Poor state-of-charging infrastructure will be biggest hurdle to EV adoption

Article



The news: The current state of public EV charging is a nightmare for electric vehicle and plugin hybrid owners who can't find enough public chargers that work properly, <u>per</u> The Verge.





The biggest blocker to AV adoption: A dearth of charging stations and the uncertainty of finding ones that work is why many consumers continue to buy gas and diesel vehicles. "Not only is the availability of public charging still an obstacle, but EV owners continue to be faced with charging station equipment that is inoperable," <u>said</u> **Brent Gruber**, executive director of global automotive at JD Power.

- JD Power's <u>Electric Vehicle Experience Public Charging Study</u> surveyed 11,554 electric vehicle and plug-in hybrid vehicle owners from January through June 2022 for a snapshot of the state of the US charging infrastructure.
- The report revealed that one out of every five respondents ended up not charging their vehicle after locating a public charger.
- 72% that didn't charge their vehicles said it was due to stations malfunctioning or being out of service.
- Respondents said that charging at public Level 2 chargers, which charge at a rate of 12 to 80 miles per hour, is worse than it was last year.

A problem of scale: There are 41,000 public charging stations in the US, with more than 100,000 outlets. Maintaining these so that they are reliable and functional could be more labor-intensive than managing pumps in gas stations.

- Another study, conducted by Cool the Earth, an environmental nonprofit in California, revealed 23% of 657 public charging stations in the Bay Area were broken.
- Tesla's level 2 chargers as well as their Supercharger network ranked higher in customer satisfaction, per JD Power, underscoring the advantage of having a company build and maintain the charging infrastructure.
- Broken screens, buggy software, difficulty accepting payments, and chargers suddenly refusing to deliver electricity are some of the more common pain points EV owners report, per The New York Times.

What's next? President Biden announced plans in June to allot \$5 billion to states to fund electric vehicle chargers over five years as part of the bipartisan infrastructure package.

 But to succeed in supporting the expected <u>boom in EV sales</u>, charging infrastructure needs not only to be built but also maintained for optimal performance.

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| Key Reasons for the Low Uptake of Electri Vehicles (EVs) in the US According to US A Dealers, April 2021 % of respondents | |
|--|---------------------|
| Charging infrastructure/range anxiety | |
| | 29% |
| Appropriate pricing | |
| . http://www.huron.a | 24% |
| Consumer awareness | - |
| 15% | |
| Technological capabilities of recent premium EVs vs. Tesla | |
| 11% | |
| Manufacturer marketing strategies | |
| 9% | |
| Lack of options | |
| 7% | |
| Government subsidies | |
| 6% | |
| Source: J.P. Morgan, "Auto Annual Dealership Survey," April 6, 2021 | |
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