

### Energy Storage Technology Advancement Partnership (ESTAP) Webinar:

## New Jersey Energy Storage Rebate Program

February 17, 2016

Hosted by Todd Olinsky-Paul ESTAP Project Director Clean Energy States Alliance





## Housekeeping



All participants are in "Listen-Only" mode. Select "Use Mic & Speakers" to avoid toll charges and use your computer's VOIP capabilities. Or select "Use Telephone" and enter your PIN onto your phone key pad.

Submit your questions at any time by typing in the Question Box and hitting Send.

#### This webinar is being recorded.

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www.cesa.org/webinars

## State & Federal Energy Storage Technology Advancement Partnership (ESTAP)

### Todd Olinsky-Paul Project Director Clean Energy States Alliance (CESA)







## **Thank You:**

### Dr. Imre Gyuk U.S. Department of Energy, Office of Electricity Delivery and Energy Reliability

### **Dan Borneo** Sandia National Laboratories







## ESTAP is a project of CESA

**Clean Energy States Alliance (CESA)** is a non-profit organization providing a forum for states to work together to implement effective clean energy policies & programs:

State & Federal Energy Storage Technology Advancement Partnership (ESTAP) is conducted under contract with Sandia National Laboratories, with funding from US DOE.

Sandia

National Laboratories

#### **ESTAP Key Activities:**

- 1. Disseminate information to stakeholders
  - ESTAP listserv >3,000 members
  - Webinars, conferences, information updates, surveys.
- 2. Facilitate public/private partnerships to support joint federal/state energy storage demonstration project deployment
- 3. Support state energy storage efforts with technical, policy and program assistance









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### ESTAP

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PROJECTS

Project Director: Todd Olinsky-Paul

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#### The Energy Storage Technology Advancement Partnership (ESTAP) is a federal-state funding and information sharing project, managed by CESA, that aims to accelerate the deployment of electrical energy storage technologies in the U.S.

The project's objective is to accelerate the pace of deployment of energy storage technologies in the United States through the creation of technical assistance and co-funding partnerships between states and the U.S. Department of Energy.

ESTAP conducts two key activities:

1) Disseminate information to stakeholders through:

- The ESTAP listserv (>2,000 members)
- Webinars conferences information undates



#### NEW RESOURCES

#### October 14, 2015 Resilience for Free: How Solar+Storage Could Protect Multifamily Affordable Housing from Power Outages at Little or No Net Cost By Clean Energy Group

September 30, 2015 Webinar Slides: Energy Storage Market Updates, 9.30.15

#### **UPCOMING EVENTS**

December 16, 2015 ESTAP Webinar: State of the U.S. Energy Storage Industry,

#### **More Events**

#### LATEST NEWS

November 30, 2015 Massachusetts Takes the Lead on Resilient

## Today's Guest Speaker

 B. Scott Hunter, Renewable Energy Program Administrator, Office of Clean Energy, Division of Economic Development and Energy Policy, New Jersey Board of Public Utilities







**CESA's Resilient Power Project** 

### New Jersey's Renewable Electric Storage Rebate Program

Scott Hunter Renewable Energy Program Administrator New Jersey Board of Public Utilities

February 17, 2016



Legislative & Regulatory *Evolution* of NJ Renewable Energy Markets

#### Electric Discount and Energy Competition Act of 1999 (EDECA)

- Definition of Class I Renewable Energy
- Societal Benefits Charge / CRA process
- Renewable Portfolio Standards
- Net Metering and Interconnection
- Governor's Renewable Energy Task Force (2003)
- The "Solar Transition" (Docket No.EO06100744, 2006 thru 2013)
- ➢ Global Warming Response Act (L. 2007, c. 340, 1/13/08)
- > New Jersey's Energy Master Plan (**2008**, 2011)
- Solar Advancement Act of **2009** (Amended s.3 P.L.1999 c.23)
- Offshore Wind Economic Development Act (2010)
- > The Solar Act of 2012 (P.L. 2012, c. 24, 07/23/12)



### The Opportunity for RE Storage Success in New Jersey

- Through February 2016, New Jersey had installed:
  - > 42,360 renewable energy projects> 42,300 solar PV installations
- > 1,670 MW of *clean* energy capacity provided by these solar, wind, sustainable biomass projects
- New Jersey is 3rd in the US for installed solar PV capacity (behind only California and Arizona)





# To Convert the Opportunity into Reality

### Step 1: Market Potential Study Step 2: Program Development

### NÁVIGANT

ENERGY

#### Market Assessment Services to Characterize the Opportunities for Renewable Energy – *Final Report*

For: Rutgers, The State University of New Jersey and the New Jersey Board of Public Utilities



August 6, 2012

"The technical potential for RE – ES is 750 MW for shifting and 52.5 MW for FR (2012 through 2016)"

- CRA 2014 17; proposed \$5 to 10 million over 4 years - June '13
- RE Storage Working Group established – July '13
- Board approved 1<sup>st</sup> RE Storage Solicitation - Oct. '14
- CRA FY16 June '15
- RES Rebate Order December '15
- FY16 Rebate Opens March 1, '16

NJCleanEnergy.com



Commit \$3 m to storage projects which support NJ's RE goals

- Restrict eligibility to storage integrated with a behind-themeter NJ Class I renewable energy resource,
- Give preference to projects which are "ready to build" and can be completed expeditiously,
- Establish maximum incentive amounts which will allow the limited amount of funds to be committed to a broader number of projects, and
- Prioritize facilities that are defined as "public and critical" demonstrating the potential for energy storage to keep critical systems operating during power outages (max public benefit)



## FY2015 Solicitation Results

October 22, 2014 - Board Approved Solicitation & Evaluation Process December 08, 2014 - Applications Due; 22 Received => Evaluated March 18, 2015 – Board Approved 13 Applications for Incentive Award

- <u>22 Applications Received</u>
- \$4,694,642 requested
- \$70,000 to \$500,000
- \$308,360 to \$1.860 Mil
- 200 kW to 1,500 kW
- 13,430 kW total capacity
- 19 Li-ion & 3 Lead Carbon
- 18 public & critical, 4 not

- <u>13 Applications Approved</u>
- \$2,908,804 awarded
- \$70,000 to \$500,000 (Incent)
- \$330,766 to \$1.855 Mil (Cost)
- 250 kW to 1,500 kW
- 8,750 kW total capacity
- 13 Li-ion projects
- 13 public and critical



## FY2015 Incentive Awards

Name of Applicant	kW	kWh	Cost	Cost / kW	Cost / kWh	Incentive	Incentive / Watt	Primary Use	Secondary Use
Monmouth Cty	500	250	\$705,000	\$1,310	\$2,820	\$175,000	\$0.35	EB	FR
Lawrenceville	1,000	580	\$1,562,360	\$1,562	\$2,694	\$468,708	\$0.47	FR	EB
ACUA	1,000	580	\$1,390,320	\$1,390	\$2,397	\$417,096	\$0.42	FR	EB
Toms River MUA	250	125	\$400,000	\$1,520	\$3,200	\$120,000	\$0.48	EB	FR
Cumberland CUA	1,500	750	\$1,855,000	\$1,237	\$2,473	\$500,000	\$0.33	EB	FR
Franklin BOE	500	250	\$675,000	\$1,330	\$2,700	\$145,000	\$0.29	EB	FR
Buena MUA	750	375	\$1,000,000	\$1,333	\$2,667	\$300,000	\$0.40	EB	FR
Rice ES	500	222	\$741,510	\$1,483	\$3,340	\$130,000	\$0.26	EB	FR
Paramus HS	250	125	\$410,000	\$1,520	\$3,280	\$123,000	\$0.49	EB	FR
Marlton MS	500	222	\$741,262	\$1,483	\$3,339	\$130,000	\$0.26	EB	FR
Jersey City	1,250	625	\$1,585,000	\$1,252	\$2,536	\$200,000	\$0.16	EB	FR
Demasi MS	250	125	\$330,766	\$1,323	\$2,646	\$70,000	\$0.28	EB	FR
E. Amwell BOE	500	222	\$740,531	\$1,481	\$3,336	\$130,000	\$0.26	EB	FR
	8,750	-	\$12,136,749	-	-	\$2,908,804	-	-	-



FY2016 Budget Approved CRA in June 2015

Board approved budget of \$6 million for FY2016 RES

- \$3 million allocated to open enrollment program
   Applications will be accepted beginning March 1 on a first-come, first-served basis until incentive commitments reach \$3 million
- \$3 million reserved for competitive solicitation later in FY2016 Solicitation guidelines to be based on research currently being conducted by Rutgers Laboratory for Energy Smart Systems (LESS)



## FY2016 RES Rebate Program

Incentive based on system energy capacity, not power
 Capacity - "levels the playing field" between systems designed for emergency back-up and load shifting and systems designed for frequency regulation

System capacity must be verified by equipment manufacturer's spec sheet

- Incentive level of \$300 per kWh of energy capacity
- Maximum per-project incentive of \$300,000 or 30% of total project cost, whichever is less - based on 1,000 kWh system; larger systems allowed but incentive is capped at first 1,000 kWh
- Maximum per-entity incentive of \$500,000 Applies to multiple projects under the ownership of a single site host, developer/installer or other ownership entity within one program year.



### FY2016 Rebate Program Eligibility Requirements

- Renewable electric storage projects must be integrated with either a new or existing New Jersey Class 1 renewable energy installation that is:
  - Net metered
  - Interconnected to the New Jersey distribution system
  - Providing no more than 100% of site host's historic annual electric use
- Site host must be served under a non-residential tariff and pay into the Societal Benefits Charge through its utility bills
- Storage projects must have a minimum energy capacity of 100 kWh
- Incentives are contingent on the applicant meeting all program and EDC interconnection requirements and applicable local, state and federal laws
- Any other direct incentives must be identified and will be deducted from the total project cost for purposes of calculating the maximum incentive



## **Technical Requirements**

- Storage systems must be capable of charging and discharging electricity only.
  - Thermal energy storage systems are ineligible.
- Electricity placed into storage must be generated by the Class 1 renewable energy system to which the storage is integrated.
  - Storage may not be charged by other on-site fossil-fueled generators or imported from the grid except for short-term charging and discharging that enables ancillary services with no material net import/export from the grid.
- Equipment must be new, permanently installed and utilize proven and commercially available technology that is scalable and replicable at other sites.



### **Rebate Application Process**

- Applications will be accepted beginning at 9:00 am on March 1, 2016
   Applications submitted prior to the starting time will not be accepted
- Applications will be accepted on a first-come, first-served basis
   Order of applications will be determined by time received
- Incomplete applications will be removed from the queue

Application will be returned to applicant with the deficiencies noted. Once the deficiencies are remedied, the application may be resubmitted and will be inserted into the queue as of the date of resubmittal

 Approval letter will be mailed to applicant when application is approved Applicant will have 12 months from the date of the approval letter to complete the project and submit Final As-Built paperwork. Applicant may request a 6-month extension of the 12-month approval period, but will forfeit 10% of their incentive award





For More Information:

- 1. Visit <u>www.NJCleanEnergy.com</u>
- 2. From the home page => "<u>clean energy committees</u>";
- 3. Enroll in the RE, NM/INX and ES email distribution lists,
- 4. Find upcoming meeting logistics, and
- 5. Review the meeting archives from recent RE, NM/INX and ES stakeholder meetings

Questions on FY 2016 RES Storage can be emailed to storage@njcleanenergy.com

b.hunter@bpu.state.nj.us

## Contact Info

CESA Project Director: Todd Olinsky-Paul (Todd@cleanegroup.org) Sandia Project Director: Dan Borneo (<u>drborne@sandia.gov</u>)

Webinar Archive: <u>www.cesa.org/webinars</u> ESTAP Website: <u>http://bit.ly/CESA-ESTAP</u> ESTAP Listserv: <u>http://bit.ly/EnergyStorageList</u>







## Upcoming Webinars

- Hydrogen and Fuel Cells for Resiliency: Financing Energy Resiliency, February 18
- Energy Storage in PJM: Wholesale Market Rules and Requirements, February 23
- Optimizing Energy Storage Sizing, Location and Operation: Current R&D Efforts at Sandia National Laboratories, February 25
- Resilient San Francisco: How to Develop a Citywide Solar+Storage Disaster Plan, March 7

More information at <u>www.cesa.org/webinars</u>



