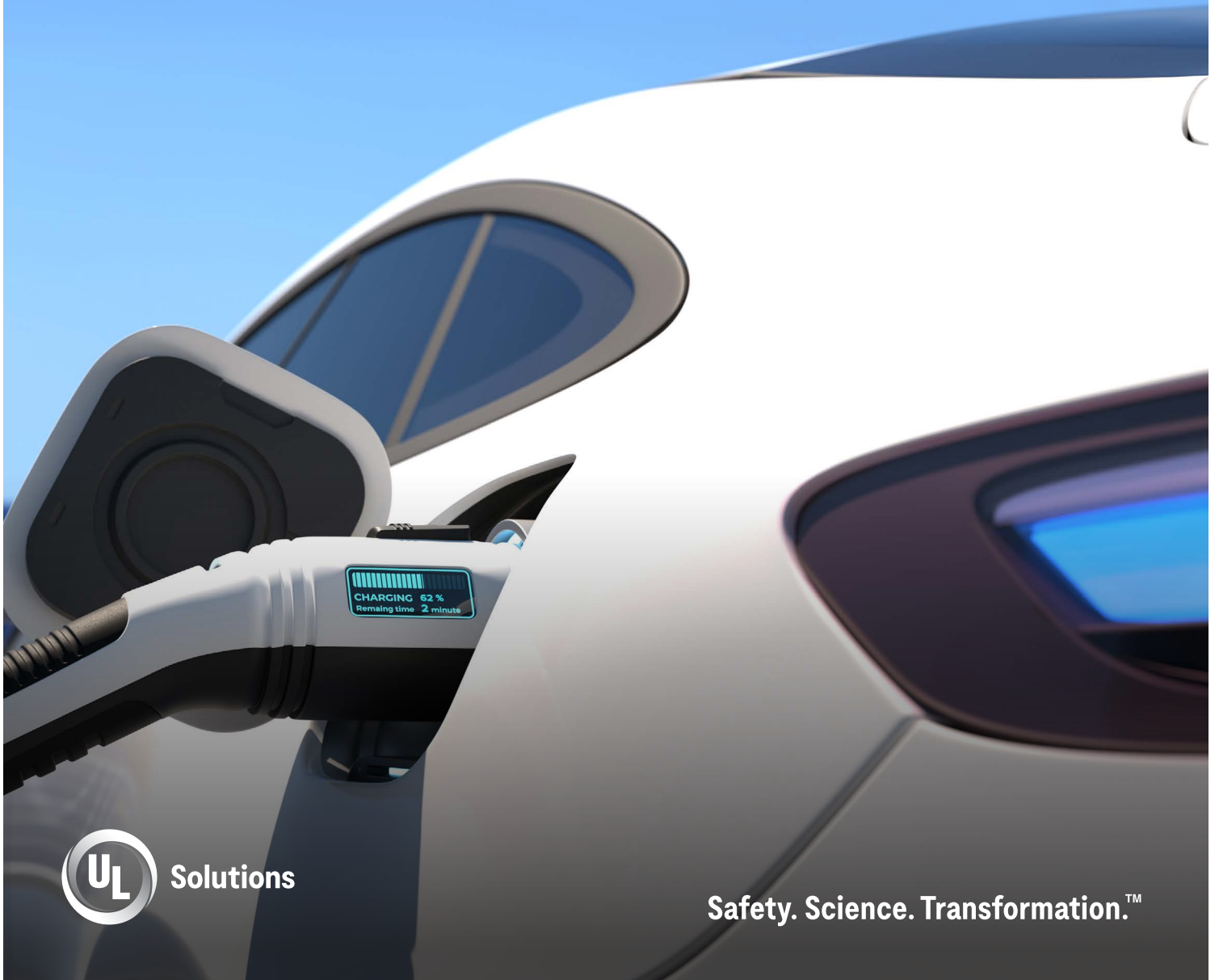


Leading the charge

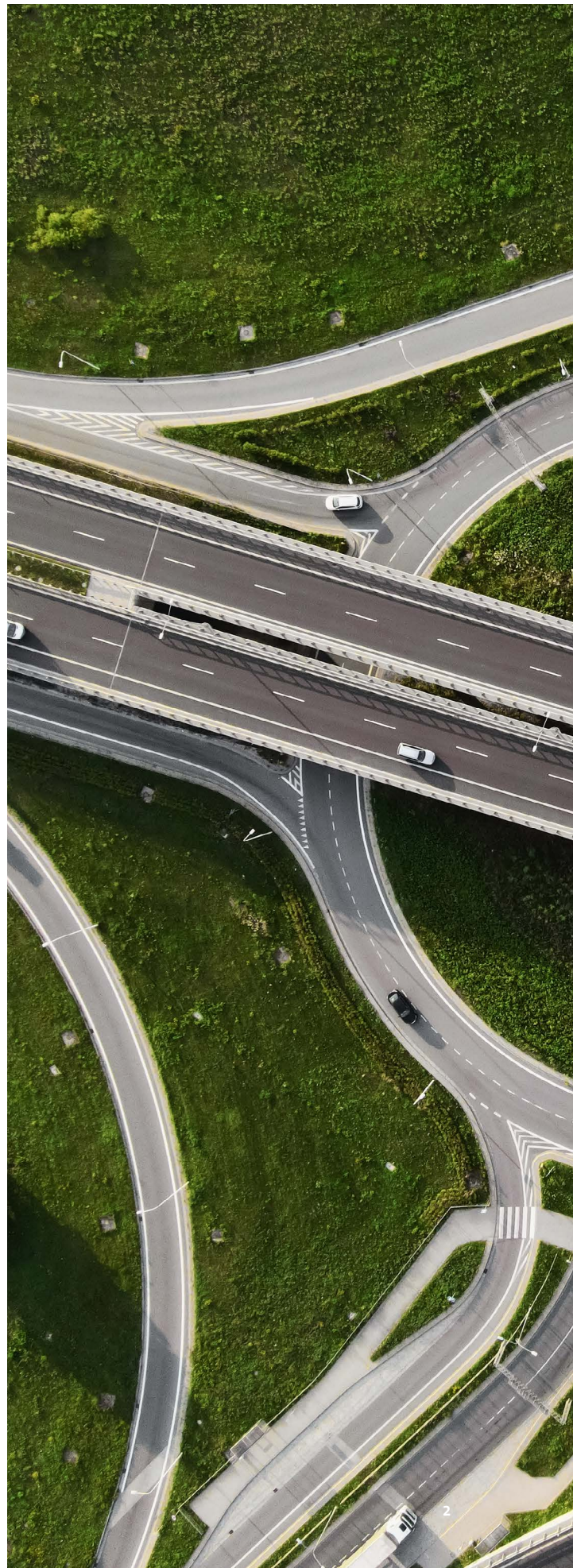
UL Solutions expands U.S.
electric vehicle charger testing



Safety. Science. Transformation.™

Clean energy technology is powering the future of the automotive industry. What is driving the rapid increase of electric vehicle (EV) adoption in the United States?

- Automotive carbon emissions mandates.
- The U.S. government's prioritization of supply chain onshoring via incentives, such as:
 - **Infrastructure Investment and Jobs Act** – An investment of \$110 billion (USD) into transportation infrastructure projects.
 - **U.S. Inflation Reduction Act of 2022** – Down payment on deficit reduction to fight inflation, invest in domestic energy production and manufacturing, and reduce carbon emissions by roughly 40% by 2030.
 - **U.S. National Lithium Battery Blueprint** – Developed by the Federal Consortium for Advanced Batteries to help guide investments in a domestic lithium-battery manufacturing value chain that creates clean energy manufacturing jobs while helping to mitigate climate change impacts.
 - **Defense Authorization Act and CHIPS and Science Act** – Authorizes Department of Commerce (DOC), Department of Defense (DoD) and Department of State (DOS) activities to develop onshore domestic manufacturing of semiconductors critical to U.S. competitiveness and national security.
- Suppliers' and manufacturers' investment of more than \$38 billion (USD).
- The cost parity between renewable energy and fossil fuels.





As the EV industry grows, the global EV charging infrastructure is expected to have grown at a compound annual rate of 46.8% from 2017 to 2025, reaching \$45.59 billion (USD) in revenue by 2025.¹ But the clean energy future of mobility and its charging infrastructure will not truly succeed without the customers' and stakeholders' trust that chargers have been tested for safety, performance and interoperability with grid-tied applications.

UL Solutions supports the growing North American EV industry as we invest in the expansion of our testing laboratory facilities and capabilities to test and certify EV charging infrastructure.

Expanded UL Solutions Electric Vehicle Charging Test Centers in Fremont, California and Northbrook, Illinois

Our customers enjoy numerous benefits, including:

- Local, strategic testing sites in California and the Midwest, near clean energy technology and automotive industry hubs.
- Streamlined testing with faster turnaround times.
- Comprehensive testing services for the EV industry.
- Capabilities to test DC Fast Chargers and Bi-Directional Chargers up to 500kW and 1000Vdc in our Northbrook facility.
- Capabilities to test DC Fast Chargers up to 150kW and 1000Vdc in our Fremont facility.

Comprehensive testing and certification for EV charging infrastructure

We offer OEMs comprehensive testing and certification services to the following EV charging standards:

- ANSI/UL 2202, the Standard for Electric Vehicle Charging System Equipment (AC to DC)
- ANSI/UL 2594, the Standard for Electric Vehicle Supply Equipment (AC to AC)
- UL 2750, Outline of Investigation for Wireless Power Transfer Equipment for Electric Vehicles
- UL 9741, Outline of Investigation for Electric Vehicle Power Export Equipment (EVPE), (often referred to as “Bidirectional” EV Charging)
- ANSI/UL 2231-1, the Standard for Personnel Protection Systems for Electric Vehicle Supply Circuits; Part 1: General Requirements, (referred to in UL 2202/UL 2594)
- ANSI/UL 2231-2, the Standard for Personnel Protection Systems for Electric Vehicle Supply Circuits: Protective Requirements for Protection Devices for Use in Charging Systems, (referred to in UL 2202/UL 2594)
- ANSI/UL 2251,² the Standard for Plugs, Receptacles and Couplers for Electric Vehicles

We also deliver National Certification Body (CB) scheme evaluations and certificates services through UL International Demko A/S, a UL Solutions certification body:

- IEC 61851-1, Electric Vehicle Conductive Charging Systems – General Requirements
- IEC 61851-22, Electric Vehicle Conductive Charging Systems – AC to AC Connections
- IEC 62752, In-Cable Control and Protection Device for Mode 2 Charging of Electric Road Vehicles
- IEC 62196 Series (-1, -2 and -3) Plugs, Socket-Outlets, Vehicle Connectors and Vehicle Inlets – Conductive Charging of Electric Vehicles

And we offer the following EV charging infrastructure informative test reports:

- IEC 61851-23, Electric Vehicle Conductive Charging Systems — Part 23: DC Electric vehicle Charging Station
- IEC 61851-21-2, Electric Vehicle Requirements for Conductive Connection to an AC/DC

Additional offerings in our comprehensive suite of services for original equipment manufacturers (OEMs) include:

- Energy Star® program requirements for electric vehicle supply equipment eligibility criteria version 1.1
- Electromagnetic compatibility (EMC), [safety, emissions and immunity testing for wireless devices](#)
- Testing for compliance with U.S. Federal Communications Committee (FCC) [regulations](#)
- Cybersecurity testing
- Functional safety testing, certification, advisory and training services



Why choose UL Solutions?

UL Solutions safety science experts at our Northbrook and Fremont facilities can test for EV charging infrastructure for safety and interoperability for the U.S. and global markets. With our proven ability to support the development of safer, more innovative technology, coupled with a global footprint, our expanded laboratories demonstrate our commitment to advancing the EV industry and helping deliver what matters to the market — safety, performance, security, sustainability and confidence.

If you are interested in scheduling a testing slot at our facilities in Fremont or Northbrook or would like to discuss your specific needs, visit our [**Electric Vehicle \(EV\) Charging Infrastructure service page**](#) and contact us today.

Endnotes

1. The State of the Charge: 2017 Report of California's Electric Vehicle Charging Industry, Electric Vehicle Charging Association.
2. Harmonized trilateral North American Standards (U.S., Canada and Mexico).



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