

INTERNATIONAL® eMV SERIESTM & IC BUS® ELECTRIC CE SERIES

INDUSTRY TERMINOLOGY

AMPERAGE

(Amps) The rate of flow of electrons through a circuit or the strength in which electricity is flowing. Also known as current

AVERAGE POWER

The amount of power that your fleet requires while charging, averaged over the charging window

BEV

Battery-Electric Vehicles

CHADEMO PLUG

A round four-pin plug that is exclusively used for rapid charging points and is often compatible with electric vehicles manufactured in Asia, such as Mitsubishi and Nissan. CHAdeMO offers Vehicle to Grid (V2G) but has less power than CCS1 and requires two separate sockets. This plug does not work with International and IC Bus products

CHARGING RATE

The rate at which a BEV is charged, measured in kilowatts (kW). Example: The International eMV has a maximum charge rate of 125 kW

CHARGING WINDOW

The period of time in your fleet's duty cycle when vehicles can charge

CIRCUIT

The path along which electricity flows

CLOUD-BASED COMMUNICATIONS

A wireless internet based service carrying information on EVSE (Electric Vehicle Supply Equipment) status, energy consumption, location, and payment for use between the owner and the user(s)

COMBINED CHARGING SYSTEM (CCS)

A standardized connection used on many vehicles. It is a combination of DC pins below the AC connector.





CCS Type 2

Direct current fast charge, usually stated as DC fast charge

DEMAND CHARGE

A fee applied to your greatest power draw during peak periods, on top of the rate that you pay for the energy (\$/kWh)

DISTRIBUTION

The process of delivering power from transmission lines to the customer

DUTY CYCLE

The portion of time during which a vehicle is operated and using energy

ENERGY CHARGE

Your baseline price of electricity based on the amount of energy you consume (\$/kWh)



EVSE

Electric Vehicle Supply Equipment, or the charger unit

FIXED CHARGE

A fee covering the regulator-approved costs that the utility pays to supply your power such as distribution and transmission (\$/month)

FLAT RATE

A rate structure under which you are billed at a single price per kilowatt-hour consumed regardless of time, season, or application

GENERATION

The process of producing electricity from a fuel source

HANDSHAKE

When you connect the plug into the vehicle, the vehicle will electronically handshake with the charging station. Once the handshake is made, the relay in the charging station will open, allowing electrons to flow to the vehicle. When you disconnect the plug, the electricity stops flowing through the cable

ICE

Internal Combustion Engine

ISO 15118

An international standard that outlines the digital communication protocol that an electric vehicle and a charging station should use to recharge an electric vehicle's battery

kW

One kilowatt is equal to 1000 watts

kWh

Kilowatt-hour, a unit of measure for electrical energy. 1 kWh is the energy delivered by 1 kW of power for 1 hour

L1 CHARGING

Level 1 charging uses a common 120-volt household outlet. Every electric vehicle can be charged on Level 1 by plugging the charging equipment into a regular wall outlet. Level 1 is the slowest way to charge an EV typically only delivering 1.2 kW. It is too slow to be used for buses or commercial vehicles

L2 CHARGING

Level 2 charging is the most used level for daily EV charging of automobiles. Level 2 charging equipment requires 240v power but can be installed at home, at the workplace, as well as in public locations like shopping plazas, train stations and other destinations. It may or may not be sufficient for commercial trucks and school buses, depending on the routes and environment, but it is required for diagnostics

DC CHARGING

DC Charging is the fastest type of charging available. Unlike Level 1 and Level 2 charging that uses alternating current (AC), Level 3 charging uses direct current (DC). It is the most common level of charging for school buses and commercial trucks

LOAD PROFILE

A graph showing the amount(s) of power that your fleet requires over the course of a day

METER

A device that records the amount of power (kW) and energy (kWh) used



MPGE

Miles per gallon equivalent is the official metric the EPA uses to measure the efficiency of alternative-fuel (including electric) vehicles. Just like standard MPG shows how far a vehicle will travel on one gallon of gas, MPGe shows how far a vehicle will drive on 33.7 kWh of electricity – the energy equivalent of one gallon of gasoline

NETWORKING SERVICE

An internet based service that allows an EVSE owner to analyze basic activity data from one or more EVSE

PEAK SHAVING

A strategy to reduce power consumption during periods of high demand

POWER FACTOR ADJUSTMENT

An adjustment to your demand charge according to how efficiently your facility consumes power

RATE STRUCTURE

A set of parameters used to define the prices that a customer may be charged at different times of the day

REGENERATIVE BRAKING

Regenerative braking uses the vehicle's motor to slow down the vehicle rather than the friction foundation brakes. This sends energy back into the batteries for future use, which extends range

SOC

State of Charge - The equivalent of a fuel gauge for the rechargeable battery within an electric vehicle. SOC is measured by percentage points and ranges from 0% to 100%. This enables the EV driver to see how much charge their vehicle is currently holding

SUBSTATION

A set of electric equipment that reduces high-voltage power to a voltage suitable for distribution to customers

• TIME-OF-USE (TOU)

A rate structure under which you are billed different prices for power you consume according to the time and season when it is consumed

TRANSFORMER

A device that changes electricity from one level of voltage to another

TRANSMISSION

The process of moving power in large quantities across long distances

VOLTAGE

Pressure created by a difference in electrical charge between two points

WATT

One watt is defined as the current flow of one ampere with voltage of one volt (Watts = Amps x Volts)

ZEV

Zero-Emission Vehicle