



Fall 2022

Solar arrays at Beverly High School

Basic information

Beverly Public Schools are going green! The City of Beverly partnered with Kearsarge Energy to develop 4.3 kW DC solar arrays across six properties, including Beverly Middle School and Beverly High School, to generate renewable energy credits, save money, and reduce carbon emissions.

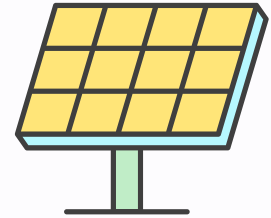
Canopy structures are being built on the high school parking lot. Here is what to expect as you begin the school year:

- During the month of September, one canopy (labeled "B") will remain under construction. 75% of campus-wide parking (355 spaces) will remain available.
- By October, 90% of parking will be available, with smaller sections of the lot coned off for final work. Pick-up and drop-off routes will not change.
- Battery storage will be installed by the basketball court. The driving aisle may temporarily be reduced outside of pick-up and drop-off hours.

After that, these panels will add clean energy to our local electrical grid for the next 20+ years!

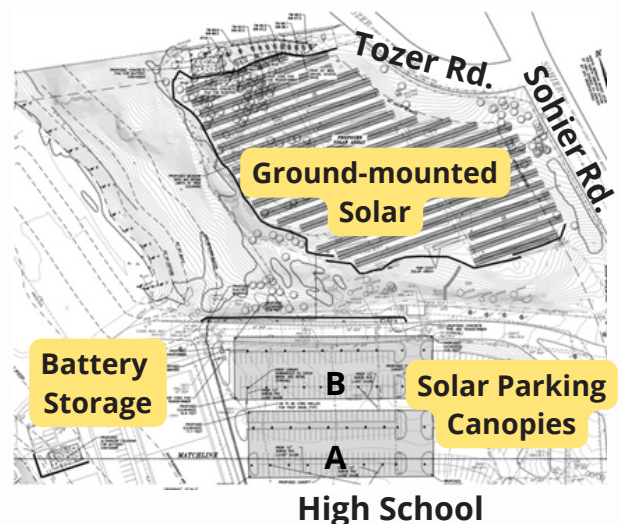
Middle School:

- Rooftop
- Parking Canopies



High School:

- Ground-mounted array, replacing the existing historic array from 1981
- Parking Canopies by the cafeteria entrance
- Battery storage



Solar canopies under construction at Beverly High School, Aug. 23, 2022

FAQs

What is the status of the construction work?

During summer vacation, crews disassembled the historic solar panels on the hill, began construction on the replacement hillside array, built the parking canopy structures, and installed the solar panels.

One canopy was completed in the summer, and the other canopy will be completed in the first six weeks of the fall semester.

How does this project help our climate goals?

Our community's climate action plan, Resilient Together, strives to reduce carbon emissions by 50% by 2030. Combined with our existing solar portfolio, this City-wide solar project will help us offset nearly all municipal electricity consumption.

Each year, this project will avoid carbon emissions equivalent to 390,000 gallons of gasoline and equivalent to sequestering carbon from 4,000 acres of forest!

How will the solar canopies be maintained?

Kearsarge Energy will monitor and maintain the solar canopies. During the winter, the City will continue to salt and plow snow in these parking lots.

Will it be dark under the canopies? Will there be glare above?

Lights will be moved under the canopies to illuminate parking spaces. The materials are primarily steel, glass, and silicon, and the panels are designed to absorb light rather than reflect it.

What are the benefits to students?

Students will experience a daily reminder that their community is committed to fighting climate change. One row of the 1981 solar array at the High School, the oldest continuously operating solar field in the U.S., will be kept for educational purposes to demonstrate the evolution of solar technology. The project includes clean energy educational resources.

Practically, there may be less snow to remove from cars, more shelter from rain, and more shade in the warmer months.

What are the financial benefits?

The City of Beverly will receive over \$1.1 M in revenue over the 20-year term, as well as electricity cost savings of ~\$937 K. The School Department currently benefits from discounted electricity through the purchase of renewable energy credits generated from our existing solar portfolio (solar farms by the airport and over the capped landfill on Otis Rd.).

Interested in learning more?

Visit beverlyma.gov/473/Sustainability for project plans, slides, and presentation recordings.

Questions? Email sustainability@beverlyma.gov or call Erina (Sustainability Office) at 978-605-2332.