Drive Oregon
Innovation in Electric Mobility

February 8, 2017

Representative Ken Helm
Chair, House Committee on Energy and Environment
Oregon State Legislature
900 Court St. NE, H-285
Salem, Oregon 97301

RE: House Bill 2704

Dear Chair Helm, and Members of the Committee:

Drive Oregon is pleased to offer our strong support for House Bill 2704.

The transportation industry is seeing its largest and most disruptive changes in decades, as shared, connected, autonomous, and electric vehicle technologies gain increasing traction.

- Shared: Most cars sit parked over 95% of their lives. When they are driven, their average occupancy is 1.08 people. That means we're using about 1% of their potential capacity. Strategies to share these cars can dramatically reduce costs and parking needs.
- Connected and Autonomous: The "self driving car" is exciting, and the technology is advancing quickly, but there are many applications short of full autonomy. Simply having cars communicate with each other and with infrastructure can reduce congestion, pollution, and accidents. In fact, USDOT estimates that this technology could address over 80% of all crashes.[1]
- Electric: Of the potential energy in a gallon of gasoline, only about 1% actually moves the car forward. Electric vehicles are 60-80% more energy efficient. Several analysts are predicting that electric vehicles could dominate new car sales within a few decades.[2]

Electric vehicles will dramatically reduce the environmental impacts of driving, and are cheaper to operate. However, while their sales are increasing rapidly, they still represent just over 1% of new cars sold in Oregon, and they still have higher up-front purchase costs. A short-term investment is needed to "jump start" the market for these vehicles,

[1] http://www.its.dot.gov/connected_vehicle/connected_vehicle_research.htm
[2] https://www.bloomberg.com/features/2016-ev-oil-crisis/

meeting the state's environmental goals, and ensure that a broad cross-section of Oregonians can benefit from this technology.

House Bill 2704 will help jump start the electric vehicle market. The bill:

- Creates a program offering rebates of up to $2,500 for electric cars.
- Creates larger rebates of up to $250,000 for electric transit buses.
- Funds a demonstration project to increase electric vehicle use in low income households most heavily impacted by air pollution and high transportation costs.
- To increase efficiency and minimize costs, directs that the Oregon Department of Environmental Quality contract with independent third party nonprofit organizations to manage both programs, following a model that has been successful in California, Connecticut, and Massachusetts.
- Provides for $23 million in funding for the rebates through an auction of tax credits at levels comparable to what has been historically allocated to Oregon DOE transportation energy programs, and allocation of some Volkswagen settlement funds.

Electric vehicles are critical to meeting Oregon's environmental goals. Cars, trucks, and buses are a major source of smog and toxic air pollution. As the Oregon Global Warming Commission recently pointed out, transportation pollution is also the greatest challenge to meeting Oregon's greenhouse gas goals. Electric cars charging on Oregon's current grid are the equivalent of 94 MPG gas cars, and will only get cleaner in coming years as the grid gets cleaner.[3] Meeting Oregon's greenhouse goals will require dramatic acceleration of electric vehicle sales, rising to include virtually all new car sales by 2050.

Electric cars are increasingly affordable and popular. Electric vehicle sales are growing faster than hybrid car sales did in their early years, with more models being offered every year and costs dropping rapidly. There are several electric cars available for lease for under $200 per month[4], and driving on electricity is like paying about $1 per gallon for gas.[5] The recently introduced Chevy Bolt EV has a price tag of about $30,000 after federal tax incentives, and an all-electric range of 238 miles, and was recently voted Motor Trend's Car of the Year.[6]

Electric cars produce an "electric dividend" for Oregon families. For most families, transportation is the second highest monthly expense, with an average cost of $713 per month per automobile.[7] An average Oregon family can save hundreds of dollars per month driving an electric vehicle – and that extra savings can help them buy clothing, food, or even college tuition for their children.

---

[3] http://www.ucsusa.org/clean-vehicles/electric-vehicles/life-cycle-ev-emissions#.WJiyjbYrLBI
[4] See e.g. Nissan Leaf offered at $199/month with $1,999 down: http://www.tonkinwilsonvillenissan.com/tonkin-wilsonville-nissan-as-advertised-specials
[5] http://energy.gov/maps/egallon
[6] http://www.chevrolet.com/bolt-ev-electric-vehicle.html
[7] http://newsroom.aaa.com/auto/your-driving-costs/

The "electric dividend" also helps Oregon's economy. Oregon has no oil wells or refineries; when families shift spending away from gasoline, more of that money stays in Oregon. That shift creates up to 16 times more jobs[8] and contributes to economic growth and increased tax revenue. Oregon's electric car families already add an estimated $10 million annually to our economy, and every time a family chooses an electric vehicle, it stimulates Oregon's economy enough to increase tax revenue by up to $1,503.[9] Third party economic analysis of the rebate Drive Oregon proposed during the 2015 Legislative session showed that it would increase Oregon GDP by a net of $83 million.[10]

The most effective way to advance electric vehicles is "cash on the hood." Multiple studies - and real-world experience - shows that lowering the upfront purchase cost of these cars is the best way to increase sales.[11] There are also strong counter-examples: for example, the Atlanta area emerged as a top electric vehicle market thanks to a $5,000 state incentive. When that incentive ended, sales dropped over 80%.[12] While Oregon has been a leader in many ways, electric vehicle sales are still lower here than in neighboring California and Washington State, which both provide incentives for vehicle purchase.

Rebates make electric cars affordable for middle class Oregon families. Electric cars are cheaper to operate than gasoline cars, but they are still more expensive up front – and those $200/month leases often require down payments of $2,000 or more. A rebate can be used as the down payment on a vehicle lease or purchase, is certain and immediate, and is available even to working families that don't have much tax liability. These factors make rebates the best way to make electric vehicles more affordable for middle class families.

Electric transit buses also need rebates. Like electric cars, electric transit buses are clean, efficient, and cheap to operate. Several Oregon transit agencies, including the Lane Transit District and TriMet, are beginning to add electric buses to their fleets. However, these buses also have higher initial purchase costs that are difficult for transit agencies to cover. HB 2704 will help accelerate transit electrification by providing purchase rebates to lower these costs as well.

Oregon has done a good job in providing charging infrastructure and supportive public policy; a purchase incentive for the vehicles themselves is the key policy we are missing.

Thank you again for the opportunity to testify.

---

[8] http://www.caletc.com/wp-content/uploads/2012/11/economic-jobs-assessment-fact-sheet.pdf
[9] The Returns to Vehicle Electrification, www.driveoregon.org
[10] http://driveoregon.org/new-report-documents-economic-impact-of-state-electric-vehicle-rebate-program/
[11] https://www.nytimes.com/2015/10/17/business/international/norway-is-global-model-for-encouraging-sales-of-electric-cars.html?_r=0
[12] http://www.utilitydive.com/news/georgia-electric-vehicle-sales-shrink-80-in-wake-of-tax-credit-repeal/434092/

Best regards,

Jeff Allen
Executive Director
Drive Oregon
Jeff.allen@driveoregon.org
(503) 724-8670

About Drive Oregon. *Drive Oregon is a nonprofit organization working to accelerate the growth of the electric and "smart" mobility industry and promote greater adoption of these technologies. Historically, Drive Oregon has been funded in part by Oregon State Lottery funds through the Oregon Innovation Council, but our work on this proposal is funded by our 120+ member companies and organizations; no state funds are ever used for such purposes.*