

Sustainable CUNY



Sustainable CUNY Conserves



NYSolar Smart



Smart DG Hub



**Modeling a
CUNY
transformation**

**Removing the
barriers to wide-
scale solar
adoption in NY**

**Developing a
strategic pathway
for resilient
Distributed
Generation**

Framing Change



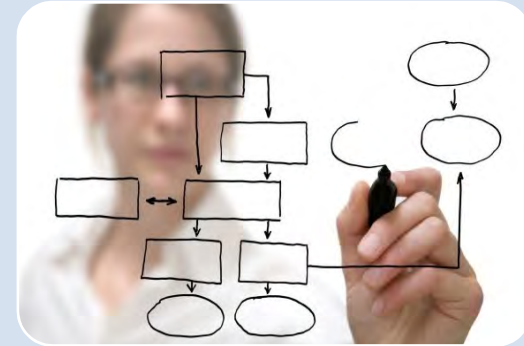
Communicate & Engage

- AVP, Sups & Building Operators Meetings
- Newsletters
- Energy Snapshots



Develop Capability & Capacity

- O&M Analysis
- DR & PLM Pilots
- BMS Training



Organizational Design

- Real Time Energy Management
- CMMS
- BMS Systems

Sustainable CUNY: A Decade of Support



Sustainable CUNY Conserves



Modeling a
CUNY
transformation

Working Groups, Task
Force and Councils

Communications, Training
s, Events

Awards & Funding

Facility O&M Support

Strategic Procurement

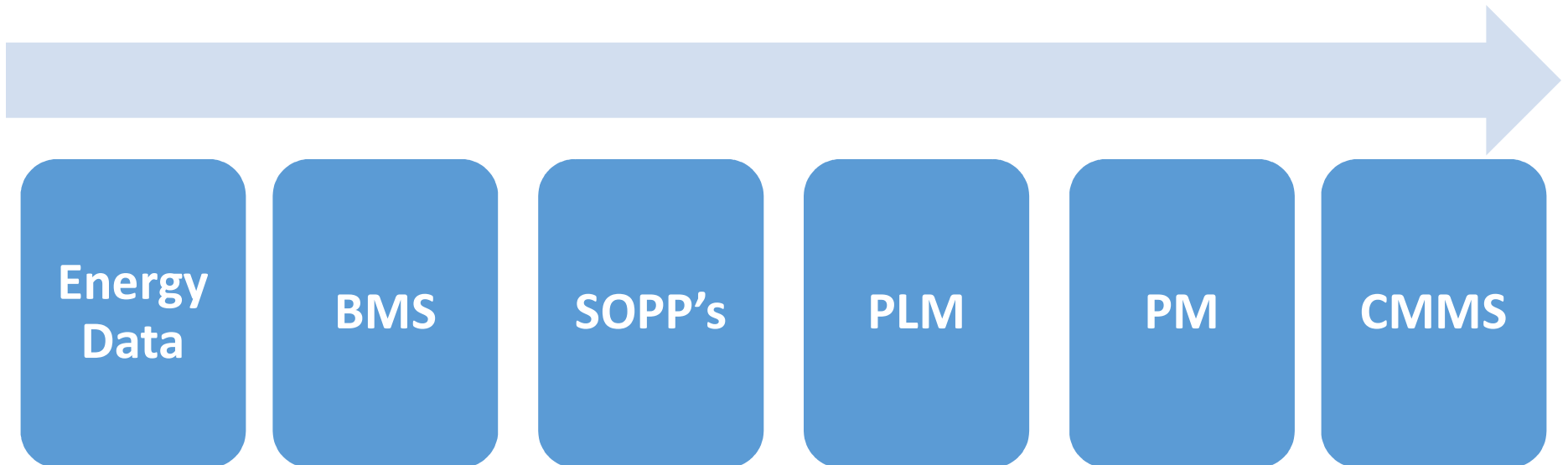
*Sustainable CUNY Programs Engage and Empower
Across Distributed Communities*



Developing Capacity & Capabilities

Tools in Use

Communication - Build Communities to implement key O&M improvement tools



SIF: Supporting Project Based Change



CUNY Sustainability Investment Fund

- \$1 million provided by a philanthropist, plus \$250,000 from NYPA OMAP
- Projects to be completed within one year and paid back over three years
- Revolving Loan Fund now on Round 3
- 34 Campus Projects to-date

Annual energy savings (realized and projected)

\$1,644,794.00

Energy Snapshot- BCC Example -1Q16



Energy Summary

	Month of September			Last vs. Preceding 12 Calendar Months		
	Sept '14	Sept '15	% Change	Oct '13 - Sept '14	Oct '14 - Sept '15	% Change
Peak Demand (kW)*	3,409	3,245	-4.8%	3,409	3,245	-4.8%
Electricity Usage (kWh)	1,287,099	1,316,694	2.3%	14,103,651	14,481,566	2.7%
Gas Usage (Therms)	239	263	10.0%	993,734	938,310	-5.6%
Steam Usage (mlbs)	0	0	N/A	0	0	N/A
GHG (Mg CO2e)	396	405	2.3%	9,602	9,423	-1.9%

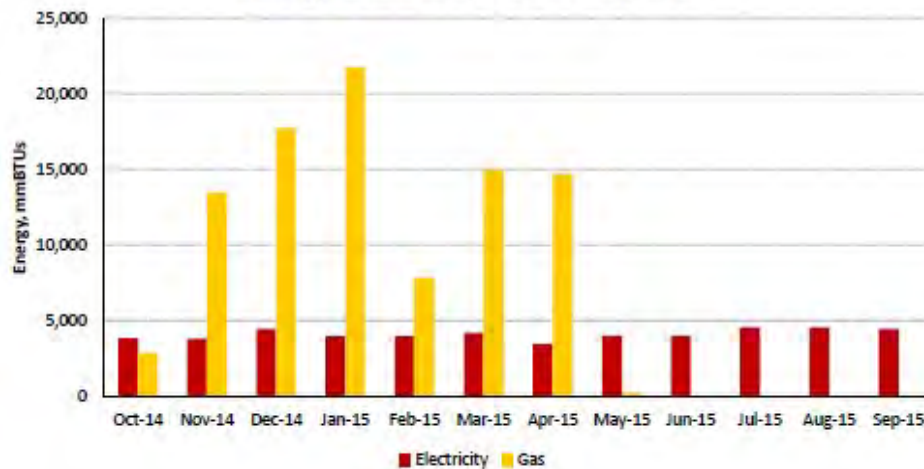
Notes

* Billing is based on the Peak (Maximum) Demand for a given time period, not total or accumulated Demand. Therefore, the Peak Demand is shown for the Fiscal Year (FY).

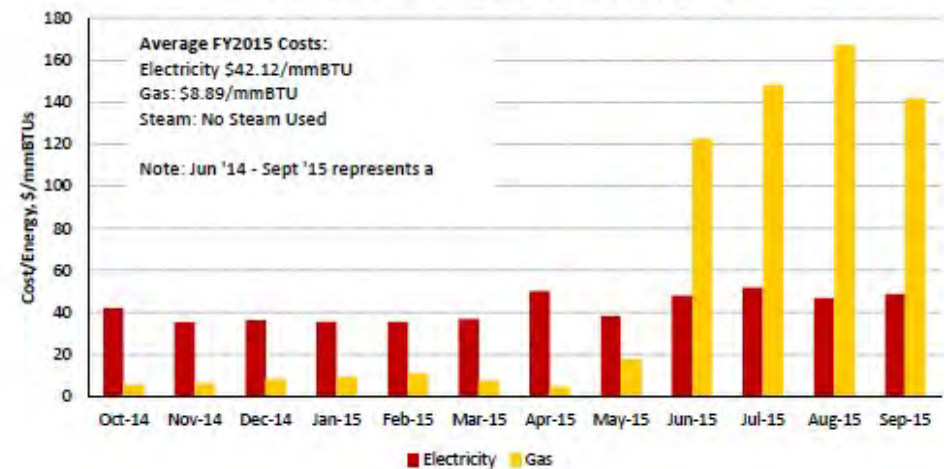
** For Billing Purposes, Peak Demand for NYPA (Production) lasts 12 months, and Peak Demand for Con Ed (Delivery) lasts 18 months.

++ 1 BTU is the amount of energy required to increase the temperature of 1 pound of water by 1 degree Fahrenheit (as a real life equivalent, 1 fully burned wooden kitchen match generates 1 BTU). Energy consumption expressed in BTUs allows for consumption comparisons among fuels that are measured in different units.

Electricity, Gas
Energy in mMBTUs, Oct '14 - Sept '15



Electricity, Gas
Cost/Energy in \$/mMBTUs, Oct '14 - Sept '15





Leading by Example

Campus Based Projects

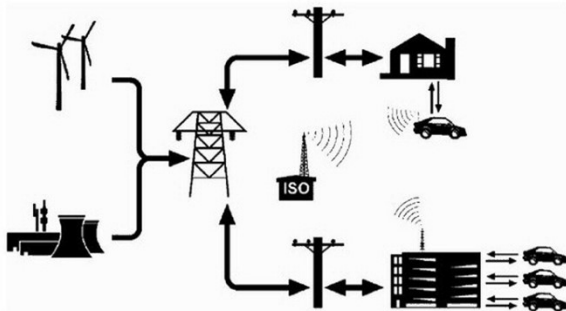
Launching the New York State
Solar Map and Portal

Demonstration Projects at Queens



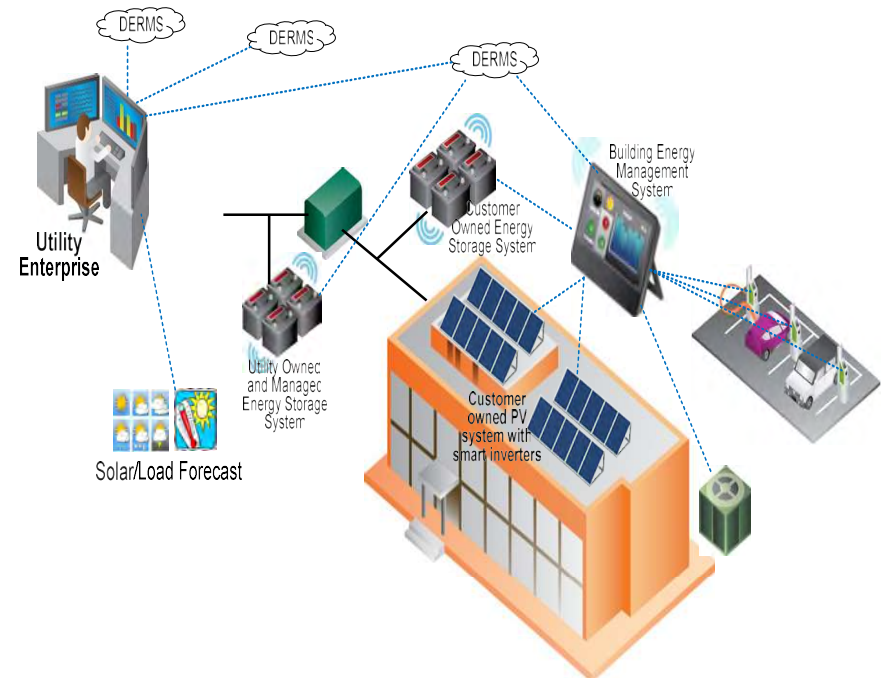
NYS V2X

Electric Vehicles as a Energy Source



U.S. DOE "SHINES"

Integrating Energy Storage and Load Management with Photovoltaic Generation to Demonstrate Beneficial Integration of Energy Resources



NY Solar Map and Portal



NY SOLAR MAP

[Going Solar](#)

[Permitting and Zoning](#)

[Interconnection](#)

[Financing](#)

[Resources](#)

[NYC Solar](#)

[About](#)

[Help](#)

Find Your Solar Potential

→ Enter your address

or jump to

New York State

Which best describes you?

- Residential
- Commercial
- Installer
- Municipal / Non-profit

Available map layers

Installed Capacity

> Add your system to the map



Solar Statistics



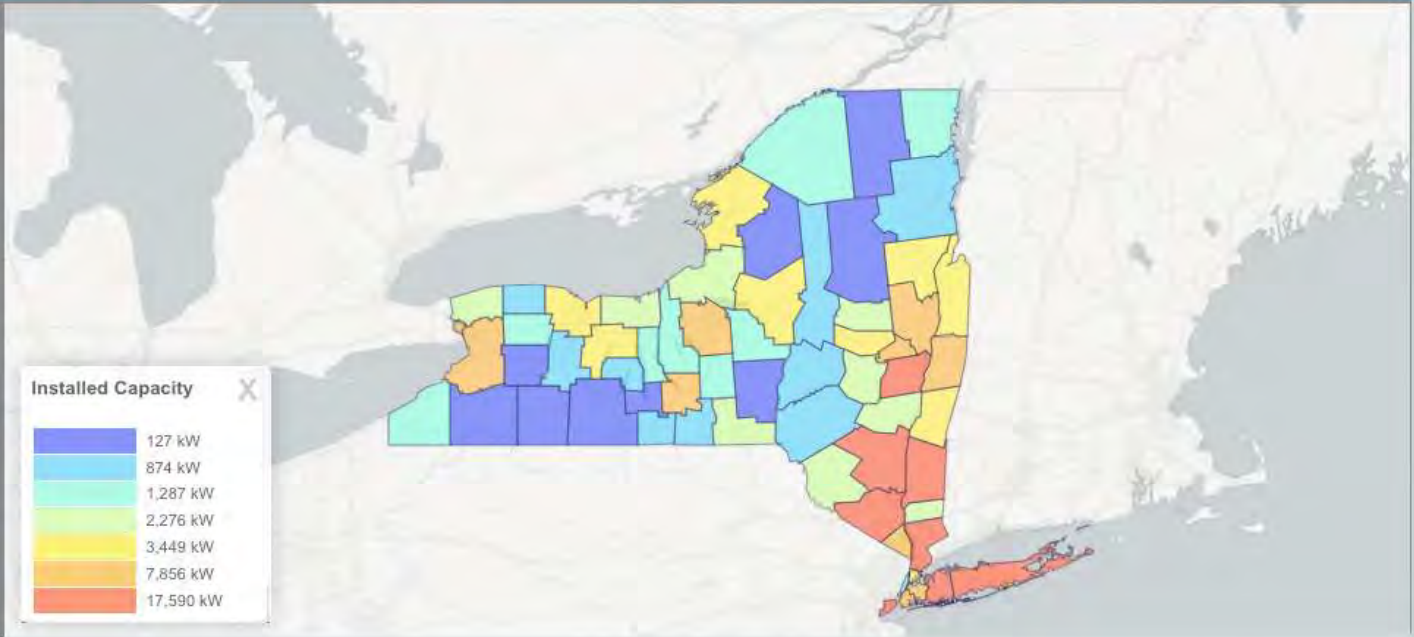
Calculator In Your Area



Advanced Tools

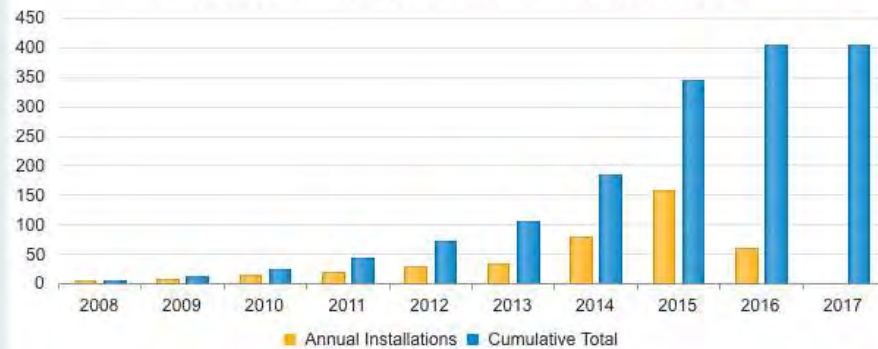


Installed Capacity

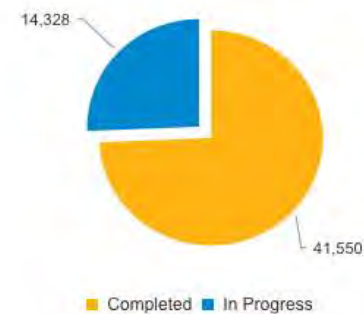


Solar Statistics for New York State

Installed Solar Power Generation Capacity (Megawatts)



Status of Solar Projects



NYC, Westchester County LiDAR



NY SOLAR MAP

[Going Solar-](#)
[Permitting and Zoning-](#)
[Interconnection-](#)
[Financing-](#)
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Street View

Enter your address

or jump to

New York State

Which best describes you?

Residential
 Commercial

Installer
 Municipal / Non-profit

Available map layers

Installed Capacity by County

Calculator

In Your Area

Solar Statistics

Advanced Tools

Solar Potential Calculator

Solar Potential Calculator

1. Solar System Assumptions

Building / User Type: Commercial

System Size (kW DC): 34.93

Average monthly electricity cost: \$3,990.00

Default \$ / Watt System Cost: \$4.30

Financing Type: Cash

RESET

* financing options can change your required upfront cost (see below) to adjust payment type.

[+ Open Advanced Assumptions](#)

2. Output

6 Warburton Ave, Yonkers

Optimal System Size (kW DC) 34.93
(2,376 square feet out of 2,376 usable square feet)

Payback Period 8 years

Annual Savings \$8,811

Net Cost After Incentives & Taxes \$56,937

GET A QUOTE
DOWNLOAD REPORT

[+ Open Cost Details](#)

Assumptions

Charts

[More Charts <<>>](#)

Cumulative Net Cash Flow

