

Massachusetts C&I Evaluation Contract Project Summary: Project 45 Prescriptive Commercial & Industrial Programmable Thermostat Evaluation

Project timeframe: 2013-2016

Program year(s) evaluated: 2012-2015

Research area: N.G. Prescriptive C&I P-Stats

High-level study objectives: Estimate natural gas savings for commercial and industrial programmable thermostats.

Recommendations and key supporting findings

Continue to offer this measure at the current deemed value of 32 therms per thermostat.:

- This evaluation did not find a statistically significant value to replace this existing deemed value.
- Despite this, evaluators are confident that C&I programmable thermostats do save some amount of natural gas, and the existing deemed value is a conservative estimate.

Shift resources towards smart web-enable thermostat or mini-EMS systems, both for energy efficiency and electrical demand response:

- Customer behavior around temperature setback remains an area with significant energy savings potential.
- Web-enabled and smart thermostats show some promise for improving natural gas efficiency by making thermostat programming easier.

Prescriptive Commercial & Industrial Programmable Thermostat Evaluation Report Summary (cont.)

Comprehensive findings and recommendations matrix

Recommendations	
Deemed Savings	Continue to offer this measure at the current deemed value of 32 therms per thermostat.
Smart Thermostats	Shift resources towards smart web-enable thermostat or mini-EMS systems, both for energy efficiency and electrical demand response.

Findings	Recommendations	
	Deemed Savings	Smart Thermostats
Impact Results		
<i>Given the variability of C&I energy use, the sample size, and available tracking and billing data, billing analysis as an evaluation approach—either alone or supplemented by field data collection—is unlikely to be able to make a statistically significant determination as the amount of energy saved by C&I PTs either at the program level or for any subgrouping.</i>	X	
<i>The results of this evaluation do suggest that PTs save some amount of natural gas in C&I buildings when replacing existing non-PTs or older PTs which the occupants no longer know how to program.</i>	X	X