

Growing Your Solar Business

Why should you grow your solar business in New York?

THE ANSWER IS SIMPLE

1. New York is an attractive, growing market that loves solar energy for buildings large and small.

2. Financial incentives make it easy for homeowners and non-residential building owners to adopt solar energy.

- **3.** There is a big revenue opportunity for installers and developers.
- **4.** NYC mandate for new, expanded, and renovated rooftops to be covered with a green rooftop or a solar system.

LET US HELP YOU GET STARTED

Read on to understand the business opportunity in New York State for solar installers, solar developers, and engineering firms.



1. Why New York?

BY NEARLY EVERY METRIC, NEW YORK IS A BIG MARKET

- New York State is home to 19.54 million people
- It's the 4th most populous state
- Nearly 7.5 million residential buildings
- More than 40% live in New York City, the most densely populated major city in the USA
- Two-thirds of the state of New York live in the Greater New York City area
- New York City itself has about 1 million buildings

NEW YORK IS PROSPEROUS

- The per capita income in New York State is 12.8% higher than the national average
- Average household income in New York City is 63% higher than the national average
- The New York Building Congress forecasts \$45.3 billion in New York City construction spending between 2017 and 2019.

ELECTRICITY COSTS ARE HIGH

- New York's residential electricity rates average 17.56¢/kWh, which is 32.42% greater than the national average
- New York's commercial electricity rates are 13.07¢/kWh, which is 20% higher than the national average
- Of course, it's important to point out that electricity rates change all the time. When you look at the past 5 years, New Yorkers paid between 33-54% more than the national average.

NYC LOCAL LAW 94 MANDATE

For projects with construction documents approved on or after November 15, 2019 - new, expanded, and renovated rooftops in NYC must have a solar system, a green roof system, or a combination thereof, installed.



Expensive electricity is a powerful motivator to go solar. Building owners can both save big and earn big from a solar investment.



2. Fantastic Solar and Energy Storage Incentives

First of all, generating power and saving on electric bills itself is a big financial incentive. An even bigger financial incentive is generating power and selling it to the grid. In New York, building owners can generate enough power to meet their needs and sell up to an additional 25% to the power grid.

As for other financial incentives, they vary throughout New York, depending on the municipality. Regardless, New Yorkers are eligible for generous incentive and financing programs. Systems must be installed by licensed contractors in New York, and we'll go into that more in the next section.

New York incentive programs include: state rebates, state income tax credits, financing programs, property tax savings, utility rebates, and energy storage rebates. Installations in New York are also eligible to receive the federal investment tax credit.

| Program | Incentive |
|--|---|
| NY-Sun Megawatt Block ² | Highly dependent on location, but rebates can be 20-30% of the installed cost of a PV system paid to the installer |
| State Income Tax Credits ¹ | 25% of the qualified solar energy system equipment costs up to \$5,000 can offset personal income; with ability to carry over for 5 years |
| Financing Programs ¹ | Low interest loans for \$1,500 to \$25,000 with loan terms of 5, 10, or 15 years to finance solar installation for credit worthy homeowners |
| Property Tax Savings outside NYC ² | Where available, value of property tax exemption equals additional property value gained from solar system for 15 years |
| Property Tax Savings within NYC ² | 5% of the total installation costs minus all other rebates for each of 4 years, up to \$62,500 |
| Energy Storage ² | Highly dependent on location, but rebates have been valued at as much as \$350 per kWh |

¹Residential ²Residential and Non-Residential Building Owners



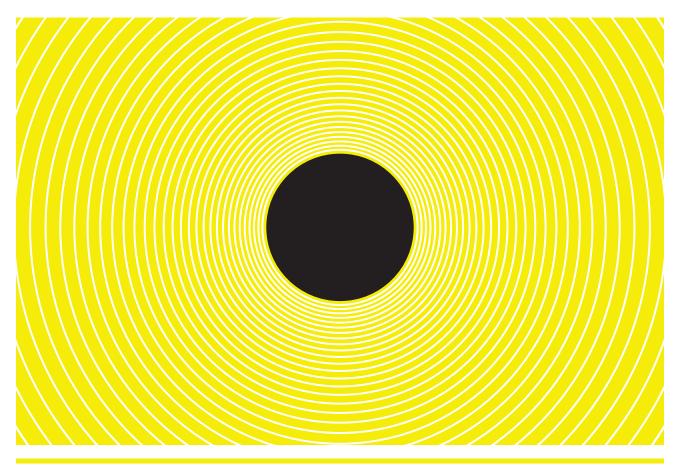
3. Big Revenue Opportunity

Even though New York State government policies have been encouraging solar for more than a decade, it still represents a big and growing revenue opportunity. After all, there have only been around 100,000 installations throughout all of New York State – leaving much room for growth. And, with the NYC Local Law 94 mandate for solar systems or green covering on new rooftops, the opportunity is only getting better.

Another reason New York is attractive to solar installers and developers is NYSERDA's (NY State Energy Research and Development Authority) NY-Sun incentive program. It's unique because the participating contractor applies for and gets incentive payments. The real impact of NY-Sun incentives is the enormous flexibility they give solar installers and developers.

What it really gives is built-in negotiating flexibility to do what it takes to win the deal.

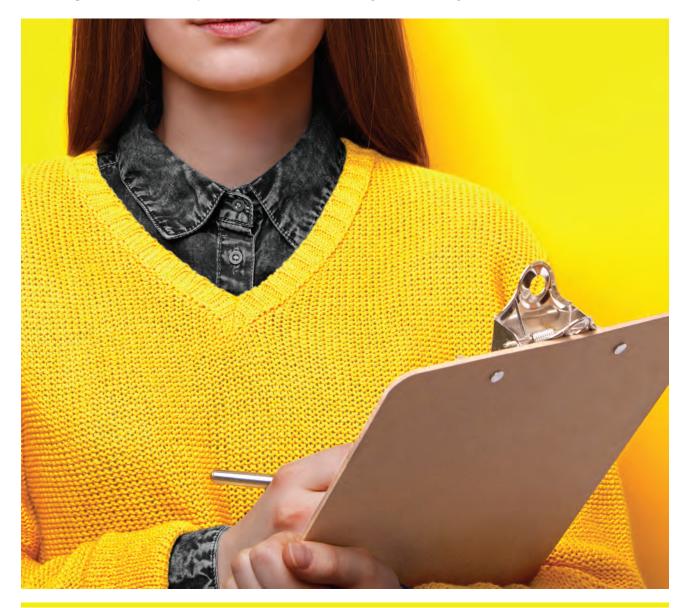
To better estimate earnings for specific types of solar projects your company develops, head on over the NY-Sun web site and download the Solar Value Stack Calculator. The calculator is a very detailed Excel spreadsheet that is simple to use. All an installer or developer needs to do is input solar characteristics and adjust defaults as necessary. Next, you'll want to see how compensation in New York regions vary for projects like yours throughout the state.





4. Becoming a Participating Solar and Energy Storage Contractor is Easy for Qualified Contractors

As you may have noticed, incentives are available only for solar power systems installed by "participating contractors" in New York. The reason for this designation is simple: to prevent untrained and inexperienced contractors from creating hazardous solar systems. Thus, in the interests of safety, the State of New York limits incentives to projects that were completed by participating and qualified installers and developers. And without qualification, neither your business nor the building owner are eligible for incentives.





HERE'S HOW

to become a "participating contractor" in New York

INSTALLERS & DEVELOPERS

While the application process isn't difficult, it can be time-consuming to make sure all details are correct.

Installers and developers must complete an application that details:

- · Licensing or training credentials
- Experience in areas relevant to solar like installation, shading analysis, etc.
- Employment history and other related experience
- Past performance in NYSERDA programs, including solar
- 3 complete and verifiable solar customer references for operational, grid-connected solar panel installations with customer contact info, system information, and construction photos

References should include customer name, address, phone numbers and email addresses. For each reference customer, be sure to include:

- System size in kW
- Interconnection date
- Role in the project

Expect the state of New York to verify every customer reference, so make sure you get the details correct.

The State of New York may also ask you to include:

- A quality assurance plan
- An organizational chart
- Key personnel resumes

BUILDERS

If the solar installer or developer is a builder, the process is a little different.

To become a participating contractor, builders must provide solar installation experience and references, as well as have at least one staff member with the proper credentials.

Proper credentials are provided from one of the following certifying organizations:

- 1. NABCEP (North American Board of Certified Energy Practitioners) PV Installation Professional Certification
- 2. IBEW-NECA Electrical Journeyman and Apprentice Training (International Brotherhood of Electrical Workers and National Electrical Contractors Association)
- 3. UL (Underwriters Laboratory) PV System Installer

Finally, builders need to submit credential copies along with applications.

For more information and to complete your application to become a participating contractor or builder, go to the <u>New York State Energy Research and</u> <u>Development Authority website</u>.



5. Grow your Solar Business by Partnering with New York's Leading Solar Permitting Experts

THERE'S NO PLACE ELSE LIKE NEW YORK. This is especially true for solar energy installers and developers. It's a large, prosperous, and growing market with high electricity rates, and supportive state government policies making for eager buyers. With electric utilities operating under mandates for 2% of all electricity produced to be generated by solar, incentives play a major part of reaching that goal.

It's true that New York and New York City solar installations have unique, complex requirements and big challenges. For example, New York City fire code requirements can greatly impact system designs because of required clearances, or preservation codes in historic areas could prevent the installation of a certain kind of solar panel.

Even though going solar in New York is complex and challenging, great incentives and tax credits make it worthwhile - for both building owners and contractors.

Fortunately, there's no need to go it alone. Partner with Sologistics, the leader in solar permitting and design in New York State and New York City, and easily navigate New York's ever-shifting complexity.

GROW WITH SOLOGISTICS

Sologistics is a service provider and consultancy that smooths the path to successful operations for solar installers and developers in New York. It provides design & engineering, permit expediting, and utility interconnect services for commercial and residential solar and energy storage developers. Its unmatched regulatory and process expertise in New York and the Tri-State area enables clients to market and sell solar projects with the confidence that they will be approved and permitted quickly and without issue. Sologistics manages all projects on Greenlight, its purpose-built solar project management platform, enabling clients to stay informed and approve next steps from anywhere and at any time.



Appendix A. The New York State Solar Rebates and Incentives Inventory

1. NY-SUN INCENTIVES TO PARTICIPATING CONTRACTORS

The NY-Sun MegaWatt Blocks Program

The MegaWatt Blocks program is complicated and the exact value of incentives changes.

At a high level, this is how it works: incentives are distributed through three regions. The first two regions are according to electric utility, Con Edison that serves New York City and PSEG Long Island that serves this region. The third region is the rest of New York not covered by these two large utilities. Got it?

Incentives from this program are based on the capacity and incentives are figured accordingly. For this reason, incentive values change. However, the value of the NY-Sun MegaWatt Block incentive for the typical residential or commercial system can be as much as 20-30% of the installed cost of a PV system.

This important incentive is paid directly to the licensed contractor who does the installation and the program incentive values are managed through a state-operated dashboard, so contractors know the incentive levels at the time of sale.

While still available as of 2019, the state does indeed intend to phase out this program at some point.

2. A BIG 25% NEW YORK STATE INCOME TAX CREDIT

The New York State Tax Credit goes directly to a homeowner. To get it, the homeowner needs to have

bought or leased the solar energy system. New York residents are also eligible for this credit if they have a long-term (of at least 10 years) written agreement to buy power generated by solar energy systems not owned by the homeowner.

The fine print here is that the tax credit is only available for residential solar systems and only for homeowners who have an installed system at a primary residence in New York.

So what's the amount of the tax credit? It's equal to 25% of the qualified solar energy system equipment costs up to a \$5,000 credit.

This tax credit is an offset against personal income, so getting full value from this incentive means there needs to be enough income for the offset to actually kick in. When there isn't enough income, there won't be a refund. However, in that case, while the solar tax credit won't necessarily deliver a refund, credit amounts in excess of the tax due can be carried over for up to five years.

3. A CHOICE OF FINANCING PROGRAMS

Right now, there are two loan options for residents. The big difference between these two options is how the loan payment is made. In the On-Bill Recovery program, loan amounts are billed on utility bills and payments go to the utility. In a Smart Energy Loan, repayments are paid to NYSERDA's loan servicer.

Regardless of which option, these solar loans work like any other consumer loan. Homeowners can



borrow anywhere from \$1,500 to \$25,000 with loan terms of five, 10, or 15 years to finance solar installations. Residents must apply for a loan much like they would apply for any other consumer loan. They also pay interest according to their credit ratings.

What if a homeowner wants to move? Not a problem. Unpaid loan balances are transferable to new owners in the event of a sale.

4. POTENTIAL NEW YORK STATE PROPERTY TAX SAVINGS

Where they are available in a given municipality outside New York City, it's a property tax exemption that equals the increase in assessed value gained from the addition of a solar energy system. This increase in assessed value is exempted for 15 years.

Of course, there is a different formula for property tax exemption for solar systems that are also components of a building structure. A good example is a solar roofing tile. In this case, value of the property tax exemption value is the incremental cost of a roof made up with solar tile compared to the cost of a normal roof. In other words, the property tax exemption is only based on the amount attributed to producing solar energy, but not the portion attributed to being a roof.

As solar installations increased throughout New York State in the last several years, many local municipalities phased out participation in the New York State Property Tax Exemption programs. So, this means it's always a good idea to check with Authority Having Jurisdiction (AHJ) before mentioning any property tax savings to potential buyers.

In New York City, though, property tax savings are alive and well.

Called the Solar Electric Generating System (SEGS) Tax Abatement Program, building owners are entitled to a 5% property tax abatement, up to \$62,500 of tax, or the building's tax liability, whichever is less. In addition, the smart solar generating property owner gets this property tax savings for each of 4 years – totaling a 20% abatement.

To calculate just how much a property owner can save in New York City, you first need to know the value of all other rebates and incentives a given homeowner received. The property tax abatement is 5% of the total installation costs minus all those other rebates.

And that total installation cost? It includes equipment costs and labor costs including any costs to get permits, designs, installation fees, as well as fees paid to Sologistics.

For the average homeowner, the property tax abatement in New York City is worth around \$1,200 to \$1,500 per year.

5. ENERGY STORAGE INCENTIVES TO PROPEL THE NEXT SOLAR INVESTMENT WAVE

The State of New York now offers a brand, new Retail Energy Storage Incentive to commercial customers. This new program helps to fund standalone, grid-connected energy storage or systems paired with a new or existing clean on-site solar power generation. Of course, there are requirements to qualify.

Specifically, qualifying energy storage is:

- New, permanent, and stationary in New York State
- Sized up to 5 megawatts (MW) of alternating current (AC) power



- Composed of thermal, chemical, or mechanical commercially-available technology made to mainly operate for electric load management or to time-shift on-site solar generation
- Valued to a customer at an investor-owned utility rate, including delivery charges or New York State's value of distributed energy resources (VDER)
- Interconnected behind the customer electric meter or directly into the grid

Just like the NY-Sun program, incentives are only available through participating energy storage contractors. And since incentive change over time, solar installers and contractors should get their applications done now.

Appendix B. Sources

Bureau of Labor Statistics NYC Department of Buildings NY Solar Energy Industries Association (NYSEIA) NY Solar Energy Research and Development Authority (NYSERDA) The New York Building Congress US Census Bureau, American Housing Survey, 2017 US Energy Information Administration Solar Energy Industries Association (SEIA)



Still have questions?

ASK SOLOGISTICS or visit the NYSERDA website.



