

Case Study: 416 West 129th Street, New York City



The Story

416 W 129th St HDFC reached out to the Co-ops Go Solar team in February of 2017 to learn how to reduce their electricity costs. Here Comes Solar staff provided the co-op with an onsite assessment and a cost/savings estimate for a basic system that would offset 100% of the common area with an approximate 8 year payback period through a cash purchase. However after some consideration, the building requested an estimate for offsetting some of the residents' electricity costs. The next estimate was able to demonstrate an approximate 30% offset to residents' bills with a 4 year payback period. The building then went further in considering the benefits for both the coop and apartment bills can have from installing solar. In the end the 416 W 129th St HDFC looked at six different options how solar can benefit their cooperative and its residents.

In May of 2018 the building held a shareholder meeting about how the building can be more sustainable and energy efficient. They reviewed all of the solar estimates presented to them by Solar One and UHAB. A few months later they joined Solar Uptown Now (SUN), a campaign in partnership with UHAB, Sustainable CUNY, Solar One, and WE ACT for Environmental Justice. The solar group purchasing model, commonly known as Solarize, has been successful in other areas, but this was the first to focus on affordable multi-family buildings in an urban context. The SUN campaign aimed to principally engage HDFC co-op's because of their characteristic affordable homeownership; which goes back to the reason this building began considering solar, to keep costs down and their cooperative affordable to its residents.

Project Snapshot

Client: 416 W 129th St HDFC
Building Type: Limited-income cooperative
Location: Harlem, NY

Financing: Direct Purchase
Solar Installer: Grid City Energy
System Size: 26.28 kW
Modules: 73 LG 360-W
Inverters: Fronius

Lifetime Solar Production: 730,479 kWh
Lifetime CO2 Reduction: : 891,185 lbs



The building faced a number of barriers to installation, including open DOB violations, which are a common problem that can slow the permitting process to install solar. In addition, the co-op had an outdated electrical system, so in order to be able to physically incorporate a solar system they had to upgrade their electrical system. They were able to work with their installer Grid City and Solar One to resolve these problems and others that may have come up. After approximately 2 years from first contacting Co-ops Go Solar, 416 W 129th St HDFC became one of the first solar HDFCs in New York City.

Unique characteristics

Friendly Competition

Their neighbor is going solar as well, and the two buildings were in friendly competition to see which would go solar first.

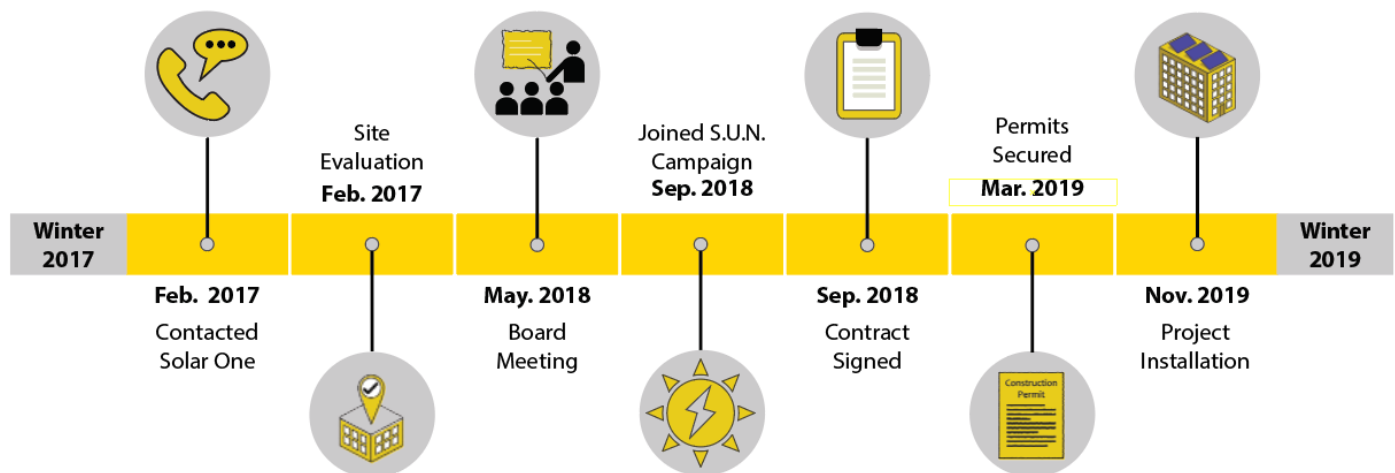
Updated Electrical System

The co-op's old electrical system needed to be updated before installing solar, but Grid City completed the electrical upgrade at cost as part of their scheduled work.

Sharing the Savings

The co-op is sharing the solar savings among the residents to reduce everyone's apartment bills as well as offsetting the common area account.

Timeline



Economics

Project Cost	\$70,956
Incentives	\$59,787
Net Cost	\$11,169
Annual Savings	\$6,458
Payback Period	3 years
Lifetime Savings	\$203,752

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