

ENERGY STAR[®] Certified Electric Vehicles (EV) Chargers Newsletter Fall 2023



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Greetings from ENERGY STAR

Dear ENERGY STAR Partners and Industry Colleagues,

As the end of the year approaches, we wanted to share our appreciation for your participation and engagement in our work to promote energy efficient EV charging. Thanks to your efforts, we're celebrating the following accomplishments:

- In the Spring, EPA held its second <u>ENERGY STAR EV Charging Promotion Campaign</u> see what one
 of our 22 participating partners, ABB had to say with their <u>press release</u> on earning ENERGY STAR
 certification for their DC fast charger.
- The ENERGY STAR DC Fast Chargers Qualified Products List (QPL) has grown to 60 models and 19 brands.
- EPA released the <u>ENERGY STAR Version 1.2 Final Specification</u> with definitions and clarifications added.
- The <u>2022 Unit Shipment Data Summary Report</u>, released on August 31, 2023, showed ENERGY STAR EVSE units shipped in 2022 increased to 412,000 shipments with a market penetration of 35% up from 154,000 and 27% in 2021.
- Federal agencies and state programs have adopted ENERGY STAR requirements.
- EPA engaged with utilities and EV charging organizations across the country to increase awareness about the benefits of incorporating ENERGY STAR certified EV charging stations into their programs.

This newsletter summarizes these and other recent activities. We thank you, our partners, for your participation and support for our efforts.

As always, please reach out to us at any time, either via <u>evse@energystar.gov</u> or the contacts listed at the end of this newsletter.

Sincerely, Peter Banwell

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Safe and Efficient Charging Nationwide

The federal government is actively promoting EV and EVSE adoption through the passage of two landmark pieces of legislation: the Bipartisan Infrastructure Law (Infrastructure Law) and the Inflation Reduction Act. The Infrastructure Law created the Joint Office of Energy and Transportation to support and administer \$7.5 billion for convenient, accessible, equitable zero-emission transportation infrastructure with a goal of installing 500,000 EV chargers by 2030. The National Electric Vehicle Infrastructure (NEVI) Standards and Requirements Final Rule set minimum standards and requirements for projects funded under the NEVI Formula Program and projects for the construction of publicly accessible EV chargers under certain statutory authorities. The Final Rule requires ENERGY STAR certification for Level 2 charging infrastructure funded by these programs. The Inflation Reduction Act extended and created new and used EV and EVSE tax credits and allocated funding for new and existing fleet electrification programs.

In addition to the federal funding opportunities noted above, all Level 2 charging stations installed via <u>EPA's</u> <u>Clean School Bus Program</u> must be ENERGY STAR certified. With funding from the Infrastructure Law, EPA will provide \$5 billion over the next five years (FY 2022-2026) to replace existing school buses with zero-emission and low-emission models.

In the DC fast charging category, the <u>California Energy</u> <u>Commission's CALeVIP program</u>* will include ENERGY STAR as an energy efficiency requirement for DC fast chargers beginning January 1, 2024. The application window for Northern and Southern Regions is now open through December 12, 2023.



On October 26, 2023, the California Energy Commission with the California Department of Transportation (Caltrans) released <u>California's NEVI Program Competitive Grant Solicitation</u>. The solicitation announced the availability of up to \$40,500,000 in grant funds to install high-powered DC fast charging stations along California's alternative fuel corridors. The grant solicitation DC fast chargers are required to be ENERGY STAR certified. Higher-powered chargers more than 350 kW are not required to be certified.

*See <u>Equipment Requirements for the CALeVIP Golden Priority Project</u> for more details.

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The Value of Partnership

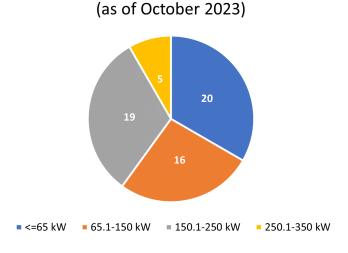
In our last update, we shared the first list of certified DC fast chargers. The adoption of ENERGY STAR certified DC fast chargers is continuing to expand as more EVSE manufacturers certify their chargers – highlighted in the graph below. So far this year, the ENERGY STAR Qualified Products List grew to include:

- 19 DC fast brands (ABB, AddEnergie, AUTEL, Blink, BTCPower, Chaevi, Chargepoint, Delta, EVSIS, InCharge, Infypower, Phihong, Power Electronics Espana, SK Signet, SmartDC, Star Charge, Tellus Power, XCHARGE, ZEROVA)
- Over 200 certified AC models

• 60 unique DC fast charger models

More certifications are expected through the rest of 2023 – find the most up-to-date list of certified EV chargers on the ENERGY STAR Product Finder. The Product Finder for EV chargers recently split between AC and DC chargers. If your organization has any product or promotional materials that reference the ENERGY STAR EV charger Product Finder, please use the new AC and DC specific links below.

- Product Finder: <u>Electric Vehicle Chargers (AC-Output)</u>
- Product Finder: <u>Electric Vehicle Chargers (DC-Output)</u>



Number of ENERGY STAR Certified DC Fast Chargers

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ENERGY STAR Version 1.2 EVSE Final Specification Released

On June 20, the EPA released the <u>ENERGY STAR</u> <u>Version 1.2 EVSE Final Specification</u> with updates to the criteria for AC EVSE prompted by recent state requirements related to product functionality. This amended specification includes a new base allowance and new functionality adders for the ACoutput EVSE energy efficiency criteria. Below are some of the auxiliary features addressed and some key clarifications in the specification change:



Auxiliary Feature Allowances added:

- In-use speaker: 1W
- In-use PLC boards (ISO 15118): 1W per port
- In-use credit card reader: 5W
- In-use RFID systems: 1.5W

- In-use Revenue Grade Meters: 1W
- In-use Occupancy Sensing (Camera, Proximity Sensor, etc.): 1.5W

Clarifications:

- EVSE station lighting including status lights and except for displays may be turned off or disabled by means of hardware or software during the ENERGY STAR testing process as lighting does not affect the EVSE functionality.
- EPA allows testing of products with any or all the network connections (wi-fi, cellular and ethernet) enabled. However, allowance can be claimed for only one connection as per the order mentioned in the test method.
- EPA has clarified how brand owners should demonstrate compliance with ISO 15118 functionality if they want their model recognized as having the optional ENERGY STAR connected functionality.

Summary of key specification efficiency criteria for DC fast chargers remain as outlined below:

- Chargers 50 to 65 kW: minimum active charging efficiency of 93%.
- Chargers 65 to 350 kW: must measure and report efficiency using EPA's test method.

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

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How to Certify EVSE

1. Join us as an ENERGY STAR partner!

2. Work with an EPA-recognized Certification Body (CB)

Certification Bodies (CBs) can guide you through the testing and certification process. Use the <u>EPA-</u> <u>Recognized Certification Bodies (CBs) and Laboratories Finder</u> to search for currently recognized CBs and laboratories.

Note: If you wish to use your own lab for certification testing, that is also an available option. You may contact Intertek Testing Services NA, Inc., TUV SUD America, Inc., or UL Verification Services, Inc. to enroll your laboratory as a <u>witnessed lab</u> for ENERGY STAR testing. The CB will explain the enrollment process and applicable fees before conducting an initial site assessment. After enrollment, either your qualified lab personnel or CB personnel may conduct testing at your site.

3. Get certified!

Provide your CB with a test report indicating your product meets ENERGY STAR performance levels, and the CB will determine whether it earns the ENERGY STAR label. After the CB uploads your product information to our website, it appears publicly the next day.

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Labs Recognized by the EPA for EVSE Testing

Since our last newsletter, the number of labs that are recognized to test for ENERGY STAR certification has grown significantly with the interest in certifying more ENERGY STAR DC fast charger models. There are now 18 labs certified to test EVSE with at least 9 labs testing DC fast chargers for ENERGY STAR including the following:

- Bay Area Compliance Laboratories Corp. (Dongguan)
- Bay Area Compliance Laboratories Corp. (Shenzhen)
- Bay Area Compliance Laboratories Corp. (Sunnyvale)
- CQC-Guochuang Testing Technology (Jiangsu) Co., Ltd.
- CSA Group, Kunshan 20 kW for DC
- DEKRA Testing and Certification (Shanghai) Ltd. – **800 kW for DC**
- Eurofins Electrical and Electronic Testing NA, Inc. Baltimore Lab
- Intertek Testing Services NA, Inc. Plymouth Township – 180 kW for DC

- Intertek Testing Services Shanghai Co., Ltd.
 30 kW for DC
- Intertek Testing Services Shenzhen Ltd.
 Guangzhou Branch 400 kW for DC
- Korea Testing Certification Institute
- SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
- SGS-CSTC Standards Technical Services Co., Ltd, Guangzhou Branch – **200 kW for DC**
- TUV Rheinland (Shanghai) Co., Ltd. 350 kW for DC
- TÜV Rheinland Italia S.r.l.
- UL LLC Anthony Trail Laboratory 500 kW for DC
- UL LLC Fremont Laboratory 200 kW for DC
- UL LLC Northbrook Laboratory

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Guide to Using ENERGY STAR Branding for Partners

The ENERGY STAR Brand Book is a helpful resource that outlines how partners and other stakeholders can use the ENERGY STAR logo and marks and provides various examples of use cases. In this guide, you can find information on what is and is not allowed when using the ENERGY STAR name and logos as it pertains to your products, stores, and websites. Whether you are labeling a product, designing a new outreach campaign, or communicating your organization's commitment to energy efficiency, this book is designed to help you make the most of your ENERGY STAR partnership.

- ENERGY STAR Brand Book
- Logo Examples
- <u>Request Logo Use Review</u>



Partner Spotlight

Since 1992, ENERGY STAR and its partners have helped American families and businesses save 5 trillion kilowatt-hours of electricity, avoid more than \$500 billion in energy costs, and achieve 4 billion metric tons of greenhouse gas reductions. This impressive work could not have been possible without the dedication of our ENERGY STAR Partners.

We would like to give special thanks to the EV charging partners who shared the benefits of their ENERGY STAR partnership via social media in April, as part of ENERGY STAR's Earth month celebration:





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Contact List

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