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BUSINESS

Electric Vehicles Proliferate, While Charging Stations Lag Behind

The White House prepares to give states more money to develop EV chargers, but many still haven't used their past funding

By Jennifer Hiller Follow

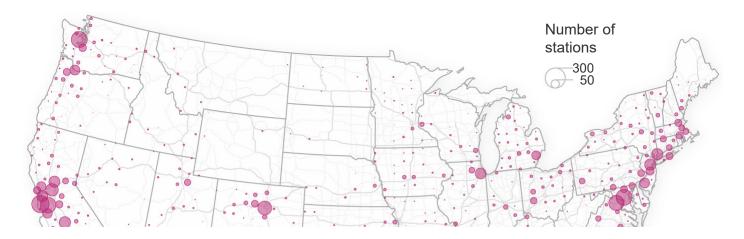
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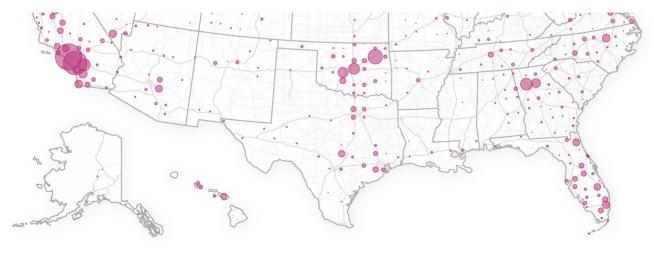
Electric-vehicle sales are accelerating, but U.S. efforts to build a national network of charging stations are moving slowly as states figure out how to fairly dole out public funding to kick-start a new service industry.

As the Biden administration prepares to give states \$7.5 billion for new charging stations, a similar recent effort suggests a difficult path is ahead. States received \$424 million that could be used for charging stations as part of a \$2.8 billion settlement by Volkswagen AG VOW 3.50% ▲ to resolve allegations that it cheated on diesel emissions tests. So far, more than four years later, they have spent about 48% of those charging dollars.

Six states including Illinois and Connecticut that say they plan to use VW settlement money on chargers have yet to disburse any funds. Four states say they plan to use the money for other projects such as lower-emissions bus fleets, according to data from Atlas Public Policy, a Washington, D.C., research firm that tracks the electric-vehicle industry. Thirty states have distributed most of their available charging money, including Hawaii, New Mexico, South Dakota and New York.

Fast-charging stations in the U.S.





Note: Fast-charging stations open to all vehicles

Source: U.S. Department of Energy

Texas gave out \$21 million of the VW money for chargers on a first-come, first-served basis last November. The money was all gone within one minute, records show. Out of 251 applications, two companies won 85% of the funds: Oil giant Shell SHEL -0.17% ▼ PLC and Buc-ee's Ltd., a rest-stop chain known for its massive bathrooms and bucktoothed beaver mascot.

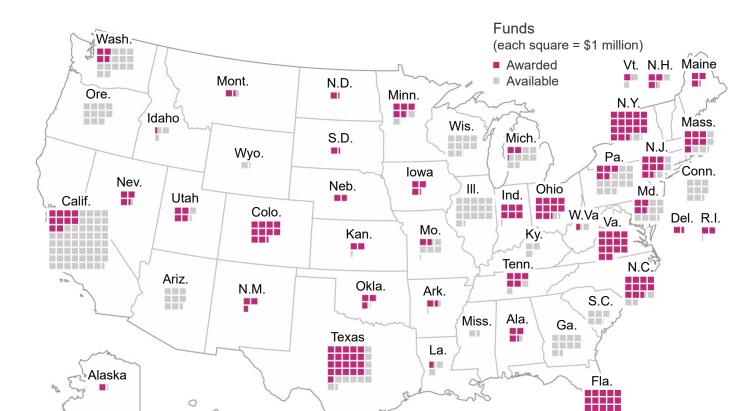
"We were shocked. And we were, in hindsight, a little slow," said Kevin Smartt, the chief executive of Austin-based TXB convenience stores, which had hoped to add fast chargers to 12 to 15 existing sites but didn't email quickly enough to receive any of the money.

New chargers are needed across the U.S. to meet expected demand as major auto makers from General Motors Co. GM 3.07% ▲ to Ford Motor Co. F 3.89% ▲ speed up their plans to go electric following the success of EV pioneer Tesla Inc. TSLA 7.33% ▲ President Biden has signed an executive order calling for half of all cars to be electric or alternative-fuel vehicles by the end of the decade.



U.S. sales of EV and plug-in hybrids doubled to more than 600,000 last year, and sales figures show that EVs have reached 6.6% of total cars sold in recent weeks as gasoline prices rise to their highest levels in years, according to Atlas Public Policy.

But outside of California, the network of chargers needed to service millions of EVs doesn't exist yet. Environmentalists and auto analysts alike call it a "chicken or the egg" problem and a hurdle to getting more Americans into EVs.



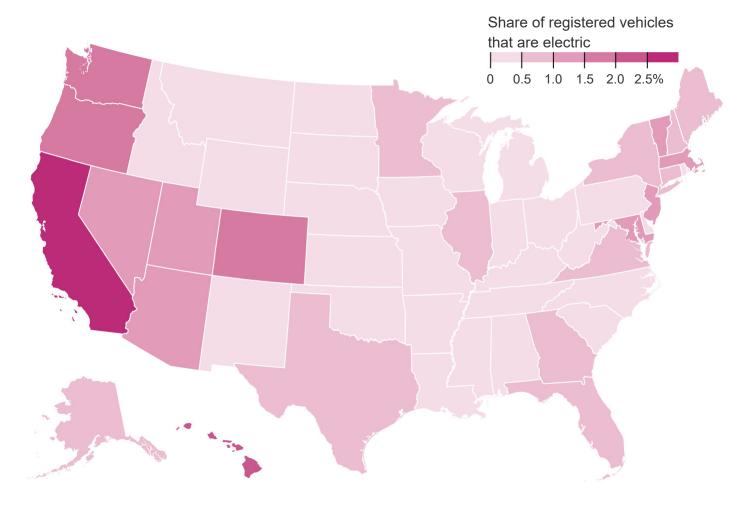
Funds for EV charging projects from Volkswagen settlement, awarded vs. available

Hawaii

Source: Atlas Public Policy

While most EV charging happens at home, thousands of public plug-in spots to allow charging are needed in communities that don't have many—or any—chargers. The Biden administration wants 500,000 public chargers by 2030; McKinsey & Co. estimates that as many as 1.2 million are needed.

So far, the U.S. has around 93,000 public chargers, most of which take hours to repower a car, according to government data. Private investment has thus far fallen short, in part because there aren't enough EVs on the road yet for most charging stations to turn a profit.



Source: U.S. Department of Energy

Early internal-combustion vehicles faced similar growing pains. Drivers initially bought containers of fuel from pharmacies and hardware stores before gasoline stations and convenience stores emerged as the dominant way to fuel up.

The challenge for states is that public funding for EV charging inherently helps shape early winners and losers in a new market. In Indiana, some critics raised concerns that the state's decision to give \$5.5 million of the VW funding to utilities could help them extend their old electricity monopolies into new markets in the 21st century. State officials said the utilities could build the chargers across most of the priority roadways and at a lower cost per location.

Scot Imus, executive director of the Indiana Food & Fuel Association, said gas stations want to enter the EV-charging market but wonder if they can fairly compete with the utilities they rely on for electricity. "For retailers it's not a profitable opportunity right now," Mr. Imus said.

Fast chargers, which repower a battery in about 30 minutes, are particularly in short supply across the U.S. While market leader Tesla built a fast-charger network for its own drivers, the U.S. has fewer than 5,000 locations with 10,000 individual fast chargers that anyone can use,

according to government data. Most current EVs can only travel a few hundred miles before needing to plug in.

When New Hampshire first tried to give out VW money in 2019 for fast charging along highways, it found no takers. "They put so many requirements on it, that all the serious charging companies were like, 'Well, we can't do that,' "said Sam Evans-Brown, executive director of the nonprofit advocacy group Clean Energy New Hampshire.



"That was a learning experience," said Tim White, a supervisor in the air-resources division of the New Hampshire Department of Environmental Services. The state subsequently rolled out a more streamlined grant process and is working on contracts for 35 sites, he said.

Illinois hasn't used any of the money. Gov. J.B. Pritzker, who has set a target to have one million EVs on the road by 2030, this month released revised plans for using untapped VW funds, including spending \$12.7 million for charging.

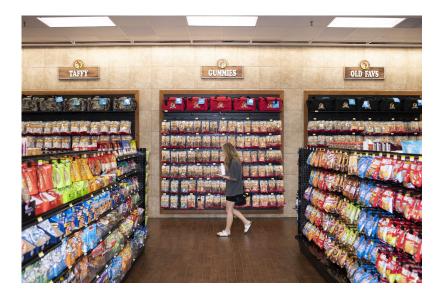
Mr. Pritzker said his office inherited a lack of coordination on EVs when he took office in 2019 and that the state has a renewed focus on building chargers. "The idea of being a leader in electric-vehicle charging is very important. And in my view, we haven't done enough," he said.

In Texas, the state's round for charger grants left some companies grumbling about the process. "What determined who won these grants wasn't a plan or thoughtful distribution," said Tom Smith, executive director of the Texas Electric Transportation Resources Alliance, a group that advocates for greater EV adoption. "It was bot speed."

Shell made a typo in the email address and had its application bounce back, records show, but timestamps showing it had emailed the moment the grant opened persuaded Texas officials that

it had been among the first to apply. Shell said it plans to invest in charging at many of its 13,000 branded retail locations in the U.S., but it didn't respond to a question about the Texas grants.

Texas officials defended the state's process, saying the money was available to such projects statewide. "This process resulted in grants being awarded efficiently," said a spokesman for the Texas Commission on Environmental Quality.



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