About PISO

- Founded in 2011
- Offices in NY Capital Region, Long Island, and West Palm Beach Florida
- Servicing NY, NJ, PA, MA, CT, RI, VT, DE, NH, ME, and FL
- Specialize in sales, installation, and service of EV charging Equipment
- Offering Turn-Key services
- Supplying a wide variety of EV charging options ChargePoint, EVbox, ABB, BTC, Tritium and more
- Over 700 ports installed
Automakers Investing Billions in EV Development

- **Tesla**
  - Double Model 3 production and reveal the Model Y this year

- **GM**
  - 20 all-electric cars by 2023

- **Daimler**
  - 30 BEV and PHEV models by 2025
  - 10+ new all-electric vehicles by 2022 and plans to electrify entire Mercedes-Benz portfolio

- **Hyundai Motor Group**
  - 44 electrified Hyundai/Kia/Genesis models by 2025

- **Ford**
  - 16 fully electric vehicles and 40 electrified vehicles through 2022

- **Porsche**
  - First all-electric compact SUV (Macan) and third EV after Taycan and Cross Turismo (planned for 2019, 2020)

- **Jaguar Land Rover**
  - Every Jaguar and Land Rover launched from 2020 will be electrified

- **Volkswagen Group**
  - Almost 70 new electric models by 2028
  - 50% of Volvo Cars’ sales volume to be fully electric by 2025 and plans a hybrid or full-electric powertrain for all models
Big Petrol Predicting EV Growth

- PISO extrapolating 30% year-over-year growth of plug-in vehicles on the road
More Than 50,000 EVs on New York Roads and Growing!

Highest Concentration of EVs are in Suburban Areas
Types of Charging Solutions

**Level 1**
120V
- Standard 120V outlet
- Adds 5 miles per hour of charge*
- Residential use

**Level 2**
240V
- 240V outlet, can also be hardwired
- Adds 20-60 miles per hour of charge*
- Residential & commercial use

**Level 3**
- 480V DC Fast Charger
- Adds 60-100 miles per 20 minutes of charge*
- Commercial use

*Estimated. Actual charge times may vary.
Networked Charging

- Manage User Access
- Collect Payments From Drivers
- Manage Pricing Policies
- EV Driver Visibility
- Analyze Usage Data
- Remote Station Monitoring/Maintenance
- Qualify for Incentives and Rebates
Electric Vehicle Overview

Municipalities

- EV drivers make 2X the average income. They shop, dine and visit communities that make it easy for them to charge.
- Transportation contributes the largest share of GHG emissions today. Experts agree that electricity will be the fuel choice for moving people and goods tomorrow.
- Federal, state and utility incentives can make EV charging a more cost-effective investment for taxpayers than most other urban renewal activities.
Building Codes and Planning

Considerations:
- Planning for future EV expansion
- Accessibility
- Visibility/Signage
- Safety and Security
- Impact on Parking Space
- Hardware Quality
- Permit Requirements
- ADA
- Electrical Capacity
- Level 2 vs. DCFC
- Station protection
Electric Vehicle Overview

Multifamily Housing

- Attract and retain high value, green-minded residents.
- Increase average rent and property value.

Example Zoning/Code Changes:

- NYC - Enclosed lots must install raceway and power capacity to serve 20% of spaces for EV Charging
- SF, 10% of spaces have a full circuit and 10% have panel capacity
Electric Vehicle Overview

Commercial

- EV drivers’ income is 2X the national average.
- Average time shopping increases when shoppers have EV plugged in during visit.

Example Zoning/Code Changes:
- Atlanta, 20% of new parking spaces must be EV ready
- Boulder, CO, 240V charging circuits required for 10% of spaces with more than 25 spaces
Municipal Use Case #1 - Public/Common Parking

ChargePoint CT4000 or Similar

- Level 2 Charging up to 30Amp Output
- Robust Station Design Withstands Elements and Repeated Use
- Station Owned and Maintained by Municipality
- Municipality pays Electricity Costs
- Station Accessible to Public
- Driver Access with Mobile Device or RFID
- Municipality Sets Pricing Policy and Collects Payment from Driver
- Municipality Pays Annual Access Fee
Municipal Use Case #1
Ulster County Public Parking (Kingston)

- ChargePoint CT4000
- Level 2 Charging at 10+ sites throughout Ulster County
- Mix of public accessible and fleet charging
- Station Owned and Maintained by Municipality
- Workplace charging for County Employees
- Municipality pays Electricity Costs
- Stations Accessible to Public when not used for fleet
- Municipality does not charge for use
Municipal Use Case #2
DC Fast Charger

ABB Terra 54 or Similar
- DCFC 25-150kW+ Output
- Fully Charges Vehicles in as little as 20 minutes
- Station Owned and Maintained by Municipality
- Municipality pays Electricity Costs
- Station Accessible to Public
- Driver Access with Mobile Device or RFID
- Municipality Sets Pricing Policy and Collects Payment from Driver
- Municipality Pays Annual Access Fee
Municipal Use Case #2
NY Thruway Authority DCFC

- BTC Power 50kW
- (2) DCFC Stations at Thruway Rest Area
- Public Use Fast Charging
- Station Owned and Maintained by NYPA
- Station Owner pays Electricity Costs
- Stations Accessible to Public
- Station owner charges for use
Rebates and Incentives
Cash incentives for networked chargers

- NYDEC - ZEV Grant
- NYSERDA ChargeReady
- Power Utility Programs
- Federal Tax Credit
THANK YOU!

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