

## Massachusetts C&I Evaluation Contract Project Summary: 2015 C&I Customer Profile

**Project timeframe: February 2016 – March 2017**

**Program years evaluated: 2011 – 2015**

**Research Area: Market assessment**

**High-level study objectives:** Integrate the Massachusetts PAs' billing and tracking data into a single C&I Evaluation Database, to generate an in-depth and graphic-rich report with cross-PA views of the data at as granular a level as feasible without compromising data confidentiality.

### Selected new and historical key findings and implications

 REPORT KEY FINDINGS	 POTENTIAL IMPLICATIONS
<b>1</b> Upstream lighting continues to impact electric participation and savings ratios, particularly for smaller customers.	Obtaining account numbers from upstream projects would allow for more comprehensive analysis exploring the impact of the upstream measure on participation and individual account savings.
<b>2</b> Custom projects continue to make up a large proportion of savings for electric and gas PAs.	A potential key driver of outcome differences between PAs is custom projects and savings, which may warrant deeper analysis.
<b>3</b> Overall, more than 50% of the consumption-weighted electric population has been engaged over the past five years.	Large customers are the primary drivers of high consumption-weighted participation, and remain key drivers of annual savings. A targeted study may be beneficial in identifying opportunities for future engagement.
<b>4</b> Large electric accounts (25-50 GWh) provide disproportionately large savings achieved over time.	The majority of the largest electric participants have been engaged in at least 3 years since 2011. Their participation remains prominent in 2015. The sustainability of this trend is currently unknown.
<b>5</b> Savings achieved from electric accounts in demand bins <750 kW have, on average, increased over the past five years.	Opportunities remain for PAs to earn more savings from accounts with <750 peak demand; these accounts represent ~97% of all electric accounts and 60% of statewide consumption.
<b>6</b> Gas account sizes remain similar up to the 80 <sup>th</sup> percentile size bin.	Gas PAs may obtain a comparative advantage by engaging customers in small- and medium-sized percentile bins, as the electric population has much more size variation among its percentile bins.
<b>7</b> Statewide, gas PAs have larger contribution ratios in the bottom 30% of their population than electric PAs.	The availability of more measure options for small- and medium-sized gas customers creates more savings opportunities among this population.
<b>8</b> Town-level electric consumption-weighted participation over the last five years indicates that PAs have continued to engage many of their largest customers.	Nearly all of the largest electric accounts belong to 34 of the 100 towns with over 50% of consumption-weighted participation. PAs may discover additional savings opportunities by engaging towns with lower consumption-weighted participation.
<b>9</b> Installation rates and absolute savings from aerators and spray valves have continued to decrease for the gas PAs since 2012.	Spray valves have been a relatively accessible and consistent source of savings for the gas population. The decline in their installation rates may have implications for future participation in the gas market.
<b>10</b> For gas PAs, the manufacturing sector has been heavily engaged over the past five years, and has consistently contributed a high proportion of gas savings.	Gas PAs may need to develop new strategies to encourage multi-year participation from large manufacturing accounts, and continue to achieve savings.

## 2015 C&I Customer Profile – Base Analysis Report Summary (cont.)

### Comprehensive findings, recommendations, considerations, and potential future research matrix

Recommendations, considerations, and potential future research		
Data capture	<b>Recommendation 1 (R1)</b>	<i>Where possible, capture the account number as a data field in the upstream lighting and HVAC data.</i>
	<b>Consideration 1 (C1)</b>	<i>Continue to leverage the C&amp;I Evaluation Database as a repository to integrate standardized data categories across all PAs' data to facilitate apples-to-apples comparisons.</i>
Data Investigation	<b>Consideration 2 (C2)</b>	<i>Electric and gas PAs may benefit from a more detailed look into the largest accounts in their respective service territories in order to access future sources of savings.</i>
	<b>Consideration 3 (C3)</b>	<i>Investigate the drivers of difference in multi-year participation across the electric and gas markets.</i>

Recommendations, considerations, and potential research matrix	R1	C1	C2	C3
<b>Key findings</b>				
<i>Upstream lighting continues to impact electric participation and savings ratios, particularly for smaller customers.</i>	X			X
<i>Custom projects continue to make up a large proportion of savings for electric and gas PAs.</i>		X	X	X
<i>Overall, more than 50% of the consumption-weighted electric population has been engaged over the past five years.</i>	X		X	X
<i>Large electric accounts (25-50 GWh) provide disproportionately large savings achieved over time.</i>	X		X	X
<i>Savings achieved from electric accounts in demand bins &lt;750 kW have, on average, increased over the past five years.</i>	X			X
<i>Gas account sizes remain similar up to the 80<sup>th</sup> percentile size bin.</i>		X		X
<i>Statewide, gas PAs have larger contribution ratios in the bottom 30% of their population than electric PAs.</i>		X		X
<i>Town-level electric consumption-weighted participation over the last five years indicates that PAs have continued to engage many of their largest customers.</i>	X		X	X
<i>Installation rates and absolute savings from aerators and spray valves have continued to decrease for the gas PAs since 2012.</i>		X		X
<i>For gas PAs, the manufacturing sector has been heavily engaged over the past five years, and has consistently contributed a high proportion of gas savings.</i>		X	X	X