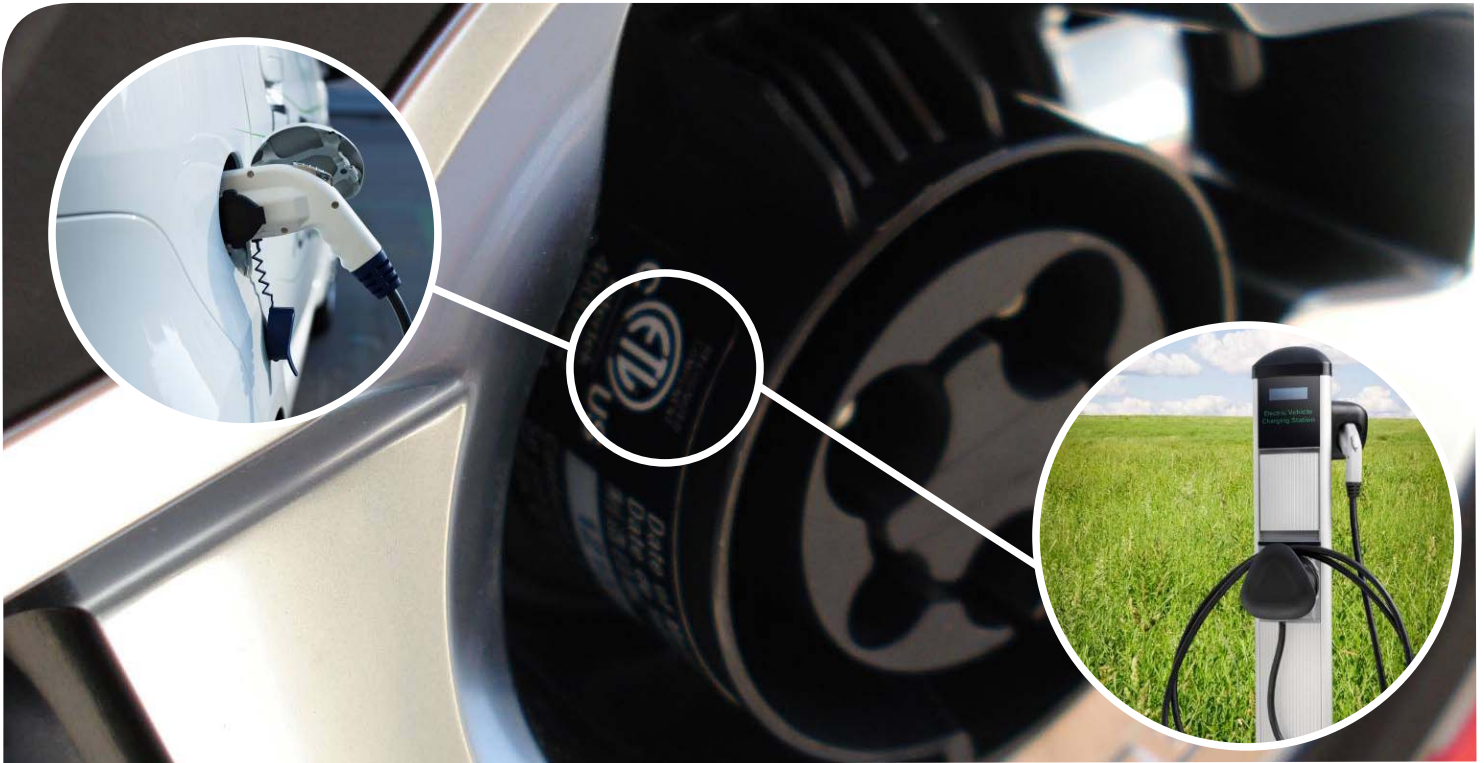


# Energy Storage/Battery

Testing & Advisory Services

Intertek

Valued Quality. Delivered.



How do you ensure that your power source meets customers' expectations? From hybrid electric vehicles to personal electronics to renewable energy, Intertek has a depth of experience ensuring batteries and energy storage technologies meet performance, reliability and safety criteria.

Intertek offers industry-leading, independent consulting and testing for batteries, fuel cells and super-capacitors. In addition to our NRTL, National Certification Body status and CTIA and ISO 17025 accreditations, our capabilities range from coin cell evaluations to full pack EV/HEV batteries for automotive applications.

To meet the rapidly evolving needs of manufacturers and OEMs, Intertek is committed to the ongoing global expansion of our energy storage testing facilities. Because Intertek is a leading test lab recognized for excellence across all commercial and electrical industries, we offer a complete certification solution for your battery and related components all under one roof.



## Key services include:

- Independent battery performance and product safety testing and certification
- Assessment and selection of best-fit solutions for OEM devices



### Advisory Services

- Specification development
- Test program development
- Reliability, safety and failure investigations, including FMEA
- Manufacturing plant audits
- Prototype evaluations
- Supplier assessments
- Warranty investigations
- Material identification, properties
- Modeling and simulations
- HALT/HASS accelerated life/stress
- Investor due-diligence
- Technology road mapping
- Training and courses
- Consulting services (multi-faceted)

### Comprehensive Safety Testing

Intertek tests to national, international and industry-specific standards, such as:

- ANSI/UL 1642, 2054
- IEC 60086-1, 60086-2, 60086-3, 60086-4
- IEC 62133
- IEEE 1625, 1725
- IEC 61851, 61951, 61960, 62196
- UL 2202, UL 2231, UL 2251
- ANSI C18.1, C18.2 and C18.3
- USABC FreedomCAR
- UN Transportation (38.3 T1-T8)
- SAND99-0497
- SAE J2464
- Other regulatory and OEM specific
- Nordic Ecolabel (White Swan)
- Electric Vehicle Supply Equipment (EVSE)

### Testing Services

- Performance testing
- Electrical Abuse
- Mechanical Abuse
- Environmental
- Fire Endurance

### Performance Testing Capabilities

- 2,000 primary battery test positions
- 400 low / mid power rechargeable battery test positions
- 30 high power rechargeable battery test positions
- Customized test positions for device testing
- 2 full pack EV/HEV capable test stands

### Examples of Assignments Include:

- Performance testing of consumer batteries to substantiate claims in marketing campaigns
- Cellular phone battery qualification
- Evaluating lithium batteries for hybrid electric vehicles
- Investigating and evaluating the root cause of accidents related to battery technology; cellular phone, UPS systems, consumer products, military equipment abuses
- Assessing battery systems for medical applications
- Performance characterization of portable PEM and DMFC fuel cells
- Expert advice in a residential fuel cell demonstration project
- Evaluating supercapacitors for military applications
- Due diligence for private investment in portable energy start-ups
- Safety Plus Services (integration of battery device, charger and control testing)
- On-site engineering management of product development efforts

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To find an office or laboratory in a particular country, please visit [www.intertek.com/contact](http://www.intertek.com/contact).