

What the Electric Vehicle Has Been Waiting For!



Get connected with GE EV Infrastructure Solutions



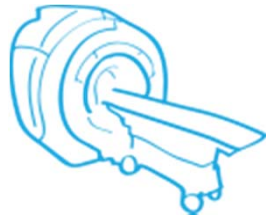
Product Manager EV Infrastructure – Seth

Quinn

We've been at work powering, moving and curing the world for a long time



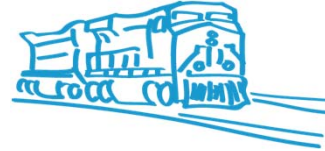
GE Energy



GE Healthcare



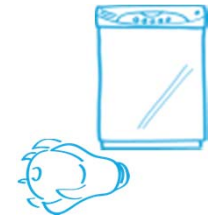
GE Aviation



GE Transportation



GE Capital



Home and Business Solutions

300k
employees

100+
countries
in GE's global
presence

#5
best global
brands

#14
world's
most admired
companies

#1
company
for leaders

1878 – Est. Edison Electric Co.



1908 – Pioneering Elec. Locomotives



1932 – GE Credit Corporation



1983 – The MRI



2008 – The GENx Engine



2010 – GeoSpring Hybrid Water Heater



1903 – Largest Steam Turbine



1930 – Empire State Building



1942 – Entering the Jet Age



2003 – Digital Hospital



2009 – Advancements in Ultrasound Technology



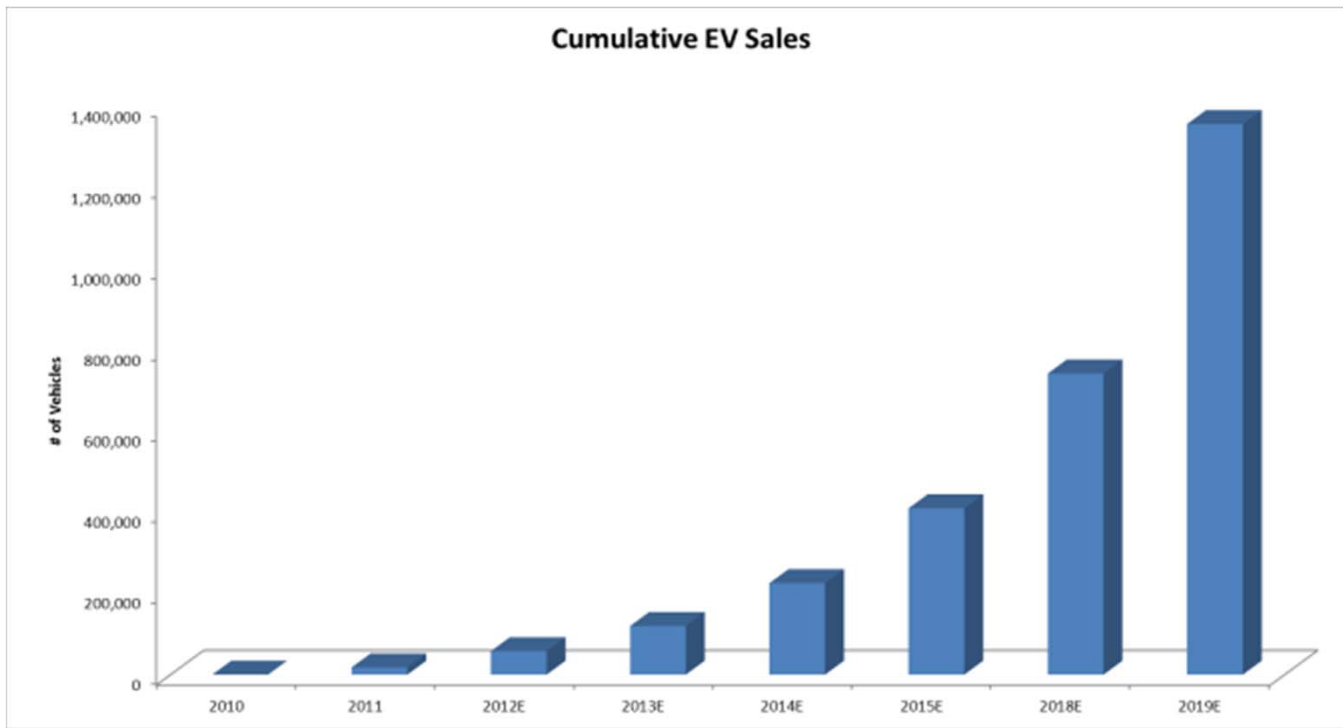
2011 – “Wing to Wing” Smart Grid Solutions



2012 ...



EV Market



Source: <http://www.greencarcongress.com/2012/07/pikeev-20120702.html>

Launched

-  Nissan Leaf
-  Chevy Volt
-  Mitsubishi i-Miev
-  Toyota Prius
-  Coda
-  Ford Focus
-  Toyota Rav4
-  Honda Fit EV

Launching 2012



Launching 1H 2013



Launching 2H 2013



Plug In Hybrid	Battery Electric Vehicle
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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

Manage, monitor and maintain

- Graphical Mapping Charger Management
- Real time monitoring

Access control

- Station provisioning & configuration
- Scheduling/pricing

Payment options

- RFID payment cards
- Smartphone app utilizing PayPal

Web Services (API)

- Provide an integrated solution with customers current processes

App for the EV Driver and Installer

- Find a station & payment



Managing EVs

Forecast

54,000 Plug-In Vehicles by 2019 in NYC*

Impact

Charging all of the electric vehicles simultaneously could result in an increased peak load of 299MW on the utility

Potential Solution

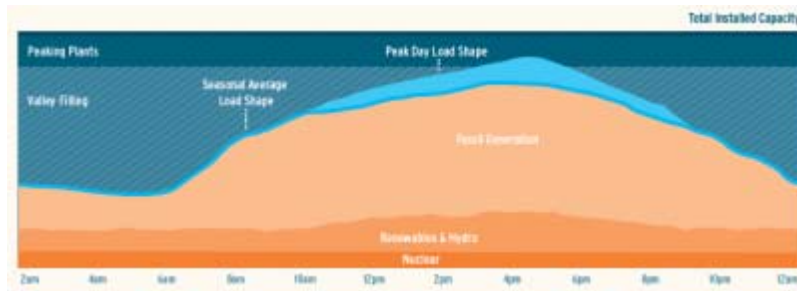
Staggering the charge period over 8 hours would decrease the additional peak load to 8MW



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

Managing EVs

Utilization of solar, EV, and battery storage to flatten the demand curve



Potential Grid Problems

- Insufficient generation
- Undersized transformers
- Potential dirty energy sources



Plainville Solar Carport

100kW grid-tied solar system (125MWh)

- Commission May 2012
- Energy production ~151,000kWh
 - Equivalent to charging ~5800 Nissan Leafs
- 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