

Case Study: 45-53 West 110th Street, New York City



The Story

In November of 2016, UHAB connected the board treasurer of 45-53 W 110th St HDFC with Solar One to explore the possibility of solar on their co-op. The Here Comes Solar team helped the co-op determine their solar viability, doing an on-site assessment and calculating their potential for savings under a number of different scenarios – leaving part of the roof open for a roof deck, using the energy to cover their common area costs, or distributing the energy to the individual residents’ bills. However, at that time the board decided to put the project on hold to focus on other issues.

In the fall of 2017, Here Comes Solar staff reached out to the 45-53 W 110th St board to announce the Solar Uptown Now campaign, a community buyers’ group of HDFC co-ops, facilitated by WE ACT, UHAB, Sustainable CUNY, and Solar One that had negotiated lower pricing with a single solar installer. Because of the campaign and its reduced pricing, the co-op decided to move ahead with the solar project, so in early 2018, the board asked Here Comes Solar to provide revised estimates for with the new campaign pricing and design, and in June 2018 they signed a contract with Grid City Energy, the official installer for the Solar Uptown Now campaign. The design was completed over the summer of 2018, permits were secured in August, and the system was installed in November of that year.

Project Snapshot

Client: 45-53 West 110th St HDFC
Building Type: Limited-income cooperative
Location: Harlem, NY
Financing: Direct Purchase
Solar Installer: Grid City Energy
System Size: 39.6 kW
Modules: 110 LG 360-W
Inverters: Fronius
Lifetime Solar Production: 1,144,573 kWh
Lifetime CO2 Reduction: 510,327 lbs.

“Because this was a community shared solar project, which meant people get savings directly on their monthly electric bills, it was a really positive thing for all of our residents.”

-Jason S., Board Member

One of the challenges of the project was designing a system large enough to serve all the shareholders within the section of the roof designated for solar. Here Comes Solar staff worked with the selected installer to design the optimal layout for their area, which used an innovative flat ballasted array to maximize capacity while also avoiding any need for roof penetrations.

Unique characteristics

Commitment to Affordability

The co-op has a deep commitment to affordability and resident benefit, so instead of using the electricity generated to offset the co-ops operating costs, they divided the energy savings among the residents.

First in Manhattan

First co-op in Manhattan to use onsite community shared solar (second in the city)

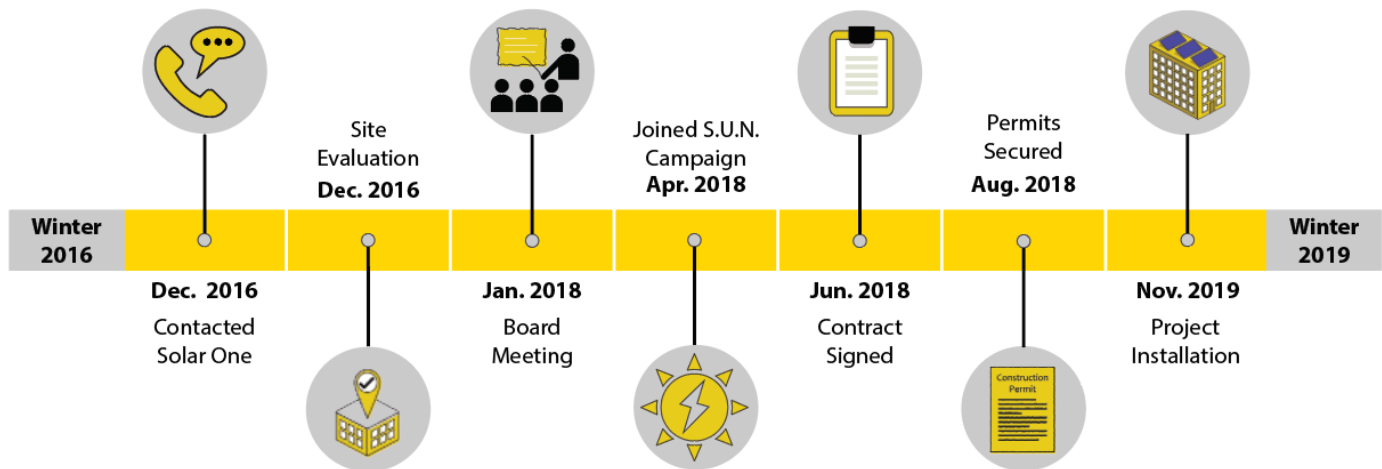
Maximized Panels

The system was designed with a new form of ballasted racking that maximized the number of panels they could fit in their limited roof area

Pays for Itself

As an income-restricted co-op, they were unable to monetize the property tax abatement, but because of the low campaign price, the system still pays for itself within 4 years.

Timeline



Economics

Project Cost	\$122,760
Incentives	\$85,338
Net Cost	\$37,422
Annual Savings	\$9,985
Payback Period	4 years
Lifetime Savings	\$236,409

For more information contact us:
 Phone: 212-505-6050
 Email: herecomessolar@solar1.org