



Steven Senne/AP Photo

A Tesla electric vehicle sits in a charging station at a dealership in Massachusetts in February. Teslas are the most popular electric vehicle in Oregon, according to the state.

Oregonians driving more electric vehicles

By TED SICKINGER
The Oregonian

Your eyes don't deceive: the number of electric vehicles humming along Oregon streets in recent years is on pace to nearly triple, in large part due to a surge of sales by Tesla.

Oregon had 37,680 electric vehicles registered across the state as of May 1, and state officials predict the number could hit 45,000 by year end.

It stood at 16,545 just three years ago.

That spike in electric vehicles came despite the pandemic, which flattened the growth curve considerably. Now registrations are on the rise again. Electric vehicle advocates are hoping the state is reaching an inflection point where growth rates will accelerate markedly, signaling a transition away from internal combustion engines burning fossil fuels to a cleaner fleet emitting far fewer greenhouse gases.

Jessica Reichers, a technology and policy manager at the Oregon Department of Energy who helped author a 2021 report tracking progress and who maintains its data dashboard, says the registration numbers are growing every month.

"We're likely at that inflection point, but we don't know for sure, and COVID has tied all the data and projections up in knots," she said.

Even so, all that growth in recent years has barely made a dent so far in the state's long-term goals. Oregon has consistently ranked as one of the top markets for electric vehicles in the country, yet the state's nearly 38,000 registered EVs represent only about 1% of Oregon's registered light-duty vehicles, according to state figures.

What's more, the state fell well short of its goal of 50,000 registered zero-emission vehicles by 2020, according to the Department of Energy's 2021 Biennial Zero Emission Vehicle report. And it's not on track to achieve the 2025 goal of 250,000 registered electric vehicles, or the 2030 goal of electric vehicles accounting for 25% of all registered vehicles, and at least 50% of new annual sales.

The state report suggests that could change quickly as electric vehicles follow the same S-curve of technology adoption seen with everything from color television to flat screens and microwaves to mobile phones. It's not clear when that big ramp will happen, but it could be stimulated by falling prices, better state and federal incentives, improved batteries and range, a better charging network and a wider array of models.

But the report also noted that achieving the 2025 goal of 250,000 registered zero-emission vehicles would require growing the share of new vehicle sales from 4% today to about 47% — more than a tenfold increase.

"It's a slow-moving system," said Jeff Allen, executive director of Portland-based Forth, a nonprofit that promotes cleaner transportation. "Cars last a long time. Even if you flipped a switch and all vehicles sold were electric it would take years for the fleet to turn over."

Even so, he points to Norway, where electric vehicles made up north of 90% of new vehicle sales in September, a phenomenon driven by government policies that exempt them from various taxes and fees.

Oregon's data tracks only zero-emission vehicles, a byproduct of regulations first adopted in California, then by Oregon and 10 other states, that require car manufactur-

ers to deliver a certain number of zero-emission vehicles to the state. Those include battery electric vehicles, hydrogen powered — when they arrive — and plug-in hybrids, which rely almost fully on electricity until their battery is nearly depleted, then flip to their internal combustion engines. It does not include traditional hybrids, which are not classified as zero-emission vehicles and don't count toward state goals, though they're still better for the environment than traditional internal combustion vehicles.

The zero-emissions fleet comprises cars, trucks, vans, motorcycles, mopeds, and street-legal electric three wheelers such as the Arcimoto "Fun Utility Vehicle" manufactured in Eugene. All but a few hundred vehicles in the database are cars, trucks and vans. And about two thirds of them are battery electric vehicles.

No surprise, the most popular make in Oregon is Tesla.

If you add the sales of all its models, the company accounts for nearly half of the battery electric vehicles registered here and nearly a third of all zero emission vehicles. Other than the Nissan and Chevy, which make the second, third and fourth most popular zero emission models, no other manufacturer is really close.

The most common model on the road is Tesla's Model 3, which starts at about \$44,000. There are about 6,000 of them registered in Oregon, almost 20% more than the Nissan Leaf, but Tesla has been delivering them here

only since 2017, while the Leaf has been selling locally since 2011.

Leading the sales pack this year is Tesla's Model Y, the midsize SUV that went on sale in March 2020. About 1,100 were registered in Oregon last year, and it had already hit that mark again this year by May, with a starting sales price of about \$57,000.

Americans love their SUVs and trucks, so electric car advocates are hoping that the arrival of new models, particularly more SUVs like the Tesla or the Ford Mustang Mach 3, or pickups like the Ford F-150 Lightning, will drive higher adoption rates, perhaps even in rural Oregon.

The geographic picture is very skewed at this point. Multnomah County is home to 29% of the electric and plug-in hybrid fleet. The top five counties, which also include Washington, Clackamas, Lane and Marion, account for more than three quarters of all zero-emission vehicles. Deschutes County had the fifth-highest number of zero-emission vehicles, according to the dashboard.

The lowest total is in Wheeler County, with one electric vehicle registered. Only 12% are registered in rural parts of Oregon, the state report shows.

That mismatch reflects a variety of factors. The state's charging infrastructure is concentrated in the Interstate 5 corridor, quelling anxiety among buyers worried about running out of juice and getting stranded.

Allen says it's worth noting that the average Oregonian drives 20 to 30 miles a day, so their range anxieties may be overblown. But drivers in rural counties do drive longer distances, which may make the vehicles feel impractical. And the vehicles are still more expensive up front than an internal combustion engine, so sales in Oregon are highly correlated with household income levels, both at the county and census tract level.

They are also concentrated among owners of single-family homes as apartment and condominium dwellers may not have any charging options on site. That's an equity issue that advocates are hoping the state will address by supporting chargers in low- and moderate-income neighborhoods and multifamily

apartment buildings.

The Legislature has already tried to address the higher upfront costs of the cars. Oregon offers a standard rebate of up to \$2,500 for new all-electric, plug-in hybrid vehicles and zero-emission electric motorcycles priced under \$50,000.

Starting in January, the state will up the ante by offering up to an additional \$5,000 for mid-to low-income drivers, and will allow them to use that rebate on used vehicles as well. That could put the price of a used electric vehicle within reach for more buyers, though it may be a few years before a sizeable used market for electric cars develops.

As it stands, Reichers said more than 80% of electric vehicle sales in Oregon today are new, as opposed to 80% used for the overall market.

The federal government also offers incentives on electric vehicles, ranging from \$2,500 to \$7,500, depending on the capacity of the battery. Once a manufacturer's sales exceed 200,000, the available tax credit enters a phase out period, and the most popular makes are already phased or phasing out.

Advocates are hoping a federal infrastructure deal keeps the incentives flowing, potentially removing the phase out, increasing the dollar amount, or changing the structure so buyers without substantial tax liabilities can benefit too.

"It's a big transition," Allen said. "But in the 10 years I've been doing this, we've never had as good an alignment of the industry, the policy and the technology."

Josh Sargent made the leap in January when he replaced his aging Mazda 3 with a Chevy Bolt.

The southeast Portland resident says he got a great deal on the car — about \$26,000 after state incentives — because Chevrolet was offering blow out prices as it refreshed the model. And he figures that on a per mile basis, filling up with electricity versus gas has slashed the cost of his twice weekly roundtrip commute to Salem by at least half.

The hassle and expense of oil changes are gone, and he assumes long-term maintenance costs will be lower as electric cars have far fewer parts. His wife still has her Jeep for longer road trips — a fairly common ownership pattern. But with his daily driver, he's pleased he's cut his personal greenhouse gas footprint by a good margin.

"Global warming is real. I think it's the right thing do for my particular use," he said. Moreover, "when you drive a lot of miles, you notice gas is expensive. It's nice not having to notice gas prices anymore, particularly right now."

After watching his experience, Sargent says his mother and brother are considering electric vehicles for their next car purchases, too.

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Josh Sargent | Portland resident who recently purchased an electric vehicle

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