

Members Attending:

Lindsay Audin (chair and CSC Coordinator)
Alexandra Barkan
Ashley Clemente
Dan Columbini PE
David Goldman
Jon Katz PE
Niall Kelleher (Comm. Gardens)
Brian Pugh (Mayor of Croton)
Len Simon (Village trustee)

Absent:

Bernie Yozwiak

[Bracketed] text is subsequent actions/clarifications. Underlining shows a commitment.

Invited guest(s): none

Announcements: the Hudson Valley Regional Council (HVRC), which locally oversees NYSERDA's Clean Energy Community (CEC) program, will award Croton its *Impact Award* on 12/6 in Newburgh. It "honors a municipality for a project that has been especially significant and has had far-reaching impact, in this case the Village's parking lot solar project and firehouse retrofit project." Jon said he would try to attend and receive the award for us.

Despite recent competition from Bedford, Croton remains the *leading* Clean Energy Community in the State, now with 8,600 CEC points.

Members are reminded that they must complete their annual mandatory trainings on workplace violence and discrimination.

- NYSERDA CEC-supported projects (community solar, EVs, HPs)

- *On community solar*, NYSERDA on 11/7 awarded us 300 CEC points and a \$10K grant for our submission for the first 50 train station system subscribers. Recall that CSP (Sol's customer acquisition contractor) had enrolled 112 accounts at the Skyview Rehab Center, giving us ~75% of the 150 we need to secure two grants (\$10K and \$20K).

In October, SolSystems had said CSP was preparing to enroll another ~100 from Croton. However, CSP instead enrolled the rest of the system's output to accounts on its own waiting list without including any other Croton accounts. It also enrolled a "university in NY" (unclear if State or City) as its anchor subscriber, i.e., a demand-billed entity taking 40% of the output. Our lease with SolSystems did not require that it reserve any kW for Croton, a lesson-learned for future community solar deals.

With CSP's 112, we now need only 38 more to secure the \$20K grant. Enrollment can be to any solar project in NY State. Ecogy is now accepting enrollments to its Arcadia Horse Farm solar array in Yorktown. We will soon start eblasting about that option.

- Regarding identifying *25 new HP installations* needed to secure 2 other grants totaling \$30K and 1,300 CEC points, the ASHPs and HPWHs being installed at the Maple St. Apts. (completion by Feb. 2024), will suffice. A GSHP was installed in October at Matt Rubenstein's house on Truesdale Ave. Niall reported his neighbor on Cleveland Drive is also completing a GSHP. Both will be included in the submission.

- Finding *65 new EVs* (not used or leased, including PHEVs) purchased by Crotonites since 6/1/23 will yield an additional \$22.5K (in 2 grants: \$7.5K and \$15K) and 800 CEC points. Using a NYSERDA web tool, Ashley pursued EV registration data, but its postings weren't current. Another State database on car registrations later provided info on 39 EVs (*24 more* than we needed for a Level 2 submission). On 11/14, CEC allowed use of that info. On 11/15, we submitted for the first 15 (of the 39) EVs. On 11/22, NYSERDA OKed it, awarding us a \$7.5K grant and 300 points.

To get the \$15K Level 3 grant and the other 500 points, we'll need to find another 26 (=50-[39-15]), probably by Feb. from the same data source.

- Solar Projects/Issues

Train station canopies: completion is slated for late spring 2024. On 10/26, Sol said that Metro-North told it to get a permit for cranes to lift the 4 POWIN batteries onto their concrete pads. But on 11/3, Dave found them already on the pads, with no cranes in sight. His pic at right is one of the batteries prior to its pad placement.



The long-awaited installation of vertical support columns (called "piers") is approaching. See Dave's photo at right of the wooden concrete forms being installed at column sites.



DPW solar canopy option: On 11/13, NYPA delivered the 2022 hourly electric interval data needed to review peak demand issues. From the data, it's clear that a ~50 kW canopy would (as occurred at the Washington firehouse) overwhelm DPW's ~20 kW summer peak and most other daytime demands. However, heat pumps running on winter nights (see "Heat Pumps", below) could maintain the 10 kW NYPA tariff minimum to avoid rate shifting, so net metering remains an option. Power from a much larger system would need to be priced via Value Stacking to avoid tariff issues, but funding it would be a challenge.

On 11/30, CEG (which built the DPW solar rooftop) provided a ballpark cost for a ~50 kW canopy: \$180,000 +/- \$15,000 (i.e., ~\$3.60/W). Raising it from incentives, grants, and tax tricks is feasible. The next step is to verify there are no better ways to spend our grant \$, e.g., replacing more municipal building A/Cs and/or heaters with HPs.

- EV/EVSE

Regarding purchasing a Ford F-150 EV Lightning pickup truck for DPW, Bryan Healy said (11/2) it was “still in the works”. We have a \$20K CEC grant allocated toward it.

On 11/17, Lindsay spoke with school personnel regarding experience with the EV bus. Overall, they see EV school bus technology as a work-in-progress, but no deal killers have arisen. Find details in the memo at the end of these minutes.

On 11/2, DPW found that the head (main part) of one of the Muni Bldg chargers had failed, requiring a \$2,500 replacement. Bryan Healy asked to pay for it out of one of our \$5K CEC grants. Since it was EV-related, Lindsay OKed the charge (not covered under our Chargepoint maintenance agreement). Since our 3 dual-port chargers were installed in May 2019, the cost to maintain them has been greater than the dollar savings from using electricity instead of gasoline.

Regarding the delay in getting a signed contract for our \$150K DEC train station EV charger grant, Bryan Healy asked our State reps (Sen. Harckham and Assbly. Levenberg) to look into the situation. DEC had bungled the accounting with the State Comptroller, and then stated they had no idea when it might get fixed.

Such delays affect installation of the infrastructure for 12 EV charger ports at the station. On 11/9, Victoria Cafarelli in Assbly. Levenberg’s office said: *it seems like OSC [State Comptroller] is waiting for some paperwork from DEC... I will follow up with DEC next week [i.e., 11/13-11/17]. We await results. Brian said Sen. Harckham’s office is still pushing for answers.*

- Funding Sources/Issues

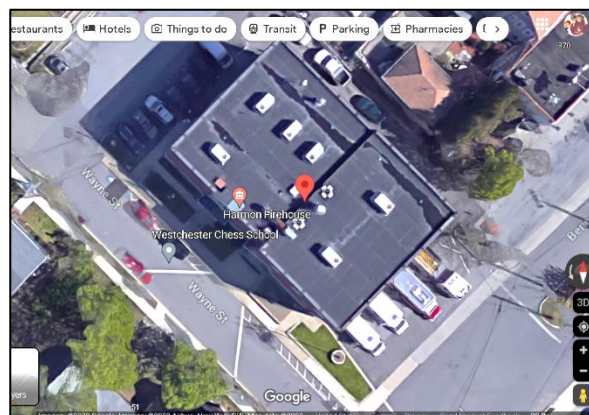
We await IRS/State rules on the HEERHA incentives for heat pumps. Lindsay will attend a 12/6 NYSERDA webinar outlining how the State will handle them.

- Heat Pumps

With regard to promoting replacement of residential electric water heaters with HPWHs, the prior promo draft was revised as per member comments. Initiating a water heater program awaits publication of State rules for the HEERHA incentive.

To assess replacing the 25-year old A/Cs at DPW with ASHPs, a Village energy audit is being done by EMRA/L&S Energy, to be funded from a CEC grant. Delivery is expected in January.

At the Harmon firehouse, a similar HP opportunity is being reviewed. Its 6 rooftop A/C units (each 4 tons) are original to the building (erected 2000) making them 23 years old (i.e., at the end of their useful lives). See the rooftop photo at right (A/Cs are the white boxes).



Depending on design, replacing them with ASHPs could provide some building heating while freeing up rooftop space for a ~50 kW solar array, cutting fuel use, GHG, and electric bills. To assess viability, Jon agreed to visit the site with Bill Vlad, engineer for the Harmon firehouse, and report at our Jan. 28 meeting.

Len told us about a planned addition to the firehouse to accommodate the Village's EMS (i.e., ambulance service), which is temporarily housed at the firehouse. It would be a two-story facility on the north end of the building (the shadowed area in the pic). Architectural drawings are in development for delivery in Q3 or Q4 2024. Len will keep us posted so that HPs and maybe rooftop solar could be integrated into that work.

We discussed ways to ensure that HPs always get installed in Village facilities instead of standard A/Cs. A VB resolution is one way, but Len and Brian both felt the first approach should be to the Village Manager (Bryan Healy) for a less formal policy. Both Jon and Dan said the incremental cost would be minimal (10-20%), even with controls to integrate with existing heating systems. Len agreed to raise it with Bryan at his earliest opportunity.

- Other Reports

While reviewing the Village's electric bills, we found that the 14 field lights (each 2 kW) at Firefighters Ballfield on Alexander Lane used only 966 kWh/yr but create a peak demand >30 kW. They cost >\$7K/yr in demand charges yielding an average cost of \$8.31/kWh. Replacing them with LED lamps could save ~\$4K per year. But Dan said that cost may already be paid by the high school because it uses the field for its softball games. The Little League may also use it occasionally. If one (or both) reimburse the Village, we wouldn't save any \$. Cutting the already low kWh/yr use wouldn't avoid much carbon but would cost ~\$100K/MTCOe/yr, far more than other options. DPW must also be called to turn the lamps on and off, adding to the cost to use the field. [Lindsay asked Bryan Healy who pays for the power and that service.]

- Recruitment/Outreach/Communications/PR

The "Committee News" section of the Village's November newsletter included a note that our food scrap recycling program is now open to all residents. It also featured a photo taken by Dave (see above, page 2) of one of the POWIN batteries. HVRC will also show the pic during its 12/6 award to Croton.

- New Business / Other Issues

No new business was raised.

Date for our next meeting was set for **Sunday, Jan. 28, 2024 at 10:30 AM** via zoom.

Update on Croton's EV school buses based on 11/17 chat with transportation personnel

The first full-size (i.e., 66-passenger) bus has now been in service for over a year, while the second started in early October. Purchase of a 7-passenger Volvo SUV PHEV for non-routine student transport is in-process.

Experience with the first bus stretched across hot and cold weather, with heating issues arising during the latter. Both drivers and students complained that the electric heater was insufficient during cold early morning hours. Use of the electric heater quickly drained the battery, consuming 35% of its capacity during the morning run, requiring mid-day recharging (other charging was after business hours). Installing a larger battery is possible, but its extra weight would challenge the ability of the existing pneumatic lift needed to service a bus. Addition of diesel heaters is being considered.

Several other issues were mentioned:

- Leaking power steering fluid occurred several times during the year-long operation of the first bus.

- The NYSERDA bus grant required at least 8,000 miles/yr of use. That created an issue with DOT inspections that took the unit out-of-service for days at a time.

- The school district wants to purchase an EV bus each year, but charging capacity at the bus depot is quite limited (there is only one dual-port L2 unit). More EVs will require more chargers but the building's existing electric service is only 200 amps, too small to serve multiple chargers. Capacity of the existing Con Ed feeder is also limited. Discussions with Con Ed regarding reinforcing or replacing it are ongoing.