

THE POWER OUTLET

SEPTEMBER 2022 NEWSLETTER of DRIVE ELECTRIC WASHINGTON



*A monthly update about
electric vehicle activities
around the
State of Washington*

Drive Electric Washington is a collaboration of groups throughout the State of Washington working together to accelerate the adoption of plug-in electric vehicles. The all-volunteer non-profit was founded by electric vehicle advocates in 2017 and now is focusing on outreach to volunteer electric transportation advocates across the state to coordinate and share efforts among groups. We would like to invite you to join this effort and keep informed by contributing to and sharing this free monthly newsletter.

DEWA has a [Facebook](#) page, too! Please like and follow us for up-to-the-minute updates.

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- **Charging News** – Up & Go charging with PSE and Greenlots
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- **Donate** – Online option available NOW!
- **Resources** and links to Washington EV clubs, associations, charging networks and everything you need for the best electric driving experience and for the future of sustainable transportation.

EVSE interoperability rules taking public comments on proposed amendments

Washington's upcoming requirement for all public charging stations to provide universal payment access needs some amendments, according to the state Department of Agriculture, which administers the Weights and Measures rules. A public hearing on the amendments is scheduled for 10 a.m. on Oct. 11 by video conference.

Among the amendments are:

- Establishing EVSE compliance dates and creating an exemption for EVSE installed prior to January 1, 2024 that are clearly marked.
- Requiring all electric vehicle service providers make available multiple payment methods at all publicly available Level 2 EVSE or Direct Current Fast Charger (DCFC) EVSE installed in Washington and establishing minimum required payment methods.
- Requiring electric vehicle service providers (EVSP) to provide means for conducting a charging session in at least one language other than English.
- Establishing requirements for all EVSP to, at a minimum, meet and maintain nonproprietary interoperability standards for publicly available Level 2 and DCFC EVSE.

Learn more and submit comments [here](#).

DEWA seeks Advisory Board members

Drive Electric Washington is seeking new advisory board members. Please submit your application if you are interested in this opportunity. The Advisory Board meets quarterly and serves as a sounding board to the Board of Directors. As an Advisory Board member, you may be contacted by the Board of Directors to provide input as we engage with legislators, state and local agencies, and the general public. We may ask you to participate in our speakers' bureau or provide information on a local level. The DEWA Board also needs volunteer help with communications efforts, including social media posting, policy bulletins, new logo design, website content and this newsletter. If you have experience or interest in transportation electrification, please consider applying for this important role in our organization. Learn more and apply [here](#).

Silent and swift



Every night during migrating season, Larry Schwitters travels 40 miles to collect data for VauxHappening.org on swifts roosting in a chimney in Selleck WA. He says the drive is more fun - and less expensive - since he went electric in 2011.

SPOTLIGHT

Recurrent reports used EV battery health

In just two years, local software start-up Recurrent now has data collection and customers in all 50 states for its used EV battery health reports. The company is remote with no office, but its founder, Scott Case and most of its 21 employees are in the Seattle area. Battery chemistry scientists Jon Witt and Brian Gerwe recently provided details about their research and work with Recurrent in a presentation for the Seattle Electric Vehicle Association.

Jon and Brian describe the business as "Carfax for used EVs." A car shopper can get Recurrent's report on an individual vehicle to find out estimated range of the car's traction battery. Estimates are based a number of factors such as battery size, age and fraction of the warranty period remaining. Recurrent's software analyses millions of data points collected through telematics from actual use of electric vehicles to build its range degradation models.



Brian Gerwe (left) and Jon Witt of Recurrent

Recurrent partnered with AAA Washington last year on a survey that found 97 percent of used EV buyers would pay \$2,500 extra for a car if it included a battery health report. Used car dealers can subscribe for regular reports on the battery health of cars they have on their lots. Owners who sign up provide data points to Recurrent, and they get monthly reports, which can show if any problems are occurring. Reports are available for cars most in demand on the used market, and Recurrent is adding more as the number of models available expands.

Most of the public doesn't care about battery state of health, but they want to know about real-world range, Jon and Brian said they have learned. Their research has shown a close correlation between battery health and range degradation.

In 2021, Recurrent received a National Science Foundation grant to use plug-in data collection devices on 50 Tesla Model 3s and 50 Nissan Leafs. They used the experiment to demonstrate that their frequent telematics data collection can be just as accurate as an in-car device. Recurrent used the resulting data to determine that Tesla's dashboard range is formed from a fixed multiplier times the usable battery capacity. By comparison, the Chevy Bolt factors in non-battery metrics such as auxiliary load and outside temperature.

Recurrent's methodology estimates battery health using metrics such as time, temperature over time, battery temperature when charging, charging speed, discharge cycles, depth of discharge, and what the state of charge is for storage. They also have looked at different battery chemistries, and generally found that for all chemistries, storing cars with a high state of charge at high temperatures is bad. Best practice to protect battery health is storing cars at a medium state of charge and moderate

temperatures. Lithium iron phosphate tends to be the most resilient battery chemistry, but also has lower energy density than others.

Jon and Brian provided this advice for the best charging practices: avoid charging to 100 percent and then discharging to zero. Charging every day is best, and limiting discharge windows helps.

For more information, visit RecurrentAuto.com.

EVENTS



National Drive Electric Week – Sept. 23-Oct. 2. Presented by Plug-In America. Learn more and sign up [here](#).

Spokane/Liberty Lake Drive Electric Event – Sept. 24, 9 a.m.-1 p.m., Liberty Lake Park and Ride Lot, E. Mission Ave., Liberty Lake. The Spokane Transit Authority partners to present this eighth annual event at the Liberty Lake Park and Ride, next to the Farmer's Market. The Tesla Owners of Northeast Washington chapter is supporting the event. Read more and sign up [here](#).



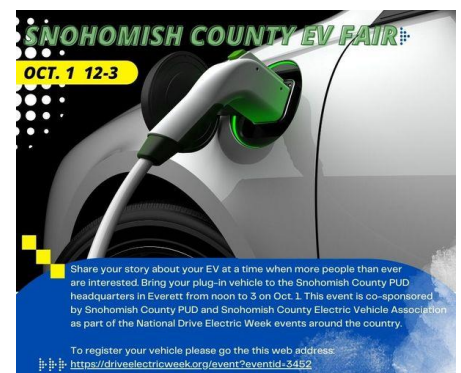
Woodinville Drive Electric Week Event – Sept. 24, noon-4 p.m., Martedi Winery, 17621 128th PI NE. Share your experience and/or show your EV. Tesla Owners of Washington is supporting this event. Learn more and sign up [here](#).

Snohomish County EV Fair – Oct. 1, noon-3 p.m., Snohomish PUD, 2320 California Street. A variety of electric vehicles will be on display.

Representatives will be on hand to provide information on home charging, driving ranges and federal and local incentives for electric vehicle ownership. Read more and sign up [here](#).

Yakima Drive Electric Day – Oct. 2, 9 a.m.-1 p.m., Downtown Yakima Farmer's Market, 22 S 3rd Street. Presented by the Downtown Association of Yakima. Read more and sign up [here](#).

Anacortes Drive Electric Week Fest – Oct. 2, 11 a.m.-4 p.m., Anacortes Public Library, 1220 10th St. Read more and sign up [here](#).



CHARGING NEWS

Up & Go charging comes to Western Washington

Puget Sound Energy is partnering with Greenlots to bring public charging stations to communities around Western Washington. The first three DCFC stations are open in Bellingham, Lacey and Kent, and downtown Olympia at Heritage Park is coming soon. The stations offer both CCS and CHAdeMO charging plugs as well as Level 2 J1772 plugs. The Up & Go Electric charging system even has its own mobile app that allows automatic payment, or drivers can request an RFID card to tap at the stations. Learn more [here](#)



CLUB NEWS

Seattle Electric Vehicle Association meets at 7 p.m. the second Tuesday of every month at the Church of the Nazarene in Wallingford, 4401 2nd Ave. NE, right behind Dick's Drive-In. Gather to share cars in the parking lot at 6:30 p.m. Open to everyone!

Please share your club news as well as your personal journey into the world of electric driving, along with photos. DEWA would like to spotlight profiles of EV pioneers on our website and social media, as well as sharing in our newsletter. Please send your stories and photos to greamer@driveelectricwa.org.



S stands for Sausages

The Smith family of Seattle has found a great use for their Tesla Model S. It cruises to events and festivals and doubles as a hot dog stand! Remember to grab your chips from the frunk to go with your Secret Sausage. Maybe the silent electric motor is what keeps this Seattle treat secret! SecretSausageSeattle.com.

DONATE

Please support DEWA and its outreach and advocacy activities with a donation. Your financial donation will help us reach more policymakers, funders and drivers statewide to advocate electric mobility, and will support expansion of our statewide, online resources. Drive Electric Washington is a 501(c)3 non-profit organization, and any contribution you make is fully tax-deductible. Here are three ways you can help:

1. NEW – Make a one-time online donation through PayPal [here](#):
2. When you shop on Amazon, use [smile.Amazon.com](https://www.smile.amazon.com) and choose Drive Electric Washington for your charitable contribution. The AmazonSmile Foundation will donate 0.5 percent of the purchase price to DEWA.
3. You also can make a direct contribution by check. The check should be made out to DEWA and mailed to our DEWA Treasurer at: 6021 32nd Ave. NE, Seattle, WA 98115-7230.

RESOURCES

DEWA aims to maintain a comprehensive list of the EV advocacy efforts ongoing in Washington, so we count on you to keep our lists and our website updated with the most current information. Following are the organizations and efforts we have compiled so far in Washington that have a presence online and on social media:

Websites:

- Drive Electric Washington – DriveElectricWA.org
- Seattle Electric Vehicle Association - SeattleEVA.org
- Plug-In America - PlugInAmerica.org
- Electric Auto Association - ElectricAuto.org
- Forth - ForthMobility.org
- Plugshare - Plugshare.com
- National Drive Electric Week - DriveElectricWeek.org
- Drive Electric Earth Day - DriveElectricEarthDay.org
- Plug In North Central Washington - PlugInNCW.com
- Coltura – Coltura.org
- Thurston Climate Action Team - ThurstonClimateAction.org
- Tesla Owners of Washington - TeslaOwnersWA.org

Social Media:

- [Northwest Tesla Owners](#)
- [Seattle Nissan Leaf Owners](#)
- [Seattle Tesla Model 3 Owners](#)
- [Seattle Electric Vehicle Association](#)
- [Seattle Tesla Model Y Owners](#)
- [Pierce County Electric Vehicle Information Exchange](#)
- [Spokane/Coeur d'Alene Tesla Club](#)
- [Inland NW Tesla Owners Group](#)
- [PNW Tesla](#)
- [Central Washington University EV Club](#)
- [Seattle Chevy Bolt/Bolt EUV Owners](#)
- [San Juan Islands Electric Vehicles](#)
- [Mid-Columbia Electric Vehicle Association](#)

Please share and distribute this newsletter widely within your EV networks and contacts. And please contribute your events, activities and stories, and SIGN UP to receive this free monthly newsletter by sending us an e-mail with your name, city, any affiliation and e-mail address to greamer@driveelectricwa.org . You can unsubscribe at any time with an e-mail to the same address. Thank you for your support of sustainable electric transportation!