

State behind on electric goals

By **TED SICKINGER**
The Oregonian

David Bernal, a 36-year-old software engineer from southeast Portland, went all electric last summer, plunking down \$50,000 on a Tesla Model 3 extended range electric car and another \$2,000 on a home charging set up.

His purchase was primarily driven by guilt about all his driving and its impact on climate change — enough remorse to overcome the high upfront costs and his anxiety about taking long trips and potentially running out of juice.

He's been pleasantly surprised. Thanks to the car's 300-mile range and Tesla's proprietary supercharger network, he's comfortable with road trips like the one he took to Northern California this summer to see the redwoods.

"A lot of people I talk to think an EV wouldn't actually work for them, and for most people it's actually more practical than they realize," he said of electric vehicles.

If the aggressive greenhouse gas reduction goals laid out by Gov. Kate Brown and state lawmakers are to become anything more than political talking points, Oregon needs a lot more people thinking like Bernal, a rapid and radical shift in how people and goods move around the state, and a cultural revolution in how lawmakers and state bureaucrats approach the problem.

Burning fossil fuels for transportation — cars, trucks, buses, planes and trains — accounts for nearly 40% of the state's carbon emissions, its largest single share. Apart from a blip during the great recession, they have remained level or increased for the last decade.

In short, state data shows a growing gap between its aggressive goals and reality. In the transportation sector, Oregon is not on track to reduce emissions to 45% below 1990 levels by 2035 and 80% below by 2050. Not even close.

A newly developed Climate Action Plan from the Oregon Department of Transportation states that one of the most effective ways to reduce transportation emissions will be transitioning to zero emission vehicles, including battery electric, plug-in hybrids and hydrogen powered vehicles. It pledges to be a leader in that effort.

Advocates put it more bluntly.

"You either electrify the fleet or you don't meet your climate goals," said Angus Duncan, the former chair of Oregon's Global Warming Commission.

But the state already lags well behind the steep adoption curve for the number of zero emission vehicles that ODOT forecasts will be necessary to meet its emission reduction goals. Access to Oregon's public network of electric chargers is inequitable and anemic, well short of what studies suggest will be necessary to support even moderate levels of electrification and quell drivers' range anxiety.

And perhaps most tellingly, state government is unlikely to keep pace with goals to electrify its own fleet of vehicles — despite having control over what to purchase and when.

Meanwhile, climate activists say the state is all but ignoring one of the biggest opportunities to transform urban transportation and reduce resulting emissions: electric bikes.

"There's no longer a debate about whether e-bikes are transformational," said Jonathan Maus, the editor of Bike Portland, an online biking news outlet. "It's already here. It's a proven concept. And it's cheap."

Yet in ODOT's studies of vehicle electrification and carbon reduction, he said, "they totally failed to embrace bicycling. They didn't even respect it enough to take it seriously. They slow walk this stuff while promoting the things they really care about."

"It's all car, car, car, car, car car."

Brown's office declined to answer specific questions about Oregon's lack of progress in curbing transportation emissions, and what, if any, accountability measures should be pursued.

But Liz Merah, a spokesperson for the governor, wrote in an email that "state agencies are making good progress on the climate action plans" submitted to the office last year.

"We know there is still more work to do to meet our climate goals, and that climate change is a crisis that must be tackled with



Richard Read/The Oregonian

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continued urgency," she wrote.

Falling behind

ODOT's Statewide Transportation Strategy, issued in March 2013, acknowledged the important role electrification would play in reducing greenhouse emissions. But its short-term implementation plan for that strategy, issued the following year, included mostly vague strategies like developing communications materials highlighting the benefits of electric vehicles, promoting EV tourism opportunities in Oregon and participating in the West Coast Green Highway Initiative to install charging stations up and down the Interstate 5 corridor. It included no concrete goals or outcomes.

Unsurprisingly perhaps, a 2018 monitoring report acknowledged that little progress had been made, and that if current trends continued, the state's carbon emissions from transportation would be higher in 2050, not lower — three times higher than the level targeted by the state.

Senate Bill 1044, passed by the Legislature in 2019, did set concrete goals for zero emission vehicles in the state: 50,000 in 2020, increasing to 250,000 in 2025, and the equivalent of 1.1 million in 2030 and 2.5 million by 2035. But the state is not on a path to achieve them either.

At the end of 2020, Oregon had just 32,000 registered zero emission vehicles, 35% short of its goal, according to the Oregon Department of Energy. And getting to the 2025 goal, it noted in a report issued earlier this year, would require more than a tenfold increase in the 4% market share of new vehicles that are electric.

Amanda Pietz, the administrator of ODOT's policy, data and analysis division and former director of its Climate Office, suggests the reason the state isn't hitting its electrification goals or seeing emissions decline is that gas has been cheap over the last decade, people have been holding onto their vehicles longer, and as the economy has recovered, they're driving more. Meanwhile, electric cars have

not yet reached price parity with those burning fossil fuels.

There is reason for optimism, she says. New and more efficient models of electric cars and trucks are arriving each year. Prices are dropping. The state has increased incentives and the feds may do the same.

ODOT's Climate Action Plan, issued in July, adopted a more modest electrification goal than the Legislature's — to triple the number of electric vehicles on Oregon roads by 2023, to about 120,000. But its own projections forecast that won't happen until the end of 2027 — meaning Oregon would also badly miss the Legislature's goal for 2025.

Critics say the electrification goals described in the Climate Action Plan are lackluster, and the agency needs to explicitly identify the combination of federal and state strategies that can plausibly achieve the state's greenhouse gas reduction goals.

From the standpoint of reaching the state's emission goals, it's important to get the electric transition going soon. ODOT data indicates that most vehicles stay in statewide registrations for 15 years.

"That means that someone who buys a non-EV today may not reach a point to purchase another vehicle until 2036," said Jessica Reichers, technology and policy manager at the Oregon Department of Energy. "And that's the average time, so some people will keep their cars even longer."

As it stands, ODOT is not forecasting any decline in motor fuel sales between now and 2029. That implies no reduction in related emissions. And if that turns out to be the case, transportation emissions at the beginning of 2030 would be 75% higher than the linear glidepath to hit the state's carbon reduction goal for 2035, according to Portland economist Joe Cortright.

Daniel Porter, ODOT's chief economist, says the agency's revenue and electric vehicle forecasts represent the agency's most likely scenario. They are not based on what the agency wants to see happen, or on the governor's executive order, he said, but purely on

consumer patterns and historical data.

While state law and the governor's order speak to the targets, "there's nothing in it that says we have to meet that goal" he said. "It says we want to meet that goal, but where's the stick to make that happen?"

There's no stick. Few of the state's carbon reduction policies passed to date are enforceable. The Legislature did provide a carrot, increasing incentives for purchases of new and used electric vehicles by low- and moderate-income households.

Meanwhile, the state looks like it will fall well short of a goal to electrify its own vehicle fleet used by government employees.

To spur electrification, legislators passed a bill in 2019 requiring state agencies to increase their zero-emission vehicle procurement to 25% of all light duty vehicle purchases and leases by 2025. Earlier this year, lawmakers passed House Bill 2027, increasing the requirement to 100% by 2025 to the extent they are available and capable of meeting the agency's specific needs.

The state fleet has averaged about 7,200 light-duty vehicles over the last five years. At present there are just 42 zero emission vehicles in its light-duty fleet, and the Department of Administrative Services expects an additional 100 to 150 deployed by July 2023, for a total of less than 3% of the fleet. At that pace, it won't come close to the 100% procurement goal, and it would take decades to replace the state fleet with electric vehicles.

There are obvious reasons. Reichers says pickups make up about a third of the state fleet. Some are used in remote areas that may require more range than electric vehicles available through 2025 may be able to provide.

Then there's the cost. A 2020 report by the agency concluded that the biggest barriers were the cost and effort to install charging stations at state facilities, the people needed to manage the program, and the incrementally higher costs of the cars themselves.

The study said that if the state were able to electrify the entire fleet right now — it can't — the incremental cost of the vehicles and installing the charging infrastructure would be \$200 million more than what it would pay to replace the fleet with internal combustion engine vehicles.

"The effort to electrify the state fleet will be spread out over a decade or two and we can expect to see vehicle and charging infrastructure costs to decrease over time," the report said. "However, the estimate above is a good

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