

What the Electric Vehicle Has Been Waiting For!



[Get Connected with GE EV Infrastructure Solutions](#)

EVSE Sales Leader– Joshua Caillavet

GE's EV Infrastructure Family



WattStation™
Pedestal



WattStation™
Wall Mount



DuraStation
Pole/Wall Mount



DuraStation
Single, Double Pedestal

Features

Level 2 charging, 208-240VAC @ 30A	Yes	Yes	Yes
Mounting options	(1) Single Pedestal	(1) Wall Mounted	(4) Single/Dual Pedestal/PoleWall Mounted
Cord management system	Fully retractable integrated cord management system	Simply wrap around the unit when not in use	Simply wrap onto a cord holder when not in use
Access Control	RFID and Payment Options	No	RFID
Software Available	Yes – WattStation™ Connect	No	Yes – RFID Access Control
Network Connectivity	Ethernet, Wifi, Cellular	No	Ethernet
Outdoor Rated	Yes, NEMA 3R	Yes, NEMA 3R	Yes, NEMA 3R
Modular Upgrades	Yes	No	Yes

WattStation Connect™

Overview

Manage, monitor and maintain

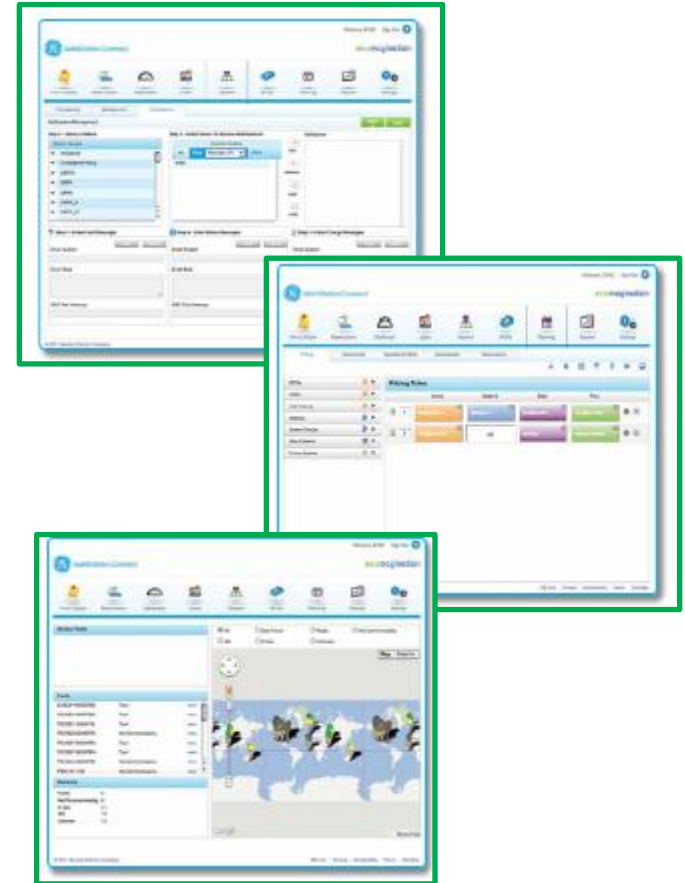
Timely information about the state of their charging stations gives owners the ability to diagnose and manage problems remotely. The ability to define and set pricing plans for the use of their charger is also included.

Access control and payment options

Radio Frequency Identification (RFID) technology provides secure access to charging stations. EV owners can select and pay using our WattStation Connect App .

Web Services (API):

WattStation Connect can be interfaced to your current building management, HR or fleet systems using an Application Programming Interface (API) to provide an integrated solution with no need to change your current processes.



WattStation Connect™

Mobile

WattStation Connect App for the EV Driver

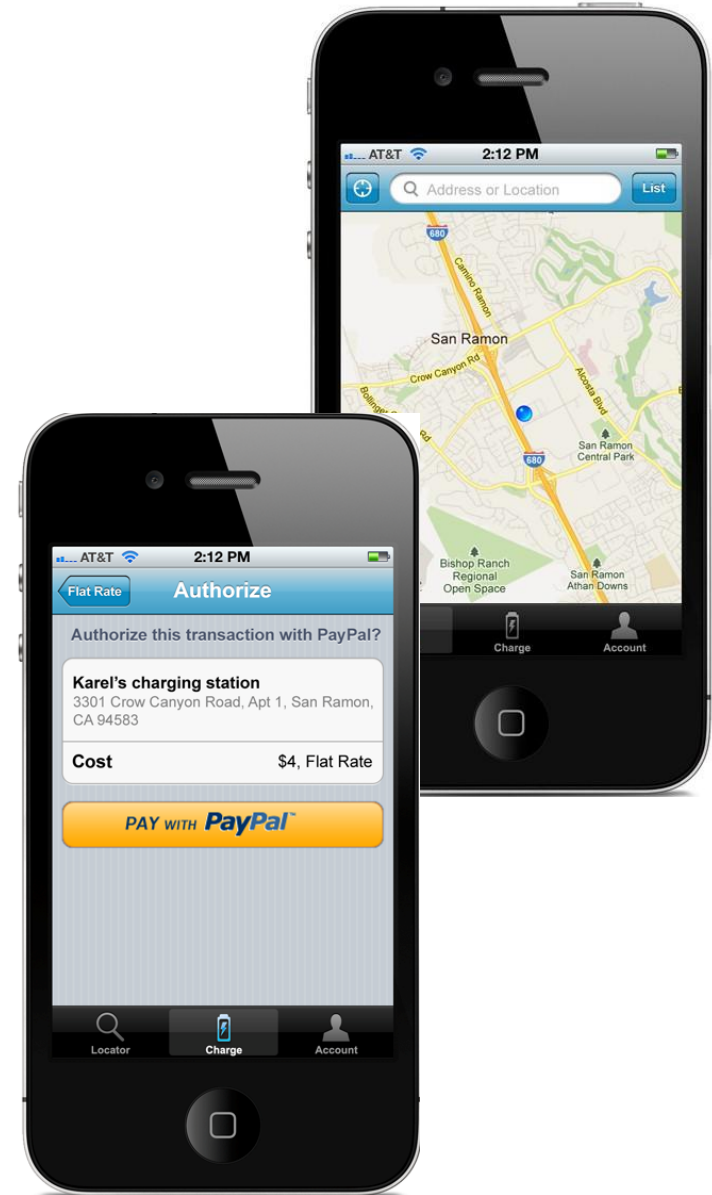
- Find a Station
- Pay for Usage
- Account management

WattStation Connect App for the Installer:

Allows an installer to provision and set-up the WattStation at the installation site.

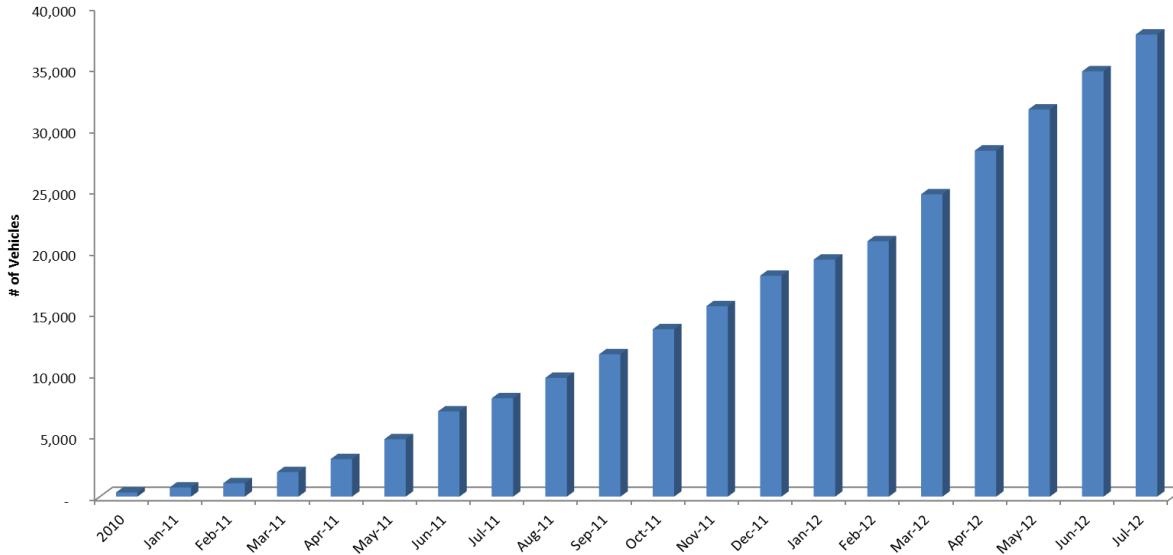
Mobile App Availability:

- Apple App Store (iPhone iOS 5 or higher)
- Android Market (Android OS 4)



EV Market

Cumulative EV Sales
(USA & Canada)



Forecast:
11,000 PHEVs by 2019 in Miami

Potential Impact:
Mass EV charging could result in an increased peak load of 75MW

* "Assesment of Plug-in Electric Vehicle Integration with ISO/RTO Systems" 2010 KEMA and ISO/RTO



Nissan Leaf

Launched 2010



Chevy Volt

Launched 2010



Mitsubishi i-Miev

Launched 1H 2012



Toyota Prius

Launched 1H 2012



Coda

Launched 1H 2012



Ford Focus

Launched 1H 2012



Toyota Rav4

Launching 2H 2012



Honda Fit EV

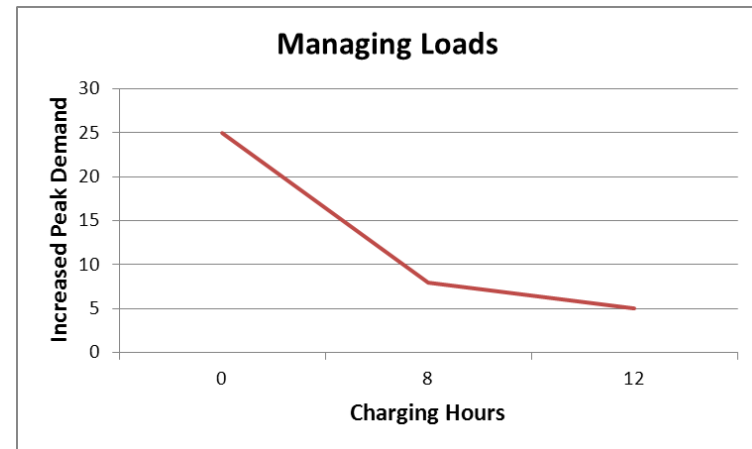
Launching 2H 2012 ⁵
9/7/2012

Managing the Demand

Staggering the charge period over 8 hours would decrease the additional peak load to 8MW.

Grid Problems

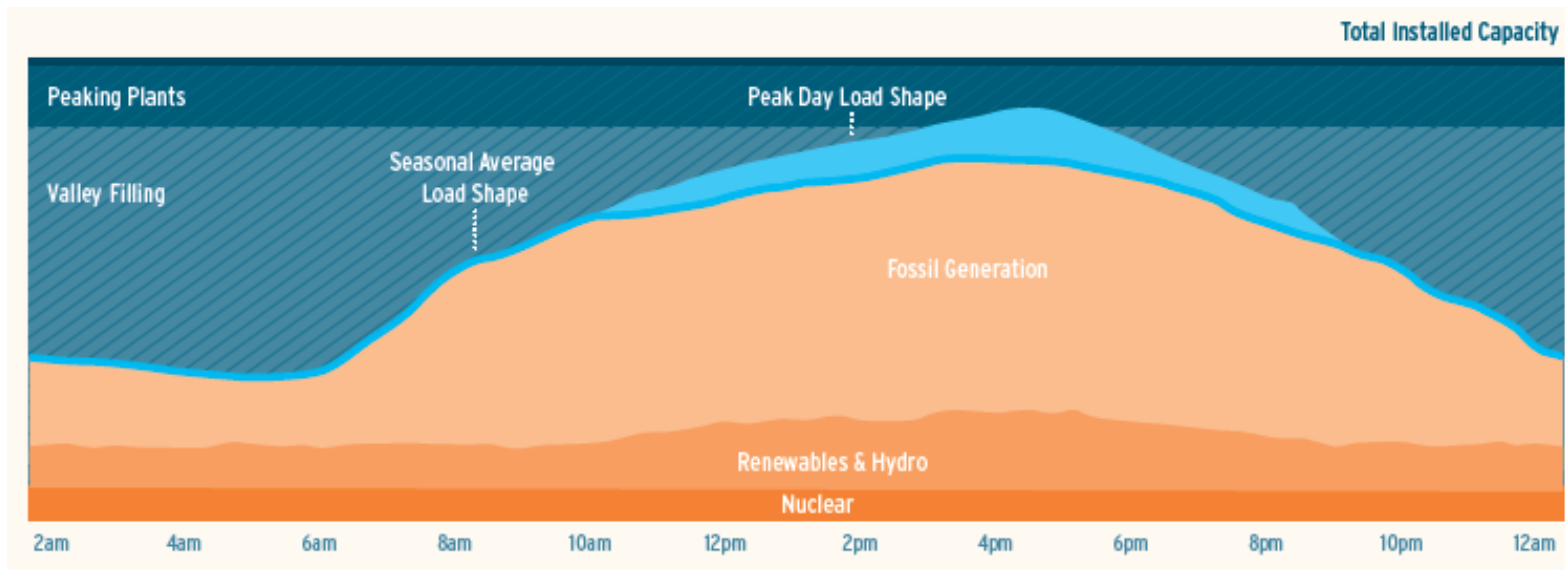
- Insufficient generation
- Undersized transformers
- Potential fossil fuel energy sources
- Under voltage & over voltage issues



Managing Loads

Base Load vs. Peak Load

Utilize Solar, EV, and Battery Storage to Flatten the Demand Curve



* "Assesment of Plug-in Electric Vehicle Integration with ISO/RTO Systems" 2010 KEMA and ISO/RTO

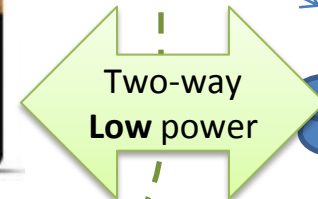
Example Test Site

Several EV charging/energy storage systems are aggregated to provide one, large virtual resource for ISO or Utility

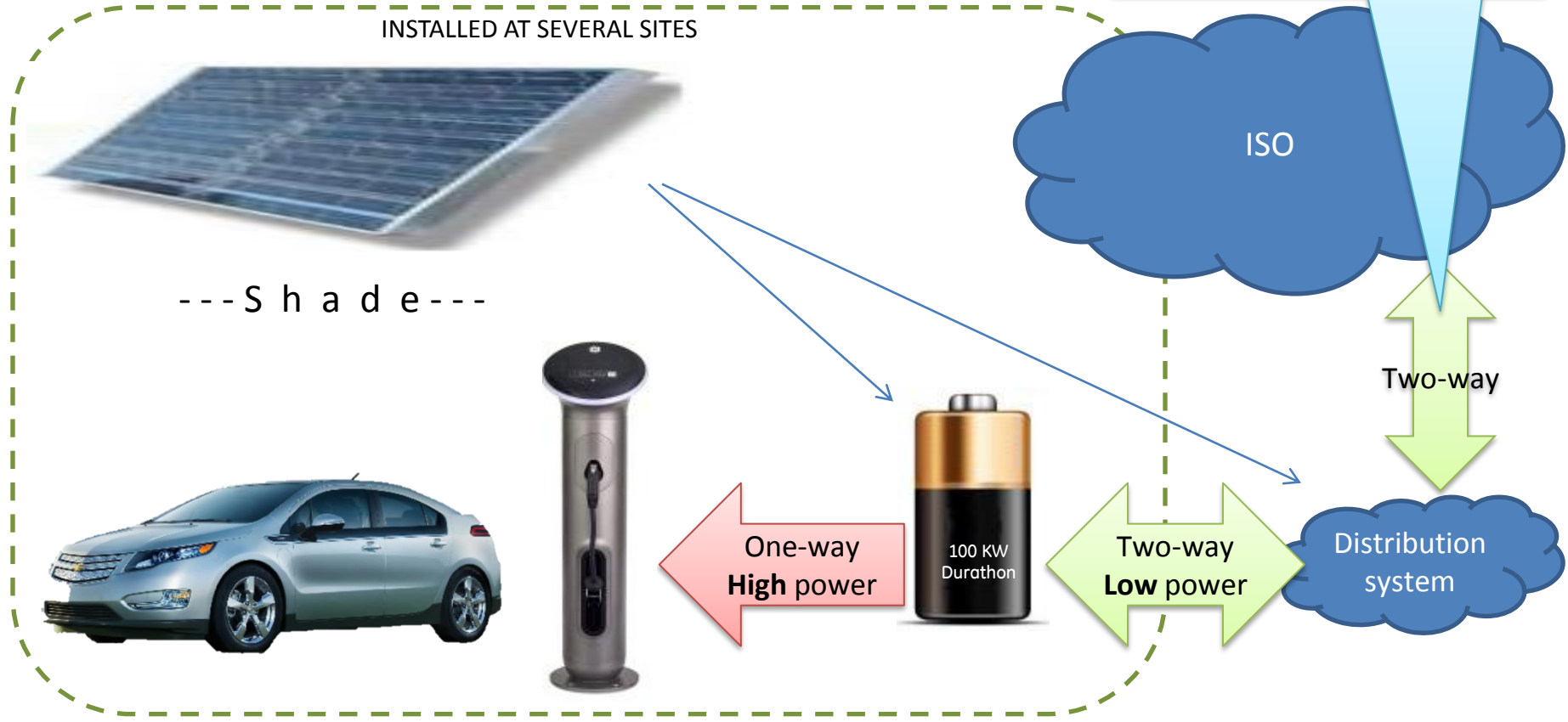
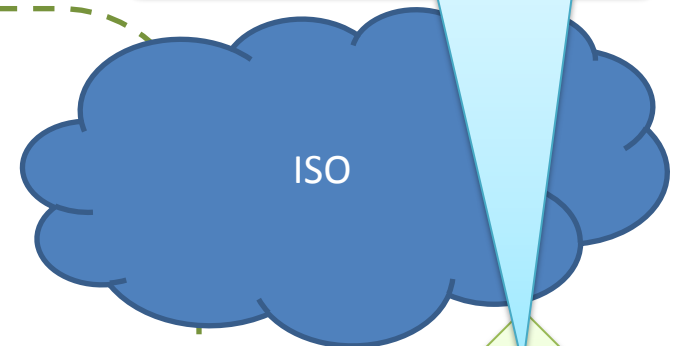
INSTALLED AT SEVERAL SITES



--- S h a d e ---



Fast regulation service for ISO (enabled by the battery)



Benefits of Solar + EV + Battery

- Accelerate adoption of electric vehicles
- Develop a public electric vehicle infrastructure
- Make electric vehicles truly “zero emission”
- Mitigate impact of electric vehicles on existing distribution grid
- Alternate revenue generation from electric vehicles thus greater ROI
- Environmentally Friendly





Plainville Solar Carport

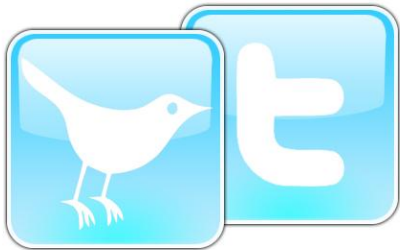
- 100kW grid-tied solar system (125MWh)
- Benefits
 - Powers the parking lot lights and 10 Charging Stations
 - Offsets power of 13 EVs/day or 20 homes/year
 - Provides covered parking for ~40 cars
- Showcases GE components
 - EverGold – DC Disconnect and DC Combiner Box
 - Legacy – Panel, AC Disconnects, Breakers
 - Charging Stations

Pilot Plan

- Pilot includes 30 solar powered car ports
- Located at large public parking locations
- Includes 100 KW of battery storage
- Includes level 1 & 2 and DC fast charging



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