

April 21, 2015

Testimony of Jeff Allen before the Joint Ways & Means Subcommittee on Transportation & Economic Development

For the record, my name is Jeff Allen, and I am Executive Director of Drive Oregon.

Drive Oregon Overview

Drive Oregon was first funded by the Legislature just over 3 years ago. I'm pleased to say that we have met or exceeded all of our benchmarks to date. In particular, we have leveraged nearly \$500,000 for Drive Oregon and nearly \$15 million for our industry.

However, today I want to focus on the future.

John Gartner of consulting firm <u>Navigant Research</u> recently observed "the automotive industry is in the throes of a historic transformation not seen since the years following World War II."

Oregon is well positioned to take advantage of this transformation. We are not attempting to compete with Michigan or Alabama in manufacturing cars. However, there are substantial opportunities in market areas like software, drive train components, specialty vehicles, charging equipment, and others. Furthermore, Oregon provides a "living laboratory" for testing new products and business models.

I would like to give you just a couple of stories to help paint a picture of how Drive Oregon works with Oregon companies in these areas.

Software - Jaguar Land Rover

Today's electric vehicles are less like cars with some electronics, and more like computers with wheels; for example, the Chevy Volt includes more computer code than the Boeing 787 Dreamliner. Oregon companies know a lot about software. One of our member companies, Jaguar Land Rover, recently announced it will add 50 more software engineers in Oregon, and will open an incubator that will support a dozen startups each year. We are working closely with JLR and have been asked to help select and support these startups. This project alone is estimated to bring over \$6 million and over 1,200 jobs to the region over the coming decade.

Specialized Vehicles - Kerstech and NACCO

Oregon is rich in companies making specialized vehicles, including established companies like Daimler Trucks North America and startup companies making smaller vehicles such as e-bikes, scooters, and three-wheeled vehicles. International consulting firm ID Tech Ex predicts this "non-car" market will reach \$128B by 2025 and will equal or exceed the market for electric cars.

Drive Oregon introduced NACCO Materials Handling Group in Fairview, one of the world's largest forklift makers, to KersTech, an Oregon startup with an innovative hydraulic-electric hybrid motor technology, and provided grant funding for Kerstech to partner with NACCO and Oregon Tech in Klamath Falls to develop a prototype forklift using Kerstech's motor design. That prototype will soon be tested in Lebanon using equipment Drive Oregon also helped fund at the Linn Benton Community College Advanced Transportation Technology Center.

Requested Funding and Outcomes

We are requesting a third biennium of funding, much of which will be used to continue our highly leveraged matching grants program and other direct support to the industry. Funds will also support our continued work to market Oregon as a "living laboratory" for global companies, to connect Oregon companies to these larger partners, and to increase Oregon's global profile in this industry. We conservatively estimate your continued support will leverage at least \$5 million in additional investment and at least 30 new jobs.

This next round of funding will also complete Drive Oregon's transition to financial independence, which is on track to be complete by the next budget cycle.

Thank you for the opportunity to testify.

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Innovation in Electric Mobility



Learn how Oregon is leading the way.

"Oregon is 3-4 years ahead the rest of the country in electric mobility innovation."

— John Voelcker, Green Car Reports



A Strong Charging Network

Oregon's robust charging network allows electric vehicle drivers to travel with confidence, and has made Oregon one of the top US markets for electric vehicles. Oregon is proud to have the most extensive electric vehicle charging network in the United States, including more DC Quick chargers per capita than any other state. This network of stations — part of the West Coast Electric Highway — is the outcome of Oregon's commitment to public-private partnerships and regional collaboration.



A Strong Local Industry

Oregon leads the nation in electric mobility innovation. Our diverse companies are designing and building the next generation of electric vehicle technologies. The electric vehicle industry in Oregon is worth over \$266 million annually, employs 1,500 Oregonians, and is growing rapidly.





Learn more about the West Coast Electric Highway at www.westcoastgreenhighway.com.



Oregon is Your Connection to New Business Opportunities

Oregon has a long history of leadership in sustainable transportation and clean technology development. It is also ranked as the #1 Location for Manufacturing² and has one of the top ten lowest costs of doing business.³

Oregon is the place to look if you:

- Are interested in new industry partners or suppliers
- · Need a U.S. location to develop, build, or distribute your product
- Seek a new test market for an upcoming product launch
- Are searching for investment opportunities
- Want to learn best practices from innovative pilot projects
- Thrive in a collaborative business environment

EV Roadmap Conference Series

The EV Roadmap Conference builds on the region's strengths to offer a "graduate course" in electric vehicle deployment and industry development. The annual event brings together a high-energy mix of industry, government, and utility representatives from across the country to share best practices and explore emerging issues. Drive Oregon produces EV Roadmap in partnership with respected industry thought leaders to ensure conference content is timely, relevant, and engaging.

Learn more at www.evroadmapconference.com.





Advancing Industry Growth

The electric mobility industry is evolving quickly. To be successful, you need the latest information at your fingertips, and a trustworthy guide to help connect you with key partners and decision makers.

Drive Oregon is a non-profit organization working to promote, support, and grow the electric mobility industry. Our membership includes more than 100 companies and reflects the breadth of the supply chain. We offer members unique programs, services, and events that connect leaders and influencers.

Benefits of Drive Oregon Membership

Members gain exclusive access to essential resources, industry information, and new business development opportunities. Membership benefits include:

- Access to the latest industry news, innovative programs, and case studies from
 Oregon and around the nation through our email newsletters, events, and workshops.
- Information about funding opportunities to help grow your business, as well as one-on-one help to find partners and prepare funding proposals.
- Networking opportunities with potential partners and suppliers at monthly events, all free of charge for Drive Oregon members.
- Increased company visibility through industry trade shows, thought leadership, and sponsorship opportunities.
- Membership in the Energize Oregon Coalition, providing you access to critical conversations that are shaping the future of electric vehicles in Oregon and beyond.
- Invitations to attend and exhibit at the annual EV Roadmap Conference for a special discounted price.

Success In its first three years, Drive Oregon Stories awarded over \$500,000 in matching grants, leveraging over \$15 million in outside investment, while providing hands-on help and advice to dozens of companies.



Brammo

Brammo, based in beautiful southern Oregon, designs and develops electric vehicles including the award winning Brammo Enertia motorcycle and the Empulse R - the fastest production electric motorcycle. Drive Oregon has supported Brammo by providing introductions to fleet managers, and has worked to ensure that government policy supporting electric cars also applies fairly to vehicles with less than four wheels.

www.brammo.com



Rinehart Motion Systems

Oregon has a proven track record in developing and producing high-quality power electronics, and Rinehart Motion Systems is a product of that tradition. Rinehart is sharply focused on providing propulsion inverters and ancillary power electronics assemblies for electric and hybrid electric ground vehicles – including Formula One race cars, trucks, buses and passenger cars. Drive Oregon has worked with Rinehart to strengthen their marketing and export strategies, and has provided connections to regional partners who are helping Rinehart grow.

www.rinehartmotion.com



EV4 Oregon

Through Drive Oregon's Matching Grant program, EV4 Oregon received funding to further develop and test its unique solar powered ETM™ charging station. The ETM™ (Energy Transfer Merchant) is an electric vehicle charging station that uses a solar canopy and battery storage to provide DC2DC™ quick charging in areas where grid limitations or high demand charges make existing DC fast chargers impractical. EV4 is closely working with two other Drive Oregon members - Powin Energy and OpConnect – who provide the battery module, battery management system, and back office billing software for this unique product. Thanks to Drive Oregon, EV4Oregon has now proven its product works and is negotiating sales across the country - and internationally.

www.ev4oregon.com



Expanding Oregon's Market

Drive Oregon co-chairs the Energize Oregon Coalition, a diverse stakeholder group working to strengthen and accelerate the market for plug-in electric vehicles in the region. Created by a Memorandum of Understanding between Oregon Governor John Kitzhaber, Drive Oregon, and the Oregon Department of Transportation, the Coalition ensures that Oregon will continue to be a leader in electric mobility.

Creative Collaboration

The Coalition serves as an initial point of contact for electric vehicle efforts in Oregon, as a forum for sharing information and best practices, and as a coordinating body for the many electric vehicle projects around the state. Coalition members have formed volunteer workgroups to focus on specific priorities, such as strengthening Oregon's policy incentives that encourage transportation electrification.





Success Story

The ability to charge at work makes consumers more likely to purchase electric vehicles, and drives increased sales among their coworkers as well. The Coalition and Drive Oregon are leaders in helping employers accommodate employees who choose to commute in electric vehicles. A leading Ambassador for the U.S. Department of Energy's Workplace Charging Challenge, Drive Oregon recruited more employers than any other Ambassador in the program's first year, including the State of Oregon - the first U.S. state to join the challenge.

Interested in Learning More?

When it comes to the rapidly growing electric mobility industry, consider Drive Oregon your inside advisor. Sign up today on our website to begin experiencing the benefits of membership. If you represent a government agency or non-profit organization, contact us directly, as you may be eligible for a dues reduction or waiver.



Learn more about our programming, current members, and how to join at www.driveoregon.org.

We Look Forward to Hearing From You!



For questions about Oregon's electric vehicle industry and supply chain, contact:

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To learn more about electric vehicle deployment initiatives or the Energize Oregon Coalition, contact:

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For all other inquiries, contact the Executive Director:

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Drive Oregon receives substantial support from the State of Oregon, using Oregon State Lottery Funds administered by Business Oregon, as part of the state's innovative economic development strategy. This support allows us to keep our annual dues extremely affordable.





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