

**ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON ENERGY**

March 9, 2023

11:00 a.m.

MEMBERS PRESENT

Representative George Rauscher, Chair
Representative Tom McKay
Representative Stanley Wright
Representative Mike Prax
Representative Calvin Schrage
Representative Ashley Carrick

MEMBERS ABSENT

Representative Josiah Patkotak

COMMITTEE CALENDAR

PRESENTATION: ELECTRIC VEHICLE INFRASTRUCTURE

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

SARA HALL, Co-founder
ReCharge Alaska
Anchorage, Alaska

POSITION STATEMENT: Gave a PowerPoint presentation, titled "Electric Vehicles in Alaska."

KRIS HALL, Co-founder
ReCharge Alaska
Anchorage, Alaska

POSITION STATEMENT: Answered questions during the presentation, titled "Electric Vehicle Infrastructure."

ACTION NARRATIVE

[11:00:40 AM](#)

CHAIR GEORGE RAUSCHER called the House Special Committee on Energy meeting to order at 11:00 a.m. Representatives Carrick, Wright, and Rauscher were present at the call to order. Representatives Prax, McKay, and Schrage arrived as the meeting was in progress.

PRESENTATION: ELECTRIC VEHICLE INFRASTRUCTURE

[11:01:58 AM](#)

CHAIR RAUSCHER announced that the only order of business would be the presentation on electric vehicle infrastructure in Alaska.

[11:02:26 AM](#)

SARA HALL, Co-founder, ReCharge Alaska, gave a PowerPoint presentation, titled "Electric Vehicles in Alaska" [hard copy included in the committee packet]. She began on slide 2 and slide 3, stating that the goal of ReCharge Alaska is to make driving electric vehicles (EVs) more accessible in Alaska. She said that 90 percent of EV charging happens at home, and they usually do not need to be charged on a daily basis. She showed a chart with the different types of EV chargers.

[11:06:16 AM](#)

REPRESENTATIVE RAUSCHER asked whether a charging station would have all four types of chargers available.

MS. HALL answered that the J1772 charger would not be located at any fast-charging stations because it is a slow charger. The CHAdeMO and CCS Type 1 chargers are available on ReCharge Alaska machines, while an adapter is available for Tesla EVs. She added that only the CCS charger is being required, and this is because the CHAdeMO charger is being phased out.

[11:09:06 AM](#)

REPRESENTATIVE WRIGHT asked what the cost is for using a ReCharge Alaska charging station.

MS. HALL answered that some localities require costs to be per minute rather than per kilowatt-hour (kWh), and this causes discrepancy in prices. She said that ReCharge Alaska charges 60 cents per kWh in locations that charge by kWh. In response to a follow-up question, she stated that charging at home is cheaper.

[11:11:39 AM](#)

CHAIR RAUSCHER, for the purpose of comparing electric rates, asked where Ms. Hall lives.

MS. HALL answered that she lives in South Anchorage. In response to a follow-up question, she stated that the cost of charging would vary based on the make of the car and the driving habits of the owner.

[11:12:50 AM](#)

MS. HALL continued to slide 4 and gave an overview of the machine specifications for charging. She said that level 1 EV outlets take between 1 and 6 days to charge, level 2 EV outlets take between 6 and 24 hours to charge, while level 3 EV outlets take between 18-120 minutes to charge. She added that level 3 chargers continue to become faster and more powerful, as they are meant for semitrucks.

[11:16:50 AM](#)

REPRESENTATIVE MCKAY asked how the charging machine works.

MS. HALL answered that EVs have adapters similar to ones on laptop chargers. She added that different adapters could be used to adjust to the outlet's voltage.

[11:19:21 AM](#)

MS. HALL continued to slide 5 and stated that EVs have between 80 and 500 miles of range. She pointed out that the lower end models are older models, such as the Nissan Leaf, and they would have less range. Newer EVs are being made with larger batteries, and this helps compensate for the loss of range experienced during cold weather conditions. She said that 1 gallon of gasoline is approximately the equivalent of 32.3 kWhs. She added that her husband drives a vehicle with a 64-kWh battery that needs charging "every couple of days," and this means it uses approximately only 2 gallons of gas during this time.

[11:22:11 AM](#)

CHAIR RAUSCHER asked how far a fully loaded electric tractor would be able to travel on a cold day.

MS. HALL expressed uncertainty concerning the exact number of miles, and she suggested that it would be in the hundreds because of the size of the battery. She added that Tesla estimates a range of 500 miles in California, but 40 percent of this range could be lost because of cold weather in Alaska.

[11:24:21 AM](#)

REPRESENTATIVE PRAX asked how long it takes to recharge the battery of an electric semitruck.

MS. HALL answered that on a level 2 machine, such as the ones owned by ReCharge Alaska, it would take seven or eight hours. She added that technology is improving for the purpose of decreasing the time it would take to charge a larger vehicle. In response to a follow-up question, she stated that the substation would determine whether a grid would be able to handle larger charging machines.

REPRESENTATIVE PRAX asked whether ReCharge Alaska has received an estimate from Golden Valley Electric as to how much its grid would be affected by people switching to EVs.

MS. HALL answered that ReCharge Alaska has not received an estimate; however, she added that ReCharge Alaska does work with the utilities to ensure that it will not do something to cause issues with the grid. She added that the developers of residential areas follow the same principle.

[11:30:47 AM](#)

KRIS HALL, Co-founder, ReCharge Alaska, added that Golden Valley Electric has sent out a memo stating that it would have enough power for the Fairbanks area, even if everyone were to switch to EVs. As more people start to use EVs, he expressed the opinion that each utility would have work to do for the transition.

[11:32:24 AM](#)

REPRESENTATIVE PRAX asked whether ReCharge Alaska was aware of Golden Valley Electric's statement that the intertie between Fairbanks and Healy was already near capacity.

MR. HALL responded that he was not aware of the statement. He added that he is confident that utilities will continue to upgrade their infrastructures.

[11:33:56 AM](#)

REPRESENTATIVE SCHRAGE asked whether there is technology to balance peak and off-peak charging hours.

MR. HALL answered that Juneau is currently the only place participating in off-peak hour charging. He added that there are only approximately 2,000 EVs in the state of Alaska. He stated that many EVs have settings that can be changed based on peak hours for charging.

[11:36:27 AM](#)

MS. HALL continued to slide 6 and addressed frequently asked questions regarding EVs in Alaska. She reiterated that EVs work well in Alaska, including electric trucks on the North Slope. She stated that the time it takes to charge a vehicle has several dependent factors. As time goes on and more charging machines are installed, she suggested that the likelihood of having to wait for a fast charger would decrease.

[11:38:55 AM](#)

REPRESENTATIVE CARRICK asked whether there are adapters so that an EV could be plugged into the same outlet used to keep the car battery alive during the winter.

MS. HALL answered that this infrastructure exists; however, additional infrastructure would be necessary if an individual wants to charge their vehicle at a faster rate. In response to a follow-up question, she stated that most of the grants available are for charging stations build every 50 miles.

REPRESENTATIVE CARRICK, if the driver were stuck in a cold place, asked whether an EV could be run while charging.

MS. HALL answered that the amount of power needed to run the cabin of the vehicle is insignificant compared to the amount of power it takes to move the vehicle while driving. She added that she has had personal experience with charging and running an EV in very cold conditions.

[11:45:31 AM](#)

REPRESENTATIVE WRIGHT asked whether there are any issues with starting an EV in cold conditions.

MS. HALL answered that the battery management system keeps the battery at a temperature that allows the vehicle to be powered on at any time, although this can result in the battery being drained while the vehicle is off.

[11:46:28 AM](#)

MS. HALL stated that many aspects of vehicle maintenance necessary for a vehicle with an internal combustion engine are not necessary for an EV. She continued to slide 7 and slide 8 and gave a brief history of ReCharge Alaska. The company was founded because of a lack of EV infrastructure in Alaska. She said that ReCharge Alaska began with old Nissan charging machines and has upgraded to newer ones, as the older ones became unsupported. She stated that ReCharge Alaska has expanded to Healy and along the Richardson Highway in Delta Junction and Glenallen. She stated that one of the biggest challenges ReCharge Alaska had faced in the beginning was to charge by kWh because of regulations. She stated that this caused charging to be more expensive during the winter.

[11:51:08 AM](#)

MS. HALL added that there have been other challenges, such as weather and areas with poor cell phone coverage. For this reason, ReCharge Alaska machines have credit card readers. She continued to slide 9 and slide 10 and stated that the EV infrastructure is continuing to grow in Alaska. She noted an additional \$52 million in grant opportunities in Alaska for the building of EV infrastructure. Using a chart found on slide 10, she gave a comparison between charging by the minute and by kWh using a Chevy Bolt and a Tesla Model Y. She said that if net metering became available to ReCharge Alaska, solar panels could be used at charging stations.

[11:57:52 AM](#)

MS. HALL added that because of cell phone coverage and access to smart phones, it is important to consider having credit card readers at all charging stations. The importance of direct sale for EVs is that it means Alaskans will not have to go through a third party in order to purchase one. She said that EVs currently do not pay any road tax, as that tax is tied to the sale of gasoline.

[12:00:15 PM](#)

REPRESENTATIVE MCKAY asked for clarification on the direct sale of EVs.

MS. HALL answered that it means that there are no Tesla dealers, and to buy a vehicle from Tesla means an individual would have to buy it directly from the company. She added that she is unaware of any potential resale restrictions.

[12:01:41 PM](#)

REPRESENTATIVE PRAX asked who is financing the capital costs of ReCharge Alaska.

MS. HALL answered that it is self-financed other than a few small grants from Golden Valley Electric.

[12:02:38 PM](#)

CHAIR RAUSCHER asked what the battery life expectancy is for EVs.

MS. HALL answered that both of her EVs have a battery warranty of eight years. She added that batteries can last much longer, and they can be used for other purposes, even if they can no longer propel a vehicle forward.

[12:06:25 PM](#)

CHAIR RAUSCHER asked how many EVs are in Alaska.

MS. HALL answered that there are approximately 1,700 EVs in Alaska, not including hybrid vehicles. She added that the growth rate for new EVs in Alaska is currently close to 100 per month. In response to a follow-up question, she expressed the belief that people are not giving much thought to the extra mechanics involved for a hybrid vehicle. She expressed the belief that people are more hesitant about fully EVs because of the sparseness of EV infrastructure in Alaska.

[12:10:13 PM](#)

ADJOURNMENT

There being no further business before the committee, the House Special Committee on Energy meeting was adjourned at 12:10 p.m.