

Workshop #3: Commercial and Industrial Retrofit Programs

Program Administrator Overview

December 1, 2020

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Summary of PA Position



Agree with direction of recommendations



Progress has been made in 2019-2021



Collaborative models work



Unique jobs = custom projects

Learning from Evaluation: Realization Rates



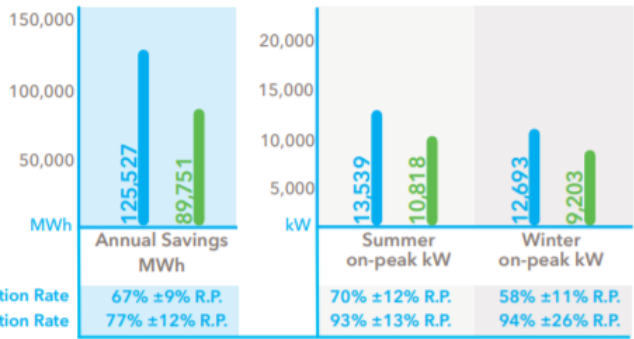
RESULTS

Custom Non-Lighting Results - Statewide (n=62)

Statewide custom non-lighting results include PY2016 results combined with PY2017/18 results. Energy savings precisions are calculated at the 90% confidence interval while peak demand savings are at 80% confidence. Note that specific franchise controls projects have been excluded from the statewide result since Unitil runs these projects through a different program offering.

PY2017/18 Total Tracking savings | Total Evaluated savings

Combined PY2016 & PY2017/18 Realization Rate	71.5% ±7.4% R.P.	79.9% ±8.8% R.P.	72.5% ±12.4% R.P.
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Discrepancy Analysis (Top 3 Causes of MWh RR)	Net Change from 100% RR	
	(-) Adj	(+) Adj
Operation/Load	-21.7%	6.6%
Baseline	-5.4%	0.1%
Quantity	-2.2%	

The largest discrepancy for all PAs was the differences between proposed and actual operating parameters. Operating hours and loads were generally overestimated. Eight sites had baseline changes, including those that the evaluation determined to be replace on failure rather than retrofits. This was common across all PAs.

- Since the last evaluation, marked increases in RRs.
- Learning and incorporating findings into current work.
- Renewed focus on validation of savings after implementation
- Leveraging advance metering, EMS trending and EMIS to ensure persistence
- Focus on continual workforce training and customer awareness

Collaborative Work: An Example

- **February 15, 2019:** DNV GL released an Energy Management Systems Baseline Opinion Memo
 - The purpose of the Opinion Memo was to clarify evaluation perspectives on the baselines from which to calculate measure savings for the installation or replacement of energy management systems and components.
 - The effect of the memo, which did not purport to represent new research on industry standard practice (ISP), was to suppress PA support for EMS retrofits.
- **2019:** Council Consultants and PAs worked collaboratively to review real-life scenarios
- **Q1 2020:** Counter-memo draft that incorporated thoughts from evaluation, consultants and implementation.
- **Q2 2020:** Adoption of memo
- Current evaluation underway

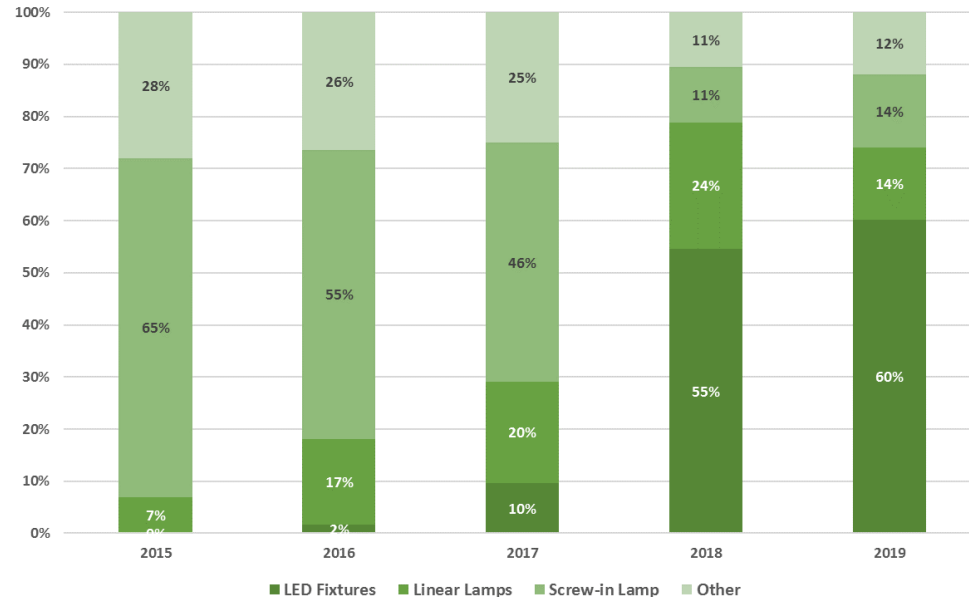
Successful collaboration helps to accomplish goals!

Evolution of Lighting



- Major shifts already underway
 - Screw-in market largely saturated
 - Linear lamps now past peak and expected to trend downward
 - LED fixtures (e.g., high/low bay, troffers, etc.) showing strong growth and expected to continue
- Rising baselines as a result of past success will limit savings potential

Upstream Lighting Savings by Product Category





Thank you

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