

**Number:** 25-10

**Proposed Title: Understanding Motivations in E-Bike Ownership and use.**

1. Concisely describe the **transportation issue** (including problems, improvements, or untested solutions) that Oregon needs to research.

For multiple reasons (GHG, congestion, safety), the state and its partners are looking to decrease vehicle miles traveled (VMT). Recent research has shown that e-bikes are proving to be an effective new tool to further increase a shift to active modes and a decrease in VMT. To further capitalize on this trend, Oregon seeks to better understand who purchases e-bikes, and why/how they use them. What are the motivations around e-bike purchase and use, with the intent of using that information to further increase and accelerate the ownership and adoption of e-bikes.

2. Document how this **transportation issue** is important to Oregon and will meet the [Oregon Research Advisory Committee Priorities](#)

Oregon has specific goals related to decreasing VMT. There are Oregon specific datasets that will allow Oregon to better understand what opportunities e-bikes can play in meeting VMT reduction goals. There could be similar opportunities in surrounding states, but it's likely that many of the lessons learned may be very specific to Oregon (and/or the NW).

Of specific note, the State of Oregon has a unique opportunity to seize on an opportunity that comes around once every 13 years. The State is currently investing in a once-every-13-year travel behavior survey; to be completed and delivered to ODOT Summer 2024 - <https://oregontravelstudy.com/>. This survey will represent a current snap shot of who in Oregon owns and uses e-bikes; and how and why they are using those e-bikes. Portland State University (PSU) also has a recently conducted survey on potential e-bike buyers with around 500 Oregon residents, built around understanding the potential to purchase an e-bike and how incentives may help. And third, PSU has access to a 2023 (Spring) national e-bike user survey that collected responses from 4200 respondents nationwide, including 425 from Oregon residents. All three of these data sources give this research proposal an extremely fresh and timely opportunity to capitalize on the information available to make meaningful advancements in e-bike adoption and use, to help reach the state's GHG and VMT goals.

Additionally, this research is both timely and important because there are multiple funding opportunities either in development or expected designed to support e-bike adoption such as e-bike lending library programs and ownership incentives. Having a better understanding of the motivations for ownership and use will help the State and its partners make the best use of available funds.

3. What **final product or information** needs to be produced to enable this research to be implemented?

The results from this research will help update the agency's understanding of current buying habits and inform the development of statistical models usable in the ODOT and its partner agency's travel demand estimation tools to forecast e-bike ownership under various adoption strategies. Policy levers related to e-bike ownership levers and usable in this model framework may include the availability of low stress bicycle networks, purchasing incentives, secure bicycle parking, and other interventions that make buying and using e-bikes safe and convenient.

4. (Optional) Are there any individuals in Oregon who will be instrumental to the success of implementing any solution that is identified by this research? If so, please list them below.

ODOT Research is looking for individuals that have expert knowledge of the problem, key approval authority, will otherwise help oversee the study, or will implement the results of this work.

Name	Title	Email	Phone
Alex Bettinardi	Senior Integrated Analysis Engineer	Alexander.o.bettinardi@odot.oregon.gov	503-949-2368
Amanda Howell	Micromobility and First/Last Mile Program Coordinator and Interim Innovative Mobility Program Manager	Amanda.HOWELL@odot.oregon.gov	971-718-1025
Joe Broach	Metro – Senior Researcher & Modeler; Oregon Travel Study – Project Manger	Joe.broach@oregonmetro.gov	503-797-1773
Nick Meltzer	MWVCOG - Senior Planner	nmeltzer@ocwcog.org	503-540-1607

5. Other comments:

These opportunities for this type of rich data (at the cost of about \$6M) only come around every 13 years. Let's not miss this opportunity to make the most of the State's data purchase.

6. Corresponding Submitter's Contact Information:

Name:	Alex Bettinardi
Title:	Senior Integrated Analysis Engineer
Affiliation:	ODOT-TPAU
Telephone:	503-949-2368
Email:	Alexander.o.bettinardi@odot.oregon.gov