**EV Chargers Energy Savings Potential**

The number of electric vehicles (EVs) on U.S. roads is predicted to reach nearly 19 million by 2030 and to require approximately 9 million charging ports (public and private). Looking at public charging, 1 million charge ports will be needed; of those, 100,000 are projected to be direct current (DC) fast chargers.\(^1\)

To promote energy efficiency during the growth of EV infrastructure, the U.S. Environmental Protection Agency (EPA) developed a specification to recognize the most energy efficient EV charging products.\(^2\)

**Overview of ENERGY STAR Certified Chargers**

Alternating current (AC) chargers meet the following criteria:
- **Level 1 and Level 2 chargers**: Maximum standby losses with additional power allowances for products with a high-resolution display or network connection capability

Direct current (DC) fast chargers meet the following criteria:
- **Chargers 50 to 65 kW**: Minimum active charging efficiency of 93% and maximum standby losses*  
- **Chargers 65 to 350 kW**: Maximum standby losses*  

*The specification offers additional power allowances during standby for products with a high-resolution display or a battery management system.

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**Did you know?**

ENERGY STAR Level 1 and Level 2 EV chargers use 40% less energy than a standard EV charger in the most common operational mode, standby.

ENERGY STAR DC EV chargers up to 65 kW will generate:
- 1.5 MWh/year in energy savings  
- Over $1,650 in cost savings during the lifetime of the charging station.

For more information on the ENERGY STAR program, visit https://www.energystar.gov/products/other/ev_chargers

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**All ENERGY STAR certified EV chargers**

- Provide Energy Savings  
- Meet Safety Requirements  
- Use Open Standards*  

*applicable for equipment listed as connected functionality capable on the ENERGY STAR Product Finder

**Connected Functionality**

EV chargers listed on the ENERGY STAR Product Finder as connected functionality capable must support open standards for communication protocols. Connected functionality allows for:
- Load dispatch  
- Demand-response  
- Price notification  
- Full Vehicle to Grid Integration (VGI)

The connected criteria are designed to recognize the savings opportunity of long dwell time applications.

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**Find ENERGY STAR Certified Products**

The ENERGY STAR Product Finder is an online searchable database of all ENERGY STAR certified products. Follow these steps to:

1. Access the full list of certified EV chargers at https://www.energystar.gov/productfinder/product/certified-evse/results
2. View results and apply filters to refine by “Type,” “Brand Name,” and other defining features. Multiple EV charger models might be listed under each entry

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1 EEI/IEI, November 2018, EV Sales Forecast and the Charging Infrastructure Required through 2030.  

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ENERGY STAR® is the simple choice for energy efficiency. For more than 20 years, EPA’s ENERGY STAR program has been America’s resource for saving energy and protecting the environment. Join the millions making a difference at energystar.gov.