

# ELECTRIC & HYBRID VEHICLE SYSTEMS TESTING

TESTING NEW AUTOMOTIVE TECHNOLOGIES

When adapting battery packs, cells, chargers, service disconnects, and wire harnesses for EV (electric vehicle) and HEV (hybrid electric vehicle) applications, Intertek can help you verify all related parts and products for global distribution via worldwide supply chains.



## Capabilities:

- Hybrid Driveline test cells
  - 550kW / 4000Nm axle dynos
  - 150kW / 1000V Battery Simulators. Can be linked in parallel to deliver 300kW
- Vehicle drive-cycle simulation testing for emissions & energy consumption optimization
- Powertrain and electric machine controls optimization
- Ability to include battery in test cell
- eMachine Dynamometers
  - 300kW / 18,000rpm high-performance dynamometer
  - 750Nm limit with +/- 1Nm precision torque measurement
  - 1000V / 300kW Battery Simulator
- Motor performance and efficiency mapping
- Thermal surveys
- Drive cycle energy consumption
- Durability tests
- Key Locations: San Antonio (Texas), Irvine (California), Phoenix (Arizona), Milton Keynes (UK)

## Accomplishments:

- High power HEV engine and driveline transient test since 2011
- 600V eMachine dynamometer testing partner to major OEM since 2011
- 48V eBooster engine mapping and development partner to major OEM
- Battery simulators can be linked in parallel to deliver 300kW – one of the highest capacity systems available in the UK
- Experience testing 80 different energy storage systems, including batteries and ultra-capacitors, Prototype and production EVs, HEVs and PHEVs for the US Department of Energy

## Intertek Advantage:

- HEV & EV test facility development accelerated in response to OEM requests
- Driveline test capability added in response to OEM request
- Axle dynos are the highest capacity in the UK
- Access to fleet operators and contracted drivers to allow for rapid mileage accumulation and real-world and/or test track performance assessment
- Multi-channel data logging capabilities with real-time data upload via LTE/4G/Wi-Fi networks

## FOR MORE INFORMATION

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