



**U.S. Department of Energy SunShot Initiative
Rooftop Solar Challenge II**

**New York State
Financing Options and Services for Solar PV**

Developed by the NYS Financing Options Working Group



Table of Contents

| | |
|---|---|
| Introduction..... | 3 |
| New York State End User Financing Options | 4 |
| Cash Purchase (Residential/Commercial/Non-Profit): | 4 |
| Power Purchase Agreement (PPA) (Residential/Commercial/Non-Profit): | 4 |
| Lease (Residential/Commercial/Non-Profit): | 4 |
| Green Jobs Green New York (GJGNY) On-Bill Recovery Loan (Residential/Small Businesses and Non-Profits): | 4 |
| GJGNY Residential Smart Energy Loan (Residential):..... | 5 |
| GJGNY Small Commercial Participation Loan (Small Commercial): | 5 |
| Admirals Bank Solar StepDown Loan (Residential): | 5 |
| Energize NY (PACE) Finance (Commercial, Agriculture, and Non-Profit): | 6 |
| Sungage Financial Solar Loan (Residential):..... | 7 |
| New York State Financing Services | 8 |
| New York Green Bank – Financial Services Product Offerings: | 8 |
| USDA Rural Energy for America Program (REAP) Loan Guarantee (Commercial): | 8 |

The “New York State List of End User Solar PV Financing Options and Services” has been developed by the New York State Financing Options Working Group, as part of the U.S. Department of Energy SunShot Initiative Rooftop Solar Challenge II, led by the City University of New York (CUNY). Working Group members include the NY Green Bank, Sustainable CUNY, New York State Energy, Research, and Development Authority, the Energy Improvement Corporation, New York Power Authority, Empire State Development Corporation, NYC Energy Efficiency Corporation, Westchester Solar Initiative, Smart Power, and the Town of Huntington.



Introduction

The United States Department of Energy SunShot Initiative is a national collaborative effort to make solar energy cost-competitive with other forms of electricity by the end of the decade. The DOE is supporting a range of key activities by private companies, academia, and national laboratories to drive down the installed cost of solar. To aid in accomplishing these goals, the DOE launched the Rooftop Solar Challenge II program to address the non-hardware, balance of systems costs associated with solar energy systems that represent as much as 64% of the total installed system price.

Through its NYSolar Smart Program, CUNY won the Rooftop Solar Challenge II award in 2013 on behalf of New York State. NYSolar Smart is supported by over 30 partners and 16 jurisdictions, utilizing strategic working groups to streamline the solar installation process in the state and lower the cost of solar using innovative financing mechanisms.

The New York State Financing Options Working Group is charged with expanding and strengthening the financing options available to end users in New York. The “New York State List of End User Solar PV Financing Options and Services,” functions to inform New Yorkers of the various options available to them in financing a solar photo voltaic energy system.



New York State End User Financing Options

Cash Purchase (Residential/Commercial/Non-Profit):

Homeowners and businesses purchase a solar PV system with cash. In this option, the homeowner or business would receive 100% of all available federal, state, utility, or other incentives.¹

Power Purchase Agreement (PPA) (Residential/Commercial/Non-Profit):

A Power Purchase Agreement, or PPA, is a financing structure whereby a third party developer or financier develops, purchases, owns, and operates a solar PV system for an end user who pays a set price per kilowatt hour (kwh) for the electricity produced by the PV system. The end user typically does not have to provide any upfront capital for the solar PV system. However, the third party developer or financier takes a portion of the available federal tax incentives because they require a higher return on investment. The remaining majority of incentives are then built into the PPA price. PPA terms typically last between 10 and 25 years. Many solar installers provide their customers with a PPA option.

Lease (Residential/Commercial/Non-Profit):

A solar lease is a financing structure whereby a third party developer or financier develops, purchases, owns, and operates a solar PV system for an end user who pays a set monthly rate for the use of the solar system. Typically the monthly rate for a solar lease is the same every month regardless of how much electricity is produced by the solar PV system, unless there is a lease escalator whereby the end user's lease payments increase by a marginal percentage each year. The end user does not have to provide any upfront capital for the solar PV system. However, the third party developer or financier takes a portion of the available federal tax incentives because they require a higher return on investment. The remaining majority of incentives are then built into the monthly lease price. Solar lease terms typically last between 10 and 25 years. Many solar installers provide their customers with a solar lease option.

Green Jobs Green New York (GJGNY) On-Bill Recovery Loan (Residential/Small Businesses and Non-Profits):

The GJGNY On-Bill Recovery Loan is an instrument that allows customers to finance renewable energy improvements through a charge on their utility bill.

- Interest rate is 3.49%; interest rates are subject to change.
- Loan amounts range from \$1,500 - \$25,000 with terms of 5, 10, or 15 years.
- Borrower must have a credit score of at least 540 and debt-to-income of 70%.
- No bankruptcy, foreclosure, or repossession history within past 2 years.
- Loan payment built into customer's utility bill.
- Balance may be transferred to new owner when home is sold.
- The home or small business/non-profit must be served by a participating utility, including: Central Hudson Gas & Electric, Con Edison, PSEG-Long Island, NYSEG, National Grid (Upstate NY customers only), Orange & Rockland, and Rochester Gas & Electric.
- Average energy savings must be greater than monthly energy payment.



To learn more about the GJGNY On-Bill Recovery Loan please visit their website [here](#).

GJGNY Residential Smart Energy Loan (Residential):

The GJGNY Residential Smart Energy Loan provides financing for renewable energy improvements, including solar PV and solar thermal, on existing 1-4 unit residential buildings by a participating NY-Sun Incentive Program or PON 2149 contractor.

- Interest rate is 3.49% fixed or 3.99% if paying by check.
- Loan amounts range from \$1,500 - \$25,000 (\$13,000 max if simple payback is greater than 15 years – calculated by dividing the loan amount by the first year estimated energy cost savings).
- Borrower must have a credit score of at least 540 and Debt to Income of 70%.
- No bankruptcy, foreclosure, or repossession history within past 2 years.
- Repayments made directly to NYSERDA's loan servicer via monthly statement billing or automatic bank withdrawal.
- If home is sold or transferred, borrower is responsible for the outstanding balance of the loan and cannot be assigned.
- Borrower must own the home, or lease or manage the residential building and be an authorized representative of the owner.

To learn more about the GJGNY Residential Smart Energy Loan please visit their website [here](#).

GJGNY Small Commercial Participation Loan (Small Commercial):

The GJGNY Small Commercial Participation Loan provides financing to small commercial and non-profit entities through qualified participating lenders. An Application Package along with a Request for Financing Package is submitted to NYSERDA. If the PV application is approved by NYSERDA then it may qualify for financing from the following [list of participating lenders](#). (Lenders that are not on this list can sign on by signing and submitting a [Participation Loan Agreement](#) to NYSERDA).

- NYSERDA will finance 50% of the Eligible Loan Amount approved by NYSERDA (after all incentives have been taken into account) up to \$50,000 at 2%. The participating lender will finance the remaining loan principal at market rate.
- Creditworthiness of applicant is dependent upon participating lender screening and approval.
- Applicant must demonstrate payback period of 15 years or less to qualify.

To learn more about the GJGNY Small Commercial Participation Loan please visit the website [here](#).

Admirals Bank Solar StepDown Loan (Residential):

The Admirals Bank Solar Loan is a non-equity based loan for customers seeking to finance renewable energy projects, including solar, energy efficiency, small wind, and geothermal. Qualifying renewable energy projects may be combined with general home improvement projects such as roofing or window improvements. In this option, the homeowner would receive 100% of all available federal, state, utility, or other incentives.

- Fixed interest rates of 4.95%-9.95% depending on credit score.
- Maximum loan amount of \$25,000 with terms up to 20 years.



- Must have a credit score of 650 or above and have a debt-to-income ratio of 45% or lower to qualify and no bankruptcies within past 2 years.
- Ability to lower monthly loan payments by applying money from federal, state, and other incentives to loan balance at any time.
- No pre-payment penalties.
- Can be combined with SolarPlus unsecured, same-as-cash, loan for an additional \$15,000 if borrower has credit score of 700 or greater.

To learn more about the Admirals Bank Solar StepDown Loan please visit their website [here](#).

Energize NY (PACE) Finance (Commercial, Agriculture, and Non-Profit):

Energize NY PACE Finance provides convenient P.A.C.E. (Property Assessed Clean Energy) financing for energy efficiency and renewable energy projects in commercially and nonprofit owned properties in New York State. Eligible projects include solar PV, efficient lighting, chillers, energy storage, biomass, insulation, efficient heating or cooling, smart controls or combined heat and power.

Energize NY PACE Finance:

- Interest rates are 4 - 6.5% with flexible terms 5-20 years, subject to market conditions.
- Up to 100% of the cost of a project is financeable – no down payment is required
- Energize NY (PACE) Finance allows repayment through a special tax charge in Energize NY participating jurisdictions utilizing money from energy improvement savings.
- Financing transfers automatically to a new owner upon sale (as well as the improvements), eliminating the need to pay it off.
- Combines seamlessly with state and local energy incentive programs and federal tax benefits.
- Financing available for energy improvements in existing commercial property including: office, hospitality, retail, institutional, multifamily, light industrial, non-profits, commercially-owned residential, agricultural.

Energize NY Criteria:

- Energy improvement Savings-to-Investment ratio must be greater than one (1).
- Annual energy cost savings from improvements must be greater than annual finance payments.
- Property's existing Loan-to-Value ratio no greater than 80%.
- Financing available up to 10% of the value of the property.
- No bankruptcy within last 7 years.
- At least 3 year history of timely property tax payments.
- Existing mortgage holder consent required.
- Project must be located in member municipality who participates in the Energize NY Finance program. List of participating members [here](#).

To learn more about Energize NY financing please visit their website [here](#) or call (914) 302-7300.



Sungage Financial Solar Loan (Residential):

The Sungage Financial Solar Loan provides financing to homeowners for solar PV projects through qualified Sungage solar installers.

- Interest rates start at 4.00%
- Maximum loan amount is \$50,000 with 5, 10, 15, and 20 year loan terms
- Target credit score is 680 and target Debt to Income is 50% (however, each applicant is reviewed on a case by case basis and thus may be approved without meeting these targets).
- No pre-payment penalties.
- \$0 down and 0% interest for first 12 months (this essentially functions as a bridge loan for the federal and state tax rebates).
- No home equity is required as collateral for the loan is the future energy generation from the solar PV array.
- Borrower can transfer loan to new homeowner upon sale as long as new homeowner has been approved through Sungage.

To learn more about the Sungage Financial Solar Loan please visit their website [here](#) or call (844) 4-SUNGAGE.

SunPower/Enerbank SolarNow Financing Program (Residential):

SunPower, in partnership with Enerbank, are providing combo-loan financing for Solar PV projects utilizing SunPower PV panels through qualified SunPower/Enerbank solar installers.

- 100% unsecured financing up to \$55,000 with 5, 7, 10 or 12 year terms
- Utilizes Same-as-Cash (SAC) loan to cover federal and state tax rebates at 0% interest if repaid by end of SAC 12 or 18 month term.
- Reduced Interest Loan at 5, 7, 10, and 12 year terms if not utilizing SAC option.
- No application fees, closing costs, or pre-payment penalties.

To learn more about the SunPower/Enerbank SolarNow Financing Program please visit their website [here](#) or call 1-800-SUNPOWER (1-800-786-7693).



New York State Financing Services

New York Green Bank – Financial Services Product Offerings:

As a market-responsive organization, NY Green Bank does not provide specific products to sell to the marketplace. Instead, the NY Green Bank addresses gaps and barriers in the existing clean energy financing markets. The NY Green Bank solicits proposals for financing arrangements and/or transactions meeting their investment mandate and criteria through an open Request for Proposals procedure. While the NY Green Bank products continuously evolve alongside the development of the clean energy financing markets, the Green Bank offers four broad categories of capital solutions. These categories are as follows:

- **Credit Enhancements:** Credit enhancements can be structured to absorb a portion of losses that may be incurred in project-specific loans or leases and alleviate some of the default risks associated with clean energy loans or leases in return for a risk-appropriate fee.
- **Warehousing/Aggregation (short-term):** Many creditworthy clean energy projects are unable to attract the kind of financial interest needed from the commercial markets due to their relatively small size (e.g., in comparison to utility-scale projects). To address this financing gap, NY Green Bank works in collaboration with an aggregator – tasked with building a portfolio of qualifying clean energy projects – while NY Green Bank serves as a portfolio lender, with the intention of realizing its investment in the portfolio through sale to commercial market participants as new asset classes and liquidity are created.
- **Asset Loans & Investments (Long-Term):** Asset loans and investments are made along with other private sector capital providers, and involve the provision of longer-term products. These can be advanced to projects through senior, mezzanine or subordinated debt facilities and/or in certain cases, equity.
- **Composite Products:** Complex structured investments involve NY Green Bank potentially playing multiple roles in a single transaction. For example, a NY Green Bank investment could include subordinated debt, an equity investment and a loan loss reserve, all combined to create a tax equity fund to attract senior debt and tax equity investments by one or more private sector entities.

To learn more about the financial services offered by the NY Green Bank please visit the NY Green Bank Website [here](#). To respond to the open Request for Proposals please visit [here](#).

USDA Rural Energy for America Program (REAP) Loan Guarantee (Commercial):

The USDA REAP Loan Guarantee Program encourages the commercial financing of renewable energy and energy efficiency projects. Under the program, project developers work with local lenders, who in turn can apply to USDA Rural Development for a loan guarantee up to 85% of the loan amount.

Loan Guarantee specifications:

- **Loan limits**
 - Loans up to %75 of project's cost.
 - Maximum of \$25 million, minimum of \$5,000.



- Maximum percentage of guarantee (applies to whole loan).
 - 85% for loan of \$600,000 or less.
 - 80% for loans greater than \$600,000 but less than \$5 million.
 - 70% for loans greater than \$5 million up to \$10 million.
 - 60% for loans greater than \$10 million up to \$25 million.
- Fees and interest rates
 - Lender customary interest rate, fixed or variable, negotiated by lender and business
 - Lender customary fees, negotiated by lender and business.
 - One-time guarantee fee equal to 1% of guaranteed amount.
 - Annual renewal fee.

Eligibility criteria:

- Borrowers must be an agricultural producer or rural small business. Agricultural producers must gain 50% or more of their gross income from their agricultural operations.
- Eligible project costs include: post-application purchase and installation of equipment; post-application construction or improvements; energy audits or assessments; permit or license fees; professional service fees; feasibility studies and technical reports; business plans; retrofitting; construction of a new energy efficient facility only when the facility is used for the same purpose, is approximately the same size, and based on the energy audit will provide more energy savings than improving an existing facility; working capital; and land acquisition.

To learn more about the USDA REAP Loan Guarantee program please visit their website [here](#).

¹ Tax incentives will depend upon the tax liability of the end user.