Massachusetts Energy Efficiency Performance Incentive Mechanism

Jointly presented by PAs and Council Consultants
August 17, 2016
Outline

- Introduction: why performance incentives
- Performance relative to the Plan
- Focus on achieving goals
- Design of MA Performance Incentive mechanism
- Example: 2013-2015 PI mechanism
- 2013-2015 Performance Incentive results
- Perspectives on how and why the performance incentive mechanism has worked
Performance incentives can be very effective in supporting achievement of goals and objectives.

Such incentives have been effective in encouraging energy efficiency in MA for decades.

Performance incentives are an extremely important part of the Plans; design of the mechanism, the level of the incentive, and balance are crucial.
Performance and performance incentives relative to the Plan

- Trying to do two things:
  1. *Plan* ambitious and achievable goals
  2. *Achieve* ambitious goals

- MA planning approach and performance incentive mechanism have features intended to do both
  - Setting of the targets (goals) in the Plan, including PI
  - Encouraging achievement of the goals using the performance incentive mechanism

- Performance is relative to the Plan, and therefore PI $ earned depends on performance relative to Plan
Performance incentives in MA have focused on achieving the two main goals:

1. Achieving higher savings and benefits ($), in line with achieving all cost-effective energy efficiency
   - Electric energy, capacity, natural gas, oil, propane, water, non-energy impacts – all rolled up into statewide benefits in $

2. Achieving the savings and benefits cost-efficiently, to maximize value
   - Net benefits (benefits minus the cost to achieve the benefits)
# The MA Performance Incentive: Two Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Goal: Maximize savings and benefits (total benefits in $)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Savings</strong></td>
<td>Rewards PAs for acquiring additional lifetime energy and demand savings and project-associated other energy and non-energy benefits</td>
</tr>
<tr>
<td></td>
<td>61.5% of design level performance incentive</td>
</tr>
<tr>
<td><strong>Value</strong></td>
<td>Goal: Maximize value and net benefits (total benefits minus total costs)</td>
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<tr>
<td><strong>Component</strong></td>
<td>Rewards PAs for seeking additional cost-effective savings and non-energy benefits, and doing so cost-efficiently</td>
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<tr>
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<td>38.5% of design level performance incentive</td>
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The statewide design level PI pool is determined during the planning process.

- 2013-2015: PI was 6% and 3.7% of total electric & gas PA costs, respectively.
- These amounts are pre-tax.

The pool is divided by planned statewide benefits and net benefits to calculate payout rates.

PI allocated to each individual PA based on its proportion of planned benefits and net benefits.

- Earned at the portfolio level
- Threshold – Minimum amount of benefits/net benefits needed to earn PI
- Design – Equal to the PI pool, included in each PA’s budget
- Exemplary – Maximum amount of PI, set as percentage of design
The MA Performance Incentive: Example of 2013-2015 Electric PI

PI Pool for electric PAs set at $80 million

61.5% allocated to savings component ($49.3 million)

38.5% allocated to value component ($30.7 million)

Payout rate = $49.3m / total planned benefits

Payout rate = $30.7m / total planned net benefits

<table>
<thead>
<tr>
<th>2013-2015 Energy Efficiency Performance Incentives</th>
<th>Residential</th>
<th>Low Income</th>
<th>C&amp;I</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derivation of Electric Targets 2013-2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Forecasted Benefits</td>
<td>$ 1,837,944,983</td>
<td>$ 317,142,384</td>
<td>$ 4,495,972,438</td>
<td>$ 6,651,059,805</td>
</tr>
<tr>
<td>Savings Payout Rate 2013 - 2015</td>
<td>0.0074088</td>
<td>0.0074088</td>
<td>0.0074088</td>
<td>0.0074088</td>
</tr>
<tr>
<td>Forecasted Savings Incentives</td>
<td>$ 13,617,020</td>
<td>$ 2,349,654</td>
<td>$ 33,309,892</td>
<td>$ 49,276,566</td>
</tr>
<tr>
<td>Forecasted Net Benefits</td>
<td>$ 1,274,905,682</td>
<td>$ 160,254,484</td>
<td>$ 3,307,489,940</td>
<td>$ 4,742,650,107</td>
</tr>
<tr>
<td>Value Payout Rate 2013 - 2015</td>
<td>0.0064938</td>
<td>0.0064938</td>
<td>0.0064938</td>
<td>0.0064938</td>
</tr>
<tr>
<td>Forecasted Value Incentives</td>
<td>$ 8,278,991</td>
<td>$ 1,040,662</td>
<td>$ 21,478,201</td>
<td>$ 30,797,854</td>
</tr>
<tr>
<td>Total Performance Incentives</td>
<td>$ 21,896,012</td>
<td>$ 3,390,315</td>
<td>$ 54,788,092</td>
<td>$ 80,074,419</td>
</tr>
</tbody>
</table>
• Statewide, electric PAs earned 111% of planned performance incentive
• C&I achievements yielded 56.5% of total PI, Residential yielded 39% and Low Income yielded 4.5%
Statewide, gas PAs earned 116% of planned performance incentive

Residential achievements yielded 50.5% of total PI, C&I yielded 33.5% and Low Income yielded 16%
Performance incentive, 2013-2015 results

2013-2015 Percent Difference (Actual vs. Plan)

- **Value Performance Incentive**: 13%
- **Savings Performance Incentive**: 11%
- **Total Performance Incentive**: 12%
- **Net Benefits**: 13%
- **Benefits**: 11%
- **Benefits**: 11%
- **Total Resource Costs**: 11%
- **Expenditures**: -1%
- **Total Lifetime Savings (MMBTU)**: 16%
- **Lifetime Savings (Gas)**: 11%
- **Lifetime Savings (Electric)**: 8%

Legend:
- Green bars represent actual vs. plan values.
- Blue bars represent resource costs and expenditures.
The underlying mechanism is exactly the same
- Savings & Value components
- One statewide savings payout rate, one statewide value payout rate for each fuel
- Threshold, Design, and Exemplary levels of achievement

What changed?
- The values of the payout rates changed since they are dependent on PI pool, planned benefits & net benefits
- Threshold is set at 75% for all PAs in 2016-2018; in 2013-2015 threshold varied by PA based on planned savings as percentage of sales
How and why the performance incentive mechanism has worked

Discussion
- PA perspectives
- Consultant perspectives
Thank you
The Green Communities Act, in its directives on the three year statewide plans, states in Section 21 (b)(2):

“A plan shall include...(v) a proposed mechanism which provides performance incentives to the companies based on their success in meeting or exceeding the goals in the plan;…”
In reviewing the performance incentive mechanism included in an energy efficiency plan, the Department will rely on the following principles:

- Performance incentive mechanisms should be designed to encourage distribution companies to pursue all available cost-effective energy efficiency.
- The amount of funds available for performance incentive mechanisms should be kept as low as possible, in consideration of the other principles adopted herein, in order to minimize the costs to electricity and gas customers.
- Performance incentive mechanisms should be designed in such a way as to encourage energy efficiency program designs that will best achieve the Commonwealth’s energy goals, particularly with regard to the goals stated in the Green Communities Act.
- Performance incentives should be based on clearly-defined goals and activities that can be sufficiently monitored, quantified and verified after the fact.
- Performance incentives should be available only for activities where the distribution company plays a distinct and clear role in bringing about the desired outcome.
- Performance incentive mechanisms should be as consistent as possible across all electric and gas distribution companies. Any deviations across distribution companies should be clearly justified.
- Performance incentive mechanisms should be created in such a way to avoid any perverse incentives.
- Any modifications to a previously approved performance incentive mechanism should be fully justified at the time they are proposed to the Department.