NHMA's 81st Annual Conference and Exhibition

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Current State of Charge: Electric Vehicle Charging Investments & Opportunities for New Hampshire Communities

Dan Shanahan Eastern Regional Sales Director 860-929-2219 dshanahan@controlmod.com



Smart Charging Solutions For Electric Vehicles

EVSE LLC, A Subsidiary of Control Module Inc. Based in Enfield, CT

- CMI founded 1969 Connecticut Manufacturer for 53 years.
- EVSE LLC Electric Vehicle Charging Systems (2009).
- Time Management and Fleet and Fuel Island Management
- *Made in Enfield, Connecticut and MA keeping manufacturing jobs here!*
- Proud to be a part of the CT River Valley's long history of invention & innovation!



Smart Charging Solutions For Electric Vehicles

Market Segments We Serve

Market Segment	Representative Customers
Federal, State, Municipal. Local Govt.	Wolfeboro, NH, National Mall, US Navy, TVA, US DOE Argonne NL, Hartford, Springfield Parking, UCONN Parking (5 campuses)
Workplace Charging	Mass Mutual HQ, ISO NE, Southern California Edison, CT DEEP
K-12, Higher Education	Antioch, NH, UCONN, CT State University System, UCLA, Smith Voc (MA)
Multi Unit Dwellings	Village Hill, Northampton, MA,
Fleets	CT DAS, CT DMV, Aguarion (Eversource), LAPD
Public Parking/Garages	LAZ – Airport, Boston, LA City Hall, LAZ CT, MGM Springfield Casino
Transportation Hubs	Minneapolis Int'l Airport, Bradley International Airport (CT)
Utility	Until, ISO NE, Westfield G&E, SCE, PG&E, National Grid, Eversource, UI, American Electric Power, NY Power Authority, Dominion, First Energy



EV Charger Types









Utility Pole Mount

ADA & OSHA Requirements & EV Charging

Cables

- A civil right not a building code
- All alterations and new parking facilities require EVCS
- ADA
 - (Section 3, Commercial Facilities) 1/4" obstacle is violation
- "Small front wheels maneuvering over charger cables on ground can tip chair over."
 - Quote from person with paralysis disability in the photo
- ADA "force to pull" cannot be more than 5lbs
 Pulling the cable can connector to the EV inlet
- Most J1772 connectors are 5+lbs
- DC Fast Charger and cables weight 19+lbs.
- Cables on ground cause "change in level" or "obstruction of the pathway."
- OSHA regulations stipulate repeatedly no live cables on the ground.







CT Dept of Energy & Environmental Protection 3704 AutoCoil Dual Pole Mounts w Cable Retraction HQ and State Parks

- Keeps cable off the ground
- Protection from snowplows
- **RFID**, Credit, key FOB, On button activation
 - Standard 20-foot cable included

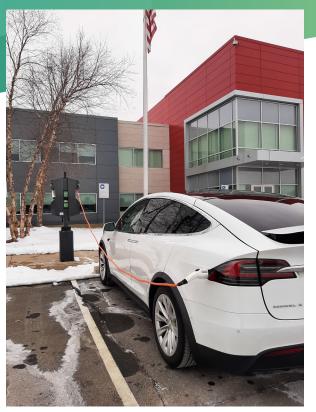


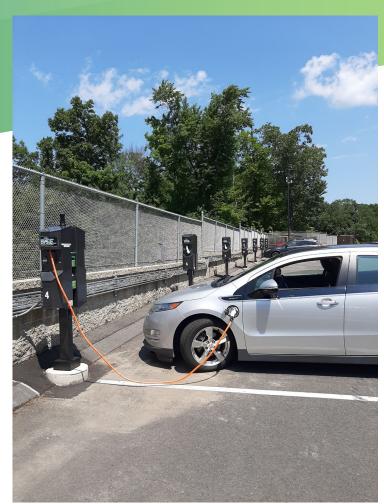
Antioch New England, NH Early Adopter– Install 2014

- Single Level 2 Charger
- Adds 20-25 miles of range / hour
- Cable Retraction
- Keeps cables off the ground
- Away from snowplows



ISO New England – MA & CT HQ 21 3704 AutoCoils Manages New England Grid





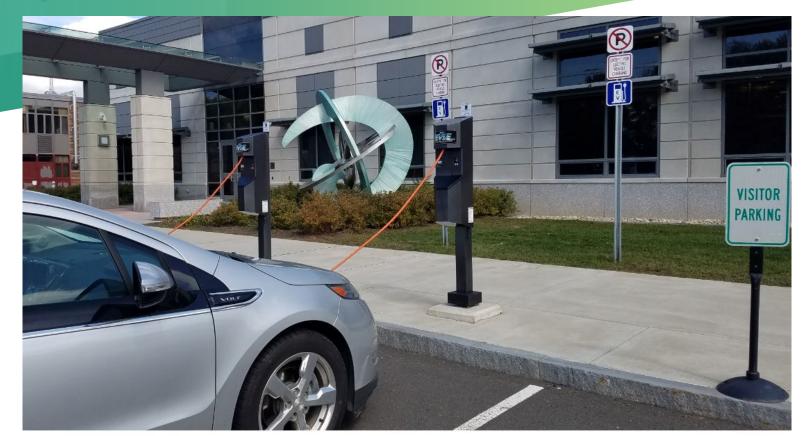
MassMutual 14 Wall Mounted Level 2 Charges Total of 30 chargers on Springfield campus

Lowers cost of installation, no poles, no trenching

- Reduces tripping hazards
- Mitigates liability, meets ADA and OSHA (Workplace)
- Protects cables from snowplows, grime



Asnuntuck Community College – Advanced MFG Center Advanced Manufacturing Center Two Single Pole Mounted Level 2 AutoCoils



MGM Casino Springfield (48 chargers) 4 - 3722 Garage Overhead Save Thousands on Install

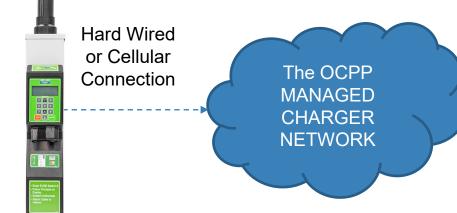
Ceiling mount

- Above flood code height Activation methods:
- Sensor, Key Fob
- Valet assisted
- Credit Card, RFID



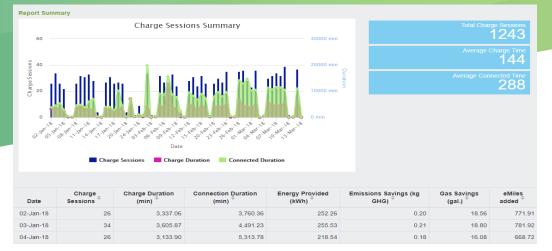
Networking Chargers for Payment Services, Data and kW tracking, and Load Management

> Wireless ZigBee in each charger & Pay Station (up to 32 chargers max &4,000 ft range)





Managed Charging Open Charge Point Protocol



- OCPP Managed Charger Networks "see & manage chargers and kW"
- Open system operates with most EV Charger manufacturers
- Provides 24/7 Live Operator, Credit Card Payments, Mobile App Pay
- Displays all chargers' status on a site or across the state
- Allows you to set pricing, collect revenue and track revenue
- Empowers fleets to manage their EVs and kilowatts

Frequently Asked Questions

- How long does it take to charge an EV?
- Can we charge EV drivers for use of the charger?
- What can we charge EV drivers?
- Who keeps the revenue?
- Can we add fines for staying plugged in when "full"?
- What do we do if something goes wrong?

Thank You for Your Time Today.

For any questions contact: Dan Shanahan 860-929-2219 dshanahan@controlmod.com