

Distributed Generation Contracts Program History

RI Public Utilities Commission
Presentation

Monday, February 24, 2014



STATE OF RHODE ISLAND

**OFFICE OF
ENERGY RESOURCES**

Briefing

- **Distributed Generation & the RI DG Law**
- **DG Program Performance: 2011 – today**
- **Questions**

Distributed Generation

‘Distributed generation’ refers to small facilities that generate electricity using renewable resources



Distributed Generation Program

- **Legislation passed in 2011 (§ 39-26.2)**
- **Goals:**
 - Establish a pilot program to expand the renewable energy market in RI
 - Create local jobs
 - Keep energy investments in-state
 - Diversify RI's electrical energy portfolio



Unveiling of a 2.34 MW solar system at Quonset Business Park. It is the largest rooftop solar system in New England.

DG Program 2011 - 2014

- 40 MW - nameplate capacity over four years
- Wind, solar, anaerobic digestion and small scale hydropower projects
- The DG Program represents approximately 0.02% of the state's peak electrical usage (RI's historical demand is 1,932 MWs)



Jamestown - Conanicut Marina installed a 128 kW solar system.

DG Program Mechanics

- **Ceiling prices for each renewable technology**
- **Overseen by the DG Board, which is staffed by the OER**
- **Prices are approved by the PUC; reviewed and updated annually**



**Cranston - Gannon &
Scott Facility**
405 kW solar system

DG Program Mechanics

- **Projects receive a fixed price, 15-year contract with National Grid – projects must be operational within 18 months (48 months for hydro)**
- **3 enrollments conducted/year; contracts awarded to the most cost effective projects (managed by Grid with oversight by OER and Board)**
- **OER/National Grid/DG Board & Stakeholders - strong partnership in implementing and executing the program**

DG Program Successes

- DG program has revived the renewable market in RI
- 29 executed DG contracts
- Broad support: National Grid, Municipalities, Environmental and Renewable Energy Organizations, Unions, General Contractors, RE Business and Electricians



**Middletown –
500 kW solar system**

Participation Across the State

- Projects proposed in 30 of our 39 municipalities since December 2011
- DG projects have been installed or planned for construction in 20 municipalities
- Overall, costs have steadily declined



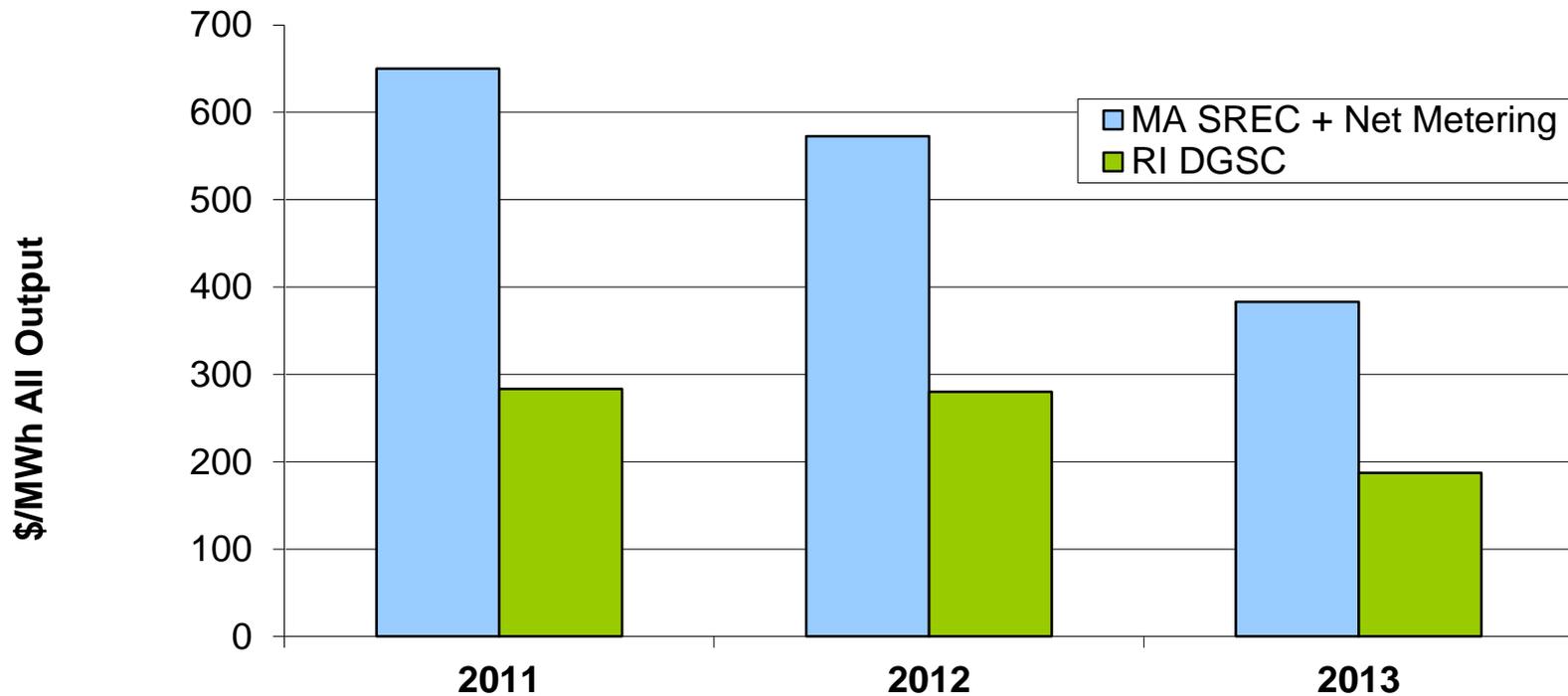
Cox Communications installed 2 solar systems in Warwick and Portsmouth. Cox executives, members of Congress, National Grid and the General Assembly at a DG project ribbon cutting ceremony.

Cost Trends

- **Solar costs have dropped by more than half:**
 - \$0.316/kwh to \$0.1479/kwh from 2011 to 2013
- **Wind: executed contracts have come in below \$0.15/kwh**
- **Further cost reductions anticipated as we work with neighboring states through the DOE SunShot program to reduce ‘soft costs’ throughout the region**

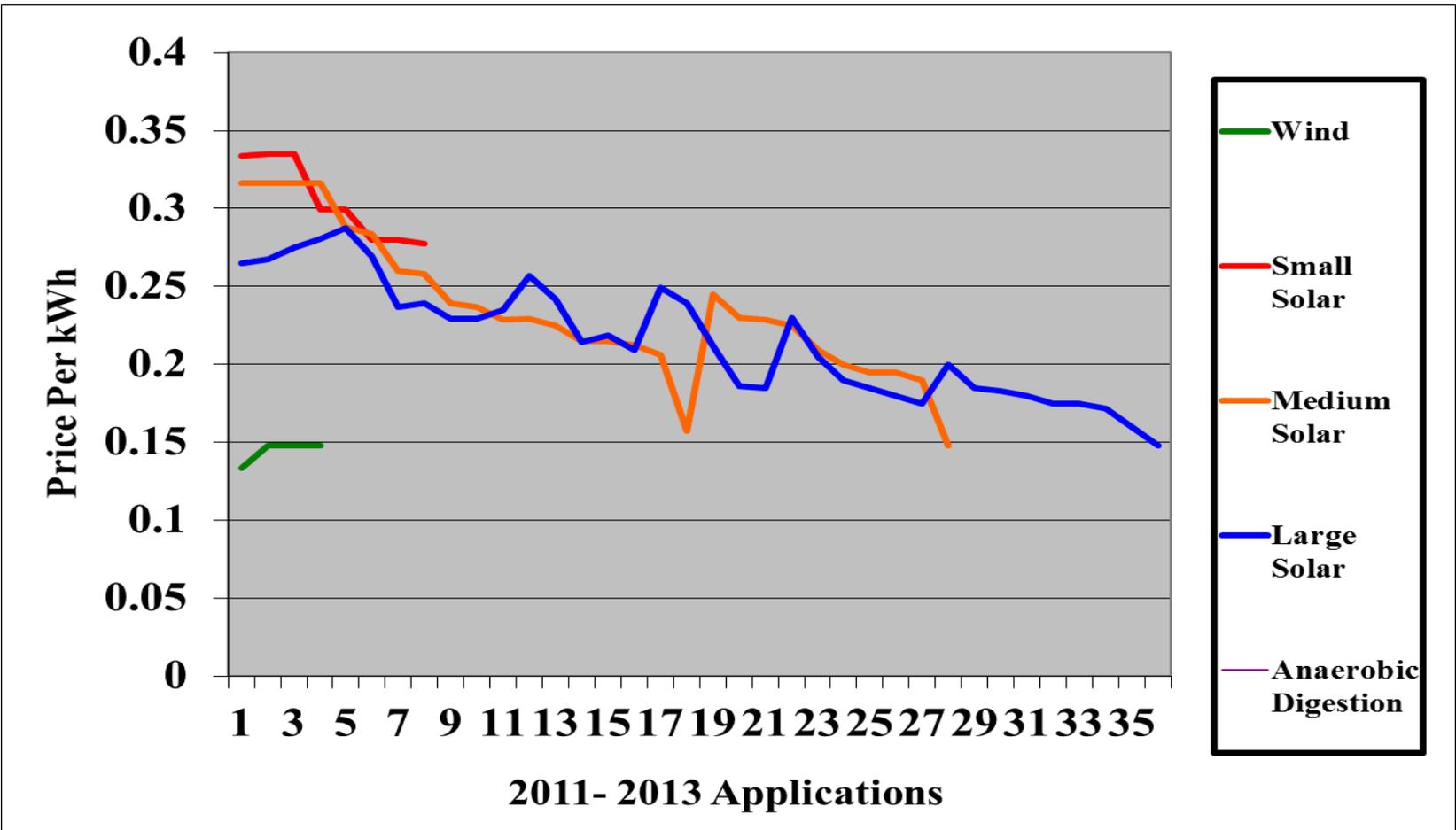
MA to RI – Solar Price Comparisons

MA SREC vs RI DGSC Unit Costs



*All MA costs are average market prices plus G-1 rate net metering credits
All RI costs are actual DG Standard Contract rates as kW-weighted averages*

December 2011 – December 2013 Results



Economic & Environmental Impact Study

- **Brattle Group – conducting economic and environmental study of the DG program**
- **The study will explore:**
 - Environmental benefits
 - Economic benefits (jobs, tax benefits, system reliability savings)
 - Ratepayer impacts (hedge against inflation and fuel price volatility, wholesale price suppression)



Cumberland - Contractors installing a 500 kW solar system

DG Project Activity

- North Kingstown - All American Foods, 331 kW solar system, Quonset Point
- North Smithfield – The Brickle Group, a Rhode Island manufacturer, 1.084 MW solar system
- Providence - Rising Sun Mills Apartments on Valley St, 150 kW solar system



East Providence – 3.71 MW solar system on closed landfill (largest solar installation in RI)

DG Project Activity

- **Cranston - Gannon and Scott metal recycling facility - 406 kW solar system**
- **North Kingstown - Quonset Development Corp - 500 kW anaerobic digestion facility - food scraps used to produce electricity & organic fertilizer byproduct is under development. The project plans to submit an application to the 2014 DG Program**



West Warwick – A 500 kW small scale hydropower project is under development. The project plans to submit an application to the 2014 DG Program.

DG Project Activity

- **Richmond – 498 kW solar system**
- **North Kingstown – 500 kW solar system @ Quonset Business Park**
- **Town of Coventry - 1.5 MW wind turbine**



The Town of Coventry is installing a direct drive (non-gearbox) on municipal owned land.

Questions?