Curbside Charging:

CMI-EVSE Light/Utility/Custom, Pole-Mounted Chargers With Retractable Cables

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EVSE®
Smart Charging Solutions for Electric Vehicles
A Division of Control Module Inc.

Control Module (CMI)/ EVSE, A Division of CMI

- A Division of Control Module Inc. (CMI)
- Located in Enfield, CT
- 6 Miles South of Springfield, MA
- 44,000 Sq. Ft. Manufacturing/Engineering Facility
- CMI in operation since 1969
- EVSE in operation since 2010
- Many of our employees live in MA
- Equipment Manufacturer for the National Grid/Melrose Pilot

EVSE Retractable Cable Product

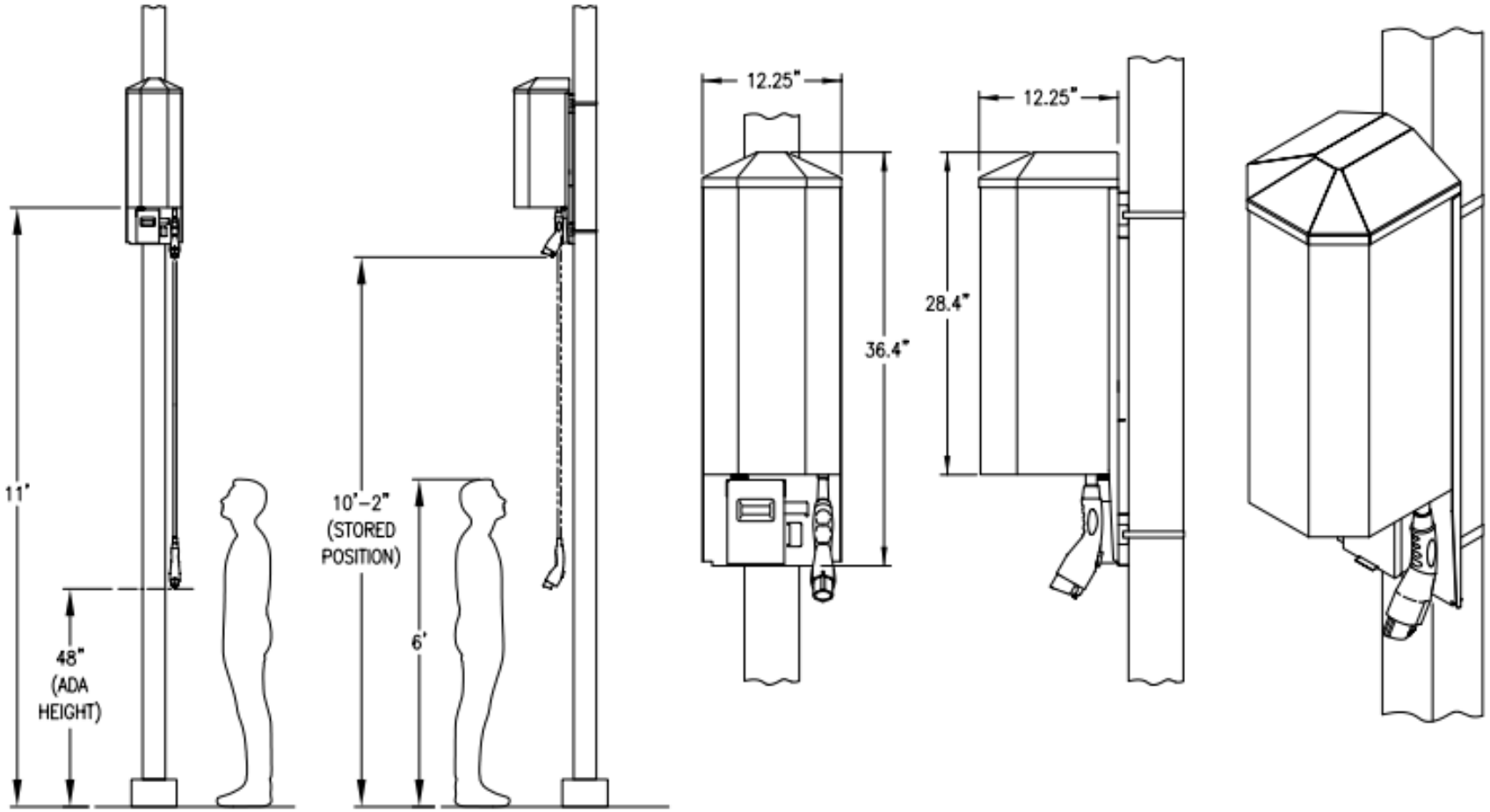
- Unique Level 2 Products, Motorized Cables That Retract Into Charger Housing
- 208-240 VAC, Single Phase, Energy Star
- 40A Current Output (9.6 kW at 240 VAC)
  - 48A In the Next Two Months (11.5 kW)
- Allows Mounting on Ground Pedestals and Walls, Garage/Canopy Ceilings, Light/Utility/Custom Poles
- Powder Coated Aluminum /High Rel Components
- Patented Drive Train
- Made in USA, (Enfield, CT)
- Open Charge Point Protocol (OCPP) Open System Connectivity

EVSE Retractable Cable Curbside Application

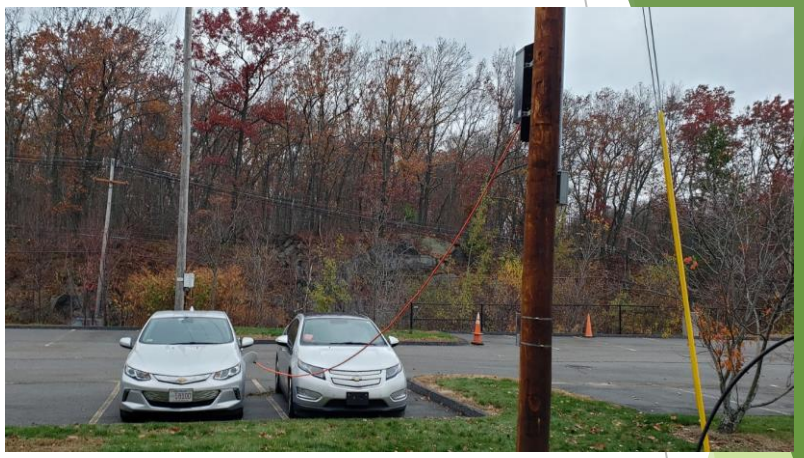
- Mount on Light/Wood Distribution/Custom Poles at Curbside
- Mounted Elevated 10-12 Foot Above Ground Level, 25 Foot Cable Reaches 2 Vehicles
- Single or Dual Mounting
- Mount Away from Vandalism, Flood Waters, Other Sources of Damage
- Fixed Mount Backplate Which Stays on Pole if Charger Removed for Service
- Local Power Disconnect
- Cable Drops to ADA Level (48”) on Proper Authorization from OCPP Back Office Network
- Compatible With Driver Payments Via Credit Card, RFID, etc.

Melrose/National Grid

The Template – Light Pole



The Template – Wood Distribution Pole



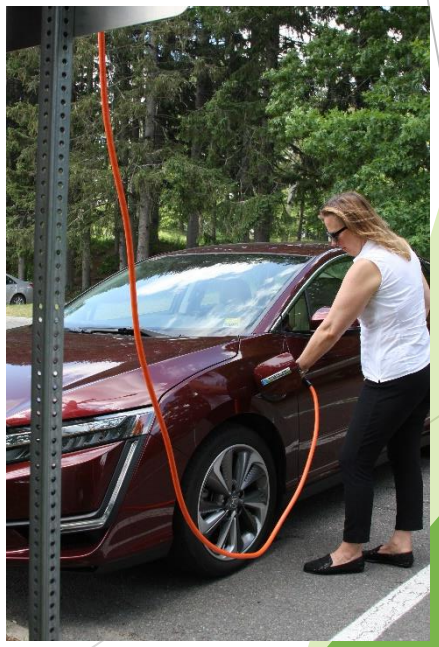
Weatherhead

EVSE

Load Center

National Grid Meter

How It Works



Also check out: https://www.youtube.com/watch?v=UjiR-Wz_Z8s

Benefits for Curbside Application

- Flexible Mounting for Light/Wood Distribution or Custom Poles; Single or Dual
- Poles Owned By Utilities/Municipalities with Right of Way
- Mount Equipment Above Vandalism/Flooding Hazards
- Installation Savings of 50% or More Compared to Ground Level Installations
- Removes Ground Level Obstacles to Pedestrians
- Abundance of Sites Available Using Wood Distribution/ Light Poles or Custom Poles with Power Drop
- New Light Pole Installations Possible with Valmont and Acuity Brands

Los Angeles Bureau of Street Lighting

Some Project Considerations

- Light/Distribution/Custom Pole, Voltages, Currents Available, Existing or New Pole
- Who Owns the Pole, Who Would Own the Charger, Attachment Agreements, Liability
- Who Are the Team Members, Utility, Municipality, Back Office Network, Installer, Charger Manufacturer; Close Teamwork Best
- What Customer is Being Served: Multi-Family, Workplace, Long Term Parking, Downtown Shopping, Commercial Business
- City Parking Regs, Traffic Flow, Commercial Property Access and Residential Approval, Standards Concerns, Electrical Code, Marking for Visibility, ADA Access
- Pole Vetting For Suitability
- Operational Considerations: Driver Payment, Demand Response, Installation and Service, Branding, Reporting

Seattle City Light

Ongoing CMI/EVSE Projects

- Projects/Pilots Underway
  - Los Angeles Bureau of Street Lighting (BSL) – Light Pole (350 Ports) – Since 2016
  - Seattle City Light – Light, Utility, Custom Poles (60 Ports)
  - Portland GE – Utility Pole (150 Ports)
  - National Grid/Melrose – Utility Pole (15 Ports) – 3 Years + In Operation
  - Dominion Energy – Utility, Light Pole
  - Old Dominion Electric Coop (2 Stakeholders) – Utility Pole
  - El Paso Electric – Utility Pole
  - Madison (WI) Gas and Electric – Utility Pole
  - Rumford (ME) – Utility Pole
  - Reading MLP – Utility Pole
  - Burlington (VT) Electric - Utility Pole
  - Another Half Dozen or More Possible Within the Next 6 Months

Our Partners for Melrose

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EVSE
Smart Charging Solutions for Electric Vehicles
A Division of Control Module Inc.

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CITY OF MELROSE
TOWN OF MELROSE
EXPLORED 1628
CHARLESTOWN 1629
POND FEILDE 1638
MALDEN NORTH END
1649
INCORPORATED 1850
INCORPORATED 1900

About the Melrose Demonstration

Benefits

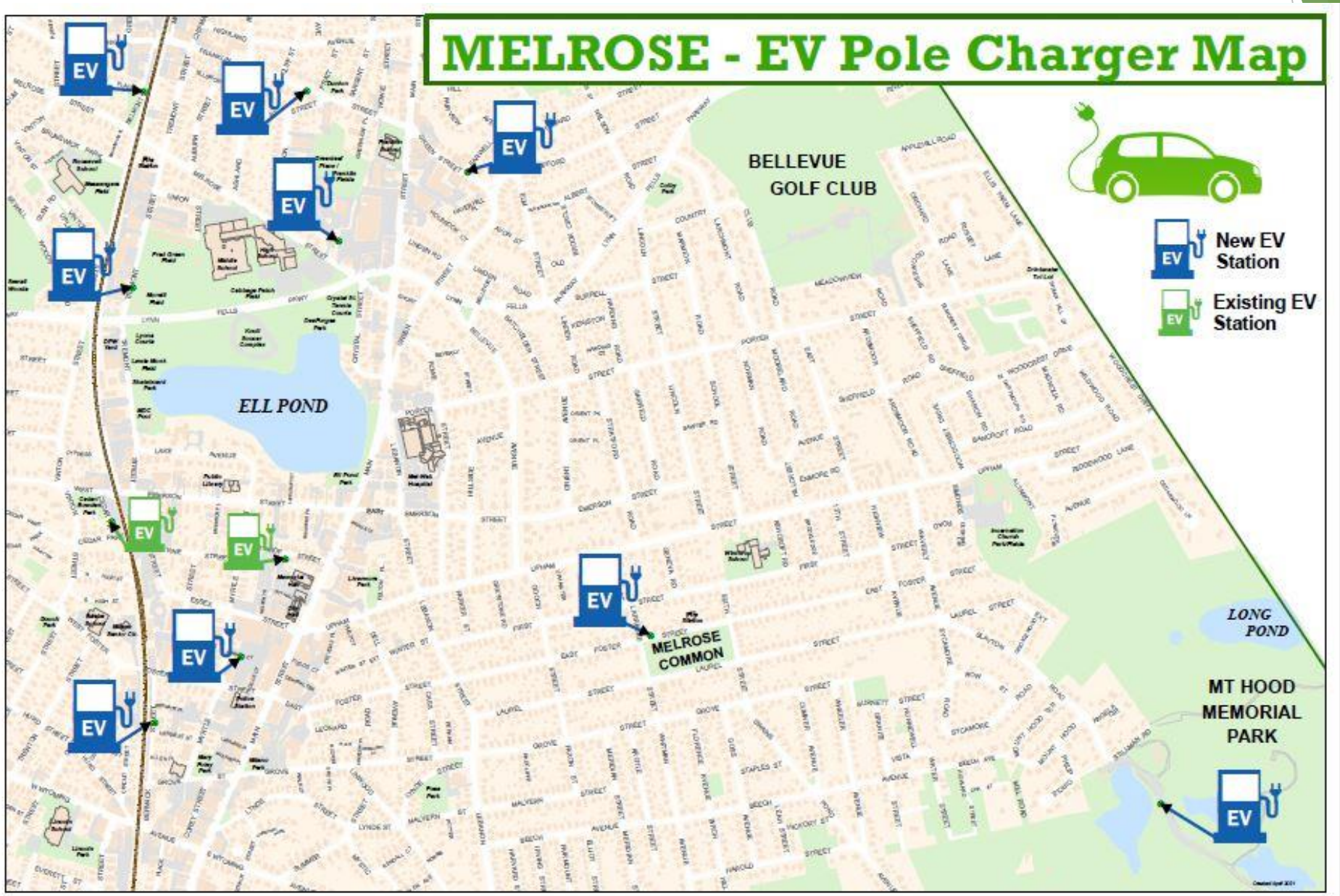
- **Target Hard-to-Reach Areas:** Provide charging solution for customers without private garage & for cities/urban areas
- **Lower Complexity and Cost:** Leverage electricity already present on pole, no digging required
- **Public & Visible:** Customer insights demonstrate increased EV adoption when charging infrastructure is visible

Results

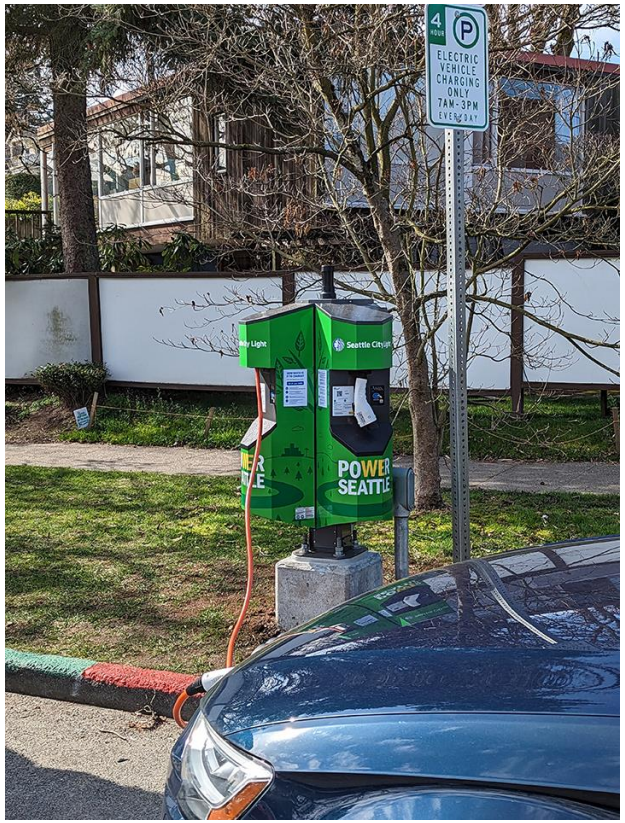
- **Melrose 95% Residential /30% Rent**
- **Chargers Operating Since 2021**
- **Saved 50% on Install Cost over Ground Installation**
- **Feedback Residents Motivated to Buy EV's Because Chargers Available Including Multi-Family**
- **Install Visible Chargers and They Will Be Used**

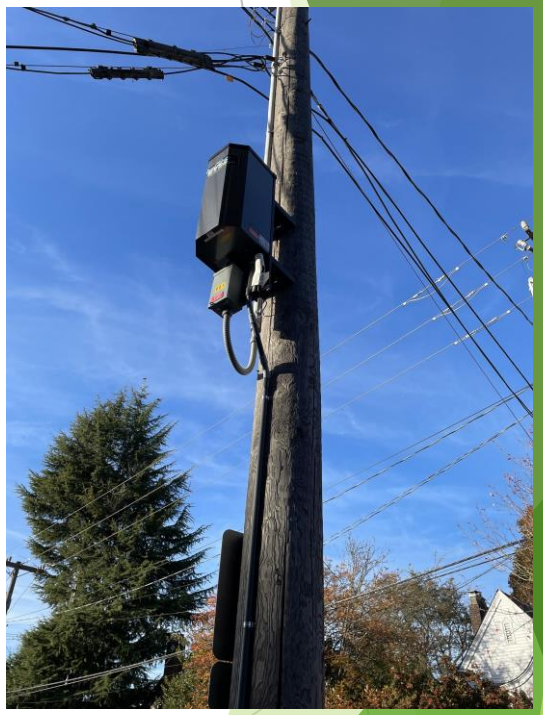
Proof of Concept

- Deploy approximately 15 stations in Melrose


MELROSE - EV Pole Charger Map
BELLEVUE
GOLF CLUB
ELL POND
LONG
POND
MELROSE
COMMON
MT HOOD
MEMORIAL
PARK
New EV
Station
Existing EV
Station
EV

Diverse Platforms With Seattle City Light Light/Wood Distribution/Custom Poles





Recommendations

- Fund Programs that Allow Small Pilots to be Initiated Between Interested Parties, i.e. Utility and Municipality
  - Allows Proof of Concept For Each Municipality in Meeting Their Independent Objectives
- Allow Utility to Own Limited Numbers of Chargers to Support These Programs to Avoid Heavy Lift of Municipalities in Attaching to Utility/Light Poles With Associated Liability and Attachment Issues
- OR Fund Municipalities to Install Their Own Poles in Order to Implement These Pilots by Pulling Power from Utility Pole Rather than Mounting on that Utility Pole

National Grid/Melrose

Thank You!

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