



# LINCOLN PUBLIC SCHOOLS

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To: Matina Madrick, Chairperson, School Committee  
Parry Graham, Superintendent

From: Buckner Creel

Subject: Solar Project Update #3

**Background** Acting on behalf of the Town Meeting, the School Committee entered into a power purchase agreement (PPA) and lease with a developer (TotalEnergies) in 2020 to construct and operate a photovoltaic (PV) system. The goal of the PPA is to provide electricity to power the all-electric Lincoln School building at a rate reduced from that charged by Eversource. The original target date for receiving power was October 2022.

Last February, in Solar Update #2, I reported that TotalEnergies had been notified in December 2023 by the manufacturer of the inverters (SMA) that the Tigo MLSD installed on all the 1600 roof-mounted PV panels is no longer approved for use with the installed SMA inverters. TotalEnergies were about to start the hot commissioning leading to Eversource witness testing when they received this notice. Accordingly, all of the roof-mounted panels had to be removed, the MLSD installed on the back of each removed, a different MLSD installed, and the panel reinstalled. The cost of this replacement was borne completely by TotalEnergies.

**Current situation** That work was completed in early May. For the next step, Eversource took almost six weeks to approve a testing plan, schedule the first witness test, and observe certain features of the system, before allowing TotalEnergies to energize the system to begin the detailed hot commissioning process.

The hot commissioning accomplished what it is supposed to accomplish: uncover any equipment problems. The process revealed problems with three inverters, which were replaced by the manufacturer SMA, and several metering and communications issues, which were corrected during a scheduled power outage in August.

During this hot commissioning process, we observed a small period of time where the panels were apparently over-producing, and our electric meter apparently spun in reverse, slightly decreasing the amount of electricity for which we were charged by Eversource.

**Current work plan** The 500 kW Tesla battery also requires a commissioning sequence before the solar project can be turned on. Tesla responded to TotalEnergies request in July, and the first remote sequence started after the August outage. The test revealed problems with the battery inverter-rectifier; the parts arrived on September 9<sup>th</sup>, and

were installed successfully by Tesla. This allows Tesla to continue the battery commissioning, conducted remotely, which should take a week or two.

Once the battery is certified to operate correctly, the final Eversource witness test will be scheduled. An Eversource technician will witness TotalEnergies conduct an “energy wash”: charging the battery from the solar panels, then discharging the battery into the school electrical system. This test takes about a half-hour, and is the last process Eversource must witness.

Assuming all goes well with the final commissioning and the test, Eversource will issue a “PTO” (Permission To Operate) letter, allowing TotalEnergies to turn the complete system on and leave it on. This PTO, anticipated in early October, will complete the requirements for TotalEnergies SMART incentive and our Net Metering allocation reservations. Once again, system acceptance and grid connection will be completely at the control of Eversource.

We believe that TotalEnergies will leave the system on while we finalize some administration and agreement details; this may provide power from the solar project to the Lincoln School at no cost to the District for a period of time. Please note that the developer has not received any revenue from this project, and will not until the system is approved by Eversource, turned on, and the remaining administrative agreements are finalized. We now anticipate that this “COD” (Commercial Operation Date) will occur in November or December 2024.

Throughout this prolonged process, we have expressed and continue to express to both TotalEnergies and Eversource our need to get the system operational ASAP and end the extra expenses we are incurring from these delays. At this time, we do not see any other productive way to accelerate these final steps to COD.

As a reminder, the only saving grace is that TotalEnergies receives no revenue until the system is operational, putting significant pressure on them to complete the project.