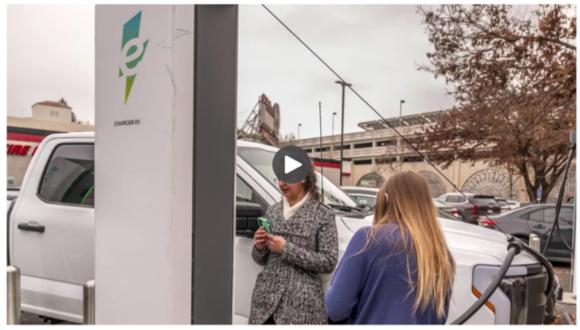
Sacramento Bee. January 22, 2024



Dahlia Garas, manager of the UC Davis Electric Vehicle Research Center, tests the reliability of an electric vehicle station operated by Electrify America, in downtown Sacramento on Tuesday, Jan. 9, 2024. Hector Amezcua

CALIFORNIA

Volkswagen spent \$800M on California EV charging to atone for Dieselgate. Drivers aren't happy

BY ARI PLACHTA

aplachta@sacbee.com

January 22, 2024 05:00 AM

Many of the public electric vehicle chargers alongside California roads were built to atone for past wrongs. Electrify America, a subsidiary of Volkswagen, was born in the ashes of the company's 2015 emissions cheating scandal known as 'Dieselgate.'

More than 1,000 chargers later, the California Air Resources Board is slated to rubber stamp the final chunk of an \$800 million settlement with VW. It's part of a wider \$2 billion agreement the company made to promote electric vehicles nationwide.

But advocates say Electrify America's attempts to make amends have only created another scandal: The chargers don't work well. Glaring reliability issues has led the German car maker to fall short of its promise, they argue, and is now slowing EV adoption.

"I don't consider this free money. This was a contract between the state of California and VW to make amends for Dieselgate," said David Rempel, a professor emeritus at UC Berkeley and the author of a recent study on charger reliability.

"The proposal to put in EV chargers is a good one but they have to work. If they don't, that interferes with adoption," Rempel added. "People are concerned about buying an EV because they hear these chargers don't work."

He said the clearest evidence of a problem with Electrify America and other public EV chargers is the fact that major car manufacturers including General Motors, Ford and Mercedes are now switching to Tesla's system.

Acknowledging the frustration among drivers, Electrify America has said it plans to spend more money improving aging chargers. Air Board staff recommended that the board approve its plan, but advocates hope CARB strengthens oversight of the company instead.

Electrify America ranked last

As America's largest public EV charging network, Electrify America was meant to serve as the foundation for electric car infrastructure across the country. It's also a company that arose from transgression and is now mired in customer exasperation.

In 2015, the Environmental Protection Agency charged Volkswagen with installing software on its diesel-powered cars that enabled vehicles to cheat on EPA emissions tests. On the road, the cars' actual emissions were 40 times higher than U.S. standards permitted.

A year later, VW agreed to make amends by spending \$2 billion building electric car chargers and encouraging electric vehicle adoption across the U.S. The idea was to compensate society for the air pollution created by Volkswagen's faulty engines.

The company also settled with the state of California in 2017, agreeing to spend \$800 million over 10 years to support EV adoption. State regulators at the Air Resources Board were tasked with overseeing and approving Electrify America's spending plans in four installments.

Today, Electrify America's almost 4,000 chargers — more than a quarter of which are in California — make it the largest fast-charging network in the nation after Tesla. A fast charge can take just 20 minutes to fill an EV battery to 80%, while slower charging can take hours.



Sacramento resident Angle Manetti looks for information on how to charge her car on Tuesday, Jan. 9, 2024, in downtown Sacramento at an Electrify America station after the app alerted her that her car would only charge to 50%. Manetti fixed the problem by reprograming her vehicle. Hector America - hamezcua@sacbee.com

Tesla is expected to begin opening its charging network to other vehicles, but Californians who drive non-Tesla EVs have to make use of a much smaller set of fast public chargers mostly dominated by Electrify America.

Lately, the network has come under fire for poor performance and unreliability.

In a recent <u>report</u> from data analytics company J.D. Power, Electrify America ranked last in consumer satisfaction among fast-charging networks based on users of the PlugShare app for EV drivers. The network scored 538 on a 1,000-point scale; Tesla scored 739.

According to the 2022 study co-written by Rempel, one of the largest studies done on public charging reliability, only 72.5% of all fast public chargers in the San Francisco Bay Area were operating.

Around 20% of all charge attempts aren't successful overall, according to another J.D. Power estimate.

A quick perusal of reviews on the Plug Share app reveals reports of broken screens, faulty payment systems, short or broken chords, excessively slow charging or physical barriers to plugging in at public charging stations across Northern California.

Tara Geiger, a spokesperson for Electrify America, declined comment for this story and said the company's efforts are focused on preparation for an upcoming Air Board <u>meeting</u> where the agency will discuss its plan.

More and more Americans are buying EVs — in California, they made up a <u>quarter</u> of all car sales last year. But unreliable charging infrastructure seems to be a major hurdle discouraging potential buyers from making the jump to electric.

An estimated 18% of those who switch to electric vehicles end up returning to gas-powered cars, partly due to charging inconveniences.

On a drizzly January morning in Sacramento, Angie Manetti fiddled with a chord as she tried to plug in her Rivian SUV that wasn't taking a full charge. A neighboring charger wasn't accepting credit cards. Another was physically blocked by a car left idle overnight.



Sacramento resident Angie Manetti charges her Rivian on Tuesday, Jan. 9, 2024, at an Electrify America station in downtown Sacramento. Manetti said she expected more from California's public charging infrastructure when she purchased an EV. Hector Amezcua - hamezcua@sacbee.com

"There's been so many public subsidies for charging so I expected the infrastructure to be more robust," said Manetti. "But when you're not in a Tesla you see the issues... I'm almost telling folks to go hybrid because EV just isn't really there yet."

Dahlia Garas, a manager of the UC Davis Electric Vehicle Research Center, collected data on these chargers' functionality using a Ford-150 Lightning. The center is conducting a field study on charger dependability through a state Energy Commission grant.

Garas said a company like Electrify America has remote call centers that collect and share information about whether their chargers are up and running — a data point companies call 'uptime.' But being 'up' doesn't necessarily mean a charger is functional.

"You need to be on the ground to see the million ways chargers could fail," Garas said. "Uptime we now realize is only one measure of functionality, and it's just not a good measure."

Time for CARB to get tough?

Confidence in California's public charging network is key to widespread adoption of electric cars, say EV advocates. But for that to happen, they argue that CARB should play a stronger role in holding Electrify America accountable to higher standards.

"What do drivers want? They want to plug in, charge and go. What have they been getting? Too often, it's a healthy dose of frustration," said Carleen Cullen, the co-founder and executive director of the nonprofit Cool the Earth. "CARB needs to intensify oversight."

In Electrify America's <u>plan</u> to spend its last \$200 million, the company acknowledged a "decline in consumer satisfaction with public charging generally, falling to its lowest level recorded during the first half of 2023."

The company's plan cited research showing that one in five public charging attempts industry-wide failed in the first half of 2023, a higher failure rate than two years ago. It even conceded that this frustration is "impacting adoption rates."

To improve reliability, Electrify America said it plans to retrofit and refurbish 490 "underperforming legacy" chargers and build 500 newest generation chargers in California. But the company did not include a specific maintenance or reliability plan.

Electrify America is not the only company building California's public charging network - an only slightly lower number of chargers have been built by other companies through California Energy Commission grants.

Gil Tal, director of the EV Research Center at UC Davis, said Electrify America is actually performing better than some other charging providers in certain urban centers.

"I think they're getting more heat right now because they're big and being used much more," said Tal about the consumer criticism. The researcher is heading up the ground-level field study collecting data from chargers around the state.



Dahlia Garas, manager of the UC Davis Electric Vehicle Research Center, takes notes on Tuesday, Jan. 9, 2024, in downtown Sacramento at an Electrify America station after Erinne Boyd, project manager, was unable to use a credit card. The center is looking into the reliability of electric stations. Hector Amezcua - hamezcua@sacbee.com

But scrutiny on a charging company like Electrify America is important, he said. Because EV charging has yet to achieve a sustainable business model, it becomes at risk of leaving stranded assets once the settlement term ends in 2027.

Enron, following its own California energy scandal in 2001, was also forced to <u>install EV chargers</u> as part of a settlement deal. The \$120 million <u>settlement</u> with Enron's subsidiary NRG is now the EVgo network, which has ranked poorly in consumer reports.

"Electrify America, all these companies should stand for some accountability because they all get public funds, whether it's state, federal or the VW Dieselgate settlement," Tal said. "There are no fast chargers that are 100% privately installed."

A CARB staff analysis of Electrify America's plan for the final chunk of its settlement money said the company met all requirements of the settlement and recommended the board approve it outright at the upcoming meeting Thursday.

Air board spokesperson Lys Mendez said in an email that the settlement does not outline specific maintenance performance metrics, but the company's plan includes a "significant commitment for further reliability and maintenance."

"Given that the charging network is now in its sixth year and that the electric vehicle market has seen explosive growth, we have heard increased public feedback on maintenance and reliability issues," Mendez said. "Electrify America is in compliance and no penalties have been assessed to date."

Nevertheless, Cullen pointed to the text of VW's settlement with CARB, which includes fines for failing to maintain charging infrastructure — \$2,000 a day and \$50,000 after 30 days "for each failure to implement the approved maintenance plan."

The Air Board, she argued, should set clear performance standards, third-party validate them and compel Electrify America to fix what's broken beyond their current contract of 10 years.

"If Electrify America doesn't deliver, they should face penalties," Cullen said. "Let's make sure this final \$200 million results in reliability."



THE SACRAMENTO BEE

FOLLOW