Electric Vehicle and Infrastructure Codes and Standards Citations

This document lists codes and standards typically used for U.S. electric vehicle and infrastructure projects. To determine which codes and standards apply to a specific project, identify the codes and standards currently in effect within the jurisdiction where the project will be located. Some jurisdictions also have unique ordinances or regulations that could apply.

Learn about codes and standards basics at [www.afdc.energy.gov/afdc/codes_standards_basics.html](http://www.afdc.energy.gov/afdc/codes_standards_basics.html).

Find electric vehicle and infrastructure codes and standards in these categories:
- **Vehicle Systems**
- **Batteries**
- **Interface**
- **Infrastructure**

**Vehicle Systems**

- **SAE J-1634**: Electric Vehicle Energy Consumption and Range Test
  
  Status:
  
  Cancelled: October 2002
  
  Issued: October 2002

- **SAE J-1711**: Recommended Practice for Measuring the Exhaust Emissions and Fuel economy of Hybrid-Electric Vehicles
  
  Status:
  
  WIP official ballot in August 2009
  
  Issued March 1999 (Original) and 69 pages in length

- **SAE J-1715**: Hybrid Electric Vehicle (HEV) and Electric Vehicle (EV) Terminology
  
  Status:
  
  WIP in progress August 2009
  
  Revised February 2008 and 22 pages in length

- **SAE J-2344**: Guidelines for Electric Vehicle Safety
  
  Status:
  
  WIP official ballot in August 2009
Issued June 1998 (Original) and 11 pages in length

  Status:
  WIP in progress August 2009
  Issued March 1999 (Original) and 15 pages in length

- SAE J-2711: Recommended Practice for Measuring Fuel Economy and Emissions of Hybrid-Electric and Conventional Heavy Duty Vehicles
  Status:
  Issued September 2002 and 68 pages in length

- SAE J-2758: Determination of the Maximum Available Power from a Rechargeable Energy Storage System on a Hybrid Electric Vehicle
  Status:
  Issued April 2007 and 7 pages in length

- SAE J-2889: Measurement of Minimum Sound Levels of Passenger Vehicles
  Status:
  WIP in Progress
  Issued –No Originals

- SAE J-2894 Part 1: Power Quality Requirements for Plug-In Vehicle Chargers - Requirements
  Status:
  WIP in Progress
  Issued –No Originals

- SAE J-2894 Part 2: Power Quality Requirements for Plug-In Vehicle Chargers - Test Methods
  Status:
  WIP in Progress
  Issued –No Originals
• SAE J-2907: Power Rating Method for Automotive Electric Propulsion Motor and Power Electronics Sub-System
  Status:
  WIP in Progress
  Issued – No Originals

• SAE J-2908: Power Rating Method for Hybrid-Electric and Battery Electric Vehicle Propulsion
  Status:
  WIP in Progress
  Issued – No Originals

  Status:
  WIP in Progress
  Issued – No Originals

  Status:
  WIP in Progress
  Issued – No Originals

• ISO/CD 6469-3:3: "Electrically propelled road vehicles - Safety specification - Part 3: Protection of persons against electric shock"
  Status:
  WIP in Progress
  Issued – No Originals

• ISO/WD 23274-2: "Hybrid-electric road vehicles - Exhaust emissions and fuel consumption measurements - Part 2: Externally chargeable vehicles"
  Status:
  WIP in Progress
  Issued – No Originals
• ISO XXX "Terminology Technical Report"
  Status:
  WIP in Progress
  Issued – No Originals

**Batteries**

• SAE J-1766: Recommended Practice for Electric and Hybrid Electric Vehicle Battery Systems Crash Integrity Testing
  Status:
  Revised: April 2005 and 16 pages in length
  Issued: February 1996

• SAE J-1797: Recommended Practice for Packaging of Electric Vehicle Battery Modules
  Status:
  Reaffirmed June 2008 and 23 pages in length
  Issued January 1997 (Original)

• SAE J-1798: Recommended Practice for Performance Rating of Electric Vehicle Battery Modules
  Status:
  Reaffirmed July 2008 and 16 pages in length
  Issued January 1997 (Original)

• SAE J-2288: Life Cycle Testing of Electric Vehicle Battery Modules
  Status:
  Reaffirmed June 2008 and 5 pages in length
  Issued January 1997 (Original)

• SAE J-2289: Electric-Drive Battery Pack System: Functional Guidelines
  Status:
  Revised July 2008 and 14 pages in length
  Issued November 2000 (Original)

• SAE J-2380: Vibration Testing of Electric Vehicle Batteries
ISO/CD 12405-1: "Electrically propelled road vehicles - Test specification for lithium-ion traction battery packs and systems - Part 1 "High power applications"

SAE J-1772: SAE Electric Vehicle Conductive Charge Coupler

SAE J-1773: SAE Electric Vehicle Inductively-Coupled Charging

SAE J-1850: Class B Data Communications Network Interface

SAE J-2293 Part 2: Energy Transfer System for EV Part 2: Communications Requirements and Network Architecture
• SAE J-2836 Part 1: Use Cases for Communications between Plug-In Vehicles and the Utility Grid
  Status:
  WIP in Progress April 2009
  Issued –No Originals

• SAE J-2836 Part 2: Use Cases for Communications between Plug-In Vehicles and the Supply Equipment (EVSE)
  Status:
  WIP in Progress February 2009
  Issued –No Originals

• SAE J-2836 part 3: Use Cases for Communications between Plug-In Vehicles and the Utility grid for Reverse Flow
  Status:
  WIP in Progress February 2009
  Issued –No Originals

• SAE J-2847 Part 1: Communications between Plug-In Vehicles and the Utility Grid
  Status:
  WIP in Progress April 2009
  Issued –No Originals

• SAE J-2847 Part 2: Communication between Plug-in Vehicles and the Supply Equipment (EVSE)
  Status:
  WIP in Progress
  Issued –No Originals

• SAE J-2847 Part 3: Communication between Plug-in Vehicles and the Utility Grid for Reverse Power Flow
  Status:
  WIP in Progress
  Issued –No Originals
Infrastructure

  
  **Status:**
  Reaffirmed July 2008 and 84 pages in length
  Issued March 1997 (Original)

- **SAE J-2841: Utility Factor Definitions for Plug-In Hybrid Electric Vehicles Using 2001 U.S. DOT National Household Travel Survey Data**
  
  **Status:**
  WIP in Progress
  Issued March 2009 and 15 pages in length

- **National Fire Protection Agency (NFPA) NFPA 70 National Electrical Code (NEC) Article 625: Electric Vehicle Charging System Equipment**
  
  **Status:**
  WIP for NEC January 2011
  Issued – NEC January 1996 and 4 pages in length

- **National Fire Protection Agency (NFPA) NFPA 70 National Electrical Code (NEC) Article 626: Electrified Truck Parking Spaces**
  
  **Status:**
  WIP for NEC January 2011
  Issued – NEC January 2008 and 5 pages in length