

# 21<sup>st</sup> Century DSM Measurement Quantification for Market Transformation

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Why is measurement key?

# Measurement Challenges



## Data Lag

Slows utilities, regulators, and market



## Cost- and Effort-Intensive

EM&V costs can consume 3-5% of program budgets



## Retroactive

Backwards looking analysis doesn't allow for optimization



## Contentious

Lack of transparency and consistency across jurisdictions

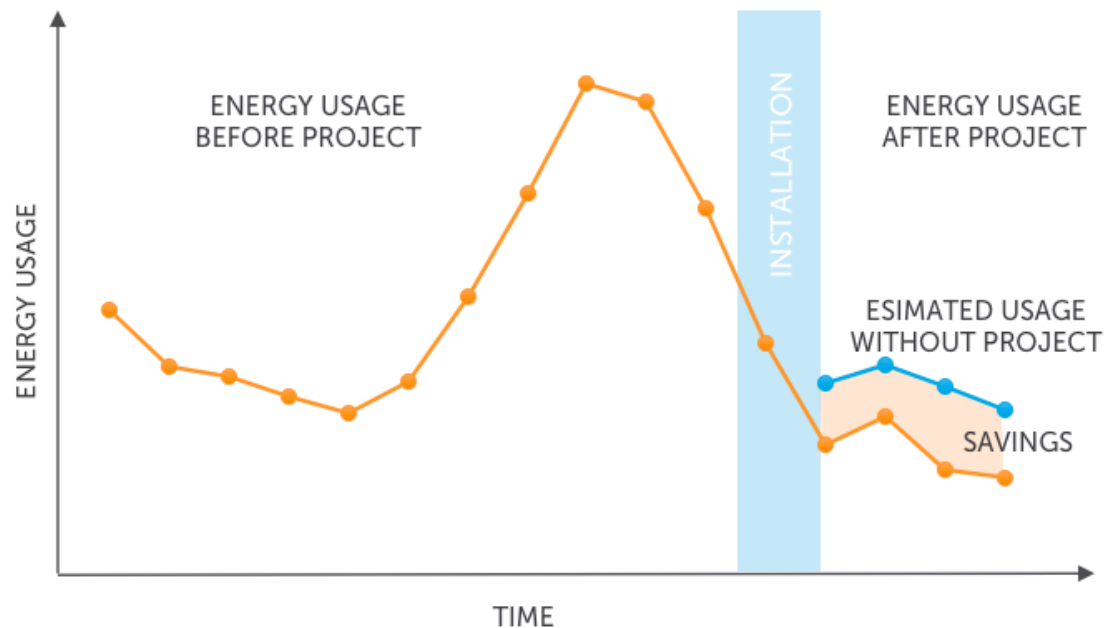


## Imprecise

Sampling, data insufficient for granular analysis

# Optix Quantify

Billing analysis for all projects in a program, in an on-going manner, with a robust comparison group



Builds upon accepted M&V protocols

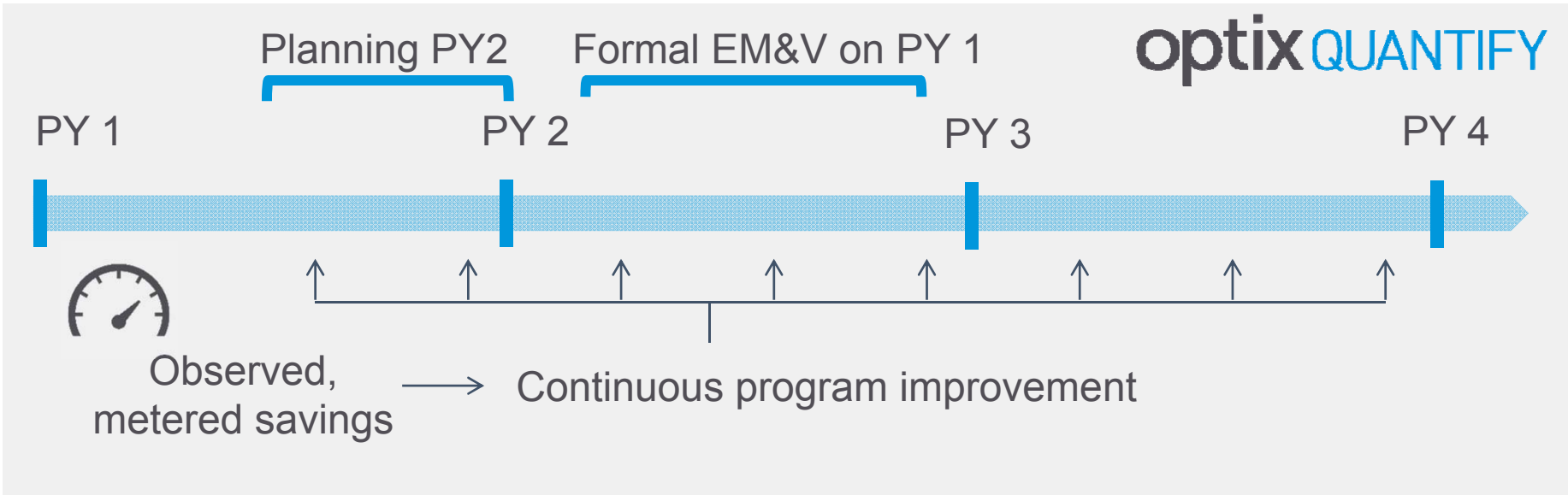
## Key outcomes

- More timely insight
- More granular insight
- Complements traditional evaluation

## What it is not

- Replacement for formal EM&V
- Project-level precision 100% of the time
- Right solution for all program types

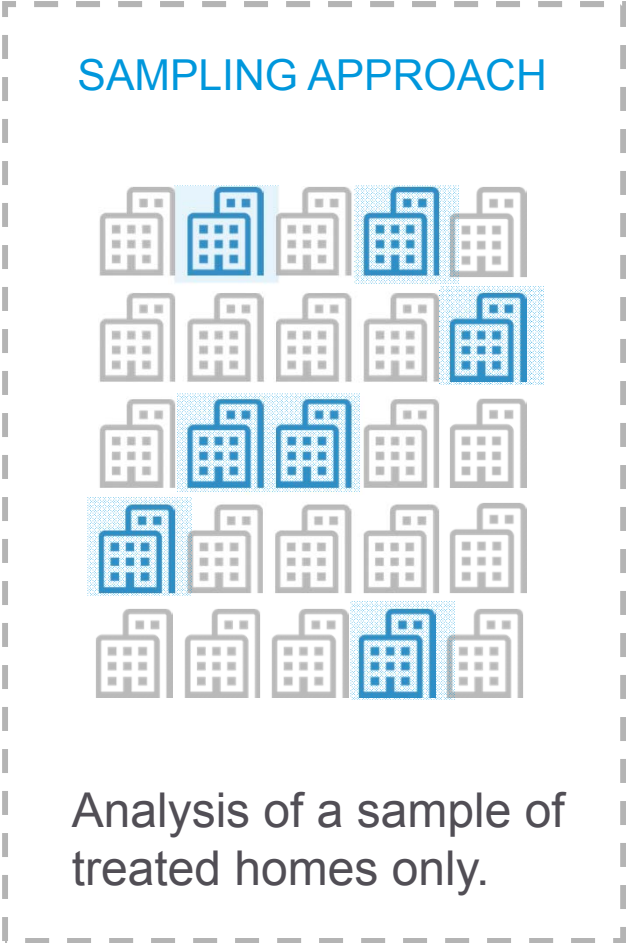
# More Timely Insights



# Granular Insights

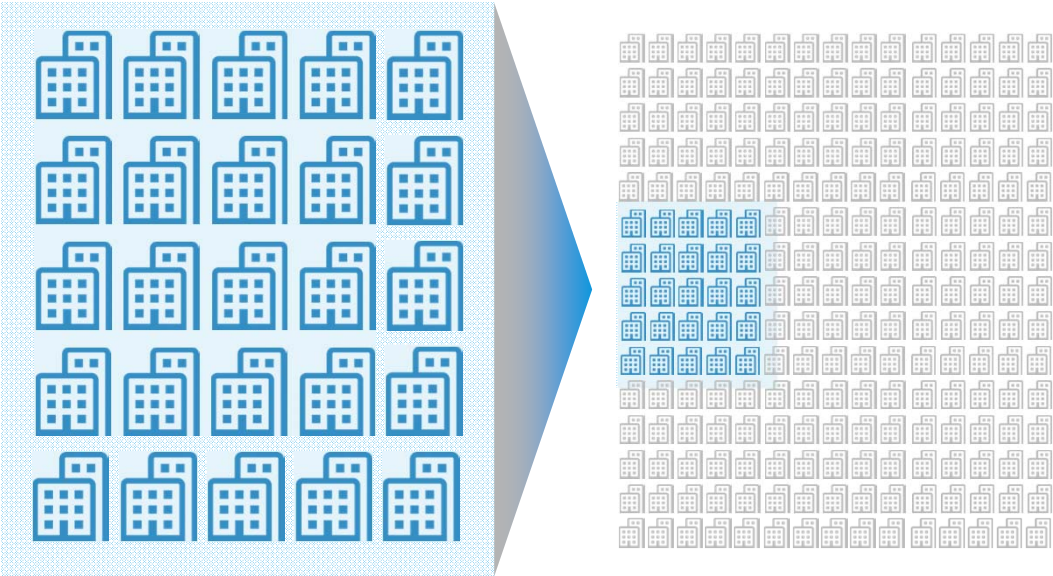
EM&V 1.0

EM&V 2.0



CENSUS APPROACH

COMPARISON GROUP



Software enables analysis of all treated homes against a large comparison group.

# What Does More Granular Insight Mean

Actionable information

Current state

“The average realization rate is 76%”

## Why?

**optix**QUANTIFY

“The average realization rate is 76%”

- “The air sealing measure is underperforming”
- “Arrow A/C Contractor is performing better than all others”
- “Homes over 3,000 sqft have the best realization rates”
- ...And many more

Whole Home

Dashboard

Savings

Explore

Program To Date

**METERED SAVINGS**

2,064 MWh  $\pm$  270

5,000 MWh

84% Realization  $\pm$  11%

876,373 PREMISES ANALYZED

**PROGRAM PROGRESS**

2,845 Projects

5,500

\$801,270 Spent

\$1,537,500

**COST EFFECTIVENESS**

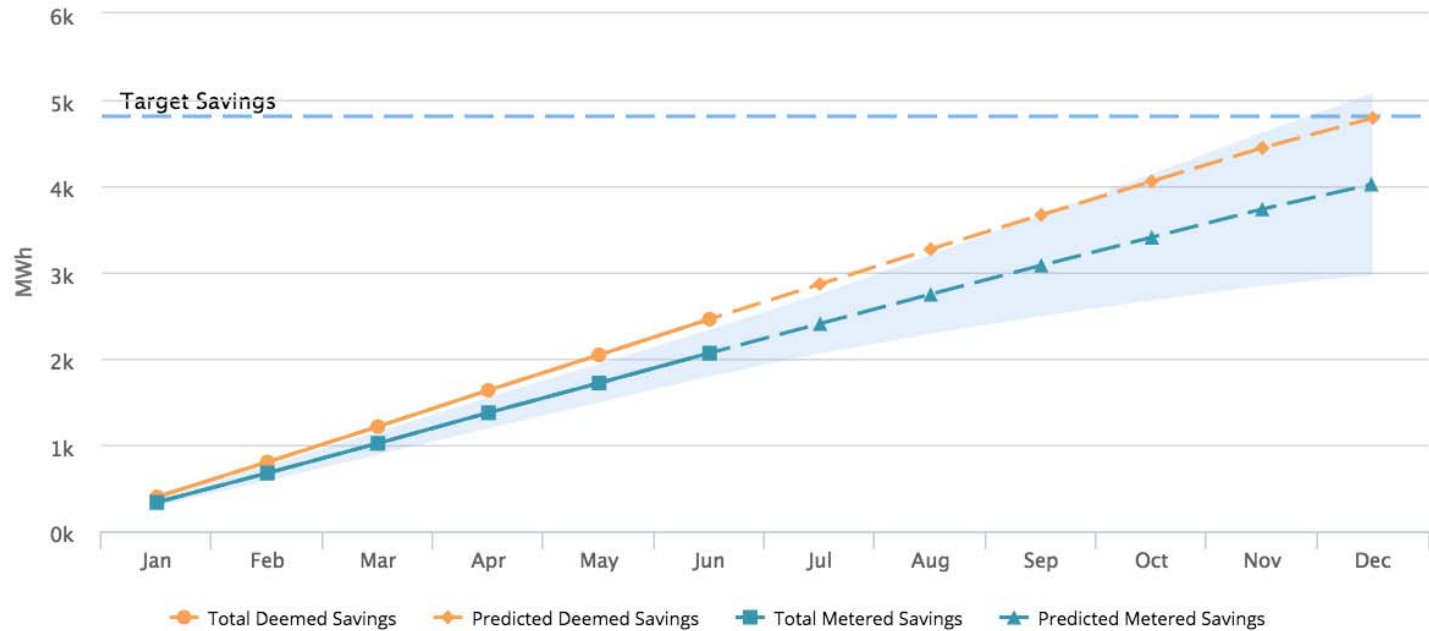
TRC 1.01

3.8¢/kWh

Avg Savings: 724kWh  $\pm$  95

Avg Project Cost: \$1,254

Program Savings





# Better measurement → better value

- For contractors
- For customers
- For lenders
- For resource planning

Whole Home

Dashboard

Savings

Explore



Program To Date

PROGRAM SAVINGS

Metered Savings  
2064 MWh ± 270

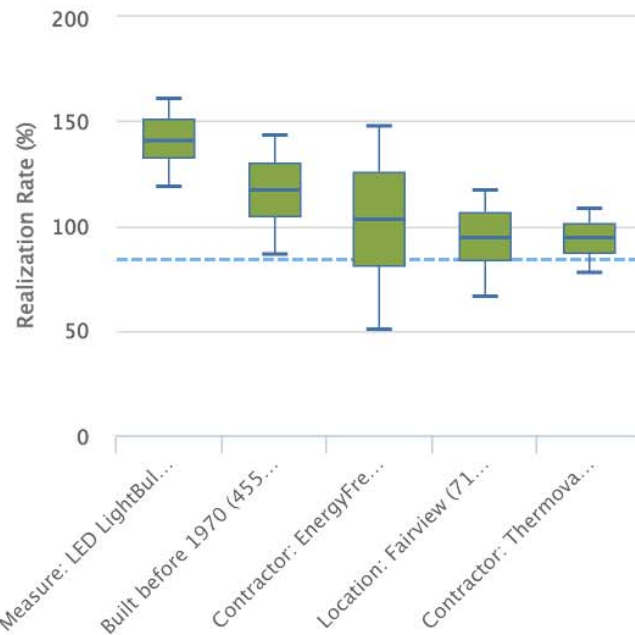
REALIZATION RATE

84% ± 11%

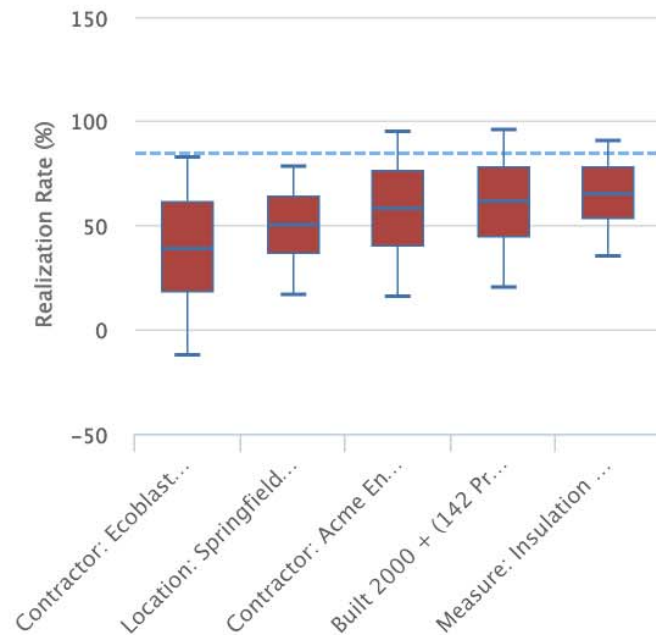
PER-PREMISE SAVINGS

Metered Savings  
725 kWh ± 95

Top Factors of Increased Savings



Top Factors of Decreased Savings



Program Measure Mix

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**ENERGYSAVVY**