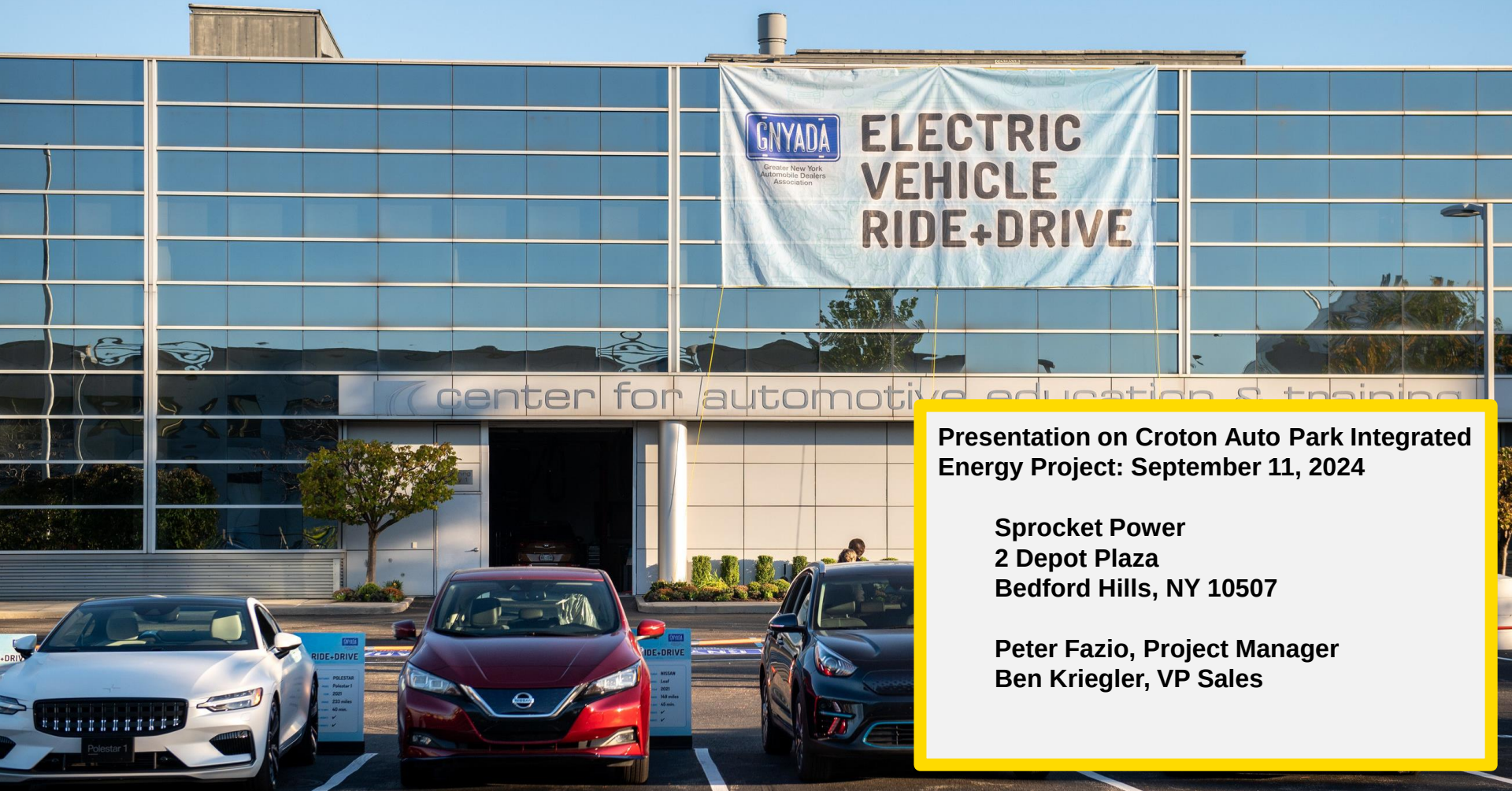




Greater New York
Automobile Dealers
Association

ELECTRIC VEHICLE RIDE+DRIVE

center for automotive education & training

**Presentation on Croton Auto Park Integrated
Energy Project: September 11, 2024**

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Croton Auto Park Project Background

- The project proposed is an integrated energy system to be installed at Croton Auto Park at 1 Municipal Place in Croton-on-Hudson.
- The system, called a Managed Microgrid, encompasses several components including the following:
 - Electrical Vehicle charging – one DC Fast Charger (DCFC) with 180 kW capacity, two L2 wall-mount chargers. 19.2 kW capacity
 - New utility transformer – one 480V 500 kVA, plus one 208 V 150 kVA step down transformer
 - Solar canopy: 20 x 24ft, 20 kW DC output
 - Battery Energy Storage System (BESS) – 125 kW capacity, 280 kWh energy output
 - Associated Electrical Combiner Panel

Croton Auto Park Project Background

- The capacity of the battery - 280 kWh, above the 200 kWh threshold – necessitates a Special Use Permit and Board of Trustees review.
- The EV charger installation is required by the auto manufacturer, Stellantis, for the business to be authorized to sell electric vehicles.
- The balance of the system components are being pursued to reduce utility costs and decrease the facilities carbon emissions.
- This installation includes one powerful DCFC capable of charging a car from empty in under 30 minutes. The power requirements of this charger necessitate an upgrade to the current Con Edison utility service feeding the building from 208V to 480V. The total cost of this required upgrade and associated electrical work is roughly \$400,000.

Croton Auto Park Project Review Process

- Following a Planning Board meeting on August 6, 2024, where we received negative feedback on the placement of the electrical equipment along the road frontage, we revised the site plan as follows:
 - Relocated the BESS, and other non-utility equipment to a location near the proposed solar canopy car port and EV charging.
 - We also approach Con Edison regarding flexibility on the location of the utility transformer. We worked with the Con Ed engineering team to also locate the transformer adjacent to the canopy towards the back of the lot with reduced visibility from the road.
- We and the business owner are pleased with this outcome and with the collaboration between town goals, system requirements and Con Edison constraints.

Croton Auto Park Project Benefits:

- As NY State works to install charging infrastructure statewide, the power requirements of DCFCs are an issue as they strain the capacity of the local grid.
- Unmanaged additions of DCFC could create large capacity upgrade requirements for Con Edison, which cause delays in transportation electrification due to the buildout of this infrastructure, are costly for rate payers and work against NYS climate goals.
- NY State is looking to create smarter approaches to these EV infrastructure issues. The proposed project at Croton Auto Park is a model for such an approach.
- This system generates solar energy to 1) offset building energy uses and 2) store energy in a BESS. This stored energy is used to supply the EV chargers and to offset peak usage. The result is a project that reduces grid strain, serves as a resource of the local grid, and reduces GHG emissions at the site. The site will be a case study for Con Edison of smart approaches to EV infrastructure additions.
- The project will contribute significantly to Croton on Hudson sustainability goals and also represents a significant investment by Croton Auto Park in the community.