Selected new and historical key findings and implications

**REPORT KEY FINDINGS**

1. 2016 is the first year statewide electric participation and savings rates have decreased.

2. Across PAs, there are notable differences in the mix of measures installed, representing possible opportunities for statewide energy efficiency gains through more robust segmentation analysis.

3. For both gas and electric PAs, upstream programs have resulted in increased participation of small customers, likely due to the accessible nature of the measures offered.

4. The upstream hot water program experienced a successful first year for the gas market. It delivered 1.4 million therms in gas savings, primarily to small and first-time gas participants.

5. Upstream lighting continues to provide substantial savings and participation for the electric market. Shifts in lamp types purchased have caused year-over-year savings fluctuations.

6. Custom projects continue to provide substantial savings for both gas and electric accounts. These projects play an important role in meeting PAs’ savings goals.

7. For both electric and gas, savings from HVAC projects continue to decline, even with the inclusion of the electric upstream HVAC offerings.

8. Control measures provided substantial savings for lighting and HVAC (electric and gas) projects in 2016.

9. Aerators and spray valves remain a key driver of gas participation and savings despite the continued statewide decline in these numbers.

**POTENTIAL IMPLICATIONS**

1. If electric savings decrease again in future years, it may impact the PAs’ ability to meet annual savings goals.

2. It is important to uncover the deeper stories behind key trends. The potential exists to leverage the integrated PA tax data in segmentation analyses to help the PAs fine-tune their marketing outreach efforts.

3. Additional measures could also be successful via the upstream channel if they are similar in accessibility for customers.

4. The first year success with this program could indicate other gas measures with minimal technical barriers may be attractive for small and first-time customers.

5. A rapidly shifting lighting market will reflect changes in bulb types purchased through upstream. Continued monitoring of the measure mix and installation rates could help address future upstream challenges.

6. Custom projects continue to support electric and gas PA savings goals. While high-saving measures like CHP contribute greatly, other custom projects can help meet these goals in the absence of such a large project.

7. Electric HVAC savings have been trending down since 2013 (coinciding with the introduction of upstream HVAC). Further analysis into the more successful HVAC electric and gas projects may reveal future opportunities to increase HVAC projects and savings for both fuels.

8. PAs appear to be capturing additional opportunities with controls discussed in previous planning summit meetings.

9. Incorporating aerators and spray valves into the upstream hot water program might continue to encourage statewide engagement.
### Recommendations, considerations, and potential future research

<table>
<thead>
<tr>
<th>Data Capture</th>
<th><strong>Recommendation 1 (R1)</strong></th>
<th>Increase communication and improve data intake processes to enhance the quality of ongoing and future evaluation efforts.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em><em>Consideration 2</em> (C2)</em>*</td>
<td>Leverage the combination of local-level analysis, energy use, and American Community Survey block group data to identify and quantify where opportunities for strategic electrification, or fuel switching may exist.</td>
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<td><strong>Consideration 3 (C3)</strong></td>
<td>Create new end use classifications that are more detailed to support deeper investigations across analysis grains within the C&amp;I Customer Profile report, and to support ongoing and future studies.</td>
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<td><strong>Consideration 4 (C4)</strong></td>
<td>PAs should determine whether any measures currently offered through the residential products program may also be appropriate for smaller C&amp;I Customers.</td>
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<td>Data Investigation</td>
<td><strong>Recommendation 2 (R2)</strong></td>
<td>Consider leveraging the upstream tracking data to further engage small and mid-size participants that might offer opportunities for increased depth of savings.</td>
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<td><strong>Recommendation 3 (R3)</strong></td>
<td>Investigate the feasibility of a premise-level analysis grain in future C&amp;I Customer Profile reports.</td>
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<td><strong>Consideration 1 (C1)</strong></td>
<td>Consider additional research into critical items identified in the 2016 C&amp;I Comprehensive Customer Profile report’s Key Findings.</td>
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<td><strong>Consideration 5 (C5)</strong></td>
<td>PAs should consider leveraging updated tax data, along with their tracking data to improve customer segmentation and better identify potential future participants.</td>
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</table>

* Recommendation and Consideration numbering links directly to the report.