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Good afternoon, Chairwoman Vega Pederson, Vice Chairman Johnson, Vice Chairman Reardon, and members of the Committee. Thank you for inviting me to testify today.

My name is Robert Wescott, and I am President of Keybridge Research LLC, a boutique economic consulting firm based in Washington, DC. Keybridge provides economic analysis and research to Fortune 500 companies, major global financial institutions, non-profit organizations, business associations, and U.S. federal government agencies.

I have a Ph.D. in Economics and 35 years of professional experience working on macroeconomic, energy, and public policy issues. Before founding Keybridge, I served as Chief Economist at the President's Council of Economic Advisers and also as Special Assistant to the President for Economic Policy at the White House. Prior to that, I was the Chief U.S. Economist at the economic modeling and consulting firm, Wharton Econometrics, now known as IHS Global Insight. I also spent part of my career as an economic researcher at the International Monetary Fund. Over the years I have testified before the U.S. Congress on economic, financial, and energy policy matters.

Today, I would like to report on a new economic modeling study commissioned by Securing America's Future Energy (SAFE) in partnership with the Electrification Coalition and prepared by my firm, Keybridge. This study — entitled "Impact of Introducing an Electric Vehicle Rebate on the Oregon State Economy" — examines the impact of implementing a rebate for purchasers of battery electric vehicles (BEVs) and plug-in hybrids (PHEVs) on the state economy of Oregon. This study finds that Oregon's GDP (which also equals aggregate state income) would be higher each and every year if an EV rebate were implemented, even if other state spending were reduced by the aggregate value of the EV rebates. The net benefits would accrue to the state under all plausible gasoline price assumptions.

I. KEY FINDINGS OF THE STUDY

To evaluate the impact of an electric vehicle (EV) rebate, this study evaluates two scenarios — a "baseline" scenario in which Oregon continues to have no EV rebate and a "policy" scenario that assumes that an EV rebate goes into effect starting in 2015 and lasts for five years—until 2019. The study quantifies the impact of a rebate on state GDP by comparing the two scenarios. The study considers a 16-year time horizon from 2015 to 2030, designed to coincide with the average lifetime of new vehicles (i.e., vehicles purchased in the fifth and final year of the rebate are assumed to be taken off the road in the last year of the modeling time horizon).

The study uses a "bottom up" approach that begins with an accounting of the household-level response to the introduction of the rebate and aggregates up to the state-level. The study's micro-level consumer model is based on the Electric Power Research Institute's (EPRI) 2013 and 2014 reports on the economics of EV ownership, which provide detailed estimates of the cost of owning and operating an EV relative to conventional vehicles. The study's macroeconomic modeling of the state-level impacts relies on a 70-sector model of Oregon's economy developed by REMI, Inc., a leading supplier of regional economic models.

The study finds that a tiered EV rebate — $3,000 for BEVs and $1,500 for PHEVs — would boost Oregon's real GDP each year between 2015 and 2030.

- The cumulative 5-year gain in Oregon's GDP would be $38 million, and the cumulative 16-year gain would be $83 million.

- This overall gain in Oregon GDP occurs despite an assumed reduction of state government spending by the same amount as the aggregate EV rebates, in order to keep the state's budget balance unchanged.

- Further, the study finds that with the rebate, Oregon drivers would save $46 million in gasoline bills over the next five years and $212 million through 2030. On top of fuel savings, Oregon drivers would also save a cumulative $55 million on maintenance costs through 2030. These savings are only partially offset by a cumulative increase of $59 million in higher electricity bills. That is, after these fuel savings, Oregon consumers would have additional money to spend on other goods and services in Oregon.

- The study assumes that gasoline prices average $2.62 a gallon in 2015, $3.21 in 2020, $3.74 in 2025, and $4.26 in 2030—in line with the latest U.S. Department of Energy gasoline price projections. However, the study also looked at a low gasoline price scenario that assumed that gasoline prices were $1 per gallon lower every year (including $1.62 a gallon in 2015), and a high gasoline price scenario that assumed that prices were $1 per gallon higher every year (including $3.62 a gallon in 2015). In all gasoline price scenarios, Oregon's state GDP was consistently higher in every year with an EV rebate, although the benefits were larger in the higher gasoline price scenario. In a low gasoline price scenario, GDP increases by a cumulative $33 million in the first five years and by $63 million over the 16-year horizon. In a high gasoline price scenario, GDP increases by $44 million over five years and by $104 million over 16 years.

Two key factors account for the increase in state GDP. First, with more EVs on the road in the case of an EV rebate, Oregon drivers would pay less for transportation fuel because electric vehicles are significantly cheaper to operate over their lifetime than conventional vehicles. This would boost spending on other Oregon-produced goods and services—electricity, in particular. Second, the rebate would incentivize more EV purchases, and therefore there would be more inflows of federal government EV income tax credits into the state. These federal inflows represent an additional form of net income for Oregon households.

II. WHY ENACT A REBATE?

Economists apply a fairly straightforward test when evaluating a proposed new program from a public policy perspective. Specifically, economists perform a cost-benefit analysis of a proposed policy in order to determine whether or not that policy will yield net benefits or net costs. The modeling exercise that underpins this study is essentially an elaborate cost-benefit analysis, the results of which indicate that an EV rebate program would yield net economic benefits to the state of Oregon in the form of a boost to GDP, even after the incentive is fully paid for by the state.

In addition to this "first-order" cost benefit test, there should also be a compelling reason why a specific new policy should be enacted. Is it, for example, an "infant industry" that needs state encouragement to help it get established and gain enough of a foothold in the marketplace that it can start to enjoy the economies of scale (and falling costs) that an older competitor may already enjoy? The EV marketplace does have a number of "infant industry" characteristics that policymakers might legitimately attempt to address. EVs can face more limited fueling/charging infrastructure options than conventional vehicles enjoy, which can be a hurdle to their purchase. Also, relatively small EV sales rates today mean that EVs still do not enjoy the economies of scale that they eventually are likely to realize as sales volumes increase. Quite simply, battery costs and electric motor costs are likely to decline over time as production scales up. Potential EV purchasers also likely struggle with understanding new vehicle purchase models that may challenge their traditional household budgeting patterns. For example, EVs typically entail a higher upfront purchase cost, but then save their owners money over time due to their lower fuel costs. However, even though EV purchases can typically save significant money on a total cost of ownership basis, they many need encouragement to consider new ways of budgeting and planning. Arguably, policymakers could help consumers become more familiar with these new EV ownership economics, and overcome some of these other hurdles, by providing special incentives.

There could be other benefits for a state like Oregon as well. The study also found that an EV rebate would serve as a type of insurance policy against future gas price fluctuations. In the event that unforeseen economic or political events prompt a severe and sustained oil price shock — simulated in the study as a sudden $1.50 spike in gas prices in 2020 and 2021 — Oregon consumers would save an additional $7.6 million per year on fuel costs. This $7.6 million per year comes on top of the approximately $16 million in gasoline savings derived from the state rebate under a "normal" gas price scenario over the same time period.

III. CONCLUSION

In summary, this study finds that introducing a $3,000 rebate for BEVs and a $1,500 rebate for PHEVs with an electric driving range of at least 10 miles would boost Oregon's GDP by $83 million over the period from 2015 to 2030. The benefits will accrue to the state under any plausible gasoline price assumption.

Madame Chairwoman and members of the Committee, thank you again for inviting me to testify. I would be happy to answer any questions you may have.