

High-impact aggregated solar projects tackle energy affordability issues in low-income communities



Photo provided by BlueHub and Marilyn Humphries Photography

BOSTON, MASSACHUSETTS



PROJECT TYPE:
SHARED SOLAR
ENERGY PROJECTS

A reduced energy burden and extra \$500 a year can allow for new opportunities, particularly for low-to-moderate income communities. One family is able to give its children lunch money. A neighbor fills her gas tank to get to and from work. A few units down, three roommates attend a community event they otherwise wouldn't be able to afford. What would you do if half of your annual electricity bill was eliminated? This is a question residents of two affordable housing developments pondered when they were given net metering credits from a solar array to offset their electricity bill.

"I live in an apartment building, so typically I wouldn't be able to take advantage of solar. But the shared Solar Program for Cranberry Manor makes it so easy. Everything about the program is great, from saving the environment to saving us money."

- KALISSA S., A ONSET SHARED SOLAR PROGRAM PARTICIPANT

DEVELOPER:



In the last decade, there has been a rapid increase in the installation of rooftop solar around the world. And although solar can offer significant financial savings, with heavy upfront costs and strict physical specifications, its deployment has historically been unattainable for many low- and moderate-income (LMI) communities.

Developer and nonprofit community development financial institution BlueHub Capital extends the benefits of renewable energy generation to LMI communities throughout Massachusetts. To date, BlueHub has developed approximately 7MWh of PV solar energy across the state. Roughly half of that comes in the form of rooftop solar projects on affordable housing developments. The other half are community solar projects serving 21 affordable housing developments, two nonprofit community facilities, and a pilot program serving low-income tenants.

BlueHub's program and the entire residential solar industry is built on a mechanism known as net metering. Net metering allows a customer to be credited when excess electricity is sent to the grid. BlueHub's pilot program, Onset Shared Solar Program, uses energy credits generated from two ground-mounted solar arrays to offset the electricity bills of residents at neighboring affordable housing developments. On average, participating customers see their bills reduced by half — a huge benefit for those struggling with rising utility costs.

The Mill Street Solar Project is another BlueHub project that utilizes virtual net metering to offset nearly 80% the electricity use of four local organizations. Projects like Onset Shared Solar and Mill Street Solar ensure that all communities can benefit from the environmental improvements of solar energy. Through its work, BlueHub makes sure that underserved communities can participate in climate change solutions and helps to build a future with more renewable resources.

The sale of renewable energy certificates (RECs) from these types of projects is critical to expanding access to solar for affordable housing developments and the communities they serve. With the growing accessibility and diversification of REC products, buyers can now integrate social impact considerations into their procurement decision making process.

To support energy justice opportunities, and push the market toward higher impact REC products, 3Degrees purchased a supply of 2021 RECs from BlueHub's aggregated solar projects. To learn more about increasing the impact of your renewable energy purchase, [contact us](#).

"We don't find this to be just a cost benefit to GAAMHA, but a benefit to the community of Gardner and to the environment."

TRACY H., GAAMHA CEO



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CO-BENEFITS



Environmental:

- + BlueHub's solar energy projects reduce an estimated 3,652 tons of carbon emissions per year, which is equivalent to removing 1,260 cars from the road.
- + Virtual net metering projects allow ground-mounted solar systems to be built on land with negligible use, like brownfields, that have no economic value.



Economic:

- + Both the shared and rooftop solar projects stabilized and lowered electricity costs for affordable housing developments, nonprofit, and municipal facilities.
- + The national power system benefits from an inflow of low-to-no-cost solar energy being put onto the grid.



Health:

- + The United State's energy system has created pollution leading to poor health outcomes in underserved communities. The expansion of shared solar improves air quality in LMI communities.



Social:

- + Shared solar projects ensure that marginalized communities see improvements from the deployment of renewables by involving climate justice in clean energy programs.

3Degrees, a certified B Corporation, makes it possible for businesses and their customers to take urgent action on climate change. We help organizations around the world achieve renewable energy and decarbonization goals through our work with global Fortune 500 companies, utilities, and other organizations that want to join the fight against climate change.

