

NY-Sun CHG&E SOLAR SUMMIT VI

6th Annual Conference for Solar Energy Professionals

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Agenda

- NY-Sun Background & Objectives
- NY-Sun Components:
 - Incentive Program (MW Block)
 - Shared Solar (CDG)
 - Solarize
 - Balance of System Initiative
- Q&A



NY-Sun: Background

- Part of Governor's initiative- efficiency, affordability, and reliability of energy systems
- \$1 Billion commitment to stimulate solar market

NY-Sun Goals:

- Install more than 3 GW solar by 2023
- Develop a sustainable, self-sufficient solar industry



New York Statistics

- 575% increase in solar between 2012 and 2015
- 4th in number of people employed in solar industry
- 5th in total annual solar installation, up from ninth (2013)



NY-Sun: Objectives

- Provide transparency and certainty to marketplace
- Lower BOS costs, enable lower installed costs
- Enable higher penetration, high growth markets to transform
- Growth in markets that are lagging
- Decrease and eliminate program incentives sooner in regions where market conditions support it

NY-Sun Initiative: Components

Incentive Program

MW Block Program

Shared Solar

Helps renters, residents, business owners benefit from solar

Solarize

Assists communities buy in groups for the most competitive pricing

K-Solar

Joint partnership <u>NY-Sun/NYPA program</u> to help schools install PV

Balance of System (BOS) Initiative

Streamlining permitting, interconnection, and training



NY-Sun Incentive Program

Incentives for new grid-connected solar electric systems that offset customer electric usage

Customer Types:

- Residential/Small Commercial MW Blocks (<200kW)
 - Residential (up to 25kW)
 - Small Commercial (up to 200kW)
- Commercial/Industrial (>200kW)
 - "Competitive PV" Program: competitively bid (ended 2014)
 - Transitioned into the new MW Block program, launched May 2015



NY-Sun Incentive Program

All Projects	Total Installed (MW)	Installed 2015 (MW)	# Installs 2015	Installed- 2016 (MW)	# Installs 2016	Pipeline (MW)
Commercial/Industrial	87	32	27	1	3	354
Res/Small Commercial	319	152	16,387	27	2,985	233
Grand Total	406	184	16,414	28	2,988	589



Central Hudson PV Projects

Central Hudson	Total Installed (MW)	Installed 2015 (MW)	# Installs 2015	Installed 2016 (MW)	# Installs 2016	Pipeline (MW)
Commercial/Industrial	7	3	2	0	1	15
Res/Small Commercial	34	15	1,604	3	348	1
Grand Total	41	18	1,606	3	349	16



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MW Block Program Structure

MW Block Design:

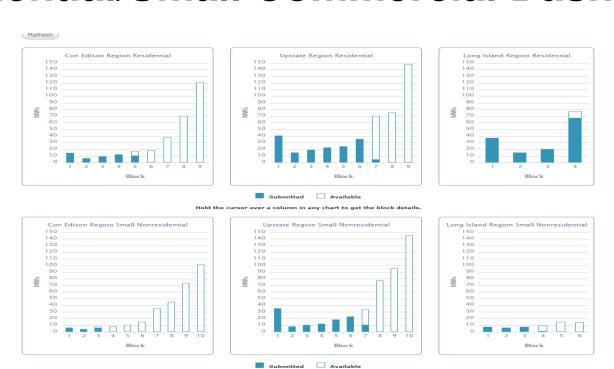
- MW targets to specific regions of the state; breaks those
 MW targets into blocks to which incentives are assigned
- Incentives awarded based on block in effect at time of application submission
- When a block is fully subscribed, it will close, and the next opens with a decreased incentive

MW Block Dashboards

- Tracks real-time information on block status, including incentive level and capacity:
 - Residential/Small Commercial Dashboard
 - Commercial/Industrial Dashboard



Residential/Small Commercial Dashboard





Residential/Small Commercial (<200kW)

Two Sectors:

- Residential (Up to 25kW)
- Small Commercial (up to 200kW)

Three Regions for each sector:

Long Island (PSEG-LI)

ConEd

Rest of State (ROS)



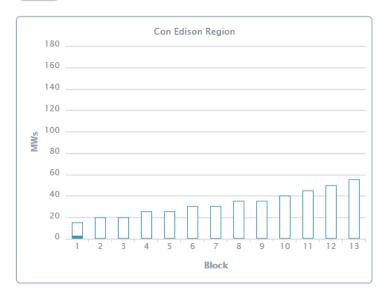
Affordable Solar

- Additional incentive for low-income households
- MW Block Program- one extra step for contractor
- Matches NY-Sun standard incentive (doubles the incentive)
- Requirements outlined in Residential <u>Program Manual</u>
- 80% of AMI or below gross household income
- More information for <u>Affordable Solar</u>



Commercial/Industrial Dashboard







Submitted Available

Hold the cursor over a column in any chart to get the block details.



Commercial/Industrial MW Block (>200kW)

- Two Regions:
 - ConEd
 - Rest of State (ROS)
- CDG sites can apply
- If project application exceeds remaining capacity- moved to next block, closing previous block



Commercial/Industrial MW Block (>200kW)

- Performance- based incentive
 - Initial payment at Commercial Operation (25%)
 - Three annual performance payments

Additional Incentives:

- Utility Strategic location (+20%)
- Energy Storage Integration (\$50,000)
- Energy Efficiency Integration (\$50,000)
- One host meter per site



MW Block- Participating Contractors

- Qualified Contractors and Installers can apply to the Program(s)
- Anyone who meets requirements can participate:
 - Installers, project developers, financiers, individuals, etc.
- Once approved, you may start submitting project applications via PowerClerk



Contractor Application Process

- Complete PV Installer/Contractor Application (website) and select:
 - Option A: Residential/Small Commercial (<200kW)
 - Option B: Commercial/Industrial (>200kW)
 - Option C: Participate in both tiers (must meet all requirements)
- Application Forms



Participating Contractors Application

Option A:

Residential/Small Commercial – Program Eligibility

Installer must have **ONE** of following credentials:

- NABCEP PV Installation Professional Certification
- IBEW-NECA Journeymen & Apprentice Training
 - Be a Journeyman Electrician & Complete any IBEW/NECA, NABCEP, or UL approved 40 hour PV training course
- UL (Underwriters Labs) PV Installation Certification



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Participating Contractors Requirements

Option B:

Commercial/Industrial-Program Eligibility

Must meet ONE of following:

- Three commercial-scale projects that entered into commercial operation in past three years that sum to at least 500kW.
- Successfully completed a PV project under prior PONs and reports data to the NYSERDA DG Integrated Data System website for at least three months:

http://chp.nyserda.ny.gov/facilities/index.cfm?Filter=Solar

Participating Contractor Requirements

Option C:

Both Res/Small Commercial & Commercial/Industrial

- Must meet requirements for both tiers and indicate selection/credentials on PV Contractor Application
- Once Approved, Option C allows you to submit project applications to both programs in PowerClerk



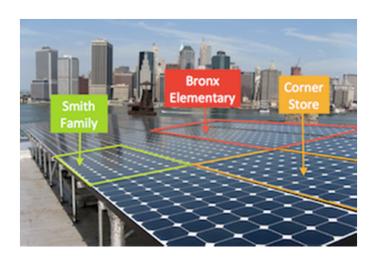
Additional Information- Participation

- Participating Contractor/Installer are jointly responsible for full compliance with terms, in their entirety of the NY Sun Incentive Program Participation Agreement and this Program Manual
- Please refer to Program Manuals for full rules and requirements of MW Block Program
- Resources: http://ny-sun.ny.gov/
 - Information, forms, tools/tutorials, etc.



Shared Renewables (Shared Solar)

- Community Distributed Generation (CDG)
 - Provide opportunities for renters, homeowners, low-income residents, schools, and businesses to set up shared renewables
- Phase I October 2015
 - 20% LMI
 - CDG Opportunity Zones
- Phase II May 2016





Solarize Your Community

- Campaigns are locally organized community outreach efforts
- Aim: getting a critical mass of area homes and businesses to go solar
- Provide technical assistance, marketing materials, and funding
 - Projects can apply to MW Block Program
- Resources: General information, webinars, templates, outreach, resources

Solarize: Round 1

- Closed November 2015
- Over 4,000 leads
- 900 New Yorkers
- Campaigns saved participants a total of approximately \$1.4 million on upfront purchase costs





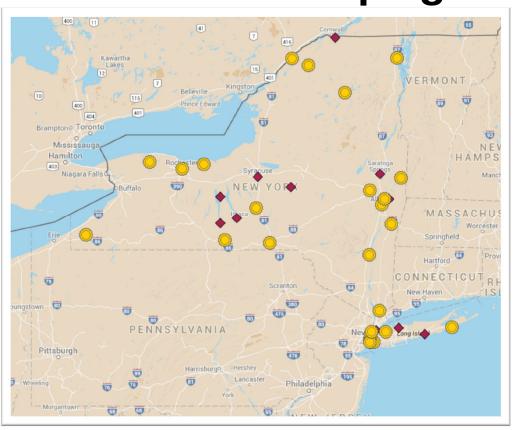
Solarize: Round 2



- 31 campaigns accepted
- Campaigns expected to launch Spring 2016
- Shared, residential, & commercial solar



2016 Solarize Campaigns



Regional

- 5 Capital District
- 6 Central New York
- 8 Finger Lakes
- 2 Long Island
- 4 North Country
- 5 NYC
- 1 Western NY



2016 Round 2 Solarize Campaigns

Canton Community Solar Solarize the City of Ogdensburg

Solarize Southampton II Solarize Brownsville

Solarize North Hempstead Central Brooklyn Community Solar Campaign

Solarize Tri-Lakes Solarize Albany

Solarize Brooklyn CB6: Sun for All Solarize the Town of Plattsburgh

Solar Chautauqua Solarize Troy's Business Improvement District

Solarize Columbia County

Solarize Schenectady County

Solarize Cambridge

Solarize Orleans

Solarize the Flower City 2016

Solarize LES

Solarize CNY

Solarize Williamson

We Act Solar



Balance of System (BOS) Initiative

Assisting in streamlining:

- Permitting
- PV Training
- Inspection processes
- Interconnection



BOS- Examples

•Permitting:

• (NYS <u>Unified Solar Permit</u>) and inspection processes

PV Trainers Network

• Educate local government planners, code officials, fire department personnel, and other first responders

Interconnection



Thank You!

More Information & Resources:

http://ny-sun.ny.gov/ (new website coming soon)

Specific Program Questions:

Community Solar (Solarize, Shared Solar)

communitysolar@nyserda.ny.gov

Commercial/Industrial (>200kW)

commercial.IndustrialPV@nyserda.ny.gov

Residential/Small Commercial (<200kW)

residential.SCPV@nyserda.ny.gov

Affordable Solar

affordablesolar@nyserda.ny.gov

Other Questions:

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Houtan.Moaveni@nyserda.ny.gov (Interconnection Issues)

