



LINCOLN PUBLIC SCHOOLS

BUCKNER M. CREEL
LINCOLN SCHOOL PROJECT MANAGER

December 28, 2024

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

Subject: Solar Project Update #4

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.

Current situation The final work reported in Solar Updates #2 and #3 was completed in October, and Eversource witnessed the test of the system operation on October 22, 2024. Eversource issued the Permission to Operate (PTO) document on October 23, 2024. This PTO completed the requirements for TotalEnergies' SMART incentive and our Net Metering allocation reservations. The Massachusetts System of Assurance of Net Metering Eligibility acknowledged on November 11, 2024 that all other requirements have been met, confirming our net metering capacity.

TotalEnergies left the system operating, providing us with free power while they finished charging the Tesla battery, performed their own extended operational testing and finalized the last amendments to the PPA. This provided power from the solar project to the Lincoln School at no cost to the District while we negotiated the final PPA and Lease terms. Attorney Dave Doneski of our Town Counsel proved invaluable in crafting needed language, and in his final review of the documents.

Please remember that the developer has not received any revenue from this project, and would not until the system was approved by Eversource, turned on, and the remaining administrative agreements finalized. The amended PPA and Lease documents were signed by both parties on December 13, 2024, and TotalEnergies declared the Commercial Operation Date (COD) the same day.

Metering system operation We have had a chance to observe some of the impact of the solar system during the June-October testing period and the seven-week period between the PTO and the COD dates. During this period of "free power," our Eversource bills showed usage credits attributed to generation, which had the effect of reducing the overall usage we normally would have paid for at the normal electricity rates. In effect, **we avoided paying an estimated \$19,800 to Eversource.** This free power was a nice gesture on the part of TotalEnergies to provide an offset to some of the costs of the delays caused by events outside their control, as characterized by our Town Counsel.

More importantly, this experience validated that our meter does “turn backwards,” that Eversource does recognize that we are exporting power from time to time, and that this exported power results in a reduction in the billed electricity usage.

Energy efficiency review The District applied for an Eversource incentive program which required a third-party Net-Zero Energy Post-Occupancy Verification review of Lincoln School energy usage during a one-year period. We contracted with SMMA, the project architect-engineer design firm, to conduct the review; an Eversource grant funded half the cost. The review period began on 1 July 2023 and ended 30 June 2024.

The review process using SMMA accomplished two objectives. First, we effectively extended the commissioning analysis phase of the project by continuing the conversations between our Facilities Director and his staff with the designers of our sophisticated HVAC system. The team was able to work through several problems which resulted in noticeable improvements in the daily operations and indoor air quality.

Second, the review by third-party professionals (the SMMA Sustainable Design and the Eversource Post-Occupancy Verification Incentive teams) provided an outside evaluation of the School’s whole building energy use intensity (EUI) performance to answer the question “Did we accomplish the EUI goals set by the School Building Committee?”

After twelve months of monitoring, the overall annual energy usage was measured at 5.2% below the 100% CD modeled [estimated] annual energy use, **achieving an EUI of 22.7 kBtu/SF/yr**, outperforming the 23.9 EUI goal set by the School Building Committee, and compliant with the 25 EUI threshold of the Eversource Post-Occupancy Verification Incentive Program. This is extraordinary, as the actual building use is greater than that modelled by SMMA during the design phase.

In recognition of this accomplishment, Eversource has awarded us an incentive payment of \$128,973.86. We should also receive an incentive award from National Grid, in the amount of \$42,474.09. Added to the earlier incentive payments from 2022 and 2023, **Eversource and National Grid have awarded the Town incentives totaling \$320,817**. These funds have been or will be deposited into the Town’s General Fund.