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

CU NY

- Working Groups, Task Force and Councils
- Communications, Trainings, Events
- Awards & Funding
- Facility O&M Support
- Strategic Procurement

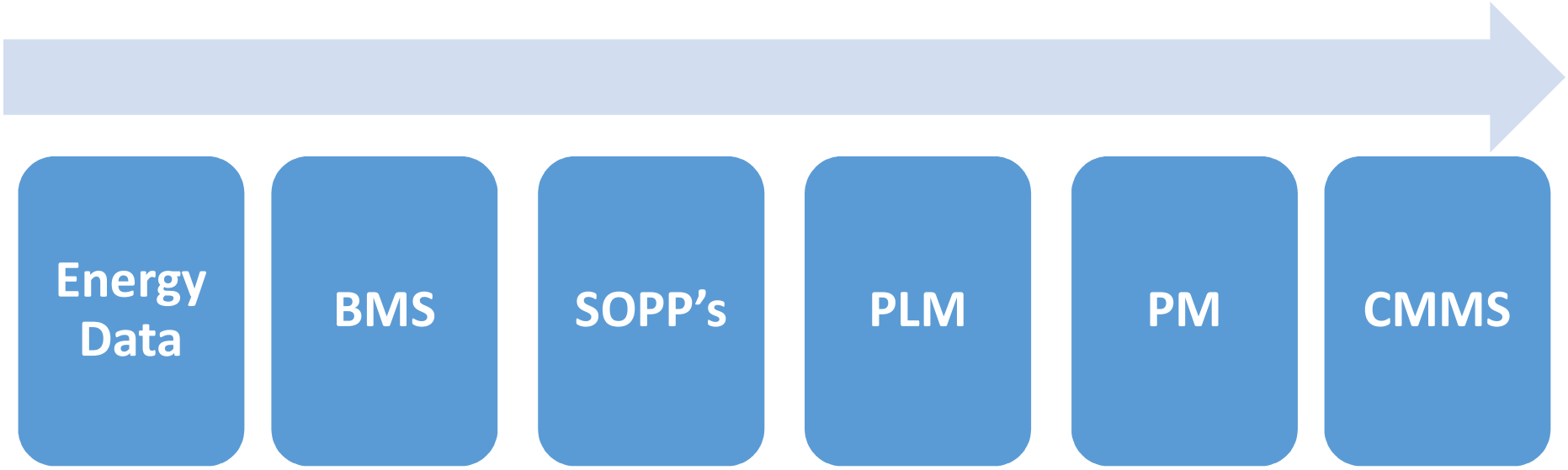
Sustainable CUNY Programs Engage and Empower Across Distributed Communities

Using Project Based Change

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)

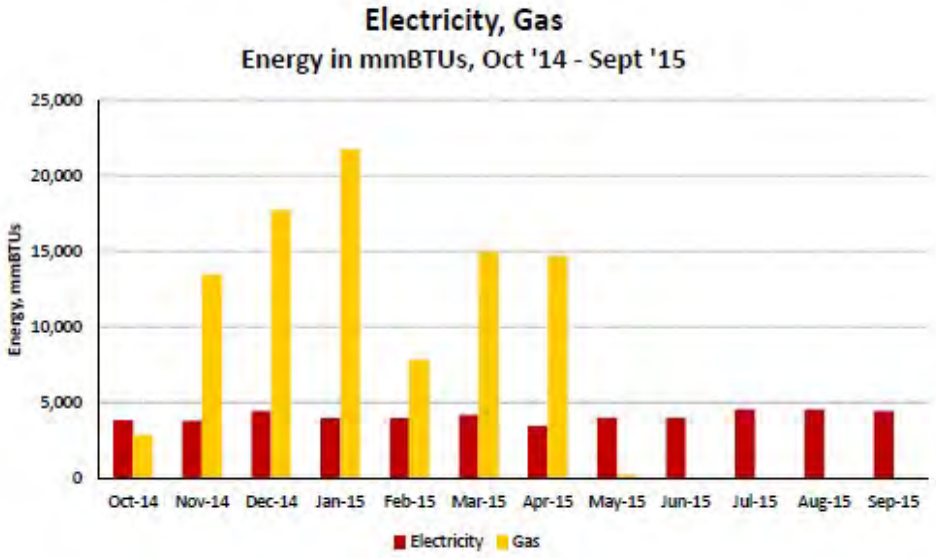
$1,644,794.00

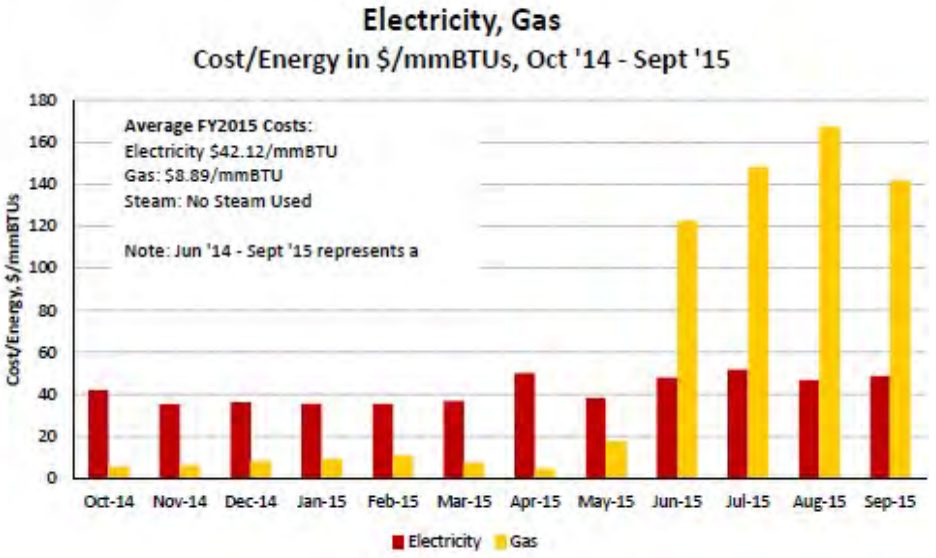
Energy Snapshot- BCC Example -1Q16

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.





PROJECT BASED CHANGE

Leading by Example

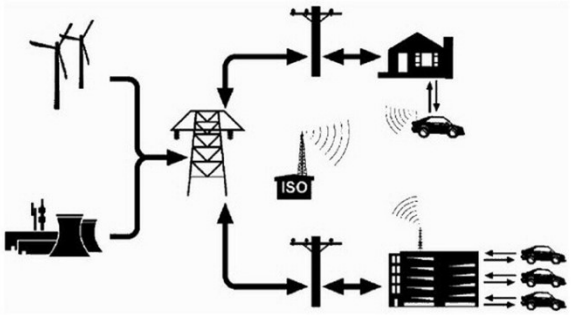
Campus Based Projects

Launching the New York State Solar Map and Portal

Demonstration Projects at Queens

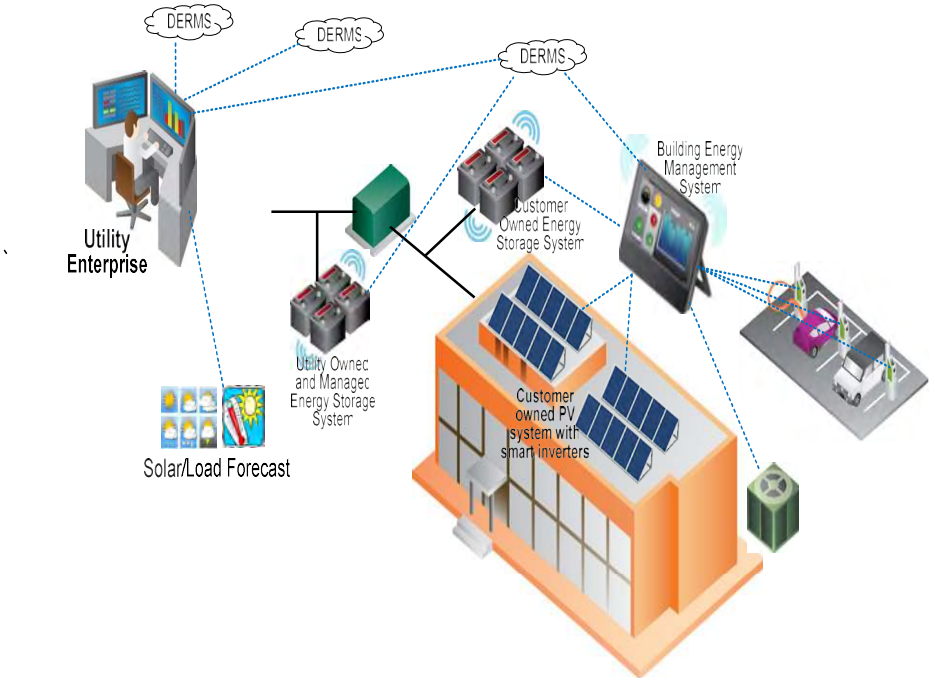
NYS V2X

Electric Vehicles as a Energy Source

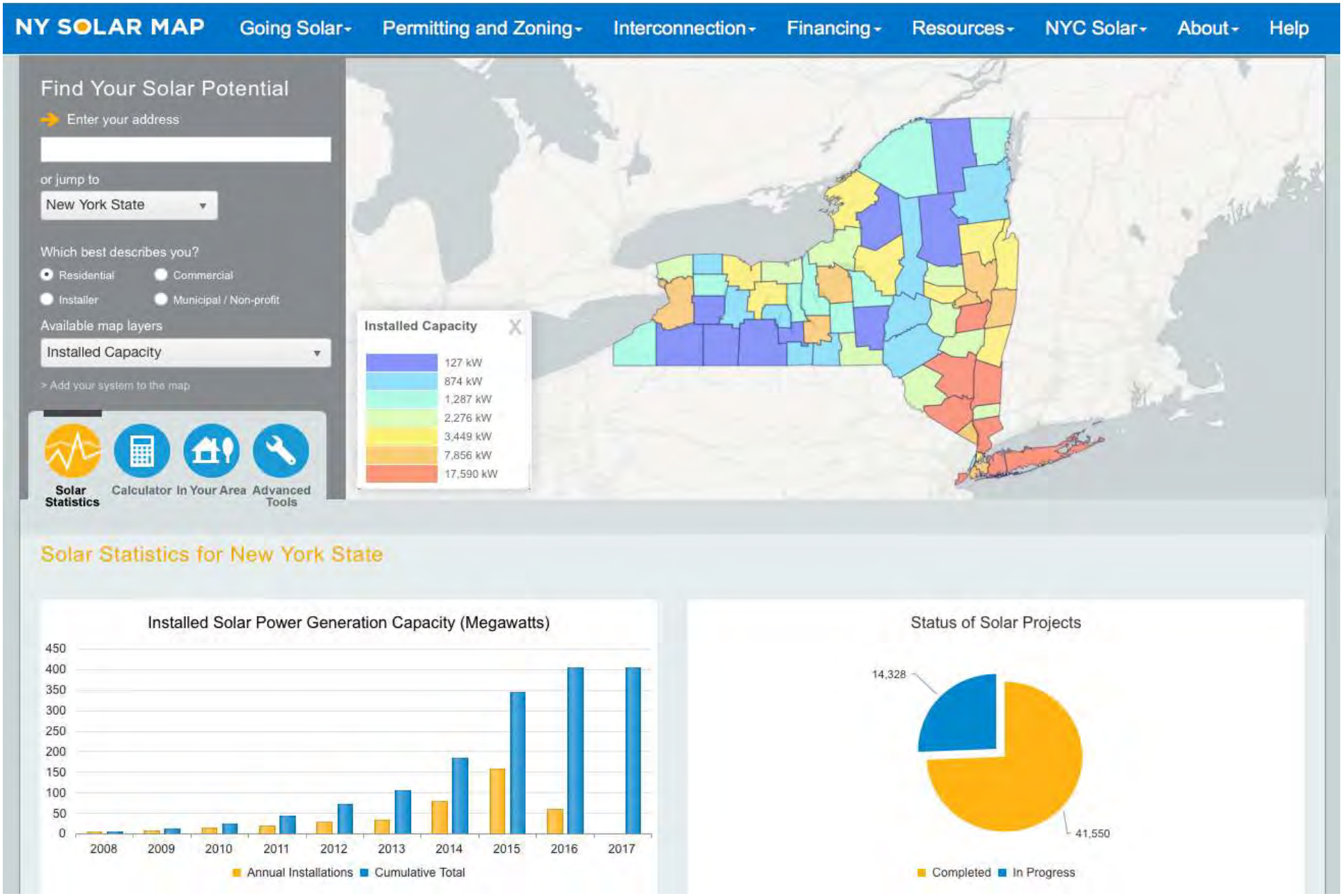


U.S. DOE "SHINES"

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



NY Solar Map and Portal



NYC, Westchester County LiDAR