

Charging station free for now

ELECTRIC continued
from front page

with ODOT for greener highways. Portland-area drivers can now drive from the city, through wine country and on to the coast with the recent Newberg and Grand Ronde charging stations. Further, the charging station is a great catalyst to increase foot traffic to the C-store."

At the car charging blog carswithcords.blogspot.com, blogger Patrick Connor reported on Dec. 10 about his first outing to Spirit Mountain Casino in his Nissan Leaf, the most popular electric car in Oregon.

"From my home in Beaverton, the door-to-door round trip drive is 110 miles; far beyond the range of my Leaf given the freeway speeds and elevation changes. The Newberg station (which also has an electric charging station) breaks the one-way trip there up nicely into a 17-mile leg and a 38-mile leg. Each of these legs are well within the car's range. The charging station at the casino means that the battery pack will be filled long before we are done playing and we'll be starting out the return trip with a 'full tank'."

The charging stations make the Tribe among the first locations in the country to take a stand for greener highways.

Initially, electric car charges at the convenience store will be free, though in time, Monrovia, Calif.-based AeroVironment, the prime contractor supplying parts for, installing, operating and maintaining this and other charging stations in Oregon and Washington, will begin charging to both recoup investment and make a profit. The Tribe also will receive a portion of the charges for providing the location.

Still, the state anticipates that the owner of an electric car, paying for each charge, will save \$1,700 in a year's time over a gas-powered car that averages 22.6 mpg in 2008. Electrics run for about three cents a mile compared with the average gas-powered car that runs for about 10 cents a mile, though many variables affect the actual results.

Each electric charging station will have a DC fast charger capable of replenishing an exhausted battery in 30 minutes and a medium speed charger that takes from two to four hours for a complete charge.

Currently, U.S.-made electric vehicles, including the Chevy Volt, require the longer charge, while international models, including the Nissan Leaf, charge up faster.

For Franklin and Emily Doss of Salem, the move to electric vehicles



Photo by Ron Karten

Emily Doss of Salem charges her Nissan Leaf at the Tribal convenience store on Thursday, Dec. 20. Doss, a hostess-cashier at the casino, drives her electric car daily to work and is becoming knowledgeable about where charging stations are popping up in Oregon.

was a no-brainer.

"I have been traveling to the casino going on nine years every day from Salem," said Emily, a hostess/cashier at Spirit Mountain Casino.

The Dosses bought two Nissan Leafs in mid-December and they couldn't be more pleased with the purchases or the charging stations that make driving them possible.

At the convenience store charging station on the evening of Thursday, Dec. 20, Emily was busy making phone calls in her Leaf as the fast charge filled up her batteries.

"I'm here 25 minutes," she said, "and I'm at 81 percent." She started charging her car, which she drives to the casino every day, at 42 percent.

She won't spend all her time at the electric pump, though. "As soon as the restaurant is open," she said, "I'll be in there having espresso."

In conversation, she happily reeled off car features. She can listen to the car radio and have the heat coming from both the seat and the steering wheel, for example, while the car charges. She pointed to the solar panels on the roof. She opened the door to the large trunk where she pointed to a small trickle charger. Mostly for emergencies, the trickle charger plugs into a normal 110 outlet, though a full charge takes quite a while that way.

She noted the convenience of having other charging stations in the area, and both she and her husband are discovering the convenience available at different locations.

Emily knows, for example, that "There's a charger at the Dairy Queen in Monmouth," she said,

"and it's right by a Bi-Mart and a Colonel Sanders. We probably spend more money at small outfits now than we ever did. It helps us support small businesses.

"There's one in Woodburn at the Elmer's (restaurant) there," she continued, "and you have all the outlet stores right there."

Her only caution: "I have to know how to plan out my day."

Franklin's caution: "The heater can gobble up 15 percent of the energy on a trip."

Franklin once had intentions of turning an old Porsche into an electric car until he started adding up the cost. Today, he says, the Leaf is "one of the best designed machines I've come across in a long while."

He pointed to the Leaf's ability "to recapture power with regenerative braking when going downhill. We live up high in the South Hills, and if our car has 50 potential miles on it when I leave the driveway, by time we get into town, we have 60 potential miles. Just backing off the throttle pedal starts it recharging."

The future he sees includes induction charging units at home, at fast food restaurants, in parking lots, you name it.

With aftermarket car additions already available, electric cars will be able to pass over an induction mat at drive thrus, for example, or in parking garages, and without wires receive a charge.

"So, at fast food restaurants, it'll be, 'Will you have a charge with that?'" Franklin said. "And you'll pick up 10 miles of charge time here and five miles there, and it will all be seamless."

Battery management is less a wait than it might first appear, Franklin said. "First of all, you never hit the station when you're on empty." Estimated charge times assume that. With half a charge, he says, it could take you 15 minutes to finish up, or about the same as a regular stop for gasoline.

The Grand Ronde station is among 22 locations currently slated for installation throughout rural Oregon, with 10 others already installed, according to Ashley Horvat, West Coast Electric Highway Project Manager for the Oregon Department of Transportation, who is overseeing the state's effort to jumpstart the industry.

Charging stations will be available to electric car drivers every 25 to 30 miles in busier parts of the state and as far as 50 miles between stations in rural areas, Horvat said.

The Electric Highway project in Oregon is being built with three grants totaling more than \$4 million.

AeroVironment subcontractor Cascadia PM, based in Olympia, Wash., works with ODOT in scouting locations for charging stations in Oregon and Washington. Hillsboro-based Quality Plus Services Electrical is subcontractor for most installations, including the one in Grand Ronde.

With the support of past and current governors and Oregon's congressional delegation, the Oregon Department of Transportation has moved forward with infrastructure that aims to encourage more car buyers to go electric.

Oregon, with 1,300 electric cars, is leading the nation in its buildout of the Electric Highway.

The West Coast Electric Highway promises a corridor by 2020 when an estimated 2 million electric cars will be able to travel without harmful emissions between Canada and Mexico.

The public plan anticipates that more private partners, like AeroVironment, will move in quickly. Some will set up standalone charging stations, others will build what Horvat calls "opportunistic charges," where customers may be going to a grocery store anyway and while there they will plug in for a charge. Fred Meyer is already one of these, installing charging stations as new stores go up and as current stores are remodeled.

Even with gasoline engines, the average driver travels less than 30 miles a trip, Horvat said, often making charging unnecessary while out for daily errands. ■

Help needed identifying plots

The Facilities Department is asking for your help identifying veteran's plots.

If your family member's or friend's plot is a veteran and we do not have a veteran's flag present on holidays, please inform us.

We will do our best to mark all plots of veterans.

Contact Adam Leno at 503-879-5525 or adam.len@grandronde.org.

Free online learning source

The information includes:

- Everyday life
- Math and money
- Computer training
- Online classes

Work and career information

Check it out at www.gcflearnfree.org ■