OREGON LEGISLATIVE ASSEMBLY: Joint Committee on Transportation HB 2963 E-Bike Subsidy Bill (March 17, 2025)

My name is John MacArthur and I am the Sustainable Transportation Program Manager for the Transportation Research and Education Center (TREC) at Portland State University. I am submitting written testimony in response to the proposed electric bicycle (e-bike) purchase incentive program in HB 2963. I have been researching e-bikes for over 15 years. Through this research, we have seen that e-bikes have the potential to get more people biking and more people biking more often. The adoption of e-bikes can reduce vehicle miles traveled (VMT) and carbon emissions, while promoting transportation equity and physical activity.

In 2024, the U.S. e-bike market grew by 50%, and on unit sales alone, e-bikes still outsell electric vehicles nationwide. Over 700,000 million e-bikes were sold nationwide in 2024. This figure likely represents roughly two-thirds of all units sold in the U.S., because it doesn't include online independent bicycle dealers, third-party online sales, or direct-to-consumer sales.

E-bikes can play an important role in people's everyday travel needs. One of our surveys of e-bike owners in North America found that 34% used their e-bike for commuting and 29% used it for errands. Nearly half of the e-bike commutes would have been made in a private car otherwise. Some of the top motivations for getting an e-bike were to overcome typical barriers to cycling such as carrying heavier loads, going up hills and traveling longer distances, revealing that e-bikes expand the potential for cycling. In a 2020 article, we estimated that in Portland for a 15% e-bike person-miles-traveled (PMT) mode share, the car trip mode share could be reduced from 84.7% to 74.8%. Total car PMT per day could be reduced from 28.9 million to 25.5 million miles, which would reduce CO2 by 12% after accounting for e-bike emissions from electricity generation and induced e-bike trips. Figure 1 highlights some additional research findings related to e-bike usage.

All these findings indicate that e-bikes have great potential to address pressing policy concerns, including climate goals and improving accessibility and mobility needs for underserved populations. But policy and investment are needed to increase the use of these modes for everyday travel, if people are given suitable support: improved paths and lanes, suitable parking and charging facilities, lower urban traffic speeds, transportation demand management (TDM) incentives, plus purchase subsidies or rebates.

E-bike incentives like rebates, vouchers, tax credits, and even simple lending libraries have proliferated in recent years and have emerged as tools for policymakers and legislators, who see e-bikes' potential to decrease emissions, provide efficient mobility, make streets safer, and increase physical activity all at once. In a new white paper "Using E-Bike Incentive Programs to Expand the Market – Trends and Best Practices," we looked at more than 75 current, former, and upcoming efforts to subsidize the use of e-bikes in the U.S. and Canada, and developed a framework for how those programs might have an even bigger impact in the future. While e-bikes are much less expensive than a car, prices still range from \$1,000 to \$5,500, and higher for cargo-style e-bikes. Our research on e-bike incentives found that in some cases, an incentive for e-bikes could perform better than one for electric cars in terms of cost efficiency, equity goals, number of incentives provided, and the potential of total CO2 emissions saved. We are currently tracking programs around the U.S. to build a knowledge base on the effectiveness of these programs.

If Oregon passes an e-bike incentive program, it will join California, Colorado, Washington, Minnesota, Connecticut, Hawaii, Massachusetts, Rhode Island, and Vermont, in providing this innovative policy measure to encourage active transportation. Let me know if you need any more information related to other rebate programs in the U.S. or research related to the use of e-bikes. Most of our e-bike research is linked from this page: https://trec.pdx.edu/e-bike-research.

Using E-Bike Incentive Programs to Expand the Market – Trends and Best Practices: https://ppms.trec.pdx.edu/media/project_files/E-bike_Incentive_White_Paper_5_6_2022.pdf