles in a day?	Base	24	7	9	8	0	15	5	0	4	0	0	21	1	
		--	29%	38%	33%	0%	63%	21%	0%	17%	0%	0%	88%	4%	
	Daily	COUNT	3	0	2	1	0	2	1	0	0	0	0	3	0
		COL %	12.5 %	0 %	22.2 %	12.5 %	0 %	13.3 %	20 %	0 %	0 %	0 %	0 %	14.3 %	0 %
	Weekly	COUNT	5	3	1	1	0	3	1	0	1	0	0	4	1
		COL %	20.8 %	42.9 %	11.1 %	12.5 %	0 %	20 %	20 %	0 %	25 %	0 %	0 %	19 %	100 %
	Monthly	COUNT	9	2	3	4	0	4	3	0	2	0	0	9	0
		COL %	37.5 %	28.6 %	33.3 %	50 %	0 %	26.7 %	60 %	0 %	50 %	0 %	0 %	42.9 %	0 %
	A few times per year	COUNT	6	2	3	1	0	5	0	0	1	0	0	4	0
		COL %	25 %	28.6 %	33.3 %	12.5 %	0 %	33.3 %	0 %	0 %	25 %	0 %	0 %	19 %	0 %
	Never	COUNT	1	0	0	1	0	1	0	0	0	0	0	1	0
		COL %	4.2 %	0 %	0 %	12.5 %	0 %	6.7 %	0 %	0 %	0 %	0 %	0 %	4.8 %	0 %

2019 compared to 2018 OR EV survey results
2018 XTAB1

		Total	AGE_ROLLUP						Q7_GENDER		Q9_EDUCATION								
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
How familiar are you with EVs?	Base	COUNT	20	0	2	2	4	6	5	1	7	13	0	4	5	1	6	0	4
		COL %	--	0%	10%	10%	20%	30%	25%	5%	35%	65%	0%	20%	25%	5%	30%	0%	20%
	Very familiar	COUNT	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0
		COL %	5%	0%	0%	50%	0%	0%	0%	0%	14.3%	0%	0%	25%	0%	0%	0%	0%	0%
	Somewhat familiar	COUNT	10	0	2	0	2	2	3	1	6	4	0	2	2	0	5	0	1
		COL %	50%	0%	100%	0%	50%	33.3%	60%	100%	85.7%	30.8%	0%	50%	40%	0%	83.3%	0%	25%
	Not very familiar	COUNT	6	0	0	1	1	3	1	0	0	6	0	0	2	1	0	0	3
		COL %	30%	0%	0%	50%	25%	50%	20%	0%	0%	46.2%	0%	0%	40%	100%	0%	0%	75%
	Not familiar at all	COUNT	3	0	0	0	1	1	1	0	0	3	0	1	1	0	1	0	0
		COL %	15%	0%	0%	0%	25%	16.7%	20%	0%	0%	23.1%	0%	25%	20%	0%	16.7%	0%	0%

2019 compared to 2018 OR EV survey results

2018 XTAB1

		Total	AGE_ROLLUP							Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
Have you ever been in an EV or seen an EV?	Base		11	0	2	1	2	2	3	1	7	4	0	3	2	0	5	0	1
			--	0%	18%	9%	18%	18%	27%	9%	64%	36%	0%	27%	18%	0%	45%	0%	9%
	Yes	COUNT	5	0	1	1	0	2	1	0	4	1	0	2	1	0	2	0	0
		COL %	45.5 %	0 %	50 %	100 %	0 %	100 %	33.3 %	0 %	57.1 %	25 %	0 %	66.7 %	50 %	0 %	40 %	0 %	0 %
	No	COUNT	4	0	0	0	2	0	2	0	2	2	0	0	1	0	2	0	1
		COL %	36.4 %	0 %	0 %	0 %	100 %	0 %	66.7 %	0 %	28.6 %	50 %	0 %	0 %	50 %	0 %	40 %	0 %	100 %
	Not sure	COUNT	2	0	1	0	0	0	0	1	1	1	0	1	0	0	1	0	0
		COL %	18.2 %	0 %	50 %	0 %	0 %	0 %	0 %	100 %	14.3 %	25 %	0 %	33.3 %	0 %	0 %	20 %	0 %	0 %

2019 compared to 2018 OR EV survey results
2018 XTAB1

		Total	AGE_ROLLUP							Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
Have you ever driven an EV?	Base		5	0	1	1	0	2	1	0	4	1	0	2	1	0	2	0	0
			--	0%	20%	20%	0%	40%	20%	0%	80%	20%	0%	40%	20%	0%	40%	0%	0%
	Yes	COUNT	2	0	1	0	0	1	0	0	1	1	0	0	1	0	1	0	0
		COL %	40 %	0 %	100 %	0 %	0 %	50 %	0 %	0 %	25 %	100 %	0 %	0 %	100 %	0 %	50 %	0 %	0 %
	No	COUNT	3	0	0	1	0	1	1	0	3	0	0	2	0	0	1	0	0
		COL %	60 %	0 %	0 %	100 %	0 %	50 %	100 %	0 %	75 %	0 %	0 %	100 %	0 %	0 %	50 %	0 %	0 %

2019 compared to 2018 OR EV survey results
2018 XTAB1

		Total	AGE_ROLLUP							Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
Would you say you have become more informed about EVs in the last 2 years or has your knowledge of EVs not changed in the last 2 years?	Base		11	0	2	1	2	2	3	1	7	4	0	3	2	0	5	0	1
			--	0%	18%	9%	18%	18%	27%	9%	64%	36%	0%	27%	18%	0%	45%	0%	9%
	More informed about EVs	COUNT	7	0	1	0	1	2	2	1	4	3	0	2	2	0	3	0	0
		COL %	63.6 %	0 %	50 %	0 %	50 %	100 %	66.7 %	100 %	57.1 %	75 %	0 %	66.7 %	100 %	0 %	60 %	0 %	0 %
	Knowledge of EVs not changed	COUNT	4	0	1	1	1	0	1	0	3	1	0	1	0	0	2	0	1
		COL %	36.4 %	0 %	50 %	100 %	50 %	0 %	33.3 %	0 %	42.9 %	25 %	0 %	33.3 %	0 %	0 %	40 %	0 %	100 %

2019 compared to 2018 OR EV survey results

2018 XTAB1

		Total	AGE_ROLLUP						Q7_GENDER		Q9_EDUCATION								
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
Overall, what is your opinion of EVs?	Base		11	0	2	1	2	2	3	1	7	4	0	3	2	0	5	0	1
			--	0%	18%	9%	18%	18%	27%	9%	64%	36%	0%	27%	18%	0%	45%	0%	9%
	I love them and I wish I owned one	COUNT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		COL %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
	I like them but I have questions or concerns	COUNT	6	0	0	0	2	2	1	1	5	1	0	2	2	0	1	0	1
		COL %	54.5 %	0 %	0 %	0 %	100 %	100 %	33.3 %	100 %	71.4 %	25 %	0 %	66.7 %	100 %	0 %	20 %	0 %	100 %
	I don't like them	COUNT	1	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0
		COL %	9.1 %	0 %	50 %	0 %	0 %	0 %	0 %	0 %	0 %	25 %	0 %	0 %	0 %	0 %	20 %	0 %	0 %
	I don't know enough about them to form an opinion	COUNT	2	0	1	0	0	0	1	0	0	2	0	0	0	0	2	0	0
		COL %	18.2 %	0 %	50 %	0 %	0 %	0 %	33.3 %	0 %	0 %	50 %	0 %	0 %	0 %	0 %	40 %	0 %	0 %
	Other (Please specify)	COUNT	2	0	0	1	0	0	1	0	2	0	0	1	0	0	1	0	0
		COL %	18.2 %	0 %	0 %	100 %	0 %	0 %	33.3 %	0 %	28.6 %	0 %	0 %	33.3 %	0 %	0 %	20 %	0 %	0 %

2019 compared to 2018 OR EV survey results

2018 XTAB1

		Total	AGE_ROLLUP							Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree	
Which of the following do you like best about EVs?	Base	COUNT	6	0	0	0	2	2	1	1	5	1	0	2	2	0	1	0	1
		COL %	--	0%	0%	0%	33%	33%	17%	17%	83%	17%	0%	33%	33%	0%	17%	0%	17%
	No, or low, vehicle emissions	COUNT	5	0	0	0	1	2	1	1	5	0	0	2	1	0	1	0	1
		COL %	83.3 %	0%	0%	0%	50%	100%	100%	100%	100%	0%	0%	100%	50%	0%	100%	0%	100%
	No, or little, fossil fuel required to power vehicle	COUNT	4	0	0	0	0	2	1	1	4	0	0	2	1	0	1	0	0
		COL %	66.7 %	0%	0%	0%	0%	100%	100%	100%	80%	0%	0%	100%	50%	0%	100%	0%	0%
	Overall cheaper to operate	COUNT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		COL %	0 %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Little noise output	COUNT	2	0	0	0	0	1	0	1	2	0	0	1	1	0	0	0	0
		COL %	33.3 %	0%	0%	0%	0%	50%	0%	100%	40%	0%	0%	50%	50%	0%	0%	0%	0%
	Low maintenance	COUNT	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0
		COL %	16.7 %	0%	0%	0%	0%	50%	0%	0%	20%	0%	0%	0%	50%	0%	0%	0%	0%
	Other (Please specify)	COUNT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		COL %	0 %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	None of the above	COUNT	1	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0
		COL %	16.7 %	0%	0%	0%	50%	0%	0%	0%	0%	100%	0%	0%	50%	0%	0%	0%	0%

2019 compared to 2018 OR EV survey results
2018 XTAB1

		Total	AGE_ROLLUP						Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree
Base		20	0	2	2	4	6	5	1	7	13	0	4	5	1	6	0	4
		--	0%	10%	10%	20%	30%	25%	5%	35%	65%	0%	20%	25%	5%	30%	0%	20%
Very likely	COUNT	2	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	2
	COL %	10 %	0 %	0 %	0 %	25 %	16.7 %	0 %	0 %	14.3 %	7.7 %	0 %	0 %	0 %	0 %	0 %	0 %	50 %
Somewhat likely	COUNT	9	0	1	1	0	4	2	1	5	4	0	3	1	1	3	0	1
	COL %	45 %	0 %	50 %	50 %	0 %	66.7 %	40 %	100 %	71.4 %	30.8 %	0 %	75 %	20 %	100 %	50 %	0 %	25 %
Not very likely	COUNT	5	0	1	0	2	0	2	0	0	5	0	1	1	0	2	0	1
	COL %	25 %	0 %	50 %	0 %	50 %	0 %	40 %	0 %	0 %	38.5 %	0 %	25 %	20 %	0 %	33.3 %	0 %	25 %
Not likely at all	COUNT	4	0	0	1	1	1	1	0	1	3	0	0	3	0	1	0	0
	COL %	20 %	0 %	0 %	50 %	25 %	16.7 %	20 %	0 %	14.3 %	23.1 %	0 %	0 %	60 %	0 %	16.7 %	0 %	0 %

If available in your area and the purchase price of a new vehicle of your choice was the same for an EV and a traditional gas or diesel powered vehicle, how likely would you be to purchase the electric powered version of the vehicle?

2019 compared to 2018 OR EV survey results
2018 XTAB1

2019 compared to 2018 OR EV survey results
2018 XTAB1

		Total	AGE_ROLLUP						Q7_GENDER		Q9_EDUCATION							
			less than 25	25-34	35-44	45-54	55-64	65-74	75 or older	Male	Female	Less than high school	High school graduate or GED	Some college or technical school	Associate degree	College degree	Some graduate school	Graduate degree
Base		20	0	2	2	4	6	5	1	7	13	0	4	5	1	6	0	4
		--	0%	10%	10%	20%	30%	25%	5%	35%	65%	0%	20%	25%	5%	30%	0%	20%
Very likely	COUNT	5	0	0	0	1	3	1	0	3	2	0	0	1	1	1	0	2
	COL %	25 %	0 %	0 %	0 %	25 %	50 %	20 %	0 %	42.9 %	15.4 %	0 %	0 %	20 %	100 %	16.7 %	0 %	50 %
Somewhat likely	COUNT	8	0	1	1	1	2	2	1	3	5	0	4	0	0	3	0	1
	COL %	40 %	0 %	50 %	50 %	25 %	33.3 %	40 %	100 %	42.9 %	38.5 %	0 %	100 %	0 %	0 %	50 %	0 %	25 %
Not very likely	COUNT	4	0	1	1	1	0	1	0	0	4	0	0	2	0	1	0	1
	COL %	20 %	0 %	50 %	50 %	25 %	0 %	20 %	0 %	0 %	30.8 %	0 %	0 %	40 %	0 %	16.7 %	0 %	25 %
Not likely at all	COUNT	3	0	0	0	1	1	1	0	1	2	0	0	2	0	1	0	0
	COL %	15 %	0 %	0 %	0 %	25 %	16.7 %	20 %	0 %	14.3 %	15.4 %	0 %	0 %	40 %	0 %	16.7 %	0 %	0 %

If available in your area and the distance you could drive on a tank of gas or battery charge was the same for an EV and a traditional gas or diesel powered vehicle, how likely would you be to purchase the electric powered version of the vehicle?

2019 compared to 2018 OR EV survey results
2018 XTAB2

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own	
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent
How familiar are you with EVs?	Base	20	8	6	6	0	11	5	0	3	1	0	14	3
		--	40%	30%	30%	0%	55%	25%	0%	15%	5%	0%	70%	15%
	Very familiar	COUNT	1	0	1	0	0	1	0	0	0	0	0	0
		COL %	5 %	0 %	16.7 %	0 %	0 %	9.1 %	0 %	0 %	0 %	0 %	0 %	0 %
	Somewhat familiar	COUNT	10	4	3	3	0	5	2	0	3	0	0	8
		COL %	50 %	50 %	50 %	50 %	0 %	45.5 %	40 %	0 %	100 %	0 %	0 %	57.1 %
	Not very familiar	COUNT	6	3	1	2	0	3	2	0	0	1	0	4
		COL %	30 %	37.5 %	16.7 %	33.3 %	0 %	27.3 %	40 %	0 %	0 %	100 %	0 %	28.6 %
	Not familiar at all	COUNT	3	1	1	1	0	2	1	0	0	0	0	2
		COL %	15 %	12.5 %	16.7 %	16.7 %	0 %	18.2 %	20 %	0 %	0 %	0 %	0 %	14.3 %

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own	
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent
Have you ever been in an EV or seen an EV?	Base	11	4	4	3	0	6	2	0	3	0	0	8	0
		--	36%	36%	27%	0%	55%	18%	0%	27%	0%	0%	73%	--
	Yes	COUNT	5	1	2	2	0	4	0	0	1	0	0	4
		COL %	45.5 %	25 %	50 %	66.7 %	0 %	66.7 %	0 %	0 %	33.3 %	0 %	0 %	50 %
	No	COUNT	4	2	2	0	0	1	1	0	2	0	0	3
		COL %	36.4 %	50 %	50 %	0 %	0 %	16.7 %	50 %	0 %	66.7 %	0 %	0 %	37.5 %
	Not sure	COUNT	2	1	0	1	0	1	1	0	0	0	0	1
		COL %	18.2 %	25 %	0 %	33.3 %	0 %	16.7 %	50 %	0 %	0 %	0 %	0 %	12.5 %

2019 compared to 2018 OR EV survey results
2018 XTAB2

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own		
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent	
Have you ever driven an EV?	Base	5	1	2	2	0	4	0	0	1	0	0	4	0	
		--	20%	40%	40%	0%	80%	0%	0%	20%	0%	0%	80%	0%	
	Yes	COUNT	2	1	1	0	0	2	0	0	0	0	0	2	0
		COL %	40 %	100 %	50 %	0 %	0 %	50 %	0 %	0 %	0 %	0 %	0 %	50 %	0 %
	No	COUNT	3	0	1	2	0	2	0	0	1	0	0	2	0
		COL %	60 %	0 %	50 %	100 %	0 %	50 %	0 %	0 %	100 %	0 %	0 %	50 %	0 %

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own		
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent	
Would you say you have become more informed about EVs in the last 2 years or has your knowledge of EVs not changed in the last 2 years?	Base	11	4	4	3	0	6	2	0	3	0	0	8	0	
		--	36%	36%	27%	0%	55%	18%	0%	27%	0%	0%	73%	0%	
	More informed about EVs	COUNT	7	2	2	3	0	4	0	0	3	0	0	6	0
		COL %	63.6 %	50 %	50 %	100 %	0 %	66.7 %	0 %	0 %	100 %	0 %	0 %	75 %	0 %
	Knowledge of EVs not changed	COUNT	4	2	2	0	0	2	2	0	0	0	0	2	0
		COL %	36.4 %	50 %	50 %	0 %	0 %	33.3 %	100 %	0 %	0 %	0 %	0 %	25 %	0 %

2019 compared to 2018 OR EV survey results
2018 XTAB2

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own			
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent		
Overall, what is your opinion of EVs?	Base		11	4	4	3	0	6	2	0	3	0	0	8	0	
			--	36%	36%	27%	0%	55%	18%	0%	27%	0%	0%	73%	0%	
	I love them and I wish I owned one	COUNT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		COL %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
	I like them but I have questions or concerns	COUNT	6	2	2	2	0	4	1	0	1	0	0	5	0	
		COL %	54.5 %	50 %	50 %	66.7 %	0 %	66.7 %	50 %	0 %	33.3 %	0 %	0 %	62.5 %	0 %	
	I don't like them	COUNT	1	1	0	0	0	1	0	0	0	0	0	1	0	
		COL %	9.1 %	25 %	0 %	0 %	0 %	16.7 %	0 %	0 %	0 %	0 %	0 %	12.5 %	0 %	
	I don't know enough about them to form an opinion	COUNT	2	1	1	0	0	0	1	0	1	0	0	1	0	
		COL %	18.2 %	25 %	25 %	0 %	0 %	0 %	50 %	0 %	33.3 %	0 %	0 %	12.5 %	0 %	
	Other (Please specify)	COUNT	2	0	1	1	0	1	0	0	1	0	0	1	0	
		COL %	18.2 %	0 %	25 %	33.3 %	0 %	16.7 %	0 %	0 %	33.3 %	0 %	0 %	12.5 %	0 %	

2019 compared to 2018 OR EV survey results
2018 XTAB2

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own		
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent	
Which of the following do you like best about EVs?	Base		6	2	2	2	0	4	1	0	1	0	0	5	0
			--	33%	33%	33%	0%	67%	17%	0%	17%	0%	0%	83%	0%
	No, or low, vehicle emissions	COUNT	5	1	2	2	0	4	1	0	0	0	0	5	0
		COL %	83.3 %	50 %	100 %	100 %	0 %	100 %	100 %	0 %	0 %	0 %	0 %	100 %	0 %
	No, or little, fossil fuel required to power vehicle	COUNT	4	1	1	2	0	3	1	0	0	0	0	4	0
		COL %	66.7 %	50 %	50 %	100 %	0 %	75 %	100 %	0 %	0 %	0 %	0 %	80 %	0 %
	Overall cheaper to operate	COUNT	0	0	0	0	0	0	0	0	0	0	0	0	0
		COL %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
	Little noise output	COUNT	2	0	1	1	0	2	0	0	0	0	0	2	0
		COL %	33.3 %	0 %	50 %	50 %	0 %	50 %	0 %	0 %	0 %	0 %	0 %	40 %	0 %
	Low maintenance	COUNT	1	0	1	0	0	1	0	0	0	0	0	1	0
		COL %	16.7 %	0 %	50 %	0 %	0 %	25 %	0 %	0 %	0 %	0 %	0 %	20 %	0 %
	Other (Please specify)	COUNT	0	0	0	0	0	0	0	0	0	0	0	0	0
		COL %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
	None of the above	COUNT	1	1	0	0	0	0	0	0	1	0	0	0	0
		COL %	16.7 %	50 %	0 %	0 %	0 %	0 %	0 %	0 %	100 %	0 %	0 %	0 %	0 %

2019 compared to 2018 OR EV survey results

2018 XTAB2

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own	
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent
Base		20	8	6	6	0	11	5	0	3	1	0	14	3
		--	40%	30%	30%	0%	55%	25%	0%	15%	5%	0%	70%	15%
Very likely	COUNT	2	0	1	1	0	2	0	0	0	0	0	2	0
	COL %	10 %	0 %	16.7 %	16.7 %	0 %	18.2 %	0 %	0 %	0 %	0 %	0 %	14.3 %	0 %
Somewhat likely	COUNT	9	4	3	2	0	4	3	0	1	1	0	6	1
	COL %	45 %	50 %	50 %	33.3 %	0 %	36.4 %	60 %	0 %	33.3 %	100 %	0 %	42.9 %	33.3 %
Not very likely	COUNT	5	2	1	2	0	3	2	0	0	0	0	4	1
	COL %	25 %	25 %	16.7 %	33.3 %	0 %	27.3 %	40 %	0 %	0 %	0 %	0 %	28.6 %	33.3 %
Not likely at all	COUNT	4	2	1	1	0	2	0	0	2	0	0	2	1
	COL %	20 %	25 %	16.7 %	16.7 %	0 %	18.2 %	0 %	0 %	66.7 %	0 %	0 %	14.3 %	33.3 %

2019 compared to 2018 OR EV survey results

2018 XTAB2

		Total	Q4_LENGTH_OF_SERVICE				Q6_PRIMARY_HEAT_SOURCE						Q4_Rent_Own	
			Less than 10 years	10-25 years	More than 25 years	Don't know	Electricity	Natural Gas	Propane	Wood	Fuel Oil	Other	Own	Rent
Base		20	8	6	6	0	11	5	0	3	1	0	14	3
		--	40%	30%	30%	0%	55%	25%	0%	15%	5%	0%	70%	15%
Very likely	COUNT	5	2	2	1	0	3	2	0	0	0	0	5	0
	COL %	25 %	25 %	33.3 %	16.7 %	0 %	27.3 %	40 %	0 %	0 %	0 %	0 %	35.7 %	0 %
Somewhat likely	COUNT	8	2	3	3	0	4	2	0	1	1	0	5	1
	COL %	40 %	25 %	50 %	50 %	0 %	36.4 %	40 %	0 %	33.3 %	100 %	0 %	35.7 %	33.3 %
Not very likely	COUNT	4	2	1	1	0	3	1	0	0	0	0	3	1
	COL %	20 %	25 %	16.7 %	16.7 %	0 %	27.3 %	20 %	0 %	0 %	0 %	0 %	21.4 %	33.3 %
Not likely at all	COUNT	3	2	0	1	0	1	0	0	2	0	0	1	1
	COL %	15 %	25 %	0 %	16.7 %	0 %	9.1 %	0 %	0 %	66.7 %	0 %	0 %	7.1 %	33.3 %

