

Progress Report - Nine-Month Performance of Verogy Solar Generating System

Submitted by Tom Mastronarde - June 20, 2022

The Verogy solar generation system achieved full output on Sept. 17, 2021, after replacement of a defective component discovered in August.

In the nine months since Sept 17, 2021, which is aligned with the Eversource monthly meter reading and billing schedule, the system has produced 7% more electricity than the estimated production based on historical average sunlight conditions for West Hartford.

For the past three months, Eversource has billed only a flat connection fee (around \$65), with no charges for distribution or energy. During this time, solar generation was greater than the Emanuel building usage, resulting in Eversource recording an accumulated energy credit to the Emanuel, equivalent to about half-a-month's electricity use. Projecting forward for the peak solar production months of July, August and September, it is expected that bills from Eversource will consist of only a connection fee for those months also.

The table below provides a projection of annual savings of \$23,000 based on twelve months of operation ending on Sept 17, 2022.

Projected Cost of Electricity for twelve-month period ending Sept 17, 2022

Payments to Eversource (total of 12 monthly bills)	\$7,000
Payments to Verogy for solar energy produced (total of two half-year payments - due in January and July)	\$18,000
Projected Total Payments by Emanuel (for electricity for 12-month period)	\$25,000
Cost of electricity from Eversource if solar generation system had not been built	\$48,000
Projected Annual Savings for 12-month period	\$23,000

A more detailed summary of building electricity usage and costs from Eversource and Verogy will be submitted for the twelve-month period ending September 17, 2022. After that, reports and budget information on electricity costs and solar performance will be aligned with the Emanuel fiscal year starting July 1, 2022.

Nine-month data indicates that the solar generating system output has resulted in savings of \$16,000 when compared to the cost of supply by Eversource in the absence of a solar generating system. After the next three months of operation, the solar generating system is on track to meet or exceed the annual energy production and cost saving goals of the project.