Washington State Department of Commerce | WASHINGTON STATE ELECTRIC VEHICLE CHARGING PROGRAM

# WAEVCP L2 Eligibility Resource Guide

Use this checklist to verify L2 charger eligibility per WAEVCP guidelines. For more information, please see the Implementation Manual. Below the checklist, you will find step-by-step instructions detailing how to find this information on a charger's specifications sheet. Use the checklists below to determine eligibility for applicant type, site, and equipment.

Level 2 charger must comply with the following requirements to be eligible:

| | |
|---|---|
| ☐ | **Use a SAE J1772 OR NACS connector.** |
| | *Connector requirements may change to reflect any updates to federal guidelines regarding NACS connectors. Applicants will be notified if a change is proposed.* |
| ☐ | **Be networked via Wi-Fi, Cellular (4G and above), and/or Ethernet.** |
| ☐ | **Be capable of at least a 7.2-kW power output.** |
| ☐ | **Have a mobile payment device physically located on each charger dispenser or on a kiosk serving the charger dispensers.** |
| | *This requirement only applies to publicly available chargers, not residential or fleet/workplace, unless those projects will be publicly available in addition to their residential/work purpose.* |
| ☐ | **Support remote start capabilities for, at minimum, payment via a toll-free number.** |
| ☐ | **Not require a membership for payment.** |
| ☐ | **Use OCPP 1.6 or 2.0.1.** |
| | *OCPP certification is required for public chargers (excluding those set to free-vend). Commerce will verify through attestation. However, project partners responsible for complying with WAC 16.662.220 should be aware that they must provide documentation of OCPP certification if requested and if such certification is available.* |
| ☐ | **Be ENERGY STAR certified.** |
| | • EVSE supplying AC power (Level 2) must have ENERGY STAR certification in compliance with WAC 194-24-200. The rule goes into effect on Jan. 1, 2024, and is enforced based on the manufacturing date and not the installation date.<br>• WAC 194-24-200 currently requires the ENERGY STAR EVSE v1.0 specification. Commerce plans to initiate a rulemaking process to consider adopting the ENERGY STAR EVSE v1.2 specification prior to the rule's effective date now that the standard has been adopted at the federal level.<br>• Commerce will inform program participants if the rule is amended.<br>• Commerce will verify ENERGY STAR certification for Level 2 EVSE through the Energy Star product database.<br>• Due to possible rule changes during the project development phase, Commerce will not disqualify projects from scoring consideration on the basis of ENERGY STAR certification. However, projects must comply with WAC 194-24-200 when contract agreements are finalized. |
| ☐ | **Be certified by an NRTL to UL 2594.** |

# How to Self-Verify Equipment with a Specification Sheet

**DISCLAIMER – Example specification sheets are used throughout this document from various chargers. These examples are intended to demonstrate how to find information on specification sheets and are NOT meant to represent compliance with all requirements or any endorsements by Commerce or WAEVCP technical assistance staff**

## Step 1: Acquire desired Charger Specification Sheet or technical details

There are multiple ways to acquire a charger specification sheet, but most are through the manufacturer website. To start, we would recommend typing the manufacturer name~~+~~, charger model, and "spec sheet" into your preferred web browser.

For example, if you were looking for the ChargePoint CT4000 or Phihong AX48, you would type search for "ChargePoint CT4000 spec sheet" or "Phihong AX48 spec sheet". You will either find the specification sheet *OR* be directed to the product webpage where the technical specifications are either listed (see example A), or you can click on a link to open the technical specifications (see example B).

*Example A from ChargePoint webpage https://autelenergy.us/pages/maxicharger-dc-fast-60kw-240kw) where specifications are listed on the product website.*

CT4000

| | |
|---|---|
| **Mounting** | Pedestal, wall |
| **Number of ports** | Single, dual |
| **Cable length** | 18 ft (5.5 m), 23 ft (7 m) |
| **Connector/port type** | SAE J1772™ |
| **Electrical output** | Up to 7.2 kW (30A) per port |
| **Connectivity** | Cellular 4G LTE, Wi-Fi LAN |
| **Authentication and payment** | RFID, tap to charge (NFC), remote via mobile app or in-vehicle, contactless credit card. |
| **Display** | Full color 5.7-inch LCD, 640 x 480, 30 fps full motion video, active matrix, capacitive button controls, UV protection, and multi-language support |
| **Network protocol** | OCPP 1.6 |
| **Operating temperature** | -40°F to 122°F (-40°C to 50°C) |
| **Station enclosure** | Type 3R per UL 50E |

*Example B from Phihong webpage (https://www.phihong.com/ax48-series/) where specifications are linked.*

## AX48 Series

**48A Single Phase Wall Mount EV AC Charger**

### Product Description

**Output Power :** 11kW

**Output Current :** 48A

**Features :** Residential and Commercial EV Charging. Wired/Wireless Connection for Central Management System. Support for RFID Card and QR Code for User Authentication and Management. Input: 200Vac~240Vac. Modern, Ergonomic and Custom Design. Optional 5-inch LCD Display. IP56/NEMA 4 Rated for Indoor/Outdoor Applications. Charging Interface: SAE J1772 (Type 1)/IEC 62196-2 (Type 2). OCPP 1.6. JSON (Upgradeable to 2.0). ISO 15118 Protocol. Local Load Management, Making the Field Power Configuration Planning of Charging Stations More Flexible. Over the Air Technology.

**Applications :** Parking Garages. Commercial Fleet Operators. EV Infrastructure Operators and Service Providers. EV Dealer Workshops.

Datasheet Check Stock

If you cannot find the specification sheets on the website, contact the manufacturer directly through their provided contact information on the bottom or top of their webpage.

## Step 2: Check J1772 or NACS connector standard

On the specification sheet, the manufacturer will call out which connector standard the charger supports as depicted below.

CT4000

| | |
|---|---|
| **Mounting** | Pedestal, wall |
| **Number of ports** | Single, dual |
| **Cable length** | 18 ft (5.5 m), 23 ft (7 m) |
| **Connector/port type** | SAE J1772™ |

*(https://www.chargepoint.com/businesses/ac-stations/ct4000/specs)*

**Regulation**

| | |
|---|---|
| Certification | UL2594, UL2231-1/-2, Energy Star, CTEP, NTEP (NIST Handbook 44) |
| Wireless Certification | FCC/IC |
| Charging Interface | SAEJ1772 Type 1 Plug |

*(https://www.phihong.com/wp-content/uploads/AX-Series.pdf)*

**Tip:** To quickly check if the charger supports the required J1772 or NACS connector, press CTRL + F on your keyboard and search "J1772" or "NACS".

## Step 3: Check network connectivity via Wi-Fi, Cellular (4G and above), and/or Ethernet

Ensure that the specification sheets mention connection via ethernet, Wi-Fi, and/or Cellular. If cellular is mentioned, it must be 4G (sometimes abbreviated as "LTE") and above. Anything lower, such as 3G, will not be eligible.

CT4000

| | |
|---|---|
| Mounting | Pedestal, wall |
| Number of ports | Single, dual |
| Cable length | 18 ft (5.5 m), 23 ft (7 m) |
| Connector/port type | SAE J1772™ |
| Electrical output | Up to 7.2 kW (30A) per port |
| Connectivity | Cellular 4G LTE, Wi-Fi LAN |

*(https://www.chargepoint.com/businesses/ac-stations/ct4000/specs)*

**Communication**

| | |
|---|---|
| Vehicle to Grid Communication Interface | ISO 15118 (Plug&Charge, Bi-Directional) |
| Network Interface | Ethernet + Wi-Fi (IEEE 802.11 b/g/n) (standard)<br>Ethernet + Wi-Fi (IEEE 802.11 b/g/n) + 4G (optional) |
| Charging Protocol | OCPP 1.6 JSON (Upgradeable to 2.0 OTA) |

*(https://www.phihong.com/wp-content/uploads/AX-Series.pdf)*

## Step 4: Have a mobile payment device physically located on each charger dispenser or on a kiosk serving the charger dispensers.

Look for RFID, NFC, QR code, or phone app payment options.

**User Interface & Control**

| | |
|---|---|
| Display | 5" LCD Display |
| User Authentication | RFID, Smart Phone App, QR Code and Optional Third Party Payment System |
| Meter | Meter IC (1% Accuracy) |

*From (https://www.phihong.com/wp-content/uploads/AX-Series.pdf)*

| | |
|---|---|
| **Connectivity** | Cellular 4G LTE, Wi-Fi LAN |
| **Authentication and payment** | RFID, tap to charge (NFC), remote via mobile app or in-vehicle, contactless credit card. |
| **Display** | Full color 5.7-inch LCD, 640 x 480, 30 fps full motion video, active matrix, capacitive button controls, UV protection, and multi-language support |

*(From https://www.chargepoint.com/businesses/ac-stations/ct4000/specs)*

## Step 5: Use OCPP 1.6 or 2.0.1.

While Commerce will be verifying this requirement via self-attestation on the charger's specification sheet, OCPP certification through OCA is required for public chargers (excluding those set to free-vend) and documentation of OCPP 1.6 certification or later must be provided if requested. You can use the following database to verify you charger's compliance with this requirement: https://www.openchargealliance.org/certification/certifiedcompanies/.

## Step 6: Be ENERGY STAR certified

Seach for your charger on the *Energy Star product database*. Ensure that the correct model is listed under the brand name. If you are having trouble with this step, contact waevcp@energycenter.org.

## Step 7: Be certified by an NRTL to UL 2594

Search the product specification sheet for UL 2594. This is often listed under safety and compliance or certifications.

| | |
|---|---|
| **Operating temperature** | -40°F to 122°F (-40°C to 50°C) |
| **Station enclosure** | Type 3R per UL 50E |
| **Safety and compliance** | UL and C-UL listed; complies with UL 2594, UL 2231 and NEC Article 625 |
| **Certifications** | ENERGY STAR® certified, California Type Evaluation Program (CTEP) |

*(From https://www.chargepoint.com/businesses/ac-stations/ct4000/specs)*

**Regulation**

| | |
|---|---|
| Certification | UL2594, UL2231-1/-2, Energy Star, CTEP, NTEP (NIST Handbook 44) |
| Wireless Certification | FCC/IC |
| Charging Interface | SAEJ1772 Type 1 Plug |

*From (https://www.phihong.com/wp-content/uploads/AX-Series.pdf)*

## Step 8: Contact manufacturer for quote and remaining questions

If your charger meets all the above requirements, it is most likely eligible. When you reach out to the manufacturer, make sure to confirm that they fulfill the two following requirements:

1. Support remote start capabilities for, at minimum, payment via a toll-free number.
2. Not require a membership for payment

## Step 9: Success! You've reviewed your charger's compliance with WAEVCP requirements