EISA Challenges: A Utility Program Planner’s Perspective

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ComEd
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Thinking Outside the Envelope: New Cumulative Savings Goal in Illinois

Source: ACEEE’s Energy Efficiency Over Time: Measuring and Valuing Lifetime Energy Savings in Policy and Planning (Draft, 1/19)
## Cumulative LED Savings & The Impact of EISA

<table>
<thead>
<tr>
<th>Bulb</th>
<th>Bulb Life (Hrs)</th>
<th>Watts</th>
<th>Bulb Life (Yrs)</th>
<th>Energy Usage (kWh)</th>
<th>Energy Savings (kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halogen</td>
<td>1,000</td>
<td>43</td>
<td>1.3</td>
<td>26.8</td>
<td>21.2</td>
</tr>
<tr>
<td>CFL</td>
<td>10,000</td>
<td>13</td>
<td>13.2</td>
<td>8.1</td>
<td>2.5</td>
</tr>
<tr>
<td>LED</td>
<td>15,000</td>
<td>9</td>
<td>19.8</td>
<td>5.6</td>
<td></td>
</tr>
</tbody>
</table>

### Assumptions
- 60 – Watt Equivalent, 800 Lumen, Screw-in LED A-Lamp
- 759 Annual Hours of Usage (Interior Install)
- 96.9% ISR
- 1.06 WHFe
- 80% NTG
LED Savings for Changing EISA Baseline to CFL

1. Because the halogen baseline only lasts 16 months, baseline bulb must be replaced twice over the 10 year LED lifetime

2. First halogen replacement after 1/1/21 (assuming sell-through) becomes CFL

3. Relative savings goes from 21.2 kWh to 2.5 kWh

4. With each year closer to EISA savings decline

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>21.2</td>
<td>21.2</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
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<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>62.4</td>
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<tr>
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<td>21.2</td>
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<td>2.5</td>
<td>43.7</td>
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<td>2.5</td>
<td>2.5</td>
<td>25.0</td>
</tr>
</tbody>
</table>
Impact of EISA on Cumulative KWH Savings

- No EISA – 212 kWh
- EISA 2019 Installs – 62 kWh
- EISA 2020 Installs – 44 kWh
- EISA 2021 Installs – 25 kWh
ComEd Energy Efficiency Programs Directly Affected by EISA

1. Residential
   1. Residential Lighting Discounts ✔
   2. Home Energy Assessments – SF & MF
   3. Kits ✔

2. C&I
   1. Midstream Lighting Discounts ✔
   2. Small Business

3. Income Eligible
   1. SF & MF Retrofits
   2. Public Housing
   3. EI Residential Lighting Discounts ✔
   4. Kits ✔
Lighting in ComEd’s Energy Efficiency Portfolio

- Over 100 million bulbs have been incented over 10 years
- Lighting is one of the most inexpensive kWh savings
- About ¼ of the Portfolio savings are affected by EISA

<table>
<thead>
<tr>
<th>LED Bulb Type</th>
<th>Volume (2018)</th>
<th>% of Total Energy Savings (2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omnidirectional Lamp</td>
<td>6 Million</td>
<td>8%</td>
</tr>
<tr>
<td>Specialty &amp; Directional Lamp</td>
<td>4.8 Million</td>
<td>16%</td>
</tr>
</tbody>
</table>

- 2/3 of the bulbs in retail are Omni’s
- But, 2x more energy savings are from Directionals and Specialties
## ComEd EISA Planning Assumptions & The Illinois TRM

<table>
<thead>
<tr>
<th>EISA Planning Issue</th>
<th>ComEd Planning Assumption</th>
<th>DOE Policy</th>
<th>2019 Illinois TRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialty and Directional Bulbs included?</td>
<td>No</td>
<td>No, then yes, then no, then maybe, now yes</td>
<td>A Compromise 2024 EISA date</td>
</tr>
<tr>
<td>Omnidirectional Bulbs affected by EISA?</td>
<td>Yes</td>
<td>Has the backstop been triggered?</td>
<td>Yes</td>
</tr>
<tr>
<td>Sell-Through Period?</td>
<td>Yes</td>
<td>No, but indications of yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Program Questions and Decisions

✓ What is the best way to phase out omnidirectional incentives from the portfolio?

✓ Is there an option to continue to help income eligible customers to transition to LED’s?

✓ If omnidirectional bulbs are out, are there other EISA-exempt bulb types that can be included in kits?

✓ How can we maximize the opportunity in remaining EISA-exempt bulbs?
Looking Forward

✓ Window for review and discussion of Illinois TRM governing 2020 program is now open.
  - Technical Advisory Group will revisit last year’s compromise 2019 TRM assumption of 2024 EISA effective date for Directional and Specialty bulbs.
  - Will DOE make a decision on the backstop before the TRM window closes around 9/19?

✓ ComEd Program Lead Times
  ▪ Based on longer term trade ally and implementation contractor relationships
  ▪ Program discontinuities notoriously disruptive

✓ Planning begins soon for next 4-year Plan (2022-25) filing