

Are you a gas guzzler? The government might try to persuade you to switch to an EV

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Governments on both coasts of the U.S. want to persuade the small percentage of drivers who use the most gas to switch to electric vehicles – and some leaders are taking the first steps toward incentives to make it happen.

Research shows the top 10% of drivers in the U.S. use almost one-third of the nation's gas. These noncommercial drivers log long miles, sometimes in inefficient vehicles like SUVs and trucks, guzzling serious amounts of gas and producing a lot of carbon dioxide.

Some are commuters who can't afford to move closer to work; others are more affluent recreational drivers hauling boats or campers. All burn an outsized amount of gas.

As the world rushes to stop releasing carbon dioxide into the atmosphere to stave off the worst effects of global warming, some cities and states are focusing on encouraging these "gasoline superusers" to go electric.

Earlier this month the city of Burlington, Vermont, passed a groundbreaking law creating incentives to help high-volume gasoline users.

In recent days, Washington state released a report investigating what it calls "high consumption fuel users" and what it would take to motivate them to switch.

California State Assembly member Phil Ting has proposed incentives specifically targeted at getting working- and middle-class people who drive long distances to shift from gas-powered to electric-powered vehicles for the past two years – and he says he won't give up.

Others wonder whether these efforts are coming too early in the evolution of electric vehicles.

"I think it's a great idea, it just needs more work," said John Paul Helveston, a professor of engineering at George Washington University who studies accelerating the transition to electric vehicles. "You can't just give people money – you've got to have the (charging) infrastructure and an actual vehicle option they want to switch to."

It could be that such programs are too early because there's not yet enough awareness of the cost-savings EVs could represent for people who drive a high number of miles

– simply because they don't know about them.

In focus groups he has done in California, few people had even heard of electric cars, said Scott Hardman, assistant director of the Electric Vehicle Research Center at the University of California, Davis.

Electric vehicle companies aren't aggressively marketing themselves right now because they don't have to. "Demand exceeds supply. They're selling all the vehicles they're producing, so there's no need to promote them," he said.

Gas 'superusers' produce a surprising amount of CO₂

The idea behind the efforts comes from a report first issued in 2021 by Coltura, an energy nonprofit. The report sought to answer this question: "What's the fastest way to lower carbon dioxide emissions from transportation?"

Electric vehicle incentive programs nationally have focused on raising the percentage of Americans switching to carbon-free cars and trucks, but "really it's 'How can we reduce gasoline use?'" said Rob Sargent, Coltura's strategic adviser.

Their findings spelled it out:

- Gasoline accounts for one-sixth of U.S. carbon emissions, and U.S. drivers burn 35% of all the gasoline in the world.
- 10% of U.S. drivers burn 32% of all gasoline.
- These "superusers" burn on average 1,500 gallons of gas a year compared with regular users' 409.

If the goal is to lower carbon dioxide production, getting the people who drive most to switch to electric matters more than getting more people into electric vehicles – a lot more.

Coltura's estimates found that if all the biggest gasoline users shifted to electric, it would take 97 million vehicles to cut U.S. emissions from light-duty vehicles by 50%.

If those same heavy gasoline users are the last ones to convert to EVs, it would require 233 million vehicles to achieve the same reduction in CO₂ emissions.

'Me switching to an EV makes a much bigger difference'

Those numbers intrigued Ting because he commutes between San Francisco and Sacramento, and the idea made intuitive sense.

"I'm a superuser," he said. "I drive 20,000 miles a year. So me switching to an EV makes a much bigger difference than someone driving 6,000 miles a year."

In 2022 and again in 2023, he introduced bills to the state Legislature that create

incentives for low- and middle-income people who drive the most to buy electric vehicles. Both failed, but he's not giving up.

Other California measures have long targeted the most polluting cars. The first of these was the state's clean vehicle rebate program, colloquially known as "Cash for Clunkers."

These began in California in 2009 with the goal of buying the oldest, most polluting cars in the state and crushing them to take them off the roads. Such programs have since spread nationwide as states realized they could entice drivers to scrap older, dirtier cars for relatively small amounts of money.

Today the state's Clean Cars for All program doesn't just give people money to get those vehicles off the road, it also offers incentives to get those same drivers to buy a newer and less polluting vehicle, one that's not more than 8 years old. There's additional money if they buy an electric vehicle.

Combining the various programs that are available, a California resident driving an older, polluting car could get as much as \$19,500 toward buying a newer, cleaner vehicle, along with state help on financing. For a family of four, the income limit would be about \$83,000.

Though the current program isn't focused on gasoline superusers, because it's aimed at lower-income drivers, it "will inherently grab many of the superusers," said Lisa Macumber, chief of the state's Air Quality Board's Equitable Mobility Incentives Branch.

Some gas superusers are commuters with thin budgets

In California, the burden of long commutes tends to fall heaviest on exactly the people who aren't buying EVs, Ting said.

"We should be creating more of an incentive for people who are forced to drive further because they're not wealthy, because they have to live further out to find a house they can afford," Ting said.

Households that make more than \$200,000 a year were the most likely to buy EVs, according to the National Highway Travel Survey. But they also drive the least. On average, EV drivers log 10,000 miles a year, compared with superusers' 30,348.

Living farther out to find affordable housing and working in fields like construction where job sites are often far away are more common for gasoline superusers, Coltura found.

Current tax incentives focus on making electric vehicles more affordable for middle-

and low-income Americans, no matter how much or little they drive.

Other gas guzzlers are affluent boaters, travelers

Washington state was also intrigued by the Coltura findings and set out to investigate who was burning the most gas and why. Its findings suggest programs will need to be done on a state-by-state basis.

In Washington, 10% of drivers consumed 26% of the fuel, and the bottom 50% of drivers burned less than top the 10%. Superusers drove 25,370 miles a year compared with 8,535 for non-gasoline superusers.

The state found that 6.3% of its drivers were burning 1,000 gallons of gas or more a year, and 86% of them drove SUVs, pickups or vans.

Possibly because of the number of people who own boats or routinely drive into the mountains, Washington's "high consumption fuel users" as the state calls them, tended to be slightly higher-income than drivers overall and were actually more interested than the general public in shifting to an EV.

For these drivers, having a vehicle that can tow or do well in extreme conditions was important.

The research found that building out the state's EV charging infrastructure would help encourage gasoline superusers to shift as more of their preferred vehicles – trucks and SUVs – become available in electric models.

Another possibility was offering electric vehicle lease rebates for those driving more than the 12,000 miles usually allowed on vehicle leases.

What do the proposed laws do?

Burlington, Vermont (passed)

Subsidize EVs for people who burn more than 1,000 gallons of gas a year.

California (proposed)

Would require state-funded EV incentive programs to maximize the displacement of gasoline by focusing on gas superusers who are also low- and moderate-income.

Washington state (study). Policy suggestions included:

More charging stations, EV purchase incentives and free emergency towing or recharging services would help persuade high-consumption fuel users to switch to EVs.

A possible 5 cents a mile for every electric mile driven incentive, capped at \$3,000 a year.

Using financial incentives to encourage people leasing cars (who tend to be high-mileage drivers) to lease EVs.

Isn't it better to drive old cars into the ground?

Common wisdom has been that people should drive their old gas cars until they die because it takes so much energy to build a new car. But that logic changes for gasoline superusers because they burn so much fuel.

"In less than a year they emit more carbon than it takes to make a car," said Matthew Metz, Coltura founder.

In terms of lower carbon emissions, it makes sense to shift to an EV, especially if you drive a lot, Hardman said. "A huge portion of the emissions associated with a gasoline vehicle are linked to use."