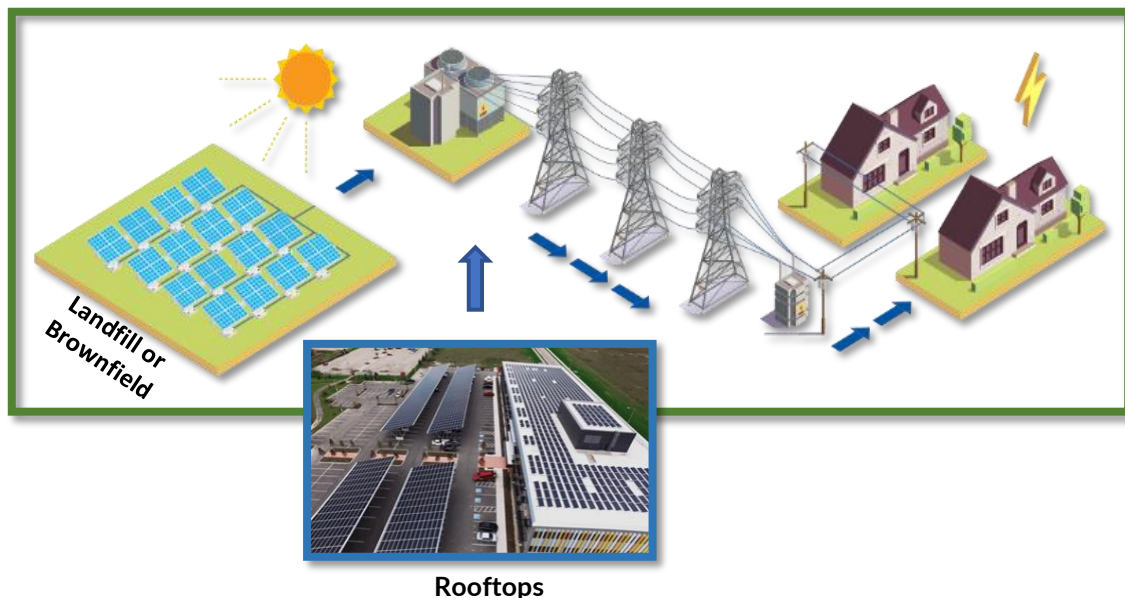


# Community Solar Program Makes Big Strides

By Abbas Salim • azas786@yahoo.com

In 2019, New Jersey established the three-year Community Solar Energy Pilot Program, administered by the NJ Board of Public Utilities (BPU). Gov. Phil Murphy has called the pilot program a national model for making solar accessible to underserved communities and a key part of the state's commitment to transition to 100% clean energy by 2050.



Community solar makes solar energy available to households or businesses that don't have buildings suitable for solar panel installations.

To achieve this goal, the Clean Energy Initiative has charted a plan to install 32 gigawatts (GW) of solar power by year 2050. As of October 31, 2021, 3.7 GW of solar had been installed in New Jersey, including a blend of installations, such as residential, nonresidential, grid-supplied, and community solar. With over 48,000 solar installations, the Garden State is No. 1 in the United States for installed solar capacity per square mile.

The most important benefit of community solar is that it makes clean energy available and affordable to those who otherwise could not have it. About 85% of US residents can't own or lease rooftop solar systems. This may be because their roofs are unsuitable or they live in

multifamily housing. In addition, many can't afford the up-front cost of solar panels. Community solar enables all residents and businesses to benefit from clean energy.

Based on its preestablished criteria, the BPU approved 45 project applications in October 2019 for the program's first year and 105 applications (**Supplemental Tables 1, 2, 3**) in October 2021 for the second. These projects are expected to generate a total of 243 megawatts (MW) in electrical capacity and serve nearly 45,000 homes; 51% of this capacity is set aside for low and moderate income (LMI) households.

These projects are located throughout the state (**Figure**). Of the second-year projects, 98 are located on rooftops, five on landfills, and one on a brownfield. Pilot year-one projects are fully subscribed and subscription for the second-year projects is expected to start sometime in the second quarter of 2022.

### How Does Community Solar Work?

In a community solar program, a solar developer sets up a solar farm and offers subscriptions to utility customers in the area. Based on their previous annual electricity use, customers are

allocated a share of the solar farm that generates enough electricity to offset nearly all their annual electricity charges. They get a credit on their regular utility bill for the electricity generated by their portion of the community solar installation, and they receive a bill from the developer for the solar farm portion allocated to them. If their electricity consumption exceeds the solar allocation, they are billed for the excess as per the regular utility rates.

However, their solar energy cost can be discounted 10% to 20% below what the utility company would charge. The discount offered to LMI households is generally higher than for non-LMI households. Customers have the comfort of knowing that they are drawing most of their energy from a renewable source, not a fossil fuel-based energy source. Thus, community solar significantly lessens a homeowner's or business's dependence on nonrenewable and toxic sources of energy while also saving money.

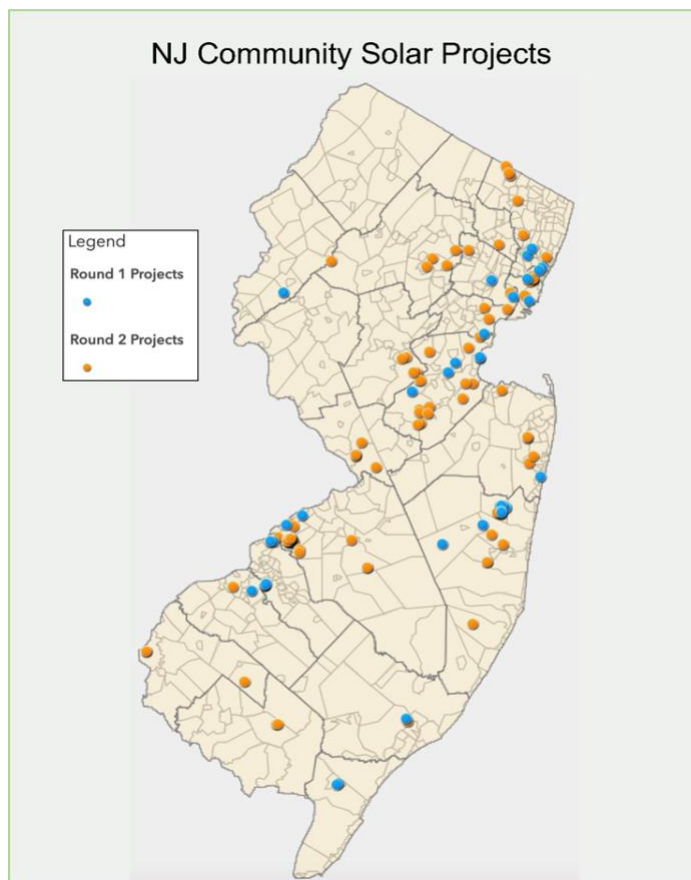


Figure. Service areas for community solar projects awarded to date. Courtesy of Solar Landscape.

The NJ Chapter of the Sierra Club has long been an advocate for the need for community solar. We applaud the fact that the focus of New Jersey's program is on LMI households and that it prioritizes the placement of solar arrays on rooftops, landfills, and brownfields and tightly restricts the use of farmlands and open space for solar arrays.

An estimated 85% of US residents aren't able to own or lease rooftop solar systems. This may be because their roof is unsuitable or they live in multifamily housing. In addition, many can't afford the up-front cost of solar panels. Community solar enables all to take advantage of solar energy and thus help the environment by significantly lowering their carbon footprint and save some money at the same time. Further, community solar makes renewable energy available and affordable to those who otherwise could not have it.

The community solar model also makes it possible for towns, businesses, and nonprofit groups—anyone who pays a public utility bill—to source their energy from solar. A town, housing development, or even an apartment building can host a solar installation and supply solar to residents. A community solar project could be local or remote depending on the prevailing regulations established by the BPU. These projects are strategically located near the town or locality they are intended to serve and are connected to the utility company grid that currently serves the community.

## How to Get Community Solar

The number of community solar installations in New Jersey is growing quickly. Solar Landscape is one well-established developer that has over 50 approved projects in the state.

They are currently working with Sustainable Jersey to create a webpage that will simplify the process of locating a community solar supplier. Residents will be able to enter a zip code and find out who to contact. The webpage should be ready by mid-2022, when many of the new projects are expected to be online. If community solar is not available in your area yet, don't be discouraged.

The program is growing quickly and will get a boost from the Clean Energy Act, which mandated that the BPU establish a permanent community solar program this year.

You can find out through your public utility whether community solar is available or planned in your area. Below is a list of frequently asked questions and links to additional resources for information on community solar. In addition, tabular data on the current round of projects in the NJ community solar program included below.

### Three Participants in a Community Solar Project

**Solar Developer:** A company that applies for, builds, and maintains the solar array. The developer also signs up subscribers.

**Site Host:** The owner of land where the solar array will be built and maintained. In New Jersey, priority is given to community solar projects that are located on rooftops, brownfields, or landfills.

**Subscriber:** A home or business—anyone who is a ratepayer (i.e., pays their own utility bill). A town or nonprofit group can also be a subscriber.

## Frequently Asked Questions

Q: Is electricity from community solar cheaper?

A: Yes. Most solar developers guarantee 10 to 20% savings.

Q: Are there any up-front costs, fees, or long-term commitment?

A: Most programs have no up-front fee and offer savings immediately. Likewise, a subscriber typically has the ability to cancel the subscription without penalty, although 90 days' notice might be required.

Q: How much electricity can I receive from the project?

A: Annual electricity consumption is used to determine a share of the solar farm that should earn enough credits to offset all or most of the annual electricity usage. The developer typically sets a limit of 120% over the average monthly usage.

Q: Do credits vary from one bill to the next?

A: Yes. The amount of credit is based on production at the solar farm, which is season dependent

Q: Do I need to switch utility companies?

A: No. You'll still get your power from your utility company.

Q: When will I start to see credits on my bill?

A: You start to see credits produced by your share of the solar farm approximately two to three months after the project is live. Remember that the 105 projects for year two of New Jersey's Community Solar Pilot Program were approved in October. It will take a few months to build them.

Q: Doesn't community solar promote more solar farms on agricultural land?

A: No. In their approval process, the BPU gives priority to project located on rooftops, landfills, and brownfields. Out of 105 approved projects, 98 are located on rooftops, five on landfills and one on a brownfield.

## More Information

- [Sierra Club NJ Chapter's community solar webpage](#)
- [PSE&G's community solar webpage](#)
- The NJBPU [website](#) has all the details about solar developers and site locations
- Solar Landscape is one of the larger community solar developers in NJ and has a lot of helpful [information](#) for customers

### Community Solar Project Facts

- Currently in New Jersey, a community solar project cannot be larger than five MW. There is no minimum size.
- Solar arrays could cover approximately 20 to 25 acres.
- Each project must have at least 10 subscribers, with no more than 250 subscribers per MW.
- Five MW powers up to 1,250 houses.
- The NJBPU prefers projects with solar arrays located on rooftops, followed by landfills and brownfields.

## Supplemental Tables

Table 1. NJ Community Solar Pilot Program: Pilot Year 2 Approved Projects, Conditionally Approved Capacity by Utility			
Utility (Electric Distribution Company)	No. Projects	Available Capacity (MW)	Conditionally Approved Capacity (MW)
Atlantic City Electric Company (ACE)	7	18.5	21.3
Jersey Central Power & Light Co. (JCP&L)	28	43.3	47.5
Public Service Electric & Gas Co. (PSEG)	67	85.3	90.3
Rockland Electric Co. (RECO)	3	2.9	5.6
<b>Total</b>	<b>105</b>	<b>150</b>	<b>165</b>

Table 2. NJ Community Solar Pilot Program: Pilot Year 2 Approved Projects		
Totals: 105 projects in 50 locations, 165 MW		
Location*	Projects	Power (MW)
Avenel	1	1.21
Berkeley	1	5
Clifton	1	0.27
Cranbury	3	15
Dayton	1	0.79
Delran	2	5.69
East Hanover	1	1.36
Egg Harbor	1	0.92
Elizabeth	1	3.92
Franklin (08873)	3	9.95
Hackettstown	1	1.28
Hamilton	3	2.19
Hazlet	1	0.8
Ho-Ho-Kus	1	0.74
Iselin	1	0.45
Jersey City	1	0.61
Lakewood	8	7.8
Lawrence	1	0.96
Linden	1	0.88
Lumberton	1	1.24
Mahwah	3	5.6
Manahawkin	1	4.99
Millville	2	7.51
Monroe Twp.	1	5

Moorestown	20	10.4
Morristown	1	0.6
Mount Laurel	2	2.17
Neptune	2	1.39
Newark	1	2.81
North Brunswick	2	1.81
Old Bridge	2	3.41
Parlin	1	0.49
Parsippany-Troy Hills	1	0.42
Pennsauken	3	2.93
Pennsville	1	5.7
Piscataway	2	1.87
Pittsgrove Twp.	1	2.2
Ridgefield	1	0.4
Saddle Brook	1	1.6
Secaucus	6	5.13
Somerset	2	3.67
South Brunswick	4	7.72
Southampton	2	10
Tinton Falls	2	1.05
Toms River	2	5.42
Trenton	1	5
Union	1	1.71
W. Caldwell	1	0.95
W. Deptford	1	1.19
Whippany	1	0.48
* For project location addresses and additional information, please contact the author or visit the <a href="#">NJ Clean Energy</a> website.		

<b>Table 3. Round 2 Solar Installation Developers</b>	
<b>Developer</b>	<b>Number of Projects</b>
AC Power	1
Altus power America	12
BEMS Community Solar East	1
BEMS Community Solar Wes	1
Brightcore Energy	19
EDF Renewables Distributed Solutions	1
Evergreen Energy	1
Franklin Solar 1	1
Franklin Solar 2	1
Hathaway Solar	2
Henderson Solar	1
Independence Solar	4
Lexington Holdings	1
Mayhill Solar	1
Moorestown 1	1
Moorestown 2	1
Newark Solar 1	1
Pennsville Landfill Solar	2
Pittsgrove Township	1
Solar Landscape Development	46
Somers Solar	1
Stafford Park	1
The City of Hoboken	1
UGE USA	3
<b>Total</b>	<b>105</b>