

# Hawaii bill aims for 100 percent renewable transportation

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Hawaii has the most aggressive renewable energy targets in the nation, aiming for its utilities to get 100 percent of their electricity from renewable sources by 2045.

Now advocates want to extend that goal to the [transportation sector](#) to urge all forms of ground transportation to fuel up using [renewable sources](#) by 2045.

"The majority of our fossil fuel goes into transportation, and that's a challenge that we have to solve, and we currently don't have a vision for what that future looks like," said Jeff Mikulina, executive director of the Blue Planet Foundation, which is pushing the bill.

But Hawaii officials aren't planning to make everyone get rid of their fuel-powered cars—at least not yet.

"Nobody wants to step in and force people to get rid of cars that they might love now," said state Rep. Chris Lee, chairman of the Energy and Environment committee.

The goal represents a steep climb for the auto industry in a state where there are about 5,000 electric vehicles, out of an estimated 1 million cars on the road.

"Our ability to achieve it is really going to be dependent on what happens throughout the entire automotive industry," said Hugh Baker, managing

director of HD Baker & Co., an [energy](#) consulting company. "We can say we want 100 percent clean transportation technology, but the market in Hawaii is not nearly big enough by itself to move the whole global automotive industry. It will really take more than just Hawaii."

Unlike Hawaii's groundbreaking 100 percent renewable goal for electricity, where utilities in the state will be fined if they don't comply by deadline, the proposed transportation goal isn't a mandate.

With 1 million cars on the roads, hundreds of auto dealerships and multiple counties with fleets of vehicles, it's unclear how the state could enforce a [renewable fuels](#) mandate, advocates said. Beyond the vehicle stakeholders, there are cyclists and pedestrians in the mix, making it challenging for the state to even measure what percentage of the state's transportation fuel comes from renewables.

The bill is being introduced in the Hawaii Legislature, which began Wednesday. If passed, Hawaii would be the first in the nation to set such a high goal for its transportation sector. Vermont also has an aggressive goal for renewable fuel in transportation, but most states don't have such targets in place.

"That's a huge, huge transformation," said Hawaii Gov. David Ige in a recent interview with The Associated Press. "We are the most isolated community on the planet, and we import virtually all of the oil we use today."

Details of the bill are still being worked out, but it's undecided whether it will come with funding, Lee said.

The state recently created a new position in the Department of Transportation to work on renewable fuels in transportation, and it is planning to build infrastructure to increase electric vehicle charging

stations at work locations in Honolulu's urban core using state funds, he said.

Lawmakers also are introducing a bill to boost the required number of electric vehicle charging stations, which is currently 1 station per 100 spaces, so that commuters can charge electric vehicles during the day when more energy from the sun is pumping into the grid.

Encouraging more electric vehicles—or "batteries on wheels"—could help Hawaii meet its renewable electricity goals.

"It's easier to manage more renewable energy when we have electric vehicles on the grid that can suck up that excess and hopefully in the future put some energy back on the grid," Mikulina said.

Auto dealers in Hawaii support the transition to renewable energy, but they believe it will take a massive advertising campaign by the state to encourage people to buy vehicles powered by alternative fuels, said David Rolf, executive director of the Hawaii Automobile Dealers Association.

"I'm passionate about this goal, but I'm also realistic," Rolf said.

Hawaii's residents ranked second in the nation in 2015 with 2.94 [electric vehicles](#) for every 1,000 residents, just behind California, according to the U.S. Department of Energy.

Tackling the fossil fuels used in air travel—which is critical to Hawaii's tourism-driven economy—will have to wait.

About a quarter of the 36 million barrels of oil Hawaii imported in 2015 was used for commercial aviation. But the long flights require energy in a dense form, and with today's technology that's generally only available

in fuels, energy experts said.

"They need to go so far between recharge opportunities that they really need something with a higher energy density than batteries, and it's just not even physically possible for an airplane to carry enough batteries to go where it needs to go," said Matthias Fripp, an assistant professor in the Department of Electrical Engineering at the University of Hawaii at Manoa.

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