Item 3f: The Regents of the University of California, on behalf of the Davis Campus

June 16, 2023, Business Meeting

Dustin Schell, Air Resources Engineer
Fuels and Transportation Division,
Light-Duty EV Infrastructure and Analysis Branch

EV Charger Reliability

Nov 24, 2021

Forbes

Unreliable Chargers Could Kill The EV Industry

Aug 16, 2022

The New York Times

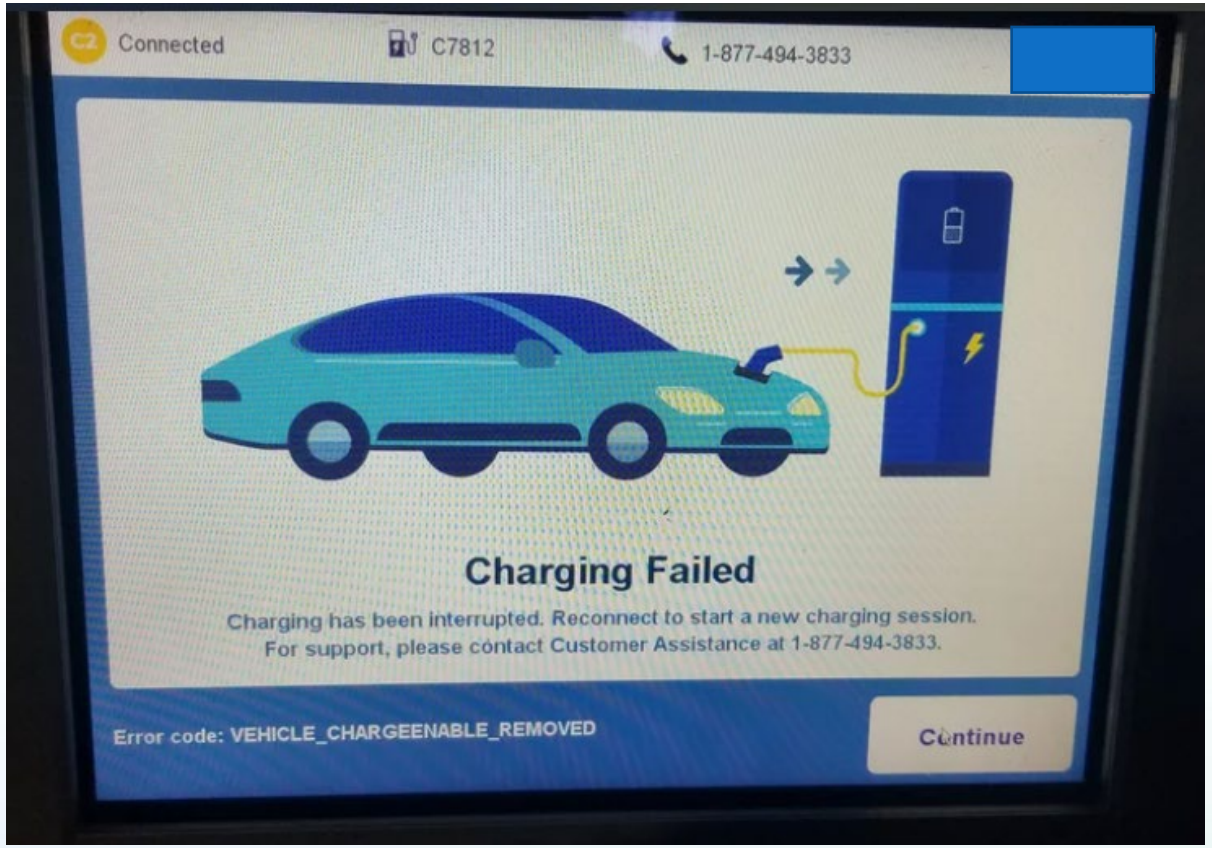
A Frustrating Hassle Holding Electric Cars Back: Broken Chargers

Feb 13, 2023

Kelley Blue Book
THE TRUSTED RESOURCE

J.D. Power: Electric Car Charging Getting Worse

EV Charger Reliability
What to Measure?



"Uptime"

Failed charges

- Payment systems
- Vehicle-charger interoperability

Reliability should include uptime and failed charging sessions

EV Charger Reliability
What the CEC Has Done So Far

- Reliability requirements for grant funding opportunities since 2021
  - Performance standards
  - Recordkeeping
  - Reporting
  - Maintenance
- Funded standards test capacity
  - ViGIL
  - VOLTS

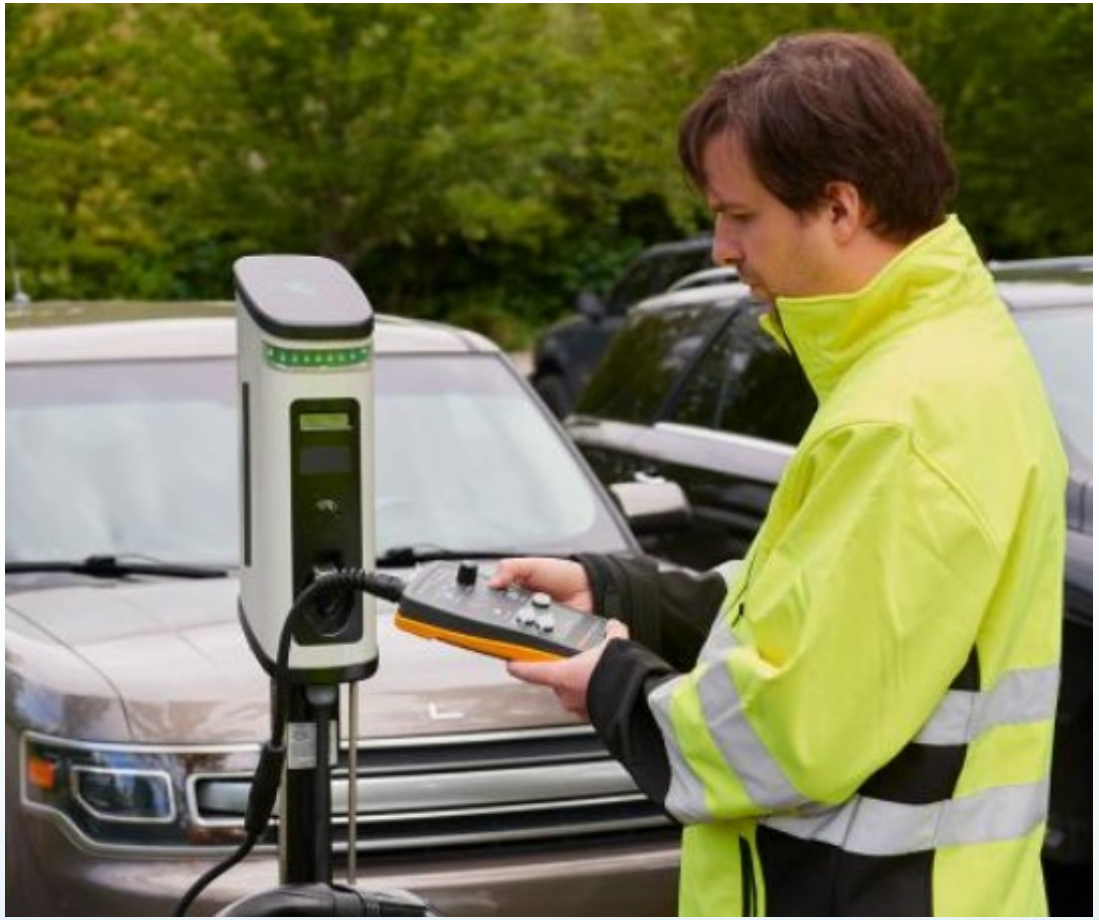
EV Charger Reliability
What Are Others Doing?

- Federal National Electric Vehicle Infrastructure (NEVI) Program
- Charge-X Consortium
- SAE Working Group

EV Charger Reliability
What the CEC Is Doing Next

- Regulations under Assembly Bill 2061 (Ting, 2022)
- Conformance requirements to increase interoperability
- Field testing

Overview
UC Davis Agreement



- Develop open-source EV charger test protocol
- Test 3,600 EV chargers over three years

Benefit to Californians
UC Davis Agreement

Ground truth anecdotal reporting

Improve EV charger reliability:

- Empirical understanding of reliability
- Informing investment decisions
- Developing standard testing protocols

Staff Recommendation

Staff recommendations:

- Approve agreement with UC Davis for $953,168
- Adopt staff's determination that this action is CEQA-exempt.