



Municipal Solar?

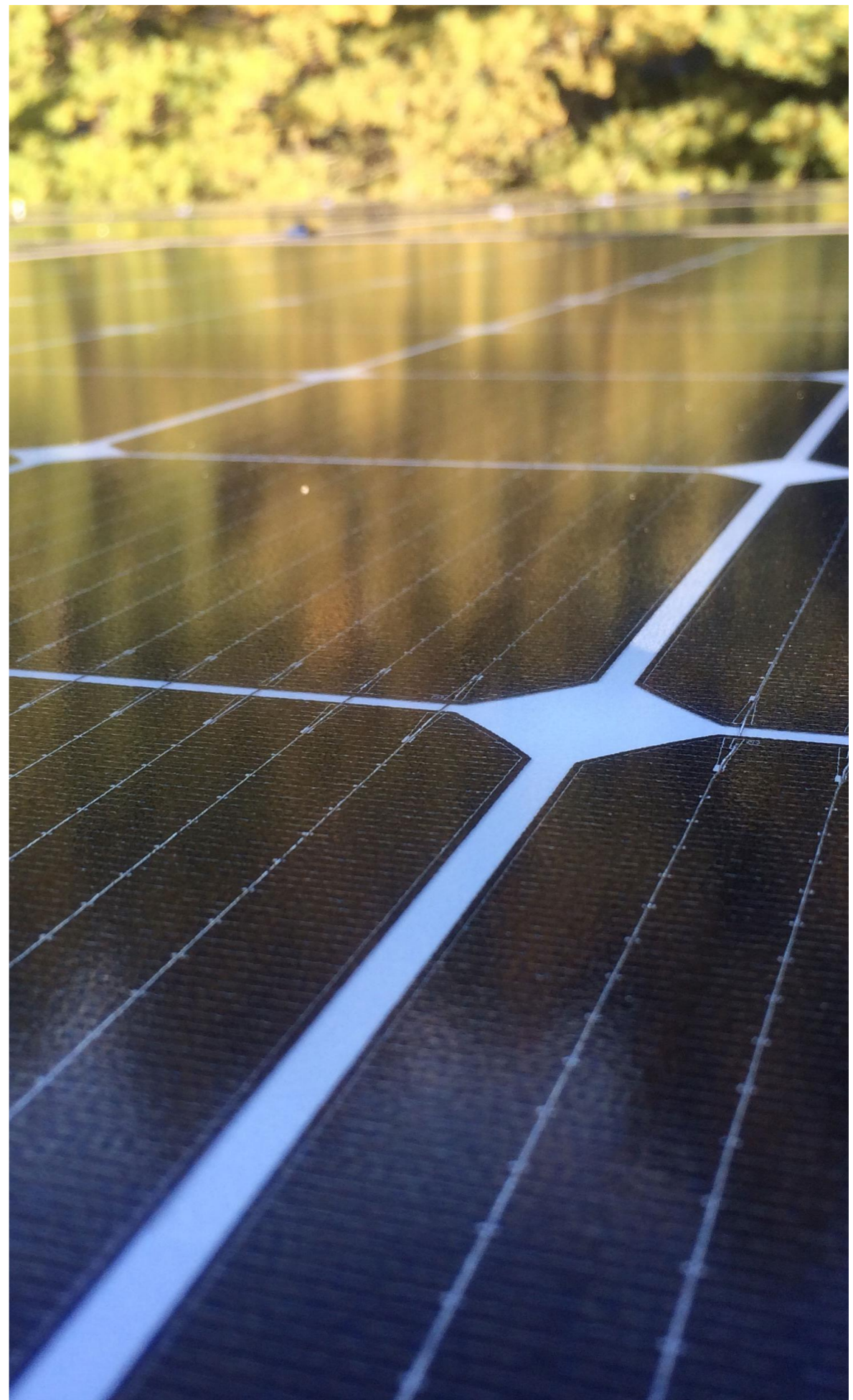
Getting it done with innovative partnerships

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New York State Bar Association
Environmental Law Section
Annual Meeting
Friday, January 28, 2016

Solar incentives

- Target private sector investors
- Cover over half the cost
- e.g. Federal Investment Tax Credit = 30% of investment.
- Depreciation = +20% of investment.



Commercial Solar Economics

Solar Economics of Commercial Installations

	Dollar value	%
Gross Price:	\$ 1,000.00	100%
Incentives to be received by Contractor in 1st Year: NY-Sun PV Incentive (PON 2112): Commercial (Block 3: \$0.80 - \$ 0.50/Watt 50kW - 200kW):	\$ (215.31)	-22%
Contract Amount:	\$ 784.69	78%
Incentives available to Customer in 1st Year: Federal Tax Credit (30% of Net Cost at Installation):	\$ (235.41)	-30%
Net Cost at Install (after incentives):	\$ 549.28	55%
Present Value of Depreciation (in today's dollars):	\$ (134.75)	-25%
Net-Present Cost:	\$ 414.53	41%

Federal Solar Incentives

1. **Federal Tax Credit (30% of Cost at Installation):**
 - (Business Energy Investment Tax Credit (ITC)) 26 USC § 48, <https://www.irs.gov/pub/irs-pdf/i3468.pdf>
 - Municipalities do not pay federal taxes, so this DNA.
2. **Federal Depreciation: Regular MACRS Schedule (6 yrs; ~23%).**
 - Municipalities don't depreciate investments, so this DNA.
3. **USDA - Rural Energy for America Program (REAP) Grants (25%, \$500k max): Gross Cost**
 - http://www.rurdev.usda.gov/BCP_ReapResEei.html
 - Municipalities are not "Agricultural producers with at least 50% of gross income coming from agricultural operations..." , so this DNA.

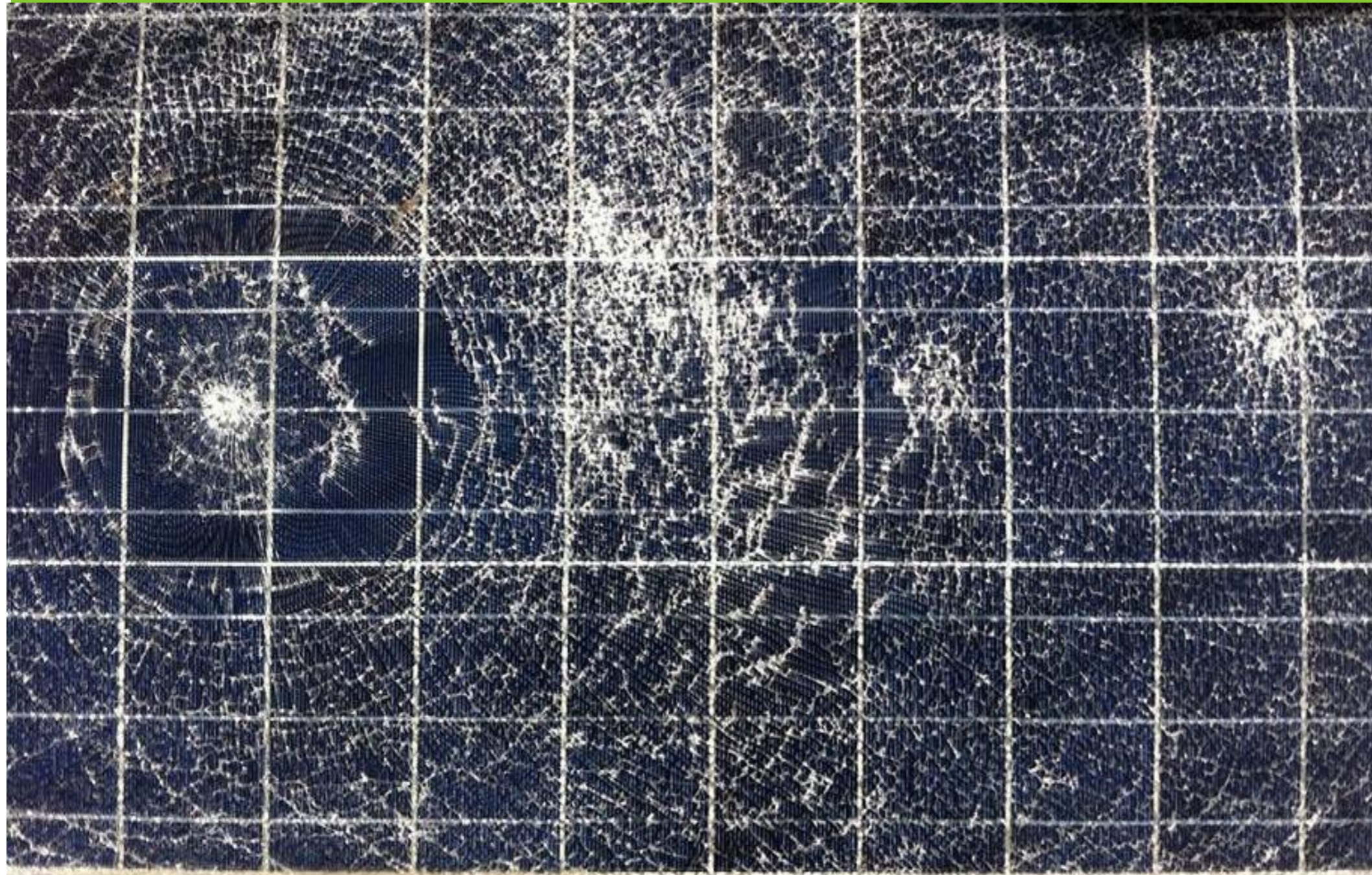
Source: <http://programs.dsireusa.org/>

New York Solar Incentives

1. **NY State Tax Credit: Residential:** 25% of Net Cost (\$5,000 max. System size limits may apply): DNA
2. **NY-Sun PV Incentive for NYPA Customers: (Good news; these may apply to Municipal solar!)**
 - Commercial (Block 7: \$0.40 - \$ 0.30/Watt 50kW - 200kW): Watt DC
 - Commercial & Industrial Large PV (> 200 kW): Block 1: \$0.40 per Watt DC (paid over 4 years): Watt DC
 - Residential (Block 4: \$0.70 per Watt DC): Watt DC
 - Residential (Block 5: \$0.60 per Watt DC): Watt DC
 - Residential (Block 6: \$0.50 per Watt DC): Watt DC
 - Residential Affordable Solar Additional Incentive (Block 6: \$0.50 per Watt DC. \$3k max): Watt DC
3. **NY-Sun PV Incentive (PON 2112): (Good news; these may apply to Municipal solar!)**
 - Commercial (Block 3: \$0.80 - \$ 0.50/Watt 50kW - 200kW): Watt DC
 - Commercial & Industrial Large PV (> 200 kW): Block 1: \$0.63 per Watt DC (paid over 4 years): Watt DC
 - Nonprofit (Block 3: \$0.80 - \$ 0.50/Watt 50kW - 200kW): Watt DC
 - Residential (Block 4: \$0.70 per Watt DC): Watt DC
 - Residential (Block 5: \$0.60 per Watt DC): Watt DC
 - Residential Affordable Solar Additional Incentive (Block 5: \$0.60 per Watt DC. \$3,600 max): Watt DC

Source: <http://programs.dsireusa.org/> and <http://ny-sun.ny.gov/>

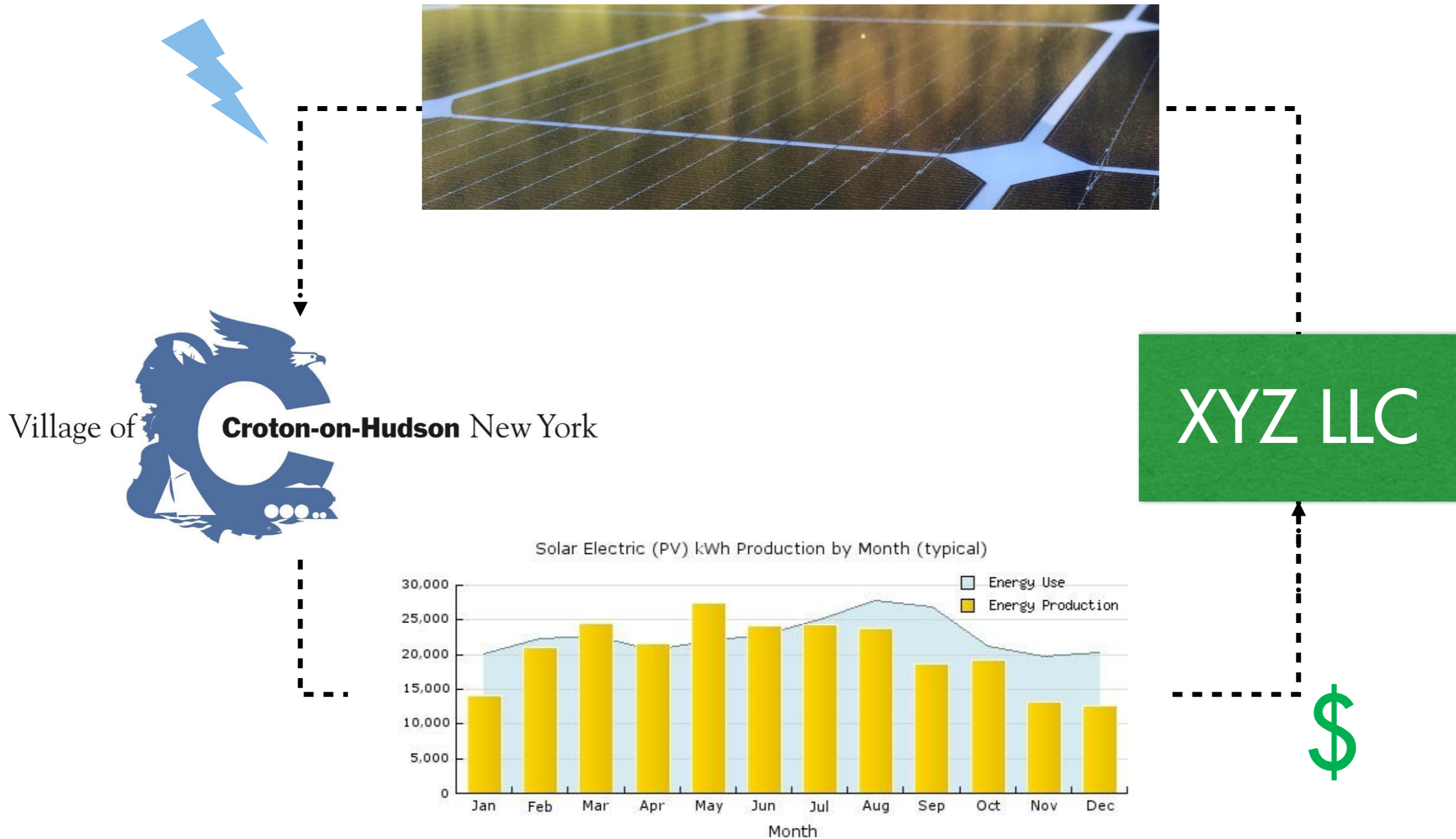
Solar for Munis? Broken dreams? Or ...



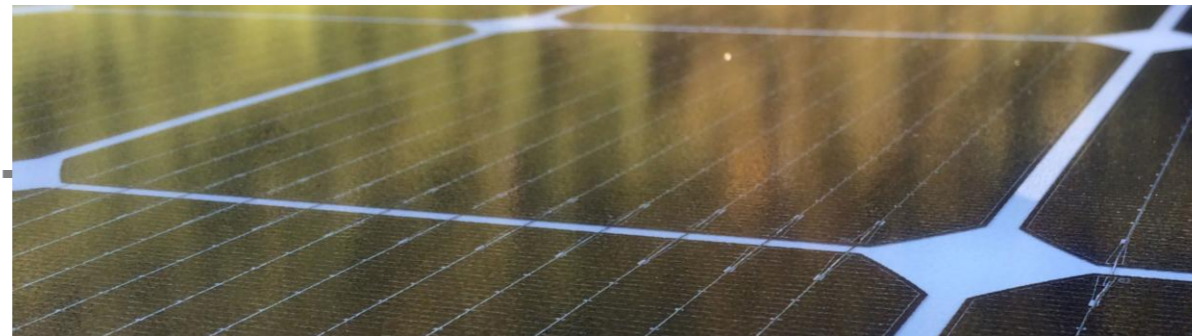
Why not use private sector \$?

- Can we match private sector investors who have the tax appetite
- with local public sector sites that would be willing to commit to long term energy purchase agreements,
- where those contracts lower future costs of electricity?

Power Purchase Agreements



Power Purchase Agreements



Benefits:
ITC,
Depreciation, &
income annuity

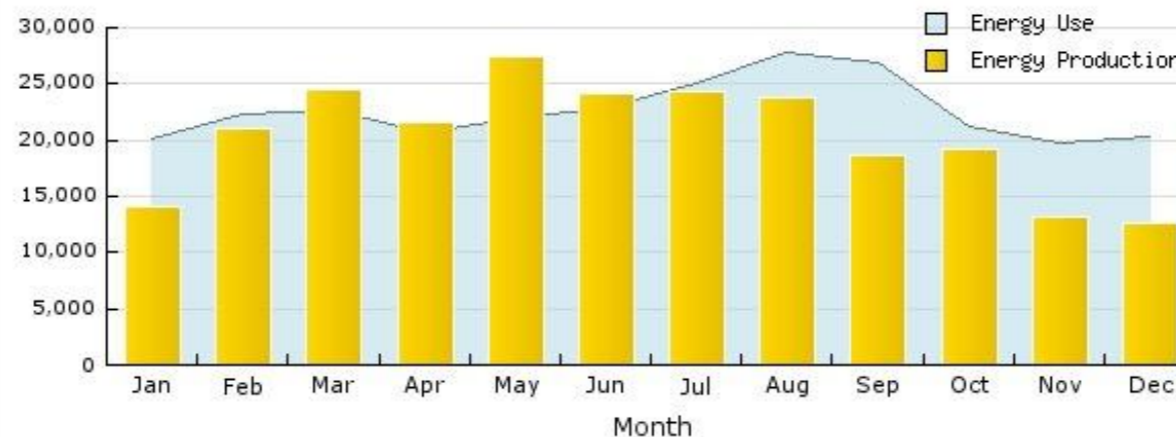
Village of **Croton-on-Hudson** New York



XYZ LLC

Benefits:
\$0 down,
future costs lowered,
visibility,
smaller footprint

Solar Electric (PV) kWh Production by Month (typical)



Theory into practice in NYS: MSBG

- In Westchester County, we created a Municipal Solar Buyers Group (MSBG) in 2015.
- Goal: To solicit a Solar Developer to design, build, & finance solar PV on municipally owned facilities.
- Process: Create a municipal cooperative for procurement of services.

Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

Muni Solar Buyers Group: How?

- Article 5-G of New York GML authorizes municipal corporations to enter into agreements for services on a cooperative or contract basis.
- We drafted a Municipal Cooperative Agreement that 3 munis adopted: Towns of Bedford & Mamaroneck and Village of Croton.
- Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

Muni Solar Buyers Group: Purpose

The Agreement authorized Administrative Agent (Sustainable Westchester):

- to issue the RFP for Solar Developer;
- to negotiate the terms of Power Purchase Agreements (“PPA”) for the delivery of solar power;
- to procure the services of professionals (consultants, attorneys, independent auditors); etc

Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

Muni Solar Buyers Group: RFP

Key provision in the adopting municipal resolution:

- “WHEREAS, it has been determined by this Board that contracts for the supply of solar power are energy performance contracts that require the exercise of specialized or technical skills, expertise and knowledge and, therefore, are not subject to the sealed, competitive bidding requirements under General Municipal Law § 103 and may instead be awarded using the Request for Proposals (RFP) process set forth in General Municipal Law and/or Energy Law § 9-103(6).”

Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

Muni Solar Buyers Group: Piggybacking

Expanding the Group:

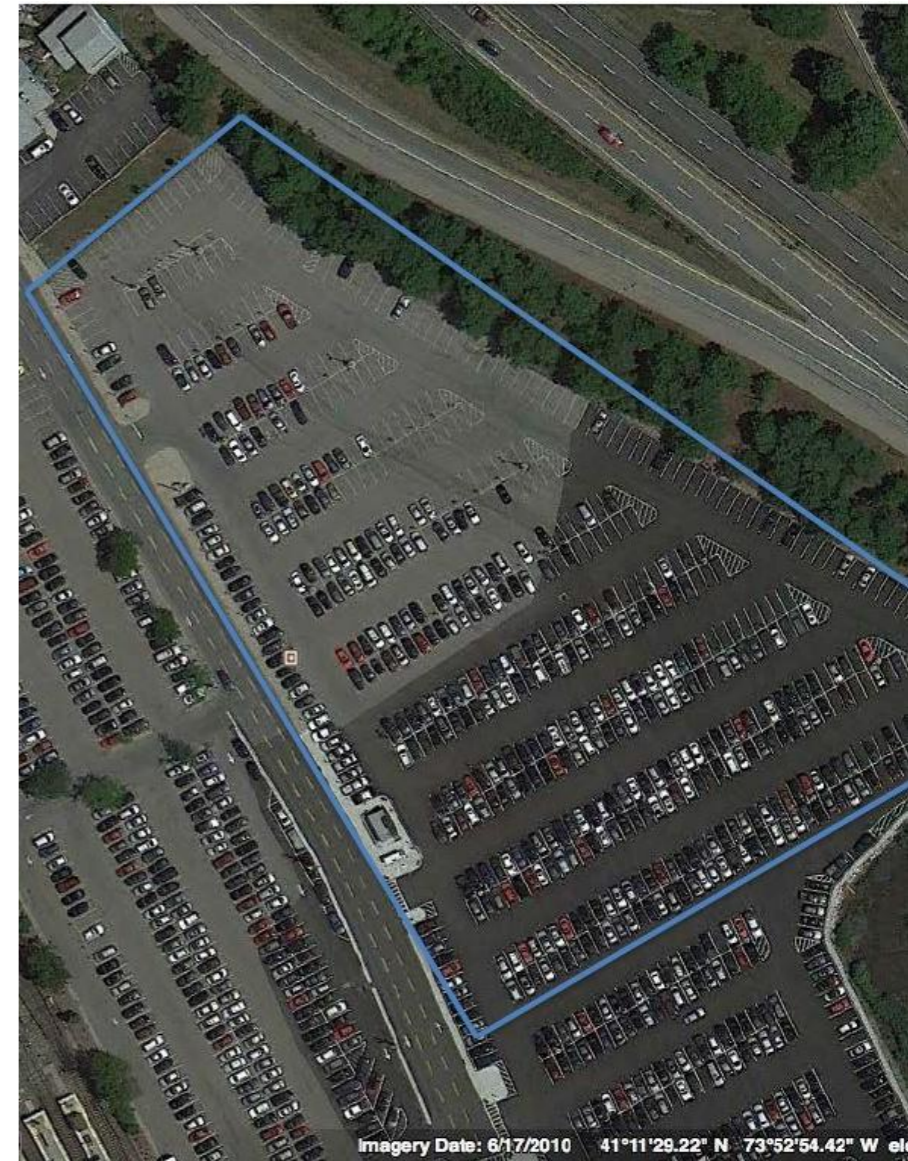
- All other NYS municipalities may join the awarded terms and conditions via the state's procurement piggybacking provision in GML § 103.16.
- Beyond 3 munis in initial Group, we have 15 other munis in Westchester who have submitted sites to examine for solar PV.
- Once a Solar Developer is selected, we expect additional municipalities beyond the 18 munis above to submit sites as well.

Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

MSBG Advisors: Who?

Our advisors to date include:

- PNC Structured Finance (Ted Jenkins, Joe Amaro)
- GP Renewables & Trading (Alex Baldassaro)
- Sive, Paget & Riesel (Dan Chorost, John-Paul Curran, Devin McDougall)
- Weston & Sampson Engineers



Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

MSBG Advisors: Paid how?

Advisors and Admin Agent are paid at the time of closing of the PPA by the System Owner (third party):

“The System Owner will be required to fund certain transactions costs (legal, financial advisory, engineering, and process oversight by Sustainable Westchester) of the Municipality for each PV System....”



Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

MSBG RFP: Review Criteria

“Respondents’ RFP proposals will be evaluated for the “best value” to participating Municipalities based upon the following criteria:

- Capacity to develop and install a large number of small to mid-sized PV Systems across the mix of technologies (roof-mounted, solar parking canopies and ground-mounted);
- Experience with NY-Sun incentives and/or relationships with Eligible Installers under the NY-Sun incentive program;
- Ability to meet applicable local labor and content requirements including use of only high quality components for each type of PV System;
- Ability and expertise to install the PV Systems on a timely basis;
- Substantiation of financial, manpower and other necessary resources to finance the contemplated PV Systems and operate them on a long term basis; and,
- Ability to provide low-cost Solar PV electricity rates, together with the ability to install the best possible PV Systems, both at the Identified Sites and at future Municipal Sites as they are identified.”

Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

MSBG: Municipal Commitment

Municipalities will be asked to make a formal commitment to install a PV System on each *Municipal Site* *only after*:

- The Developer has provided the Municipality with a detailed PV System proposal (each, a "Site Proposal") for an Identified Site or a *Municipal Site* subsequently identified by the Municipality;
- The Municipality has received a binding commitment from the Developer (the "Developer's Commitment") with respect to such Site Proposal; and
- The Municipality has had ample time to review and approve the Site Proposal and the terms of the Developer's Commitment.

Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

MSBG: Solar Developer Commitment

Contractual arrangements for these PV Systems will include all or some of the following:

- A site lease ("Site Lease") between the Developer and the Municipality for the use of the Municipal Site.
- A power purchase agreement ("PPA") between the owner of the PV System (the "PV System Owner") and the Municipality,
- An engineering, procurement and construction ("EPC") contract between the Developer and an EPC contractor for the installation of the PV System if EPC contractor is different from Developer.
- An operation and maintenance ("O&M") contract between the System Owner and an O&M operator for the operation and maintenance of the PV System.
- Insurance policies with minimum limits of \$3,000,000.

Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

MSBG: White Plains Gedney Compost Facility has Capped Landfill (Before: 3.5 acres empty)



White Plains Greenway

MSBG: Potential is big: 15-20 MW+

To date, ~40 sites identified and owned by 18 municipalities with good solar potential :

- Half are roof-mounts with shorter design and installation time lines:
 - ✓ Likely completion by late 2016)
 - ✓ Value: \$1 million in electric/yr * 20 years=\$20MM
- Half are ground-mounts (land fills) or carports (parking):
 - ✓ Likely completion by spring 2017)
 - ✓ Value: \$1.8 million in electric/yr * 20 years=\$36MM

Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

MSBG: What is next?

SW will recommend a Solar Developer from RFP responses by February 3, 2016 to Muni Solar Buyers Group.

- Launch in February-March 2016 with site visits and onboarding sessions with sites already identified.
- Group will be open to ALL NYS municipalities to join (via piggybacking provision) to take advantage of the same terms and conditions.
- Goal: Double Westchester County's installed PV capacity in 18 months to benefit local governments!

Source: <http://sustainablewestchester.org/community-toolkits/muni-solar-buyers-group>

MSBG: contact info

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