



Inclusive Shared Solar Initiative: Guiding Principles and Model Program

Overview

The goal of the Inclusive Shared Solar Initiative (ISSI)¹ is to make community solar more accessible to low- and moderate-income households through innovative partnerships between state energy offices, solar providers, Low Income Home Energy Assistance Program (LIHEAP) offices, utilities, and other key stakeholders. The guiding principles of ISSI programs are:

- **Reducing the Costs of Enrolling LMI Participants in Community Solar Projects:** One of the largest obstacles and costs for solar developers is recruiting and signing up LMI participants. State Energy Offices and LIHEAP Offices can mitigate this obstacle in a number of key ways: first, states can serve as the anchor tenant for solar projects on behalf of a pool of LMI participants, providing security to developers by creating user-friendly processes by which LMI households can enroll and un-enroll without incurring additional costs. Additionally, by tapping into enrollment data from existing state low-income programs such as LIHEAP, states can identify and enroll eligible low-income customers in solar developments, states can reduce this cost for developers. State agencies can also reduce the perceived risk for by providing a guarantee, in the form of a reserve fund, guaranteed percent of payment, or other method, to help solar developers any potential additional costs of LMI-tailored community solar programs.
- **Negotiating Discounted Pricing for Low-Income Recipients:** Using the model of margin-over-rack agreements in delivered fuels, each state will engage project developers to lock in reduced rates for low-income solar customers. In margin-over-rack agreements, LIHEAP offices negotiate a discounted rate for fuel at a percentage over the “rack,” or wholesale, fuel rate. In return the LIHEAP office guarantees a minimum purchase volume over the duration of the contract. When applied to community solar, these discounted rate agreements will reflect the cost savings to solar developers of not having to identify and enroll low-income customers, as well as the more favorable financing available due to the state’s role as an anchor tenant.

¹ To learn more about ISSI, a partnership between the National Association of State Energy Officials (NASEO) and the National Energy Assistance Directors Association (NEADA), visit <https://naseo.org/issues/solar/issi>.

- **Protecting Low-Income Consumers:** Traditional community solar contracts can put low income customers at risk through long-term commitments, fixed generation charges, dual billing, late fees, and reconnection charges. In the ISSI model, the consumer is protected from these potential risks because the state maintains the contractual relationship on behalf of the low-income customers. The state can then structure the commitments of low-income participants however it chooses, allowing customers to enter and leave the project at will, subsidizing costs, and eliminating fees and minimum payments.

New York Solar for All

The Inclusive Shared Solar Initiative (ISSI) is partially based on the New York Research and Development Authority's (NYSERDA) [Solar for All](#) project. Solar for All is designed to provide free access to community solar facilities for low-income families. The program accomplishes this by providing community solar developers with guaranteed payment on behalf of a set number of low-income participants, essentially making the low-income population the anchor tenant for the project. The low-income customer receives a credit on their bill of between \$5 and \$15 per month.

Solar Provider Bidding Process

NYSERDA issued a [request for proposal](#) in 2018 seeking submissions from solar companies to build solar installations that would include up to one megawatt of electricity dedicated to NYSERDA on behalf of low-income customers. NYSERDA estimated a flattened 10-year price for solar energy and requested companies provide the Authority a discount off that price in exchange for guaranteed payment on the portion of the installation set aside for the program. Solar facilities were required to be interconnected under the New York's Community Distributed Generation (CDG) policy.

In the initial round, bids for nine [solar installations](#) were approved for a total of 26.4 mw of solar, of which 9 mw was set aside for Solar for All customers. The winning bids offered discounts of between ten to twenty percent off the flattened rate provided by NYSERDA.

NYSERDA is responsible for identifying and enrolling low-income customers and paying for their solar energy subscriptions. In essence, NYSERDA is serving as the anchor tenant for the solar installation, providing a reliable basis for the solar company to receive financing for the project and eliminating significant marketing, billing, and collections cost for the solar provider.

Low-Income Customer Participation

In the initial program roll-out, [eligibility](#) was limited to households with incomes under 60 percent of the state's median income, currently \$57,564 for a family of four and \$39,144 for a family of two. Eligible customers could be identified in partnership with the state LIHEAP office or could apply on their own. In addition, the program required that applicant households reside in one of the designated service territories and use a minimum of 1,000 kWh of electricity over the previous

twelve months. Families could sign-up [online](#). In 2020, NYSERDA revised the enrollment process to automatically enroll all National Grid customers eligible for the utility's energy assistance program.

Participating families pay no upfront costs, fees, or payments to participate. They are also not subject to cancellation or minimum commitment periods. In the initial program roll-out, participating families received a monthly energy credit on their utility bill between \$5 and \$15, depending on the location and time of year. Credit amounts were the same for all participating customers in an installation, not based on energy burden or usage. In 2020, NYSERDA replaced this system with a flat credit for all participants, no longer tied to the customer's location.

Families can participate in the program for as long as they meet eligibility requirements. They may also leave the program at will and at no cost, in which case another eligible household may take their place in the program, enrolled directly by NYSERDA.

Billing Process

As is the case for many community solar projects, the solar installation feeds energy into the electric grid which is distributed by the electric utility. In traditional consumer solar agreements, the solar provider would charge the customer a subscription fee for the energy provided, and the utility would provide the customer with credits on their energy bills to reflect that usage. In Solar for All, there is no third-party billing. The customer receives a credit on their electric utility bill and NYSERDA covers the cost of providing the solar.

A provision in the initial RFP allowed solar companies to offer additional credits to low-income customers if they wished to offset their remaining electric usage, however this option has not yet been finalized. The ISSI model includes the option for the customer to contribute to the cost of their subscription in which the discounted rate is passed on to the customer, potentially with guarantees from the state.

Consumer Protections

Because NYSERDA holds the contract with the solar company, with no direct connection between the solar company and the low-income customer, Solar For All avoids many of the consumer protection concerns in other community solar models.

- The customer continues to receive only one bill from their electricity company, with no additional bill from or contract with the solar provider. This reduces the potential for double billing and reduces confusion for the customer.
- Since NYSERDA is guaranteeing payment, the solar provider charges no fees for low-income customer participation, including sign-up and cancellation fees, providing additional savings for the program.

- If the customer becomes ineligible for the program, they are removed from Solar for All without incurring any fees or penalties, allowing for flexible participation as a household's financial or living situation changes.

Lessons Learned and Program Evolutions

The NYSERDA Solar for All program is now in its third year. As the program continues to grow and develop, NYSERDA is [making adjustments](#) to improve customer participation and build on feedback from customers, solar developers, and other parties. In particular, NYSERDA discovered that the application process for low-income customers was not meeting the needs of the program. In its initial roll-out low-income customers had to submit a stand-alone application to Solar for All, and customer outreach was not fully integrated into existing outreach networks. In retrospect, a more streamlined sign-up process, potentially including a single checkbox on a customer's LIHEAP application, would allow for easier recruitment for the program. In 2020, all National Grid customers that qualify for the utility's energy assistance program will be automatically enrolled in the low-income solar program, guaranteeing approximately 140,000 low-income customers for the program.

The automatic enrollment through National Grid also eliminated the need for NYSERDA to identify new customers on a project-by-project basis. In the initial model, when a customer unenrolled from the program, NYSERDA needed to find a direct replacement in that installation's service area. Under the new model, customer enrollment is no longer tied to specific solar installations. Finally, this new model allows solar credits to be applied equally across all participating customers, instead of individually calculating the credit for each account monthly.

Acknowledgments

The Inclusive Shared Solar Initiative is a partnership of the National Association of State Energy Officials and the National Energy Assistance Directors Association. To learn more about ISSI, please visit <https://naseo.org/issues/solar/issi>. This resource was authored by Cassandra Lovejoy, Project Manager, NEADA, in November 2020. The Inclusive Shared Solar Initiative thanks the members of the ISSI Advisory Group, who contributed insights throughout its development.

This material is based upon work supported by the U.S. Department of Energy under award number DE-EE0009008. This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

Appendix: Current Solar For All Projects

- **Crans Mill (Mid-Hudson):** Clearway Energy Group: Crans Mill is a 2.8 megawatt community solar project of which 1 megawatt will be used to provide no-cost solar subscriptions in Orange and Rockland's utility territory.
- **Amp Grand Solar (Western New York):** Amp Energy: Amp Grand Solar is a 2.1 megawatt community solar project of which 1 megawatt will be used to provide no-cost solar subscriptions in National Grid's utility territory in western New York.
- **Johnstown A and B (Mohawk Valley):** Common Energy: Johnstown A and B are two community solar projects - 2.8 megawatts and 2.0 megawatts - adjacent to each other, and will provide 1 megawatt each for no-cost solar subscriptions in National Grid's Capital Region utility territory.
- **Boas #4 (North Country):** Delaware River Solar: Boas #4 is a 2.7 megawatt community solar project of which 1 megawatt will be used to provide no-cost solar subscriptions in NYSEG's northern New York region as well as the rest of NYSEG's utility territory.
- **Underhill (Mid-Hudson):** Clearway Energy Group: Underhill is a 3.0 megawatt community solar project of which 1 megawatt will be used to provide no-cost solar subscriptions in Central Hudson's utility territory.
- **Nexamp Rochester (Mid-Hudson):** Nexamp: Nexamp Rochester is a 5.6 megawatt community solar project of which 1 megawatt will be used to provide no-cost solar subscriptions in Central Hudson's utility territory.
- **Nexamp Seneca (Finger Lakes):** Nexamp: Nexamp Seneca is a 2.6 megawatt community solar project of which 1 megawatt will be used to provide no-cost solar subscriptions in NYSEG's Central New York region as well as the rest of NYSEG's utility territory.
- **Sacket Lake (Mid-Hudson):** Delaware River Solar: Sackett Lake is a 2.8 megawatt community solar project of which 1 megawatt will be used to provide no-cost solar subscriptions in NYSEG's utility territory in the Mohawk Valley region.