

State of Oregon Department of Environmental Quality Advanced Clean Cars II – Frequently Asked Questions

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What is the Advanced Clean Cars II Rule?

The rule requires auto manufacturers to produce and deliver for sale a certain percentage of zero emission vehicles in Oregon. These include both battery electric and fuel cell electric vehicles, as well as plug-in hybrid electric vehicles, which run on both electricity and gasoline.

Does this mean I can't drive a gasoline car after 2035?

No. You can continue to drive a gasoline car after 2035. The requirement is that new car sales starting with model year 2035 must be either full battery electric, fuel cell, or plug-in hybrid electric.

Can I buy a gasoline car?

Yes, you can continue to buy new gasoline cars up through the 2035 model year and used gasoline cars will continue to be available. While not everyone may be ready to make the switch to a full battery electric the regulation allows for new plug-in hybrid electric vehicles, which run on both electricity and gasoline, to be sold after the 2035 model year. Therefore, you will still have a variety of options to purchase for whatever type of vehicle fits your needs.

Can manufacturers meet the 100% electric vehicle requirement by the 2035 model year?

Yes. Manufacturers have continued to roll out new vehicles and are increasing production to meet the demand. GM, Volvo and Cadillac have already committed to going 100% electric no later than 2035. Other manufacturers have leaned in and invested hundreds of billions of dollars to develop and manufacture zero emission vehicles, including pickup trucks, SUVs and all kinds of passenger cars. In Oregon, we've seen a rapid increase in electric vehicle adoption over the past few years. In 2022, more than 8% of all vehicle sales are electric and it's expected this will continue to grow.

Why is Oregon pursuing this action now?

The concerns about climate change are real and immediate. We're seeing hotter summers, more forest fires, decreasing snowpack and increasing drought. In Oregon, transportation emissions account for almost 40% of overall greenhouse gas emissions, which affect climate change. By requiring all new vehicles to be zero emission, we're reducing our carbon footprint.

For the past few years, Oregon has undertaken significant steps to stem the tide of climate change. We've adopted <u>regulations</u> to reduce greenhouse gas emissions from fossil fuels used in transportation, residential, commercial and industrial settings.

Aren't electric vehicles more expensive than gasoline cars?

Right now, electric vehicles cost more up front but the electricity is cheaper than gasoline and the cost to maintain it is also cheaper. In the next few years, the up front costs will also drop as the price of the batteries decrease. Oregon also offers <u>rebates</u> to anyone buying or leasing an electric vehicle that can be stacked with federal tax credits.

Will an electric vehicle get me where I need to go?

Absolutely! Many of the new electric vehicles have a range above 200 miles, which meets most people's driving needs. For farther distances, there are <u>many charging options</u> across the state and along major road corridors. You can do fast charging at public DC Fast chargers, where your car can recharge in 30 minutes, or charge at Level 2 charging stations while you are at work.

Are electric vehicles reliable? How will I be able to repair my EV if it breaks down?

Yes, electric vehicles are very reliable, the same as gasoline vehicles. EVs have fewer components, meaning fewer things to break down and fewer parts to maintain. Also, there are no oil changes or belt replacements needed. Many cars can be fixed with a firmware update. Additionally, the new EVs come with the most protective consumer benefits, including both battery and parts warranties for the vehicle's typical lifetime.

Are electric vehicles safe to drive? I've heard about them catching on fire.

Electric vehicles are very safe to drive. A gasoline car is more likely to catch fire than an electric vehicle, according to a recent study¹. It found that fully electric vehicles are safer and less likely to catch fire, with just 25.1 fires per 100,000 sales. That's compared to 1,529 internal combustion engine fires per 100,000 sales respectively.

I live in a rural area/I like to go to the backwoods. How can I do that in an electric vehicle?

Manufacturers are currently making electric battery and plug-in hybrid electric pick-up trucks, SUVs and cars with 4WD and even more are expected to roll off the production lines in the next few years. These vehicles should meet your camping and backcountry needs. Also, Oregon is working to install charging at state parks and finding more ways to set up networks of chargers in rural areas. Finally, the plug-in hybrid-electric vehicle option can be refueled with gasoline if you need to travel extremely long distances.

Is there enough charging for all these electric vehicles?

While most charging will occur at home, there are many efforts to build out the charging infrastructure. Oregon has <u>\$100 million to invest in building out electric vehicle charging stations</u> along major transportation corridors and in rural and underserved areas of the state over the next five years. Private companies and auto manufacturers are also investing heavily in placing more charging stations across the state. Oregon is moving quickly to build more electric vehicle charging stations to ensure everyone can charge and refuel when and where they need to.

I don't have access to home charging, how will I be able to charge my vehicle?

Oregon is focused on ensuring there is charging access in rural areas, multi-unit dwellings and for lowincome households. There are rebates available through public utility companies and the state to support business and multi-unit dwelling charging installation. Also, there are building code provisions which require all new construction must include EV charging.

Can the electrical grid sustain all these electric vehicles?

Our utilities are planning for the transition to electric vehicle charging. Right now, the electrical grid can handle the current electric vehicle charging demand and can continue to support it for at least the next five years. As we look to future years, the utilities are incorporating planning and building to ensure enough energy is available for charging and what is being generated is clean. Oregon has issued mandates to the two largest utilities to ensure they reduce greenhouse gas emissions to 100% below baseline emission levels by 2040.

¹ AutoInsuranceEZ study, analyzing National Transportation Safety Board (NSTB) data

State agencies, like the <u>Public Utilities Commission</u> and the <u>Oregon Department of Energy</u>, along with policymakers are working with utilities and implementing policies to encourage grid-friendly load growth. For example, management strategies, like time-of-use rates, will shift charging to non-peak system hours to ease grid impacts and prevent potential system overloads.

What about materials used to produce the batteries? I'm concerned about where they come from and how they are sourced.

The federal government recently enacted the <u>Inflation Reduction Act</u>, which provides significant support for zero emission vehicles, including credits for production of critical minerals used in ZEV batteries that must be extracted or processed in the United States. To meet the growing need, manufacturers understand they must build batteries that do not rely on critical minerals.

What's going to happen to all these batteries from electric vehicles?

Retired battery systems can be reused in several ways. They can act as backup battery storage, e.g., backup power for homes or cellular towers, as well as for large buildings like sports arenas or electric utility grids. Also, they can be refurbished and reused directly as replacement battery packs for the same model vehicle. Second-life batteries reduce the demand for newly mined materials used in the production of new energy storage batteries. Finally, batteries can be recycled, as this kind of recycling is continuing to improve and expand every year.

How much does it cost to charge an electric vehicle?

On average, charging an electric vehicle costs half of what it costs to refuel a comparable gas-powered one. Charging costs depend on your EV's battery size and the local price of electricity. Most electric utilities offer special time-of-use rates that greatly reduce costs by billing less for electricity used during off-peak hours

How will I be able to charge my car during a power outage?

During a power outage, gas station pumps and electric vehicle charging stations lose power and are not able to function without intervention. Charging stations can be strategically backed up with stationary storage, batteries and onsite generation. In fact, many of the new vehicles offer bi-directional charging which allows a fully charged vehicle to power the home for a few days.

Alternative formats

DEQ can provide documents in an alternate format or in a language other than English upon request. Call DEQ at 800-452-4011 or email <u>deginfo@deq.oregon.gov</u>.