

Retail Electric Vehicle Supply Equipment (EVSE) Weights & Measures Guide

The Weights & Measures Section of the Vermont Agency of Agriculture Food & Markets (VAAFM) has the responsibility to regulate weights and measures, and weighing and commercial measuring devices in the state, pursuant 9 V.S.A. § 2631 & 2651, Commerce and Trade.

This document is designed to assist and inform businesses as they enter the electric vehicle charging market by clearly establishing expectations of this new market as it applies to Vermont Weights & Measures (W&M) requirements. To ensure that Vermont businesses and consumers work in a fair and reliable market, regulated equipment must meet applicable legal standards, including method of sale.

The W&M Program will be licensing, testing, and inspecting electric vehicle supply equipment (EVSE) meters used commercially and available to the public, but not those owned, maintained, and used by a public utility. Devices where electricity is supplied for free and there are no related costs to the consumer will not be considered "commercial" as no transaction is taking place for charging the vehicle, so those devices will not currently be licensed, tested, or inspected by the W&M Program.

Method of Sale

All electrical energy sold at retail as vehicle fuel must be sold by the kilowatt-hour (kWh), as required by <u>NIST Handbook 130</u>. Unit price for electricity must be displayed by the whole cent (\$0.32) or tenth of one cent (\$0.319).

In addition to the fee for electrical energy, fees may be assessed for other services, such as parking. Any additional charges can be fixed or based on time. All fees must be displayed to the consumer before the consumer elects to purchase the services.

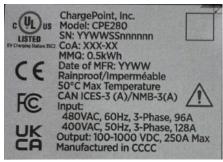
Selecting a Device

Devices must be selected with the intended use in mind.

All EVSEs used commercially and available to the public must be "Legal for Trade" and comply with all the requirements in NIST Handbook 44, except those devices owned, maintained, and used by a public utility. As of July 1, 2024, all new commercial weighing and measuring devices placed into service in Vermont must have a National Type Evaluation Program (NTEP) Certificate of Conformance (CC), this includes all new EVSE equipment. A list of all equipment that complies with this requirement can be found on the NTEP CC Database.

These devices will have a nomenclature plate containing the following information:

- Make
- Model
- Serial Number
- Voltage and Type of Current
- Maximum Current Deliverable
- Temperature Limits
- Minimum Measured Quantity
- NTEP CC Number



Example nomenclature plate

Commercial EVSEs not available to the public will not currently be licensed by the W&M program. These devices must have a means (electronic or physical) to prevent general public access. Additionally, these devices should not appear on any apps which help members of the public find and/or pay for EVSE services.



Practical Examples

If you own a multi-family dwelling and install EVSEs for exclusive use by your tenants, then the devices do not currently need to be licensed with the W&M Program requirements. Even when EVSE is not available to the public, it is prudent to purchase and/or operate devices that meet NTEP and NIST Handbook 44 requirements.

If you have a home EVSE and allow members of the public to come to your home through an app such as PlugShare or EV Match and charge fees for this charging, then your device must comply with the NTEP and NIST Handbook 44 requirements. These devices need to be licensed with the W&M Program and these devices will be subject to testing by the W&M Program.

Types of EVSEs

EVSE units are categorized by the power supplied and speed at which they can charge a vehicle. Level 1 and level 2 charging are the equivalent of plugging a vehicle into regular home wall outlets (120V) and larger home outlets (240V), respectively. Level 3 charging (also referred to as "DC Fast") uses direct current at higher voltages (up to 1000V) to charge the vehicle quicker.

Level	Power	Speed of Charge
1	AC	Adds 3 to 5 miles of range per
		hour of charging
2	AC	Adds 20 to 30 mile of range per
		hour of charging
3	DC	Charges battery to 80% of Range
		in 20 minutes
AC: Alternating Current		DC: Direct Current

Installation of Commercial EVSEs Available to the Public

After January 1, 2024 all commercial EVSE available to the public must be placed into service by a service person who is registered with the W&M Program at VAAFM. For more information on what is required of a registered service person or how to become one, see the <u>Vermont W&M Service Persons Guide</u>. All companies that manufacture EVSE make commercial and noncommercial equipment, so make sure you ask the installer/manufacturer if the device meets all these requirements if you intend to charge for use of EVSE available to the public.

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