



The Chronicle

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Electric car show set for August 17 at Rogue Federal Credit Union

Rogue Valley Clean Cities Coalition will sponsor an electric car show and forum from 11:30 to 1 pm Wednesday, August 17, hosted by Rogue Federal Credit Union, South Gateway Branch, 1370 Center Drive, Medford. The outdoor car show will feature The Leaf, a plug-in electric, four-door sedan owned by local residents Justin and Ariana Denley. Justin Denley will demonstrate use of his iPhone to confirm charging status and climate control. With his smart phone he can cool the car's interior before buckling in



Electric Car Show

11:30 am

Wednesday August 17

RFCU South Gateway

1370 Center Drive, Medford

their children, Evan, 3 ½ and Sophia, 6 months. Also featured in the car show will be a Chevrolet Volt from Town & Country in Ashland and a Nissan Leaf from Lithia in Medford. A presentation will be held from 12 to 12:45 pm in a conference room at Rogue Federal Credit Union. Speakers include Justin Denley talking about his family trip to the Oregon Coast in an electric car, Jim Riley of Lithia giving details about The Leaf, Derek DeBoer of Town & Country talking about the electric Chevrolet Volt and Adam Hanks of the City of Ashland providing an update on electric charging stations in Southern Oregon. Refreshments and pizza will be provided. The event is free and open to the public. Learn more at roguevalleycleancities.org or contact Melissa Stiles, 541-779-0569

Come and hear about the Denley family road trip in The Leaf. Learn more about the Nissan Leaf and Chevy Volt on pages 2-3.



Discounts available for natural gas workshop at SeaTac in Seattle August 9

Fleet managers are invited to the "Compelling Case for Natural Gas Vehicles" workshop Tuesday, August 9, 2011 at the Seattle Tacoma International Airport Conference Center. Southern Oregonians can receive a \$30 rebate from Columbia-Willamette Clean Cities Coalition by writing Rick Wallace, rick.wallace@state.or.us. With the rebate, the cost will be \$35. Register online at <http://www.cleanvehicle.org/workshop/SeaTac.shtml>. Download the agenda from http://www.roguevalleycleancities.org/images/events.html/SeaTac/seatac_agenda.pdf. For information, call Rick Wallace 503-378-3265 or rick.wallace@state.or.us.



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All-Electric Vehicles

Nissan Leaf

- AC electric motor
- \$32,780 MSRP
- 73 mile all-electric range per charge
- 99 mpg equivalent
- Air Pollution Score = 10
- GHG Score = 10
- Available in CA, OR, WA, AZ, TN



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All-electric vehicles have zero tailpipe emissions.

All-electric vehicles (EVs) are powered by batteries that store electrical energy to run the motor. EV batteries are charged by plugging into an electric power source. Currently available EVs can travel 100 to 200 miles on a single charge, depending on the model. According to the U.S. Department of Transportation Federal Highway Administration, 100 miles is a sufficient range for more than 90% of all household vehicle trips in the United States.

EVs are more expensive than similar conventional and hybrid electric vehicles, but some costs can be recovered through fuel savings, a federal tax credit, or state incentives. Information can be found at www.afdc.energy.gov/afdc/laws. Check with your tax advisor to determine available tax credits and eligibility.

Although electric generation plants can contribute to air pollution and greenhouse gases (depending on their fuel source), EVs are classified as zero emission vehicles by EPA because they produce zero tailpipe emissions.

Nissan introduced the Leaf—a highway-capable EV sedan. The Leaf never uses gasoline and produces zero tailpipe emissions. The Leaf's 80kW AC synchronous motor and lithium battery pack provide a range of 73 miles per charge.

Coda Automotive produced the all-electric 2011 Coda EV, available by custom order. The Coda EV is powered by advanced lithium-ion batteries and has a driving range of 90 to 120 miles.

The Tesla Motors Roadster 2.5 is an all-electric two-seat convertible also available for custom order. It boasts a range of about 235 miles per charge and zero tailpipe emissions.

Extended Range and Plug-In Hybrid Electric Vehicles

Chevrolet Volt

- 1.4L 4 cyl engine, AC electric motor
- \$40,280 MSRP
- 35-mile all-electric range;
- 379-mile gas/electric range
- 93 mpg equivalent
- Air Pollution Score = 6
- GHG Score = 9
- Available in CA, MI, NY, NJ, CT, DC, and Austin, TX



Courtesy of General Motors

Plug-in hybrids provide extended vehicle range.

Extended Range Electric Vehicles (EREVs) operate on electricity and use gasoline to power an engine that supplies additional electrical power to the battery.

The Chevrolet Volt is an EREV with an all-electric range of 35 miles thanks to the lithium-ion battery pack that powers the car's 149-horsepower (111-kilowatt) electric motor. After that, a small gasoline-powered motor kicks in to generate electricity that can drive the vehicle for an additional 344 miles before being plugged in to recharge.

EPA classifies the Volt as a "series plug-in hybrid" because the gasoline engine is primarily used to generate additional electricity while the electric motor turns the wheels.

Other types of plug-in hybrid electric vehicles (PHEVs) are powered by a combination of conventional or alternative fuel as well as electric power stored in a battery. During urban driving, most of a PHEV's power comes from stored electricity. For longer trips or periods of higher acceleration, the internal combustion engine is used, extending the PHEV's range beyond what the battery can provide alone.

PHEV batteries can be charged by plugging into an outside electric power source, by the internal combustion engine, and through regenerative braking. However, PHEVs don't have to be plugged in to be driven. They can be fueled solely with gasoline, like a conventional hybrid, although they will not achieve maximum range or fuel economy without charging.