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Village of Croton-on-Hudson Board of Trustees
1 Van Wyck Street
Croton-on-Hudson, NY 10520

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Dear Board of Trustees,

This letter accompanies an application for 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:

1. Electrical Vehicle charging – one DC Fast Charger (DCFC) with 180 kW capacity, two L2 wall-mount chargers. 19.2 kW capacity
2. New utility transformer – one 480V 500 kVA, plus one 208 V 150 kVA step down transformer
3. Solar canopy: 20 x 24ft, 20 kW DC output
4. Battery Energy Storage System (BESS) – 125 kW capacity, 280 kWh energy output
5. Associated Electrical Combiner Panel

The capacity of the battery - 280 kWh, above the 200 kWh threshold – necessitates a Special Use Permit and Board of Trustees review. The other components of the project require only a building permit which will be pursued separately. The solar, EV charging installation and electrical upgrade are components of an installation that the business owner wishes to pursue even if the BESS unit does not ultimately receive a Special Use Permit. The EV charger installation is required by the auto manufacturer, Stellantis, 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. Construction for the non-BESS components will begin when the building permit is approved and proceed over several months. Permitting for the BESS will proceed in parallel over an estimated 60-90 day period. Should the BESS be approved, it will be installed at the later stages of the construction.



Project Background:

The project was initiated as a result of the corporate requirements of Stellantis (owner of Chrysler Jeep in US) as they fully electrify their vehicle fleets by 2035. Stellantis has required franchise dealers like Croton Auto Park to install EV Charging equipment specified by Stellantis (#1 above). 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 (#2 above). The total cost of this required upgrade and associated electrical work is roughly \$400,000.

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 and goes beyond the minimum requirements of Stellantis to create a microgrid system. 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.

Sprocket Power is the project developer and system integrator and has deep experience in engineering, constructing and operating energy systems at small and mid-sized businesses. The project integrates the work of solar, electrical, and structural contractors as shown in the site plans. We have five microgrid projects in the NY Metro area. One has been commissioned; the others are in construction.

We look forward to discussing the project further at the upcoming meeting and answering any questions you may have.

Sincerely,

Maria Fields
CEO and Co-founder
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