

Stepping on the Gas with C&I Thermostats

Presented by

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About Vectren Ohio

Providing
reliable natural
gas service to
more than
300,000
Ohioans



- Service area covers **20%** of the state
- DSM programming since **2009** for all sectors:
 - Residential
 - Commercial & Industrial
- Nearly **\$6M** in DSM spending planned for 2019:
 - **66,000+** participants
 - **1.4M Ccf** gross savings

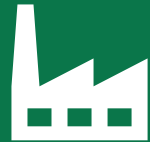
Program History

Why WI-FI
thermostats for
businesses?



Thermostat Rebates

How did the
program work?



Targeted commercial customers with annual usage $\leq 150,000$ Ccf



\$75 rebate per thermostat; limit of two per facility; rebate stacking allowed



Thermostat must have presence sensing or geo-fencing capability; must be ENERGY STAR[®]-rated

Evaluation Methodology

How were
savings
determined?

Billing analysis
(pooled regression)



12 months of pre-
and post-installation
consumption data

2016 & 2017
combined program
participation



29% attrition rate
after data screening

Program Results

Evaluation uncovered more than **4x** the claimed savings through billing analysis

Vectren's reported savings were based on residential evaluations (notably conservative)

24,541 total net Ccf savings in 2016-2017

88% overall program satisfaction & likelihood to recommend

Analyzed Premises	Estimated % Savings	Standard Error	Lower 90% CI	Upper 90% CI	Absolute Precision (90%)	Per Unit Savings (CCF)
50	7%	5%	-1%	15%	8%	253

Comparative Results

How have other C&I thermostat programs performed?

Utility	Vectren OH	Consumers Energy	ComEd
Program Name	C&I Prescriptive Thermostats	Business Smart Thermostat Pilot	AirCare Plus
Program Year(s)	2016-2017	2017	2018
% Baseline Consumption	7%	5%	N/A
Participants	70	165	1,212
Net Savings per Thermostat	25.3 MCF	18.2 MCF	4.8 MCF
Methodology	Billing Analysis	Billing Analysis	IL TRM v6.0

Program Considerations

Lessons learned from program implementation



Multiple channel marketing to reach C&I decision-makers



Align rebate amounts to decrease market confusion



Larger sample sizes increase statistical validity of savings

Thank You



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