

# Energy Efficiency Programs 2018 Plan and Budget

REV COMMITTEE

11-14-2017

# Three-Year Trend (PSEG Long Island Energy Efficiency Programs)

Year	Budget (\$1,000s)	kW	MWh	% of sales
2016 (Evaluated)	\$70,674	55,880	303,459	1.55%
2017 (budget)	\$88,918	40,808	243,285	1.24%
2018 (budget)	\$88,918	56,800	259,345	1.32%

# Definitions

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**Net to Gross** = the ratio of the total energy savings attributable to an energy efficiency program, divided by the gross energy savings calculated from the installation of efficient equipment by participating customers (1-freeriders + spillover).

**Freeriders** = customers who take an incentive offered by the utility for installation of equipment that they would have done anyway.

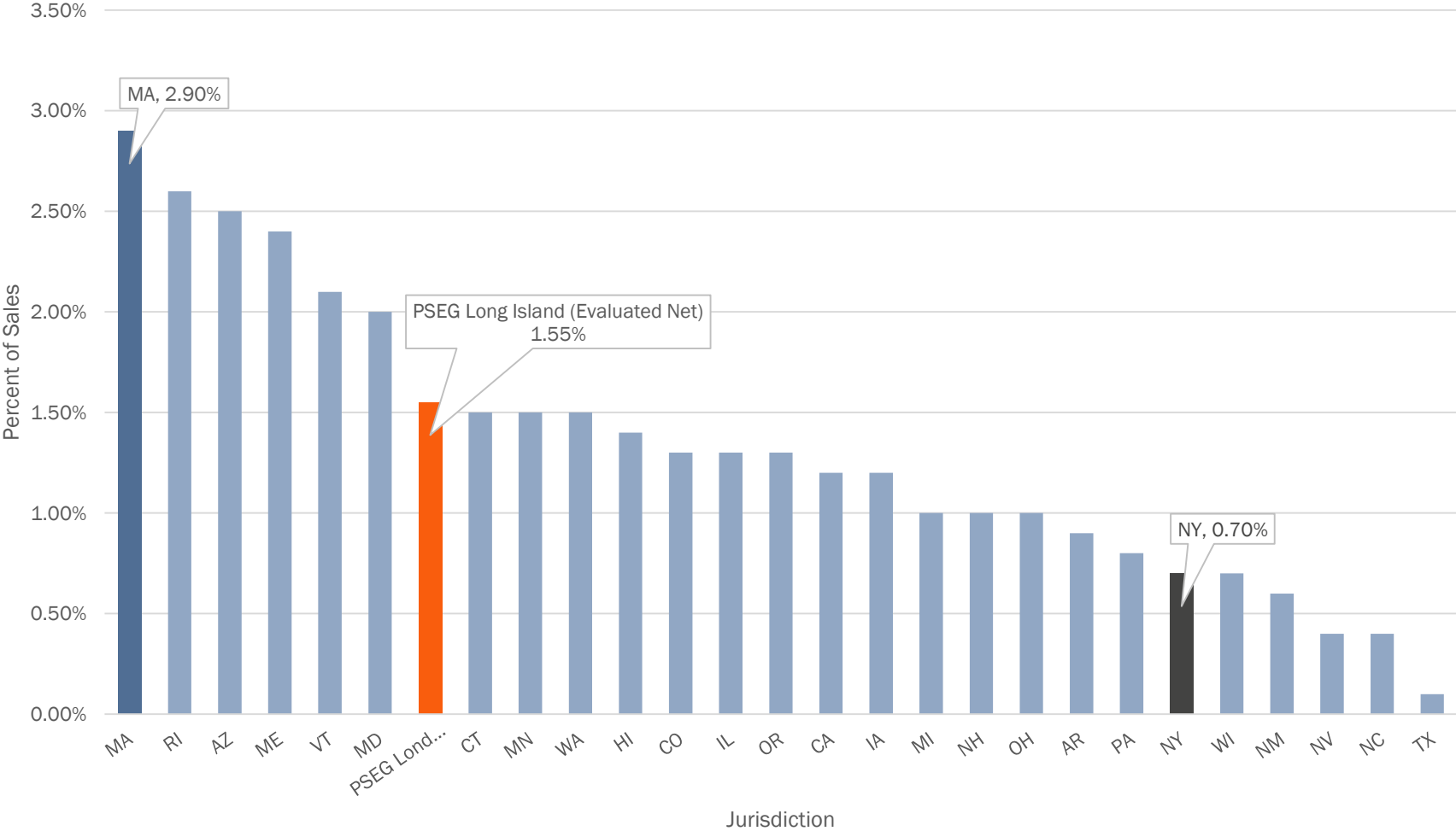
**Spillover** = customers who are influenced by a utility program to install energy efficient equipment, but who do not apply for an incentive.

# Explanation of Changes from 2016 - 2018

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- 1. Net to Gross (NTG) factor for residential LED lamps was updated from 1.25 in 2016 to 0.55 in 2017, as these lamps became more common. Also eliminated lower cost CFL's from the program.**
  - In 2016, \$7.3 million in rebates for 3.47 million bulbs produced 143,000 MWh savings.**
  - In 2017, \$7.3 million in rebates for 2.56 million bulbs would produce 50,700 MWh savings (roughly 92,000 MWh less).**
- 2. Plans for 2017 and 2018 include about \$6.0 million each year for targeting reductions to oil and propane, which was not done in 2016. No MWh are achieved for this spending.**
- 3. 2018 Plan includes 45,740 MWh of energy savings from Home Energy Management behavioral program, compared to 30,179 MWh in the 2017 Plan.**

# 2016 Reported Energy Savings for Top States



# Comparison to Massachusetts Utilities

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- In 2016, Massachusetts utilities claimed overall savings of 2.90% of sales. PSEG Long Island achieved 1.55% of sales on an evaluated net basis.
- There are two primary reasons for the higher reported savings for the Massachusetts utilities:
  1. Net to Gross (NTG) factors are much higher in Massachusetts than used in New York for many key measures.
  2. Assumed avoided costs of energy, capacity, and environmental benefits are higher in Massachusetts, allowing more programs to pass the cost effectiveness tests.
- Opinion Dynamics annually evaluates PSEG Long Island's energy efficiency programs to establish NTG and evaluate program cost effectiveness. Avoided costs are developed using the DPS staff methodology in the BCA Guidebook.
- The Opinion Dynamics report for 2016 was presented to the REV Committee at the July 2017 meeting and is available on our website.

# Assumed Net to Gross Factors in Massachusetts vs. Long Island

- Assumed Net to Gross (NTG) factors in Massachusetts are much higher than used in New York for similar programs.
- For example, in 2016, MA utilities used
  - 90% NTG for residential LED's, while PSEG Long Island calculated 55%, for use in 2017 and beyond.
  - Insulation and air sealing assume a NTG factor 2x similar measures in New York.

Residential Net-to-Gross Factors for Common Measures

Measure	MA	PSEGLI
CFL (Lighting - 2016)	54%	74% / 95%*
LED (Lighting - 2016)	90%	55%
CFL (Lighting - 2018)	53%	-
LED (Lighting - 2018)	70%	-
ES Freezer	65%	90%
Pool Pump	100%	90%
Smart Strip	100%	100%
Dehumidifier	100%	85%
Insulation	123%	68%
Air Sealing	128%	68%
CFL (HES/HPD)	76%	68%
CFL (HES)	76%	68%
LED (HES - 2016)	100%	68%
LED (HES - 2018)	90%	68%
Minisplit Heat Pump	62%	90%
Heat Pump	86%	90%

\*Standard CFL/Specialty CFL

Source: Massachusetts Technical Reference Manual, 2016-2018 Plan Version, and PSEGLI Energy Efficiency and Renewable Energy Portfolio 2016 Annual Evaluation Report (Volume II - Program Guidance Document), Appendix A.

# Assumed Avoided Costs in Massachusetts vs. Long Island

- **Massachusetts utilities' assumed avoided costs:**
  - Have a higher avoided cost of capacity and energy than Long Island, and
  - Include wholesale price suppression and certain non-energy impacts.
- **The Total Resource Cost (TRC) Test is used in both states, however, the value of benefits claimed in MA are much higher, justifying higher rebates and more programs that might otherwise not be cost effective.**

State	TRC Cost (\$mil)	TRC benefit (\$mil)	TRC B/C Ratio
MA	\$850	\$2,262	2.66
NY	\$126	\$143	1.13

*Based on 2016 actual results and using PSEG Long Island's ex post net values  
TRC cost includes contributions from customers*