

## NEW! Electric Vehicle Charging Stations

Experts say that by the end of 2015 there will 500,000 to one million battery-electric vehicles (BEVs) and plug-in hybrid-electric vehicles (PHEV) in the United States. Most electric vehicle owners will charge their cars at home, creating a large market for home chargers. In addition, many municipalities and businesses are planning to install commercial charging stations. We believe this burgeoning industry is both a can't-miss winner in the years and decades ahead, but also a natural complement to solar PV electricity generation.

Nissan requires that buyers of their all-electric Leaf certify they have a charging station before they will sell them an electric car.

A charging station is a great companion to a grid-tied PV system, and the people who own one are likely candidates for solar power systems. It makes sense to make your own electricity in the daytime to charge your electric vehicle at night.

There are three categories of EV charging stations:

**Level 1** chargers are simple 120 VAC 20 amp outlets. They look like conventional AC outlets but with one blade turned 90 degrees. Level 1 chargers are limited to a maximum of 2,000 watts and take 10 to 20 hours to fully charge an all-electric car. This type of charger is great in an emergency when the driver is running low on charge and needs to plug into a readily available outlet.

**Level 2** charging stations like the ones featured on the next two pages range from 6,000 to 12,000 watts and can fully charge a plug-in electric vehicle in 3 to 8 hours. They feed 240 VAC power to the vehicle's built-in charger through a power cord with a J1772 plug at the end that looks like the nozzle of a gas pump. These chargers must be installed by a qualified electrician on a dedicated circuit. Many of these chargers communicate via Wi-Fi and can be set to charge when electricity cost is the lowest, usually at night. They may be controlled by the "smart grid" in the future.

**Level 3** charging stations are high powered chargers that deliver 20,000 watts or more of 300+ volts DC power directly to the EV battery. These chargers will require three-phase power and be served by a large commercial service panel. When these chargers are available they will be in business locations and are more likely to be used for busses and commercial vehicles. Level 3 connectors are an option on the Nissan Leaf and other electric vehicles, even though the infrastructure to use them robustly is years away.

Federal tax credits and state tax credits in California, Hawaii, Illinois, Louisiana, Oklahoma, Oregon and Washington lower the cost of equipment and installation of charging stations.

We expect our product offering of electric vehicle charging stations to grow and change through the months and years ahead. Please check our website for changes and new product offerings in his exciting new market.





## NEW! Shorepower Technologies

### ePump Commercial EV Charging Stations



Shorepower's ePump stations combine the latest electric vehicle charging technology with customization options for municipalities, private employers, retail environments, and fleet locations.

The freestanding tower is designed for street or curb mounting with maximum visibility while the cube has a slim profile designed for a garage wall or a pole. Both are made of high quality stainless steel for years of flawless performance and good looks. An optional illuminated globe gives the station a retro fuel pump look, blending the past with the future.

Shorepower's open source charging stations can be customized to meet any technology requirements including custom payment/access options. Virtually any card swipe (Visa/MC/AMEX/gift/debit) or RFID technology including employee or student IDs, multiple charging types – Levels 1 and 2 in various combinations within the same station – offer user flexibility.

Description	Item code
Tower charging station	089-02015
Cube charging station	089-02020
Illuminated globe with photoswitch	089-02050
Monitoring and reporting system	089-02053
Payment, monitoring and reporting system w/ touchscreen	089-02056
Web portal fee per year (required with Payment System above)	089-02059
Card reader	089-02062
Thermal receipt printer	089-02065
Custom graphics	089-02068
Additional Level 1 outlets	089-02071
Additional Level 2 cable and connector	089-02074



## NEW! Leviton

### Evr-Green Residential Charging Stations

Leviton's Evr-Green Home Charging Stations enable quick charging of any SAE J1772 compatible plug-in electric vehicle. The intuitive user interface and automatic features make the charging process extremely simple. Their small footprint takes a minimum amount of wall space for mounting. Their mounting system allows do-it-yourself installation when using cord-connected stations in conjunction with the Evr-Green pre-wire kit. Built-in communication verifies proper connection before charging can commence. All units are NEMA 4 outdoor/indoor. The Evr-Green 160 Level 2 Charging Station provides 3.8kW output (16A @ 240V). The charger plugs into dedicated 20A circuit. The Evr-Green 320 Level 2 charging station provides 7.2kW output (30A @240V); the charger plugs into a dedicated 40A circuit.

Description	Item code
Leviton Evr-Green 160 charging station	089-03160
Installation Kit for 160 charging station	089-03164
Leviton Evr-Green 320 charging station	089-03320
Installation Kit for 320 charging station	089-03324

