Third Quarter 2019 YTD Performance

Presentation by the PAs to the EEAC

December 18, 2019

Program Highlights

Quarterly Report Highlights

- The PAs held their first Passive House trainings for design professionals in conjunction with the finalized design and launch of their new Passive House offering for Mid- and High-Rise Multifamily New Construction.
- PAs held the 19th annual Heating and Cooling Conference in September, with almost 300 attendees, including contractor partners, lead vendors, manufacturers, distributors, PAs, and other exhibitors.
- Program Administrators hosted a “mobile” Heat Pump technology training.
- The PAs’ Small Business Subcommittee developed a “Main Streets” Market Engagement Initiative revolving around Energy Efficiency Day.
- Active demand reduction activities in the third quarter consisted of further recruitment, event forecasting, and event calling. PAs collectively called a number of events during summer 2019 and hit the system peak on July 30th with all dispatch strategies.

CO_2 Emissions Reductions

Sector	CO2 (electric)	CO2 (gas & delivered fuels)	CO2 (total)
Cumulative Plan-Term to Date (Q3 2019)	475,941	57,588	533,529
A - Residential	314,647	44,607	359,254
B - Low-Income	6,602	2,550	9,152
C - Commercial & Industrial	154,691	10,431	165,122

*All CO2 values shown in short tons.

92,787 homes powered for a year through electric savings

16,630 homes heated for a year through gas savings

113,276 car emissions for year through electric and gas savings

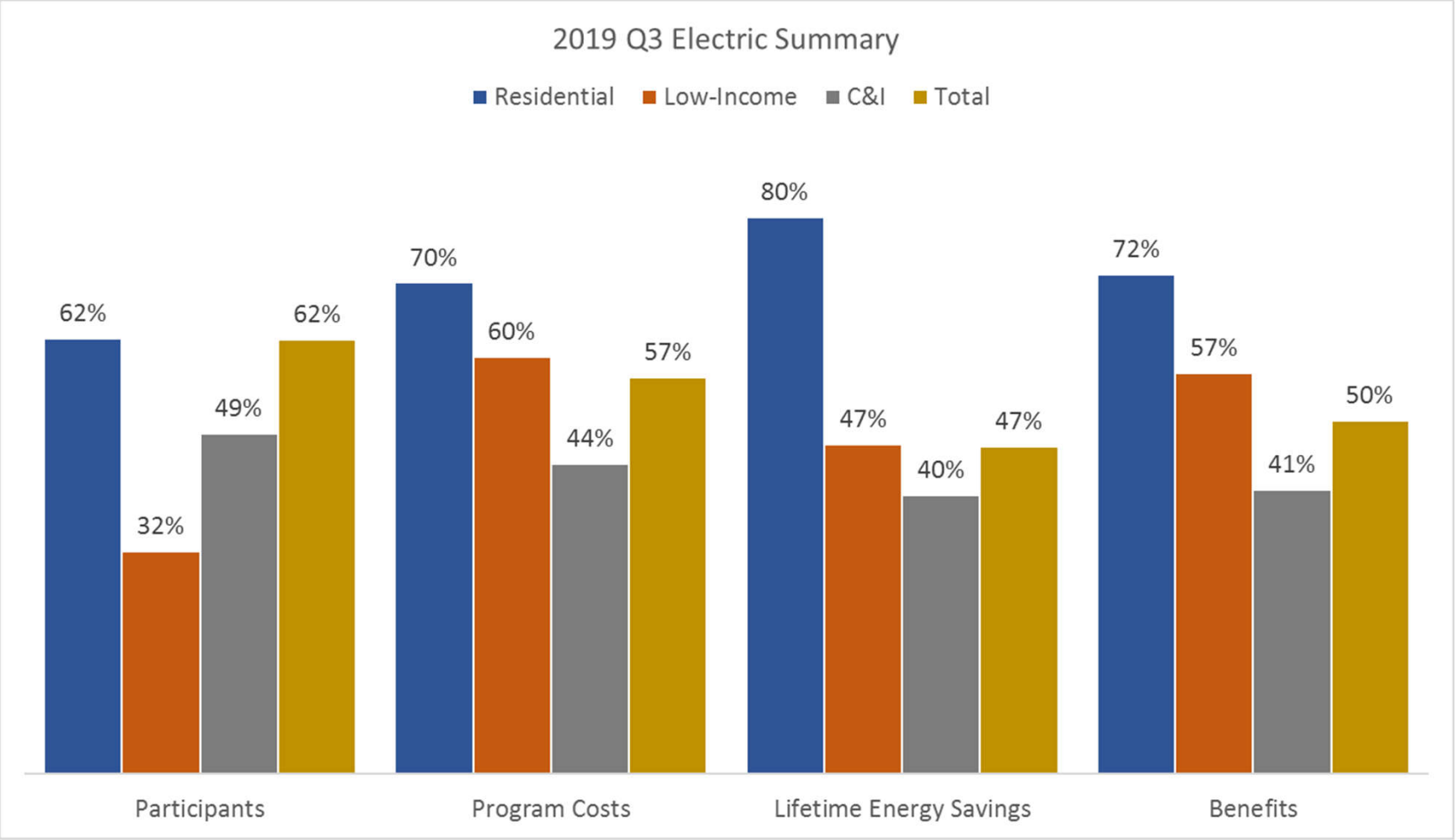
8,822,015 tree seedlings grown for 10 years

Q3 Electric Performance

Year-over-Year Q3 Comparison

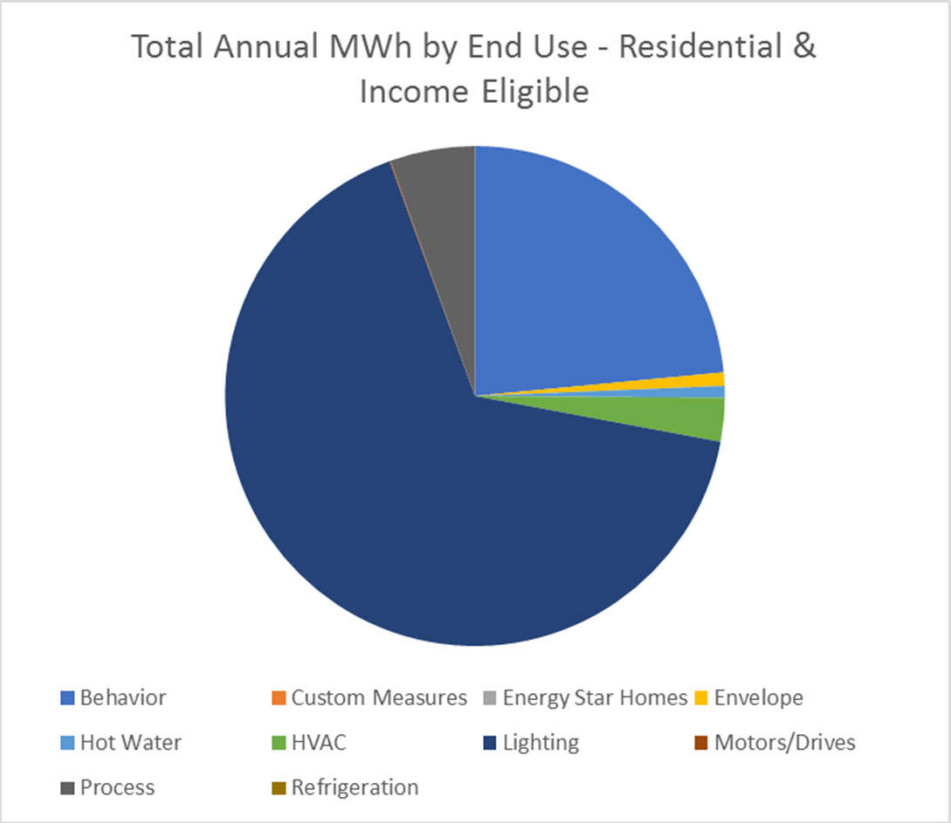
		2017		2018		2019	
		MWh/$ Benefits	% to Goal	MWh/$ Benefits	% to Goal	MWh/$ Benefits	% to Goal
Residential	Annual MWh	586,877	100%	499,516	94%	317,332	78%
	Lifetime MWh	3,052,277	68%	2,748,997	66%	1,438,443	80%
	Total Benefits	520,333,672	65%	536,558,974	70%	435,198,357	72%
Income Eligible	Annual MWh	28,148	72%	31,271	82%	21,132	58%
	Lifetime MWh	233,163	68%	257,300	75%	165,895	47%
	Total Benefits	88,512,253	77%	84,722,648	73%	96,606,787	57%
C&I	Annual MWh	359,013	48%	346,780	43%	286,645	42%
	Lifetime MWh	4,306,599	50%	4,569,436	47%	3,404,345	40%
	Total Benefits	624,682,870	54%	573,534,414	47%	580,927,038	41%
Portfolio	Annual MWh	974,039	71%	877,567	64%	625,109	55%
	Lifetime MWh	7,592,039	57%	7,575,733	53%	5,008,683	47%
	Total Benefits	1,233,528,795	60%	1,194,816,036	56%	1,112,732,182	50%

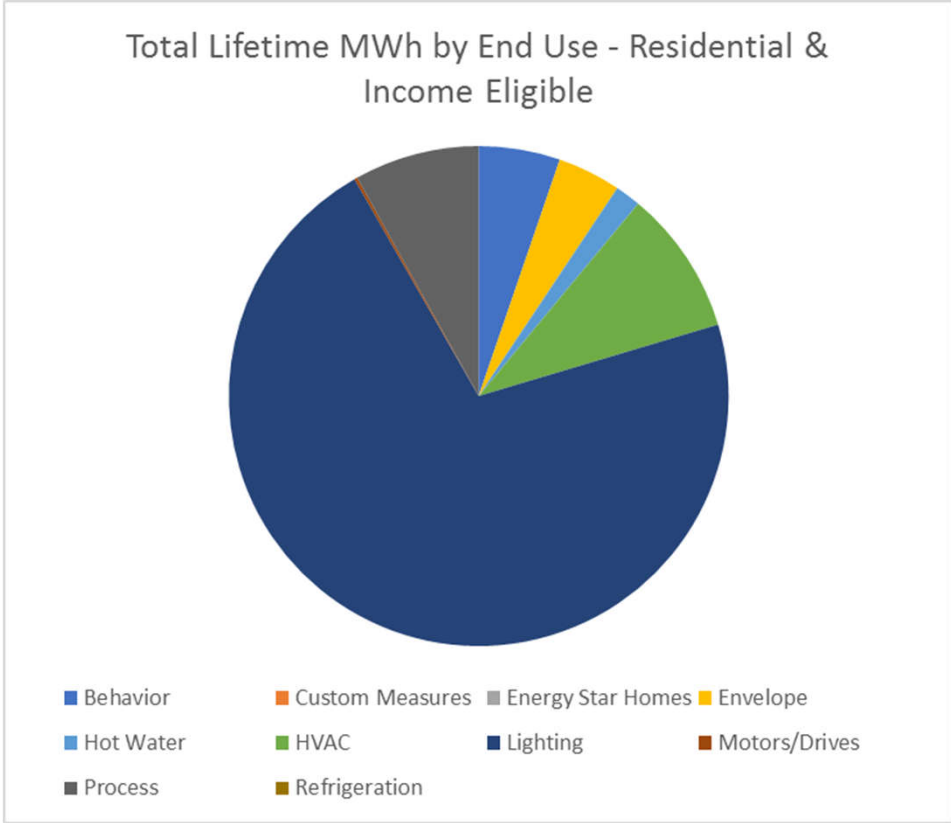
2019 Q3 Electric Summary



Residential Electric Performance

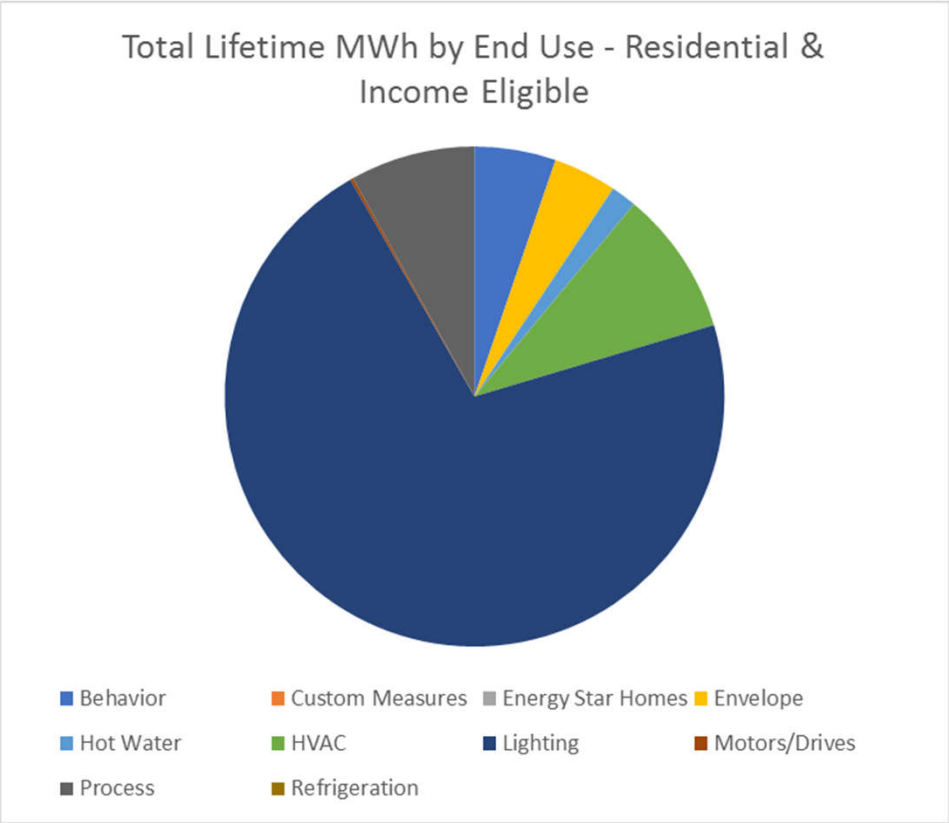
Residential & Low Income MWh Savings by End Use

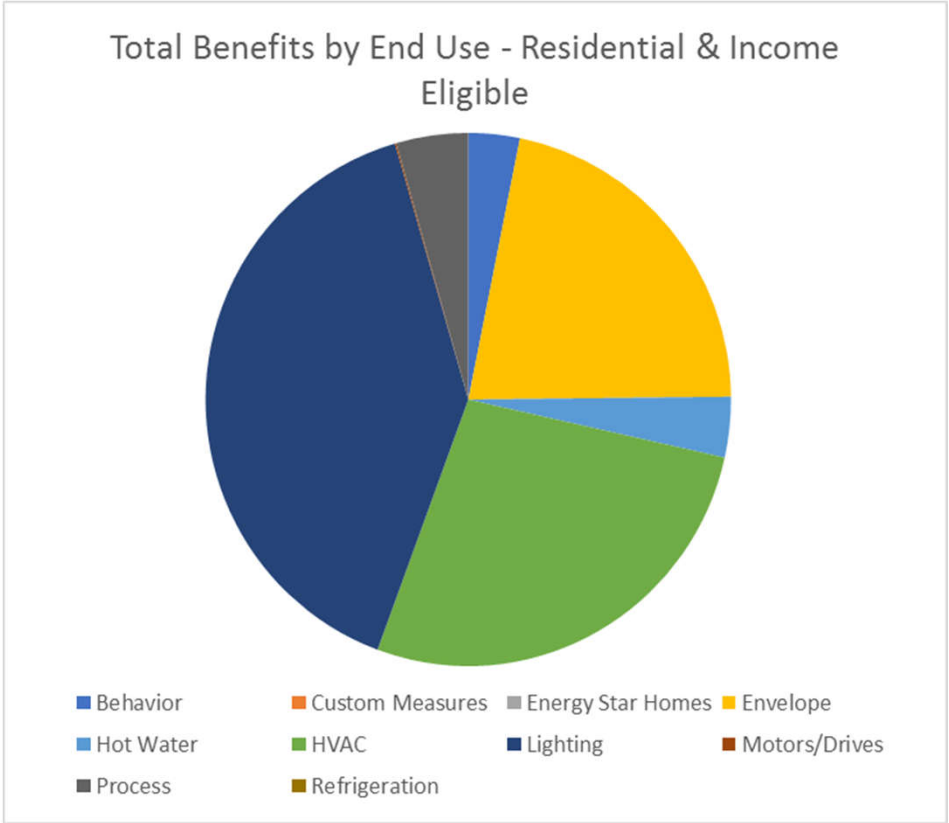




Majority of annual and lifetime MWh currently come from Lighting, but due to evaluations expected in time for the 2019 Plan-Year Report, we expect the share of lifetime savings to be diminished by up to 2/3 of current savings.

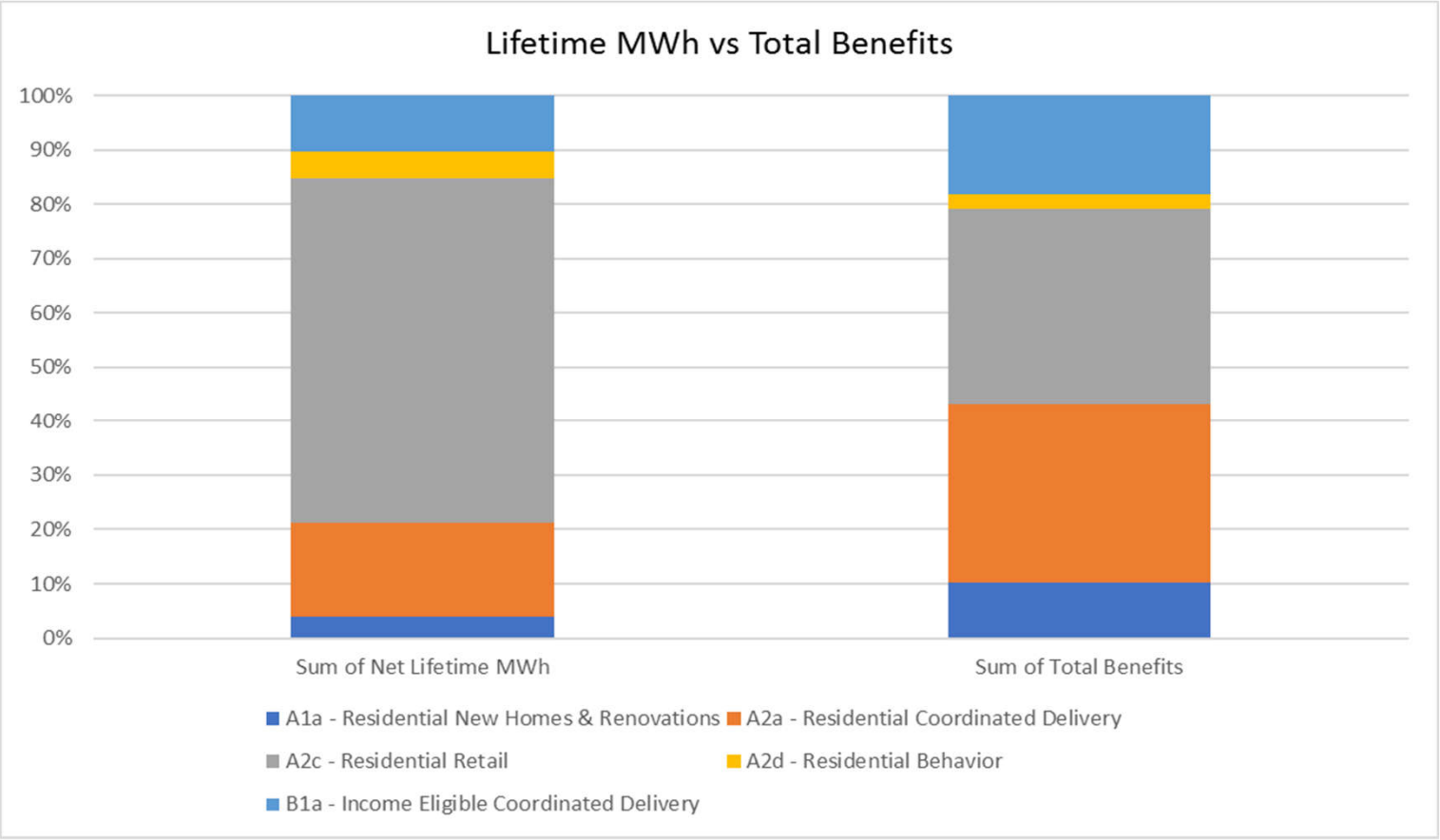
Residential & Income Eligible Savings vs Benefits





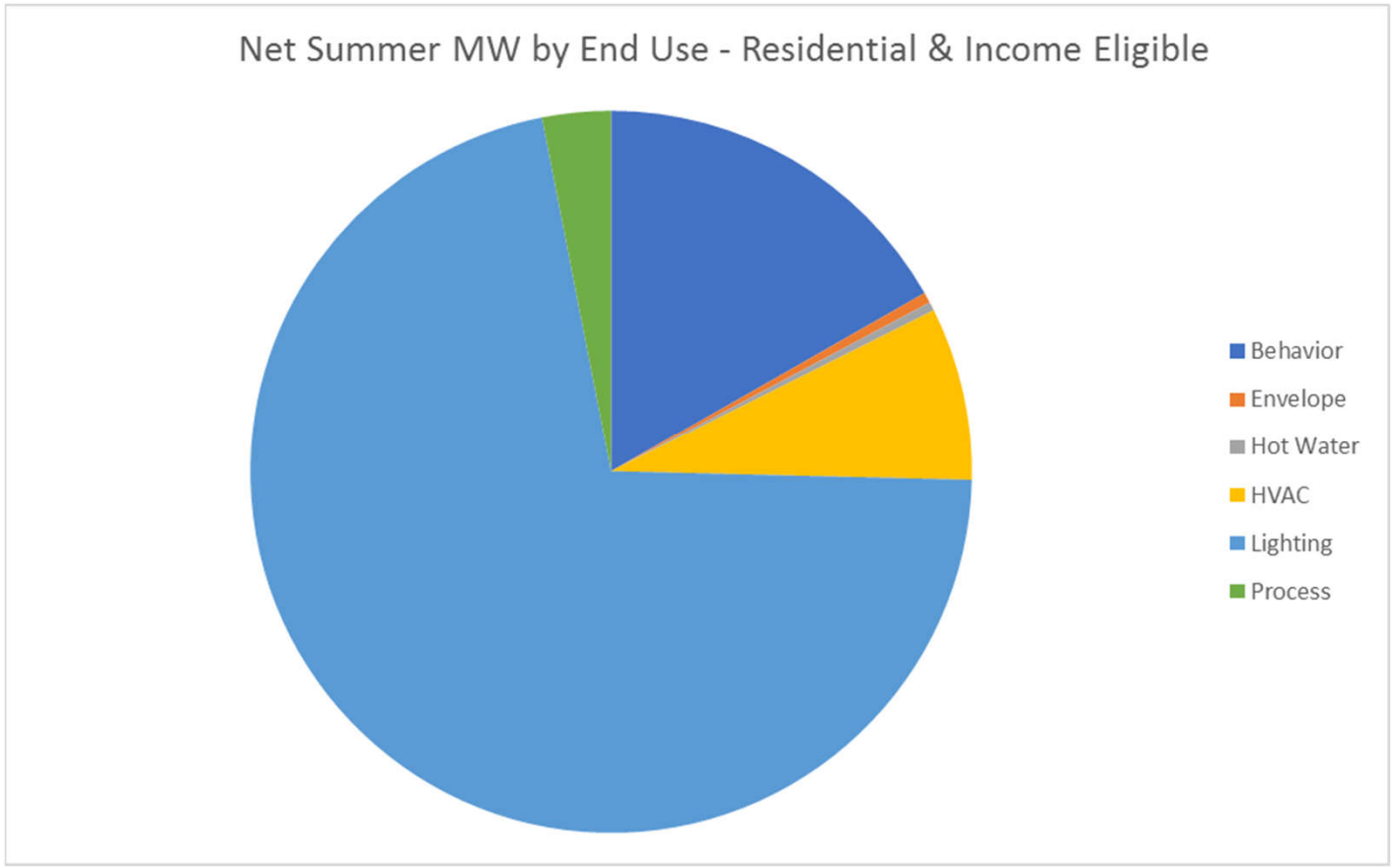
While the majority of lifetime MWh come from lighting, it is important to look at the programs holistically and see what drives total benefits. Lighting still has the majority of benefits but HVAC and Envelope measures have a much greater share of total portfolio benefits.

Residential and IE Savings vs Benefits by Core Initiative



The Res Retail program dominates the Lifetime MWh share, largely due to lighting, but the share of total benefits is much more spread out than lifetime electric savings.

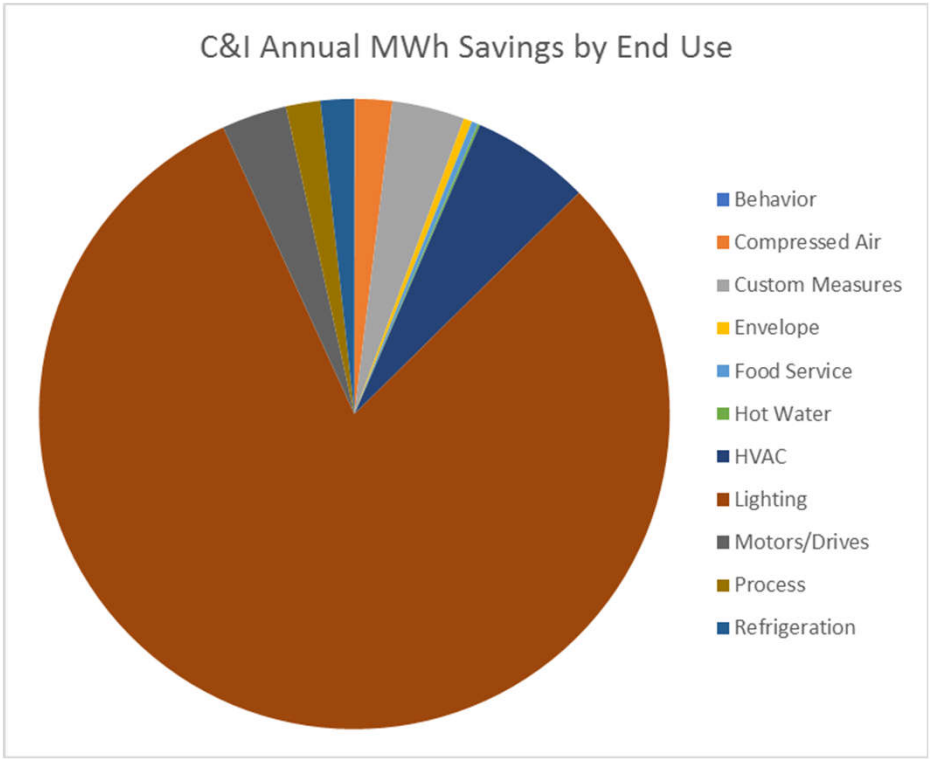
Summer MW savings by End Use

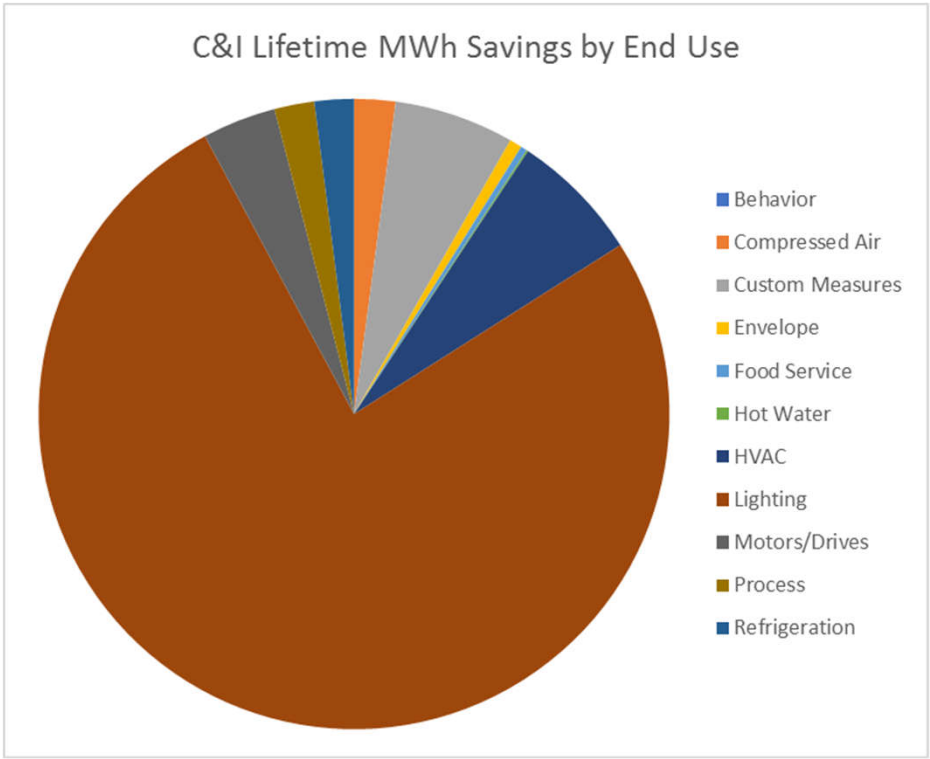


Lighting and Behavior dominate the summer MW savings by end use. This ratio should not be drastically affected by the upcoming lighting evaluation as that mostly targets measure lives.

C&I Electric Performance

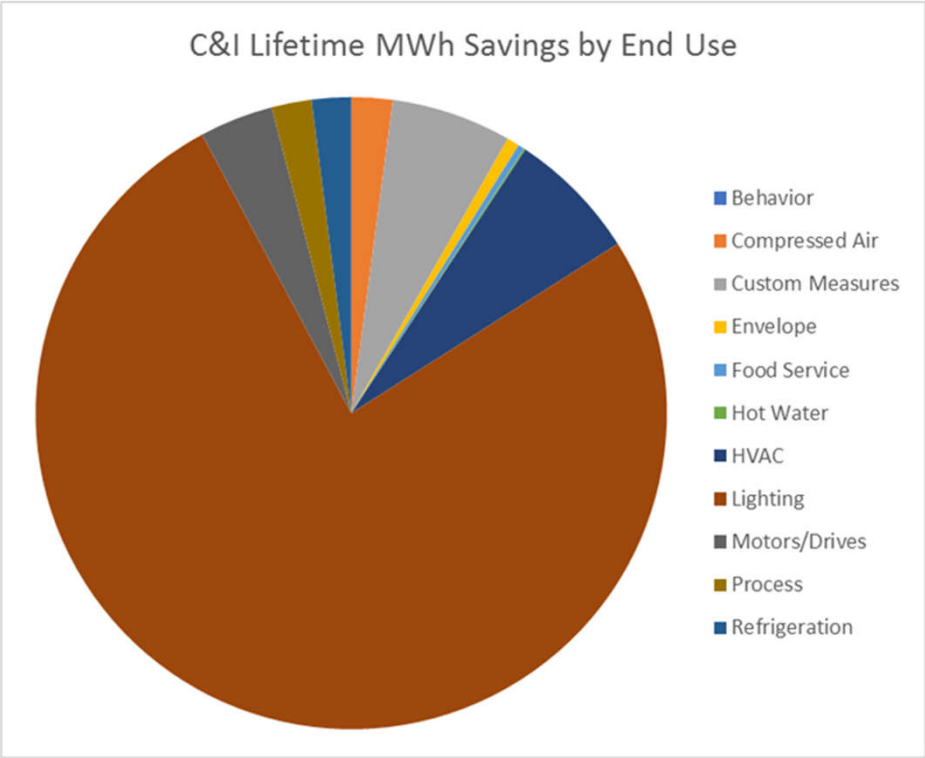
Annual MWh vs Lifetime MWh

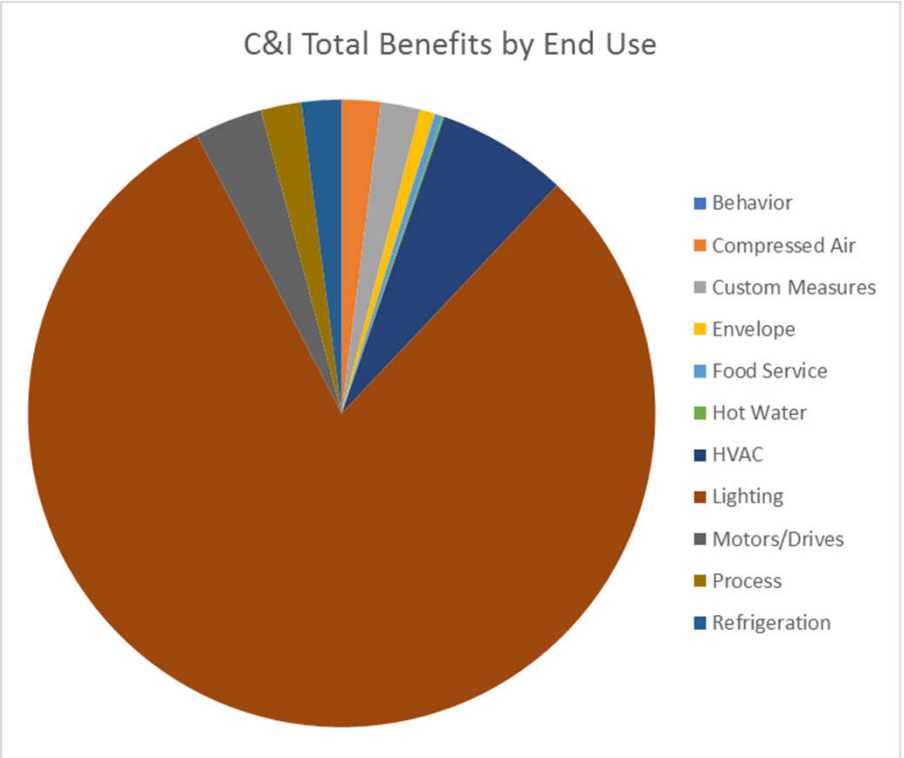




Similar to the Residential and Income Eligible Sectors, Lighting is the dominant end use, in both annual and lifetime MWh savings, for the C&I sector.

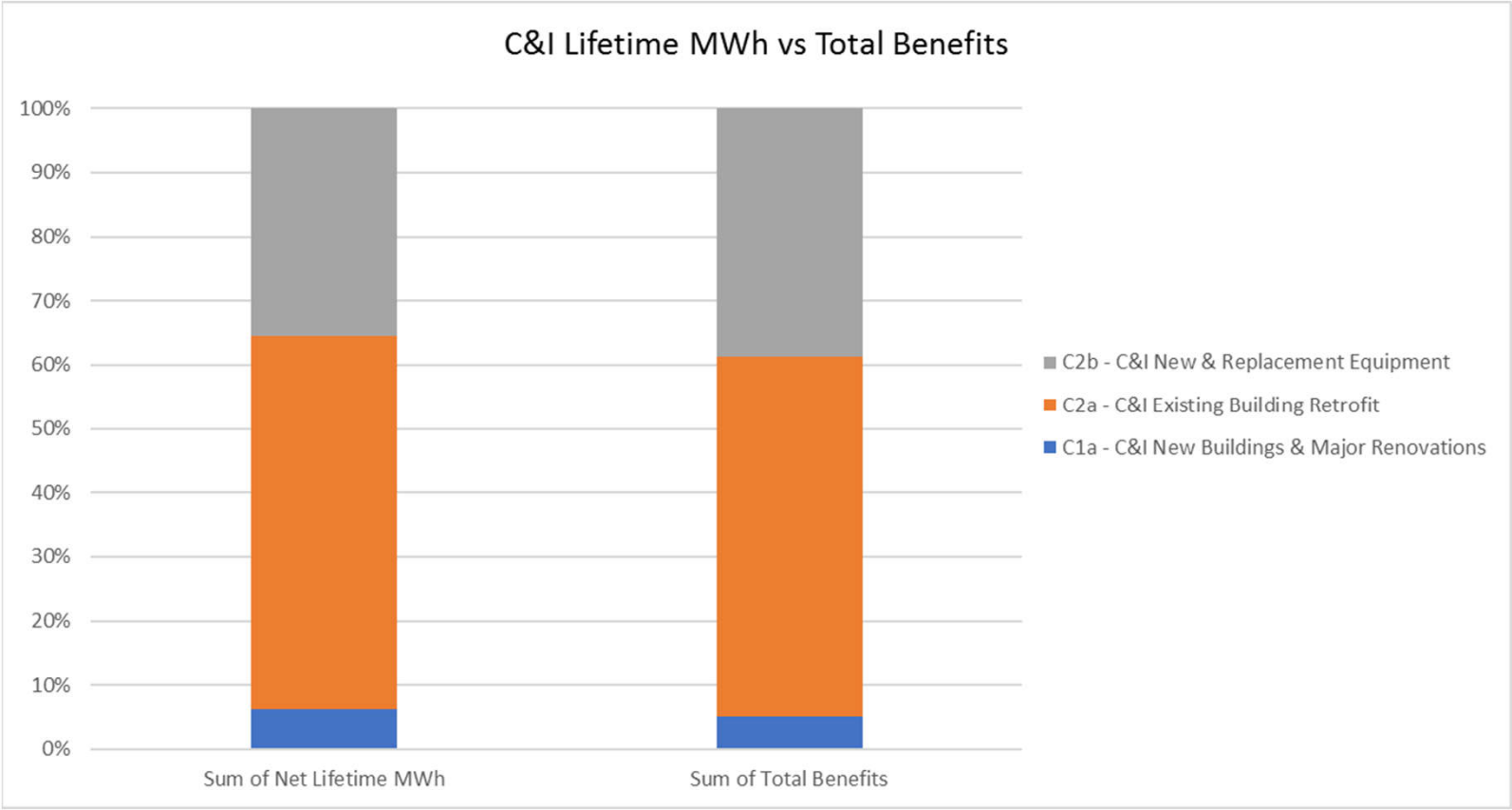
Lifetime MWh vs Total Benefits





Unlike the Residential and Income Eligible sectors, the lifetime MWh and Total Benefits distribution is relatively similar in the C&I Sector. This is mainly driven by the smaller portion of delivered fuel savings in the C&I sector.

Lifetime Savings vs Total Benefits by Core Initiative



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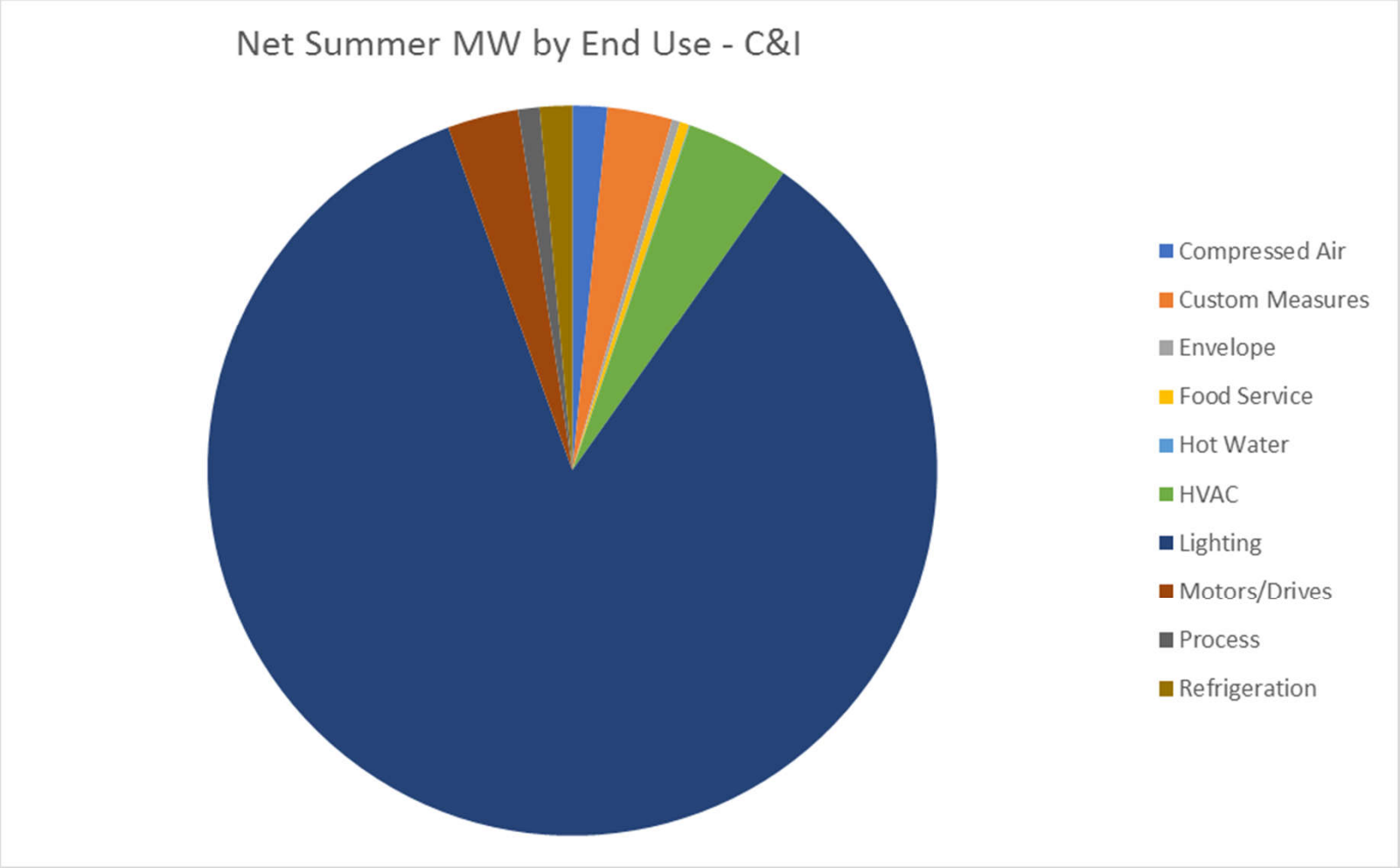
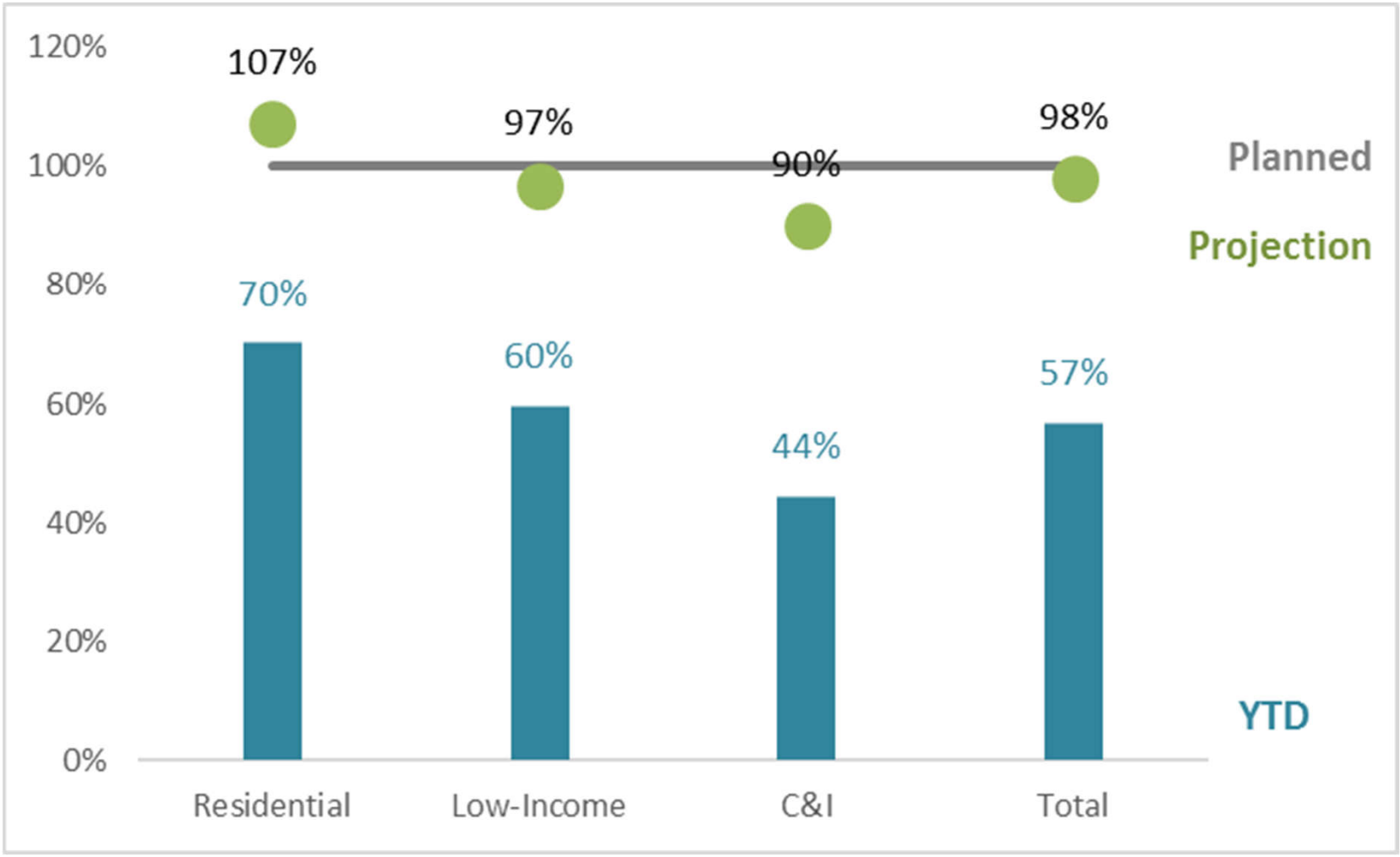
Summer MW savings by End Use



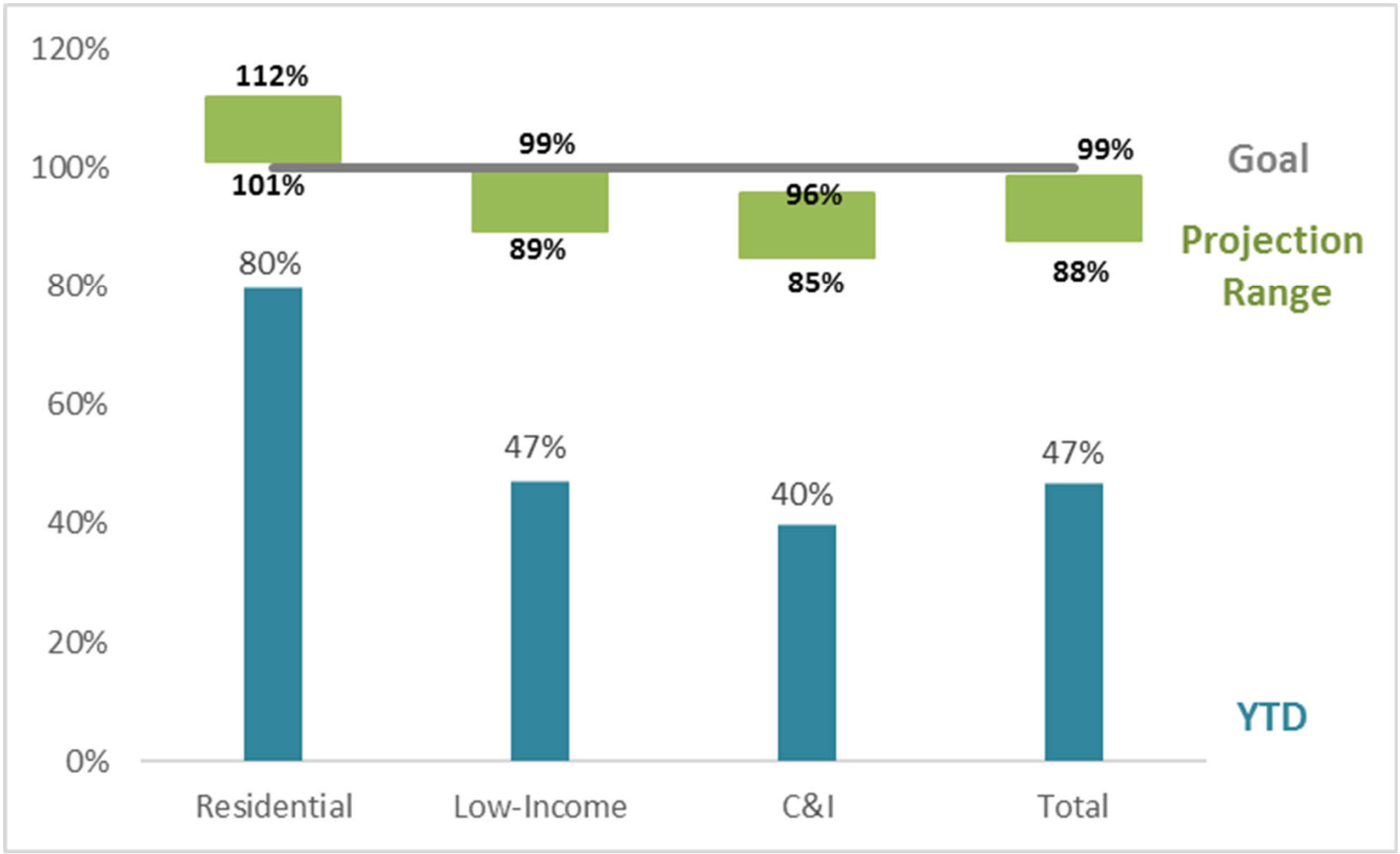
In terms of net summer MW the C&I sector is largely dominated by the lighting end use.

Electric Forecasts

Electric Spending Forecast



Electric Lifetime Savings Forecast

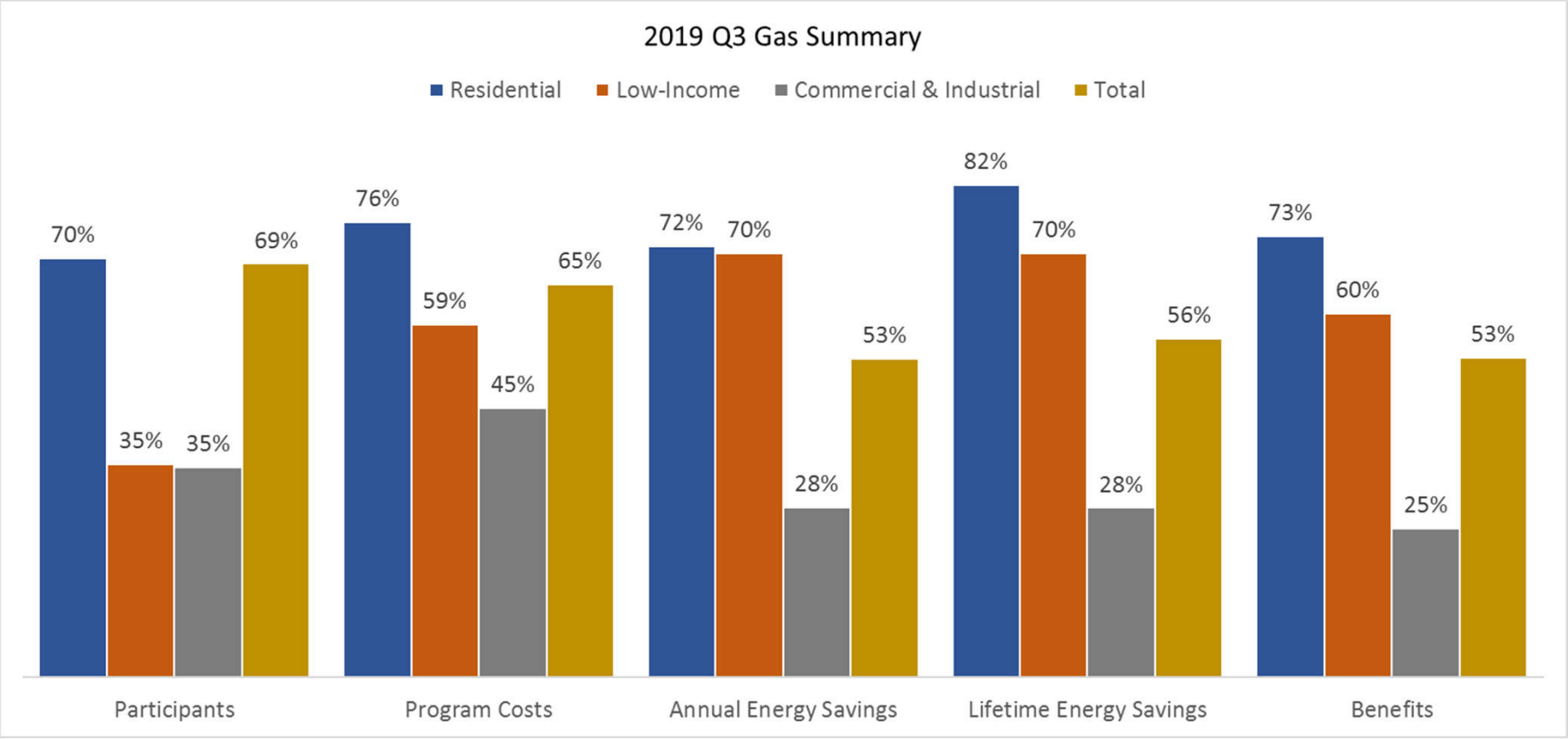


Q3 Gas Performance

Year over Year Q3 Comparison

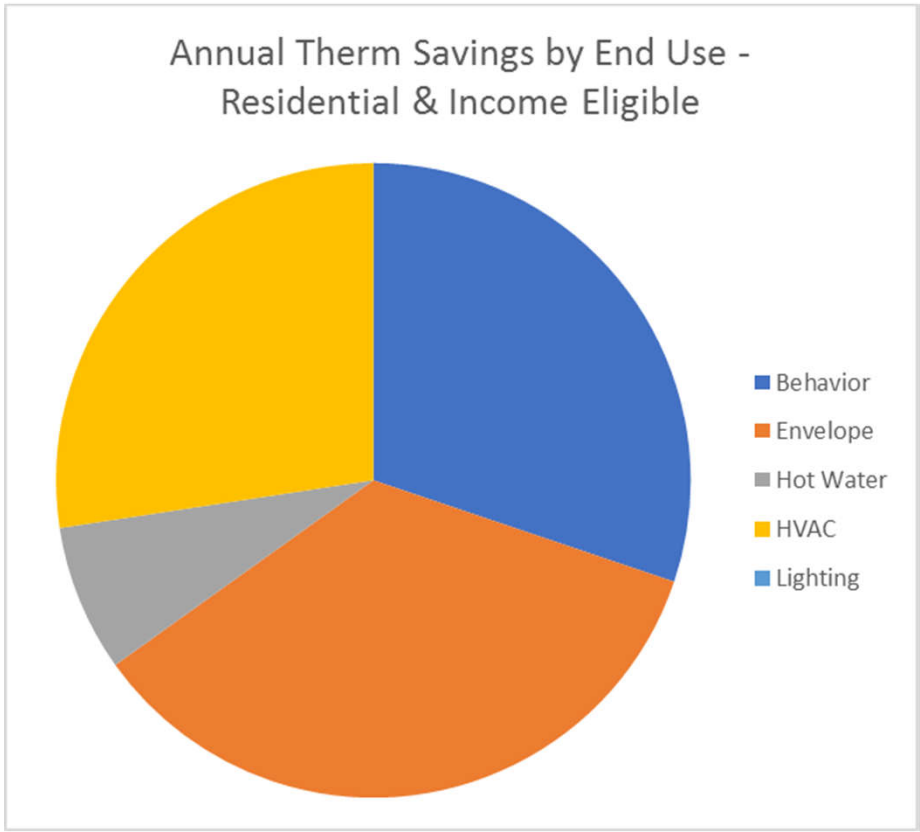
		2017		2018		2019	
		Therms/$ Benefits	% to Goal	Therms/$ Benefits	% to Goal	Therms/$ Benefits	% to Goal
Residential	Annual Therms	9,474,953	62%	10,434,172	67%	11,298,633	72%
	Lifetime Therms	113,590,448	63%	123,675,793	66%	147,596,134	82%
	Total Benefits	210,039,327	69%	211,101,086	68%	255,195,740	73%
Income Eligible	Annual Therms	1,240,276	60%	1,478,851	71%	1,616,065	70%
	Lifetime Therms	24,300,202	59%	28,938,968	70%	31,670,049	70%
	Total Benefits	53,569,924	69%	60,732,757	78%	79,095,983	60%
C&I	Annual Therms	4,551,374	40%	5,747,942	49%	3,796,990	28%
	Lifetime Therms	64,453,018	41%	72,372,314	45%	52,100,753	28%
	Total Benefits	72,037,717	44%	89,196,778	54%	68,877,313	25%
Portfolio	Annual Therms	15,266,603	54%	17,660,965	60%	16,711,688	53%
	Lifetime Therms	202,343,668	53%	224,987,075	57%	231,366,936	56%
	Total Benefits	335,646,967	62%	361,030,621	65%	403,169,037	53%

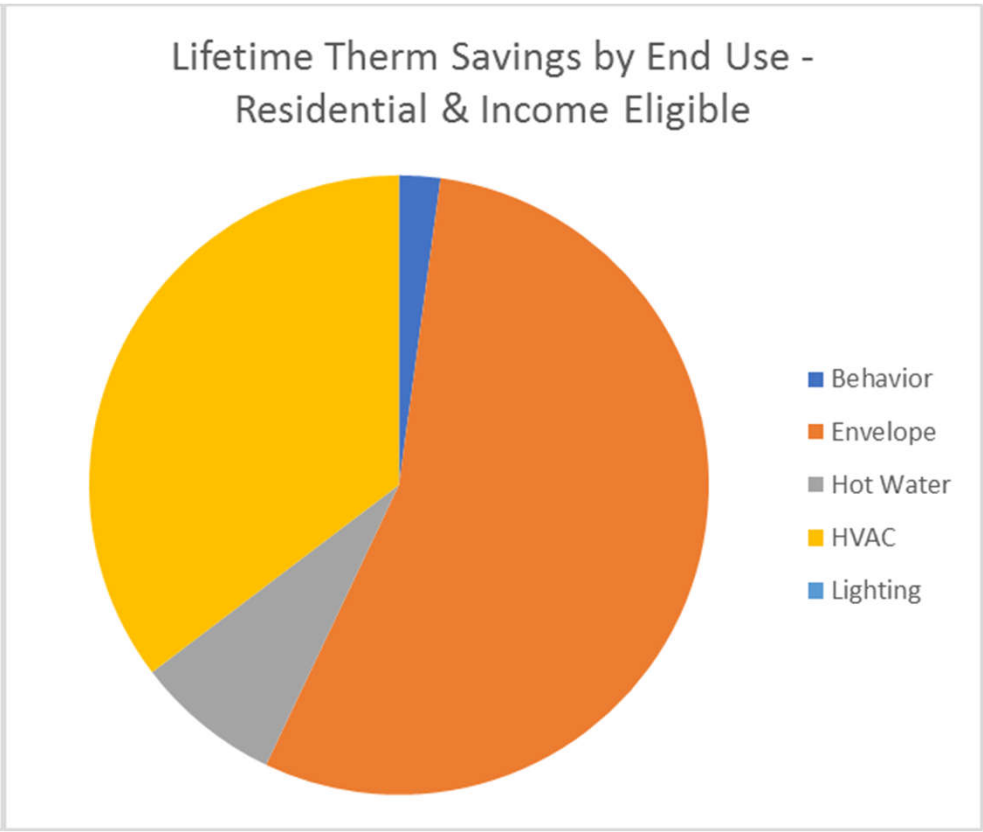
Q3 Gas Summary



Residential Gas Performance

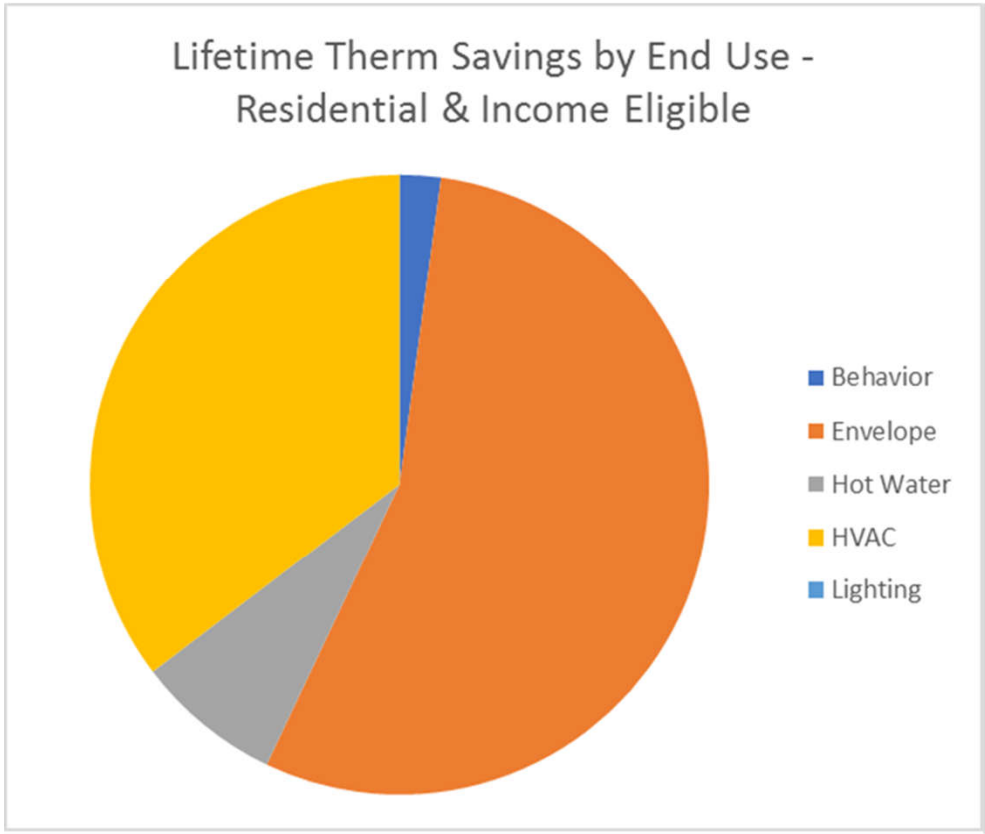
Annual & Lifetime Savings by End Use – Residential & Income Eligible

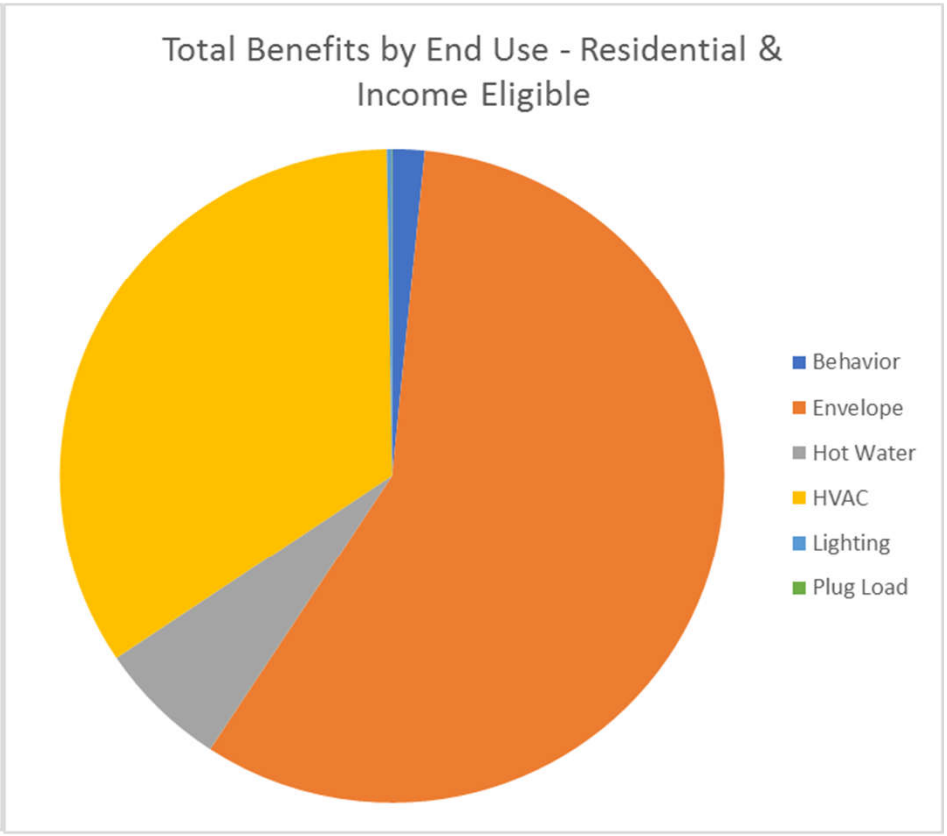




There is a larger difference in the drivers of annual and lifetime savings in the gas portfolio compared to the electric portfolio. In the gas portfolio, annual savings are largely driven by Behavior, Envelope, and HVAC while lifetime savings are predominantly driven by just HVAC and Envelope measures.

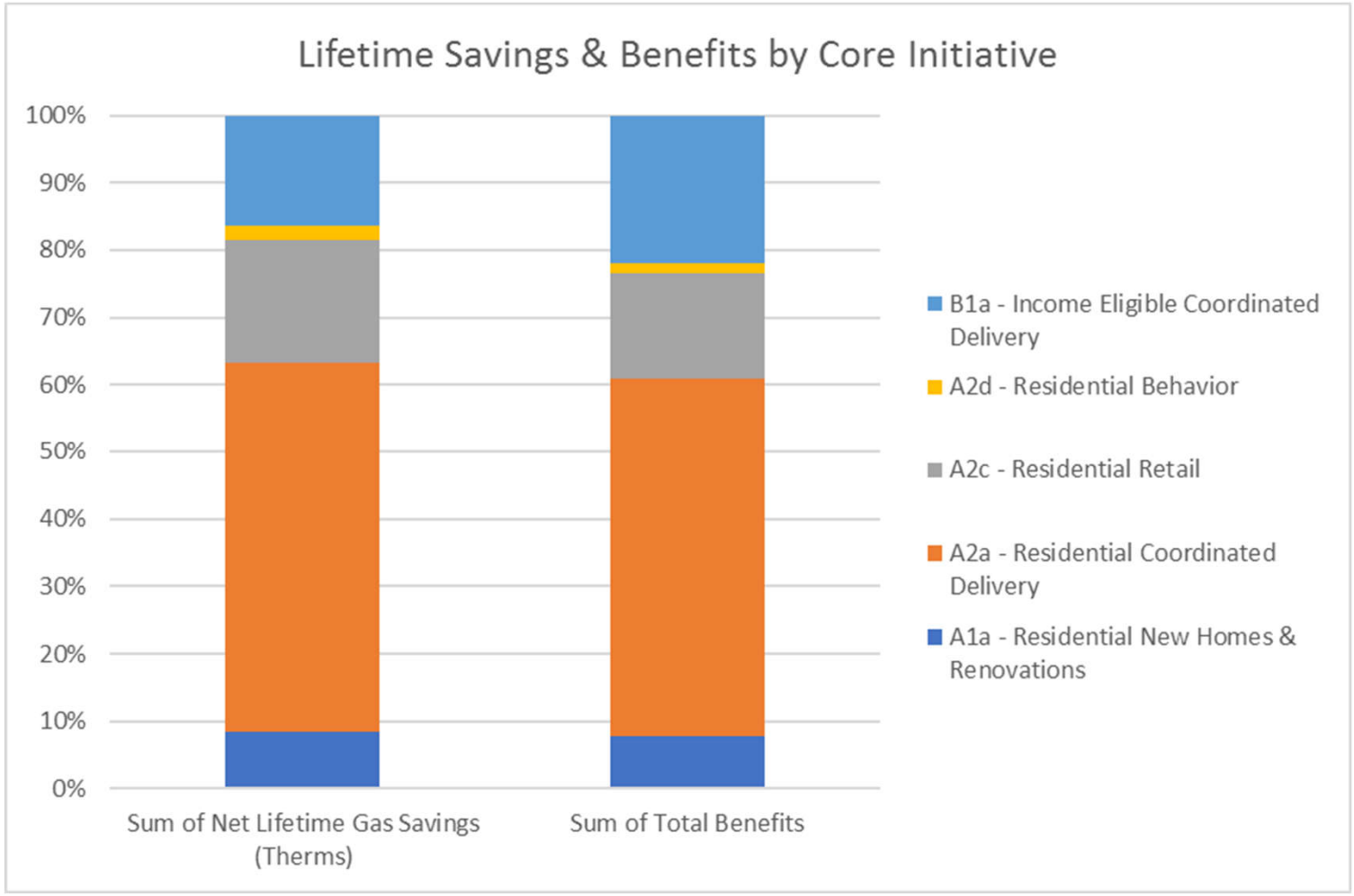
Lifetime Savings vs Total Benefits by End Use





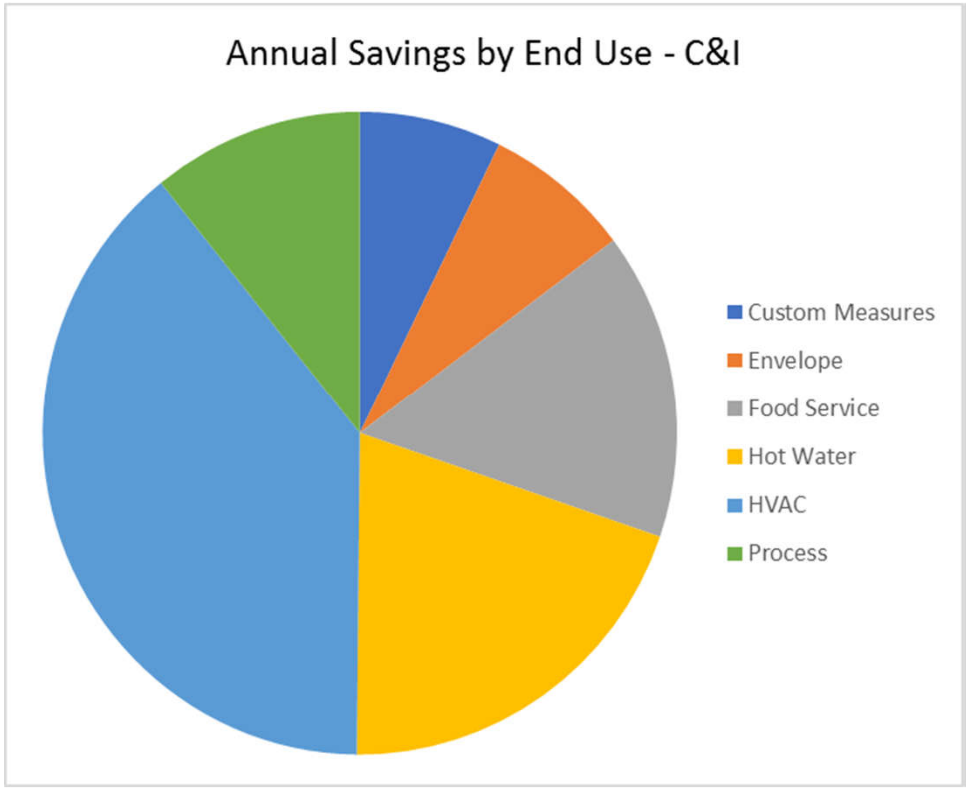
There is no large difference in the drivers between lifetime savings and total benefits in the gas portfolio, again, due to the smaller portion of non-gas savings (e.g., lighting).

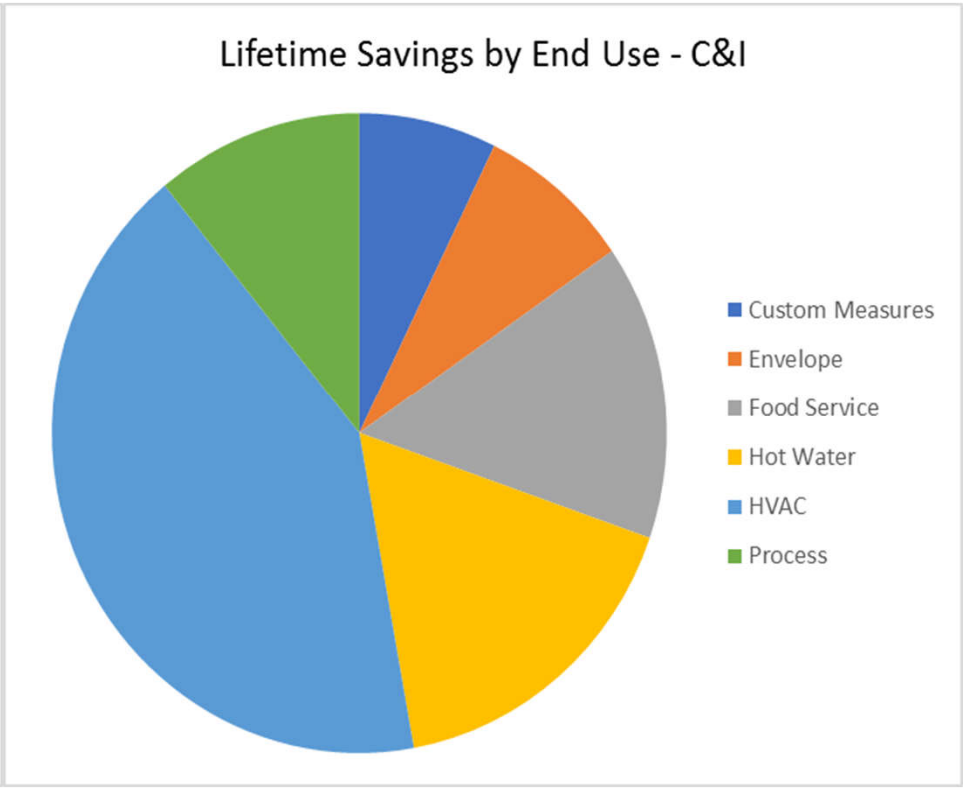
Lifetime Savings & Benefits by Core Initiative



C&I Gas Performance

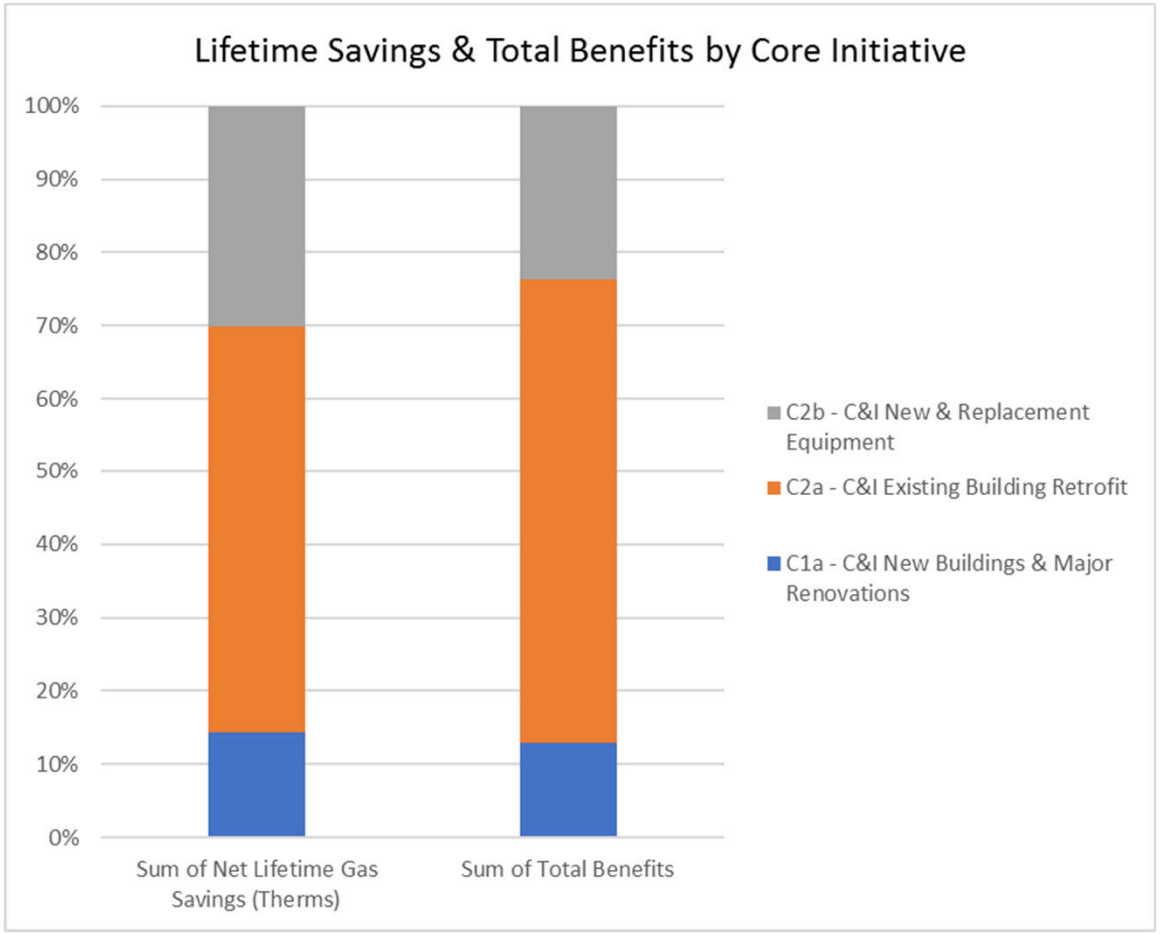
C&I Savings by End Use





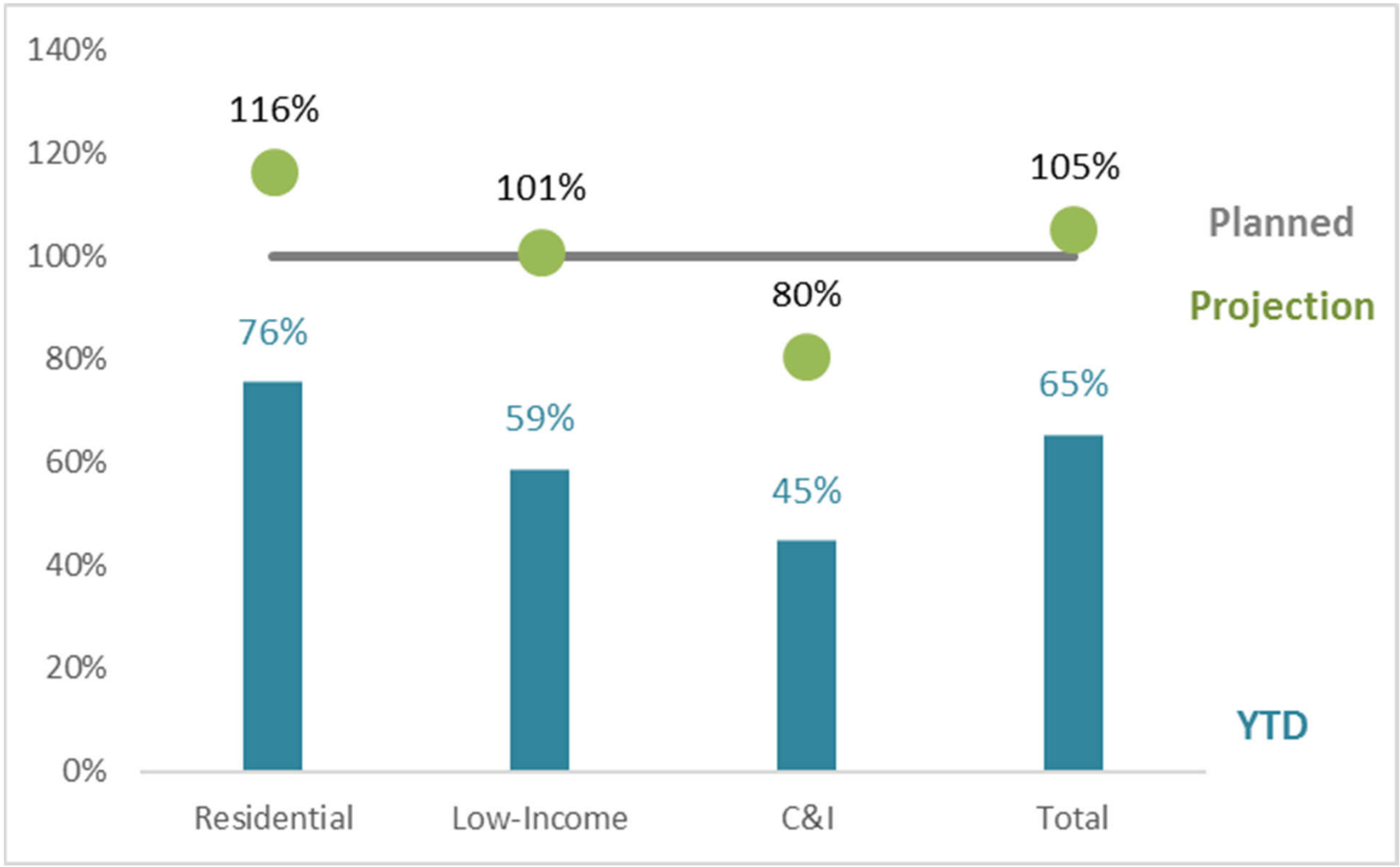
The C&I gas savings are distributed more evenly by end use than the electric C&I portfolio. The majority of savings here are driven by HVAC and Hot Water end uses.

Lifetime Savings & Total Benefits by Core Initiative

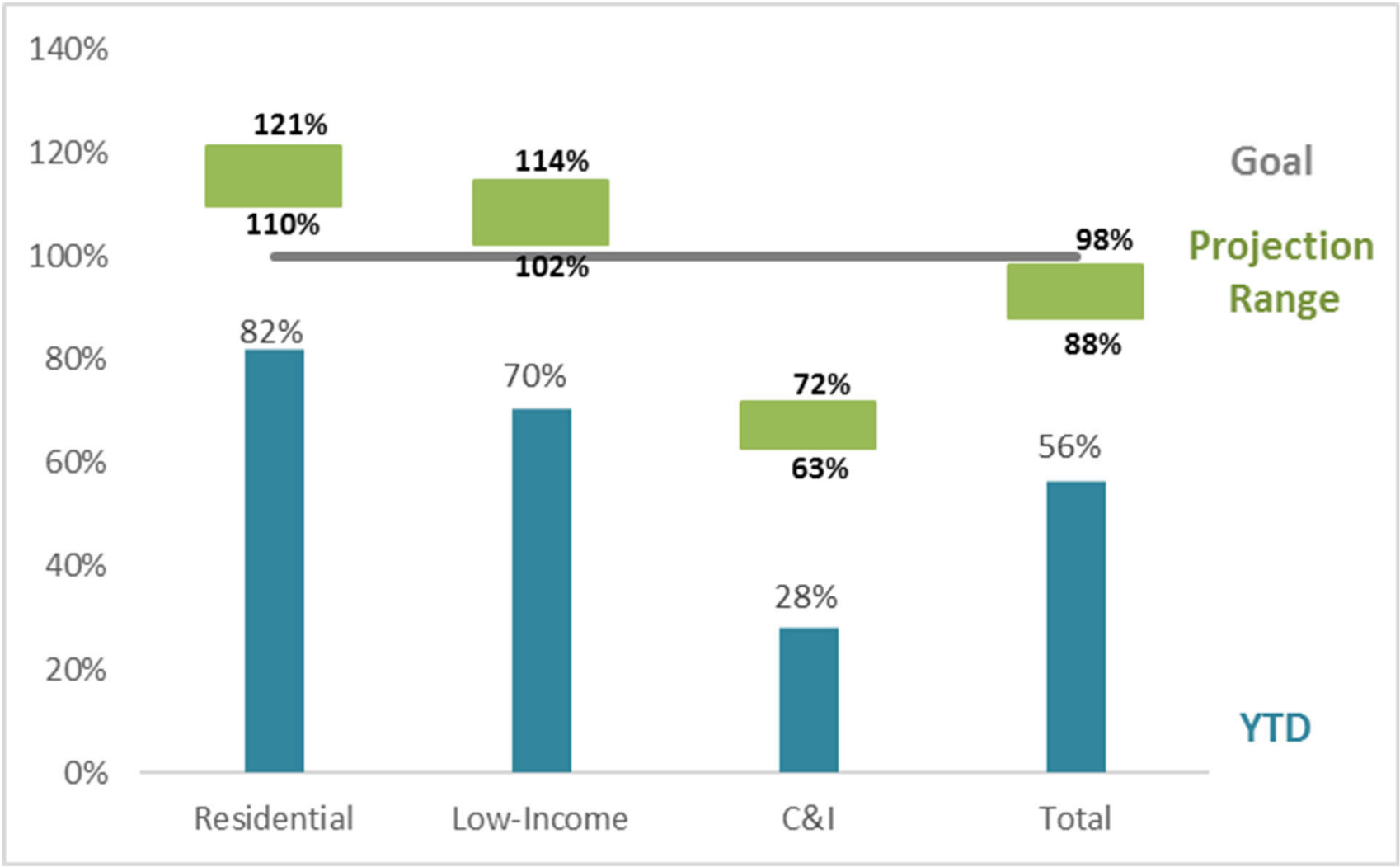


Gas Year End Forecasts

Gas Spending Forecast



Gas Lifetime Savings Forecast



Gas Forecasts

- Higher savings target and diminishing opportunities for savings due to EM&V results, codes, and ISP. Making higher savings goals more difficult to achieve
- Some PAs are not seeing large projects coming in by year end of 2019; pipeline for large projects is less robust
- First year of a three-year plan, there is potential to make up savings gap in years 2 & 3

Thank you

mass save

BERKSHIRE
GAS

BLACKSTONE
GAS COMPANY

Cape Light
Compact

Columbia Gas

EVERSOURCE

Liberty Utilities

nationalgrid

Unitil
energy for life

Appendix

Electric PA Performance YTD

	National Grid			Eversource		
	Total Program Costs	Total Lifetime Savings	Total Benefits	Total Program Costs	Total Lifetime Savings	Total Benefits
YTD as Percentage to Planned	**52%**	**46%**	**46%**	**62%**	**47%**	**57%**
A - Residential	**67%**	**68%**	**62%**	**77%**	**100%**	**96%**
B - Income Eligible	**57%**	**37%**	**54%**	**62%**	**60%**	**61%**
C - Commercial & Industrial	**35%**	**41%**	**38%**	**52%**	**39%**	**44%**

Appendix

Electric PA Performance YTD

	Unitil			Cape Light Compact		
	Total Program Costs	Total Lifetime Savings	Total Benefits	Total Program Costs	Total Lifetime Savings	Total Benefits
YTD as Percentage to Planned	**72%**	**66%**	**65%**	**52%**	**50%**	**30%**
A - Residential	**81%**	**112%**	**92%**	**59%**	**72%**	**30%**
B - Income Eligible	**125%**	**279%**	**62%**	**56%**	**46%**	**58%**
C - Commercial & Industrial	**49%**	**57%**	**52%**	**40%**	**37%**	**26%**

Appendix

Gas PA Performance YTD

	National Grid			Eversource		
	Total Program Costs	Total Lifetime Savings	Total Benefits	Total Program Costs	Total Lifetime Savings	Total Benefits
YTD as Percentage to Planned	**64%**	**62%**	**50%**	**57%**	**46%**	**52%**
A - Residential	**69%**	**79%**	**61%**	**71%**	**81%**	**83%**
B - Income Eligible	**60%**	**70%**	**54%**	**54%**	**101%**	**88%**
C - Commercial & Industrial	**50%**	**38%**	**28%**	**34%**	**15%**	**16%**

Appendix

Gas PA Performance YTD

	Unitil			CMA		
	Total Program Costs	Total Lifetime Savings	Total Benefits	Total Program Costs	Total Lifetime Savings	Total Benefits
YTD as Percentage to Planned	**73%**	**71%**	**68%**	**72%**	**47%**	**54%**
A - Residential	**78%**	**94%**	**90%**	**95%**	**87%**	**93%**
B - Income Eligible	**57%**	**35%**	**30%**	**49%**	**43%**	**51%**
C - Commercial & Industrial	**84%**	**66%**	**82%**	**37%**	**16%**	**18%**

Appendix

Gas PA Performance YTD

	Berkshire			Liberty		
	Total Program Costs	Total Lifetime Savings	Total Benefits	Total Program Costs	Total Lifetime Savings	Total Benefits
YTD as Percentage to Planned	**95%**	**79%**	**78%**	**103%**	**132%**	**115%**
A - Residential	**98%**	**84%**	**92%**	**97%**	**102%**	**105%**
B - Income Eligible	**101%**	**74%**	**56%**	**105%**	**79%**	**84%**
C - Commercial & Industrial	**85%**	**75%**	**76%**	**117%**	**211%**	**162%**