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Pacific Northwest Electric Vehicle Showcase

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Executive Summary

The Pacific Northwest Electric Showcase combines some of the best aspects of existing Forth programs but at a regional scale with increased long-term certainty and a greater capacity to test new innovations. The goal of the Showcase is to transform the market in the Pacific Northwest from early adoption to early mainstream for PEVs in the Pacific Northwest, putting Oregon and Washington on a sustainable path to increase sales more than tenfold, to at least 15% of all new cars sold by 2025. A physical storefront showcase, the Go Forth Electric Vehicle Showcase (GFEVS), for electric vehicles located in Portland Oregon opened May 1st 2017 and “pop-up” mobile events in Oregon and Washington are planned to continue as part of this work at least through 2019.

1 Landscape

The Pacific Northwest Electric Showcase has emerged as a natural next step for Forth and its partners, building on its strong history of success in advancing electric vehicle deployment in the region. Forth, formerly known as Drive Oregon, is a nonprofit 501c6 trade organization with an affiliated 501c3, the Forth Foundation. Originally tasked by the State of Oregon to accelerate the growth of Oregon’s electric vehicle industry, Forth has used over \$4 million in state funding to leverage well over \$15 million in outside investment to this purpose.

As a leader in per-capita PEV sales, the Pacific Northwest is in a unique position to make the leap from early adopter to early majority toward the “tipping point” for PEVs. Since the region is already starting at a higher level, we feel we can achieve greater penetration will effective engagement tactics provide a roadmap for other regions.

Our market includes cities Portland Oregon, and Seattle Washington both which hold high sales penetration of plug-in vehicles registration. While the market similarities of the two states can benefit from regional tactics of marketing and messaging, automaker positions treat these two states differently due to zero emission regulations.

1.1 Rebates

In July 2017 Forth helped introduce and pass (39-20) HB 2017-10, a bill in the Oregon legislature. This bill provides a \$2,500 point-of-sale credit to Oregon residents on electric vehicle purchases under \$60,000. It is currently unclear if the \$7,500 federal tax credit will expire at the end of 2017. Despite Oregon leading in per-capita electric vehicle car sales in the domestic U.S. market, consumers have not historically had access to a state-level incentive for plug-in vehicles. As consumers consider new plug-in purchases starting in 2018 the new rebate can be used as a down payment, or to otherwise “buy down” the purchase price of a new car.

2 Leadership

Forth’s structure, mission alignment and nimble approach set it apart as an administrator of a large-scale consumer education campaign. Many prior PEV outreach and deployment efforts have been led by government agencies, public-private coalitions or conservation NGOs, which tend to be reluctant to discuss pros and cons of specific products and are often reluctant to market and sell vehicles aggressively. Forth occupies a unique and powerful intermediary role: as an industry-driven organization it with a laser focus on marketing and sales but able to provide an unbiased source of information about electric mobility options. In addition, Forth can tap into a deep bench of key partners across the PEV landscape- from OEMs to government agencies.

Forth has also had success in growing the regional EV Roadmap Conference¹ into a national event that draws leading thinkers to Oregon, focusing greater attention on our regional electric vehicle companies and leadership. That effort has been wildly successful. The latest EV Roadmap Conference, held June 2017 in Portland, attracted over 600 industry leaders from across the country and several foreign nations, and the event has become widely regarded as the best in this space. Roadmap 11 in 2018 will be held in the Oregon Convention Center to accommodate continued growth.

Forth has also demonstrated success with engaging employer organization on the value of workplace charging programs. The US Department of Energy launched the Workplace Charging Challenge to convince more employers to provide charging for their employees – and has found that employees at participating workplaces are up to 20 times more likely to drive electric vehicles.² For the life of that program, Forth recruited more employers than any other organization in the country. The employers we recruited account for 16% of all partners in the nation, and include global firms such as Nike, Intel, and HP as well as small, local businesses such as Classique Floors and Hawthorne Auto Clinic. Now that USDOE has ended the program, Forth is working with partners to recreate a national program, led from the Pacific Northwest; we expect to announce this program’s launch within the next few months.

2.1 Rebranding

In April 2017 Forth rebranded from our former name of Drive Oregon. This reflected a change in our geographic operations, as we formerly concentrated efforts in Oregon, but have now expanded to Washington state with future plans to expand to the Pacific Northwest as a whole. This rebranding was done prior to the opening of the GFEVS, so the change was able to reflect our new endeavours as well as new physical space. Additionally, external feedback led us to choose a name that would easily align with connected, autonomous, and smart mobility work, including active transportation.



Figure 1: Go Forth Electric Vehicle Showcase 901 SW 1st Portland, Oregon USA

2.2 Background to opening the physical Go Forth Electric Showcase

To primarily fund the GFEVS, Forth applied for and received a 3 year, \$1 million grant from the United States Department of Energy. As part of the application, Forth secured over 30 letters of support from auto manufacturers, Pacific Northwest utility companies, EV charging station manufacturers and various city, state, and federal elected officials and governmental organizations. These letters contained statements of support for both the GFEVS and pop up events to be held throughout Oregon and Washington and outlined monetary in-kind contributions. Oregon remains one of the top electric vehicle markets in the country on a per capita basis, and has seen strong growth in electric vehicle sales since 2011. Strong partnerships and marketing work, led in part by Forth, have helped make Oregon an “unconventional success story” in this regard.³

The Go Forth Electric Showcase, in downtown Portland has further focused national attention on Oregon’s leadership.⁴



Figure 2: Go Forth Electric Vehicle Showcase 901 SW 1st Portland, Oregon USA

2.3 Partnership with Utilities and location selection

Forth has had a strong relationship with regional energy provider Portland General Electric (PGE) since inception. PGE is a large regional utility and supports initiatives such as the PGE Employee EV Owners Club, Workplace Charging and has offered EV purchase rebates to their employees. PGE was a natural collaborator when searching for a physical area for the showcase, as PGE occupies multiple offices in the downtown Portland World Trade Center (WTC) complex of buildings.

Forth was able to secure a 900 sq ft highly visible, street-facing unit in the World Trade Center for a reduced rent from PGE. Of note is the unfortunate lack of available parking for this site.

The GFEVS can unequivocally be considered a collaborative effort from many industry players. In addition to the assistance provided by PGE, we received demonstrations charging stations from manufacturers like ChargePoint and ClipperCreek. Brink Communications helped design the GFEVS integrating two interactive display screens with PlugShare and the EV Match Finder. GenZe Bicycles displays several different models of electric bikes and scooters. Additionally, the City of Portland provided street parking for six vehicles on SW Salmon and SW 1st avenue to support ongoing ride and drive efforts at the showroom. As designed, the project will need to secure more than 1.2 million USD of partner match in order to keep the 3-year federal grant secure.

As marketing and consumer engagement were the focus of this project strong marketing and communication partners were needed as well. Forth contracted with Brink Communications to lead the consumer facing design, partnered with the Oregon Auto Dealers Association (OADA) for dealer engagement and the Portland Autoshow, and Celio Group for promotion through the Chinook book and their digital channels.

3 Tactics

The Showcase has deployed a number of innovative tactics to engage consumers and drive PEV adoption.

3.1 Media Campaigns and EVRM 10

With the opening of the GFEVS, Forth was able to leverage many types of media coverage to generate awareness and interest. Two television spots, radio advertisements, newspaper articles and email campaigns are just a few of the methods that were used to inform potential visitors. While many of the articles and stories were, similar commonalities focused on the need for consumer adoption and the innovative way to think beyond the legacy dealership and customer relationship⁵. Further leveraging the rebrand of the organization a short animated film was produced expanding on the Showcase introduction and related transportation and program work.

On June 19-20, 2017 Roadmap 10 (EVRM 10) was held across the street from the GFEVS. The Roadmap conference was founded by PGE and Portland State University and is one of the leading electric vehicle conferences in the United States. This year the conference had 660 registrations, over 50% from the previous year. The GFEVS was open the extended hours during the entire week so that industry professionals could tour, observe and speak with the Forth Showcase employees.

3.2 Short-Term Test Drives

One of the key features of the GFEVS is the ability to offer test drives of EVs in our fleet. Potential test drivers are first directed to the Forth website where they can make a reservation or if capacity allows they may be able to test drive at the time that they walk into the showroom. GFEVS currently has three test drive vehicles to choose from: 2014 Nissan Leaf, 2017 Chevrolet Bolt EV and the 2016 Ford CMax Energi. Of note, the Toronto EV Centre has a similar fleet roster. The procurement of these vehicles was challenging, and the perception of the public in relation to the procurement should be noted. Many test drivers have stated that they assumed that Forth received the vehicles at a free or reduced price and that local dealerships would have a strong vested interest in provide the GFEVS with cars. This has not been the initial case; Forth has worked and continues to work on increasing local dealership participation. All of the vehicles were either leased or purchased.

Table 1: Daily Number and Daily Average of Test Drives


Month	Number of Test Drives	Daily Average
May	14	.56
June	29	1.07
July	49	1.88

3.3 Long-Term Test Drives

To encourage consumers who need extra time in a car, Forth has listed two of its fleet vehicles, the Chevy Bolt EV and the Ford CMax Energi on the crowd-sourced car rental platform Turo. This peer-to-peer car share program allows vehicle to be rented for up to a month at a time and allows a consumer to make a road trip, and otherwise experience living with an electric vehicle. Many showcase visitors have expressed interest in this program and the potential to test a car on their own for an extended period of time. This option for experiencing a plug-in can also extend a reason to not own a second vehicle as you can borrow or rent from a neighbor when that option is needed. The Chevrolet Bolt EV has proven extremely popular for test drives due to high demand for test drives and is not usually available on Turo long-term rentals. The Turo platform requires no hardware to be installed, allows the vehicle rental rate to be set by the car owner, and provides insurance for the vehicle in exchange for a portion of the rental revenue. High quality images were also provided courtesy of a Turo hired photographer.

TURO

Verified photo



1 of 16

Esther's

CHEVROLET BOLT EV 2017
LT

★★★★★ · 2 trips

\$ **62**
per day

Figure 3: Turo Chevrolet Bolt Rental page

3.3 Consumer Education

The showcase is currently open Tuesday through Sunday and is staffed by trained and specialized Forth employees. As part of Forth's EV Ambassador program, EV-driving volunteers trained by Forth also staff the showcase while employees are on test drives.

The showcase does not have a 'typical' visitor. Some visitors are entirely new to the concept of EVs, others have been driving EV's for awhile and are interested in the newest electric car specifications. To meet the diversity of educational needs the showcase has several interactive displays.

Near the entrance, there is a screen of a BMW i3 with buttons that light up key differences between and EV and gas car; regenerative braking, the battery, and the accelerator.

The next display is an interactive screen of PlugShare, to show visitors that EV charging can be found easily in our location. This screen allows a use to plan a trip, select chargers, and otherwise visualize the density of chargers in their area.

The adjoining wall has several display models of charging units that visitors are able to handle and plug in and out via a demonstration charging port. This section of the exhibit has been designed with a "rotation" in mind and new charging units will be swapped in occasionally as determined by market conditions.

The project will also take "macro level" tools and marketing materials down to the "micro level" with community based partners and staffing. The Project will take plug-in electric vehicle (PEV) adoption to the next level in the Portland, Oregon Metropolitan Area and serve as a nationally replicable model. Utilizing a broad range of user responsive initiatives tailored specifically to the community and working closely with local and regional partners, the Project will build on data from existing PEV and hybrid owners in the region to create a targeted, comprehensive, multidisciplinary approach to PEV promotion.

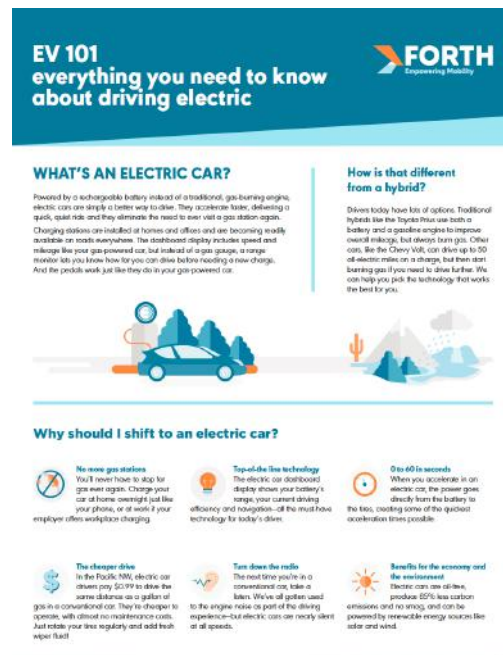


Figure 4: EV 101 Educational Collateral

3.4 Initial Findings

The GFEVS has logged 895 visitors as of August 1, 2017.

Table 2: Daily Number of Visitors to the GFEVS and Daily Average Per Month

Months of Operation	Daily Visitors	Daily Average
May	210	8.4
June	398/237	14.74/9.87
July	287	11.03

4 Next steps

As the Forth team enters year two of their NW Electric Showcase project many considerations are on the table for discussion as plans are defined for future efforts. Without question, the new Oregon electric vehicle rebate will change the nature of outreach and plug-in education at the Go Forth Electric Showcase by providing a quantifiable reason to buy an EV. Other plans include further outreach and relationship building with local and regional dealerships. Dealership have the strongest role in new vehicles sales as and more programming comes online at the showcase space, dealer training, networking events, and others engagement techniques will be trialled.

This adaptive management approach to the showcase project will ultimately lead to refined and smooth running engagement systems that can serve as a way to move electric vehicle consumer adoption past the early adopter market and forward to the mainstreaming e-mobility.

References

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Authors



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Anne Ramzy is a Program Associate for Forth, a non-profit economic development organization with a mission to grow the electric vehicle industry in the Pacific Northwest. Anne staffs the Go Forth Electric Showcase and supports Forth's consumer engagement initiatives. She brings a background in customer service to the team. Anne has a B.A. in History from Lewis & Clark College.