



# NYCHA Capital Projects Fact Sheet:

## ROOFTOP SOLAR ENERGY PANELS

### 1. Project Overview

- This scope of work involves the installation of rooftop solar panels at NYCHA developments, where the roofs have been recently replaced.
- Rooftop solar energy panel projects are part of a lease program to install community solar systems, support NYC carbon emissions goals, and provide green job opportunities for NYCHA residents.
- Rooftop solar energy panel projects come at no cost to NYCHA and build revenue for development operations through the leasing of roof space to solar installers.

### 2. Key Terms

- Solar battery: An energy storage device that stores the excess electricity produced by solar panels for later use. This allows for energy usage during times when the solar panels are not producing electricity, such as at nighttime or in cloudy weather.
- Megawatt (MW): A unit of power equal to 1 million watts.
- Solar array: A collection of multiple solar panels connected together to generate electricity.
- Disconnect Switch: A safety device that allows the electrical current from the solar energy system to be manually shut off. It is often used for maintenance, repairs, or in emergencies to isolate the system from the electrical grid.
- Inverter: A critical component of a solar energy system that converts the direct current electricity generated by photovoltaic cells into alternating current electricity, which is the type that is used by most household appliances.
- Photovoltaic cell: A semiconductor device that converts sunlight directly into electrical energy through the photovoltaic effect. Multiple photovoltaic cells are combined to form solar panels.
- Racking and mounting equipment: The structural components used to secure solar panels to the roof.

### 3. Why is this capital project needed? Why is it important?

- Rooftop solar energy panels open business opportunities for small-scale solar developers, startups, and minority- and women-owned and small business enterprises (MWSBEs) in the solar industry/
- In 2021, NYCHA's [Sustainability Agenda](#) set a goal reducing greenhouse gas emissions across developments by 80 percent by 2050. To achieve this, NYCHA plans to install 30 MW of solar energy on its buildings by 2026.
- Rooftop solar energy panels provide green jobs and expand access to solar energy to NYCHA residents.



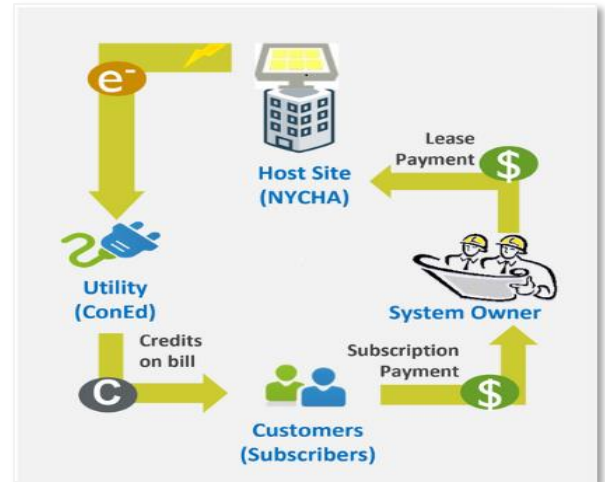
*Solar array on Queensbridge Houses installed with the help of 13 NYCHA residents on the installation team*



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## 4. Scope of Work Details

- The **basic steps of rooftop solar panel installation** are as follows:
  1. **Site survey:** The rooftop is inspected to determine if it suitable for solar panels. Any necessary repairs or reinforcements are made.
  2. **Mounting:** Racking and mounting equipment are secured to the roof.
  3. **Panel installation and electrical work:** Panels are mounted to the racking system and secured in place. The solar arrays are wired and connected to the inverter, which begins to convert Direct Current (DC) electricity into usable Alternating Current (AC) electricity. A meter is installed.



## 5. Construction Trades & Other Roles Involved

Type	Possible Roles
Trade	<ul style="list-style-type: none"> <li>Electrician</li> <li>Hoist / Rigger</li> <li>Laborer (including Flaggers, Demolition Workers)</li> <li>Roofer</li> </ul>
Non-Trade	<ul style="list-style-type: none"> <li>Admin</li> <li>Timekeeper</li> </ul>

## 6. Typical Project Timeline

- The typical project timeline for rooftop solar energy projects is **1 to 2 years**.



## 7. What to Expect During Construction

- Noise and vibration:** Mounting solar panels may generate noise and vibrations due to drilling or heavy equipment.
- Dust and debris:** Installation may create dust or debris that can affect air quality or surrounding areas.

## 8. Mitigating Construction Impacts

- Noise and vibration:** Residents will be notified about potential disruptions in advance.
- Safety measures:** Certain areas of the building may be restricted for safety reasons.



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- Restricted access: Certain areas of the building may be restricted for safety reasons.