



LINCOLN PUBLIC SCHOOLS

BUCKNER M. CREEL
LINCOLN SCHOOL PROJECT MANAGER

December 7, 2023

To: Matina Madrick, Chairperson, School Committee
Parry Graham, Superintendent
From: Buckner Creel

Subject: Solar Project Update

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.

The path to system approval has been tortuous, requiring Eversource to develop new policies and procedures to handle our large behind-the-meter system, creating significant delays. Additionally, the impact of supply chain issues associated with the COVID pandemic hampered rapid construction progress. Nevertheless, the planned PV panels totalling about 1 MW have been installed on the roofs and carport structures, the 500 KW Tesla battery was installed, and the system was tested through a cold commissioning process.

Current situation A diagram showing the location of the ~1,600 panels installed on the roofs is attached. Strings of panels are connected together to inverters which convert the DC power output of the PV panel string to an inverter which converts the DC power to AC for use in the building. Each panel has a module rapid shutdown device (MRSD) which receives a signal from the system central switch to reduce the string voltage for safety purposes in the event of an emergency. MSRSDs are not required for parking lot canopies.

TotalEnergies was recently notified by the manufacturer of the inverters that the MRSD installed on all the roof-mounted PV panels is no longer approved for use with the installed inverters. Accordingly, all of the roof-mounted panels will have to be removed, the MSRSD installed on the back removed, a different MRSD installed, and the panel reinstalled.

TotalEnergies is currently developing a work plan to minimize the impact on school programs. They have been very respectful of school operational constraints in their work to date, and we anticipate that their plan will continue to respect the school schedule as much as possible.

This work will be difficult and time-consuming, and will likely take more than two months to complete. After the MSRSDs are replaced, TotalEnergies will have to restart

the commissioning process, followed by a period of Eversource witness testing and startup reviews.

The cost of this replacement will be borne completely by TotalEnergies. Please note that the developer has not received any revenue from this project, and will not until the system is approved by Eversource and turned on.

We now anticipate that we will not receive any power from our PPA provider until late March 2024.

Roof mounted PV Panel Arrays – Lincoln School

