Toward a Normalized Savings Approach

Lessons from PG&E's Commercial Whole Building Demonstration

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Commercial Whole Building Demo

A comprehensive, pay-for-performance approach designed to deliver 15+% meter-based, ex-post energy savings in existing commercial buildings using pre/post analytics

Flexible, Comprehensive Approach

Two Installment Payments

1. Implement
2. Perform

Performance Indicator	Results To Date*
Avg. # EEMs Installed	>4
Weighted Avg. EUL Range	4 to 15 years
Avg. Estimated Customer kWh Savings	>20%
Avg. Estimated Reported kWh Savings (%)	12%**

** Based on initial simulation modeling results for 8 verified projects to date*
*** Reported savings determined based on code baseline using simulation modeling*

12 projects at existing office, grocery and institutional buildings: 8 installed and verified to date, and 4 more expected in Q1

Development and Implementation

1. Design Guidance

Partner | **Advisors**

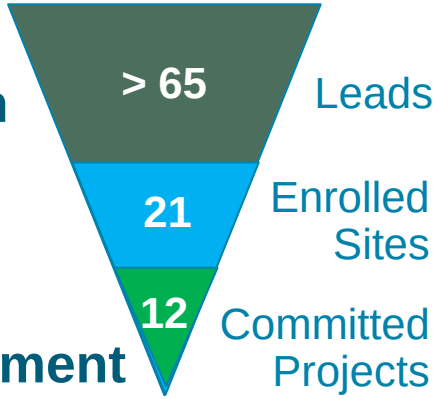
2. Design and Sourcing

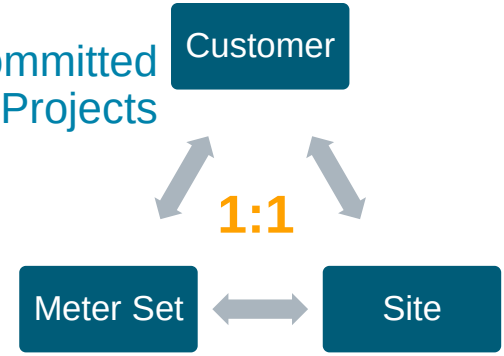
Implementers | **Software**

3. Launch

4. Recruitment and Commitment

Recruitment Stats



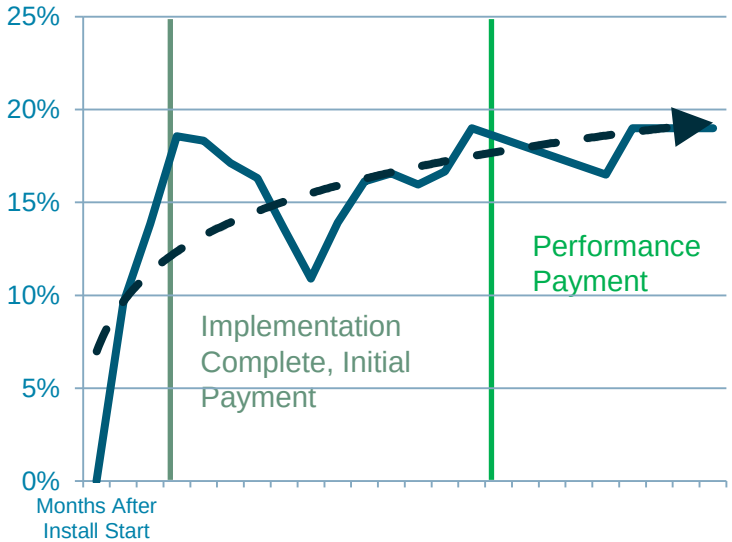


5. Software Testing

$$\text{Savings} = \sum(Si \pm \varepsilon_i)$$

6. Predict, Measure and Pay

Cumulative Energy Savings After Implementation Start
(% of building energy consumption)



Key Design Elements

- Flexibility to iterate quickly on incentive design
- Site and project cost data collection
- Engineering calculations to predict savings, determine weighted average EUL
- Ability to claim partial savings after installation with true-up a year later
- M&V software testing for QC, program-specific standards development
- Ability to offer on a targeted basis

Legend

- In line with HOPP ruling
- CPUC rule clarification or modification may be required
- To expand addressable market

How To Scale Up?

- Flexibility to diverge from a “widget” based approach
- Ability to rely on pre/post analytics for savings claims*
- Data systems integration and automation
- Targeting analytics
- R&D on multi-year pre/post; sub-meters, loggers and sensors
- Program design innovation to better reach SMBs

* IPMVP Option C; calibrated simulation (Option D) may be used for sites not well suited for pre/post analytics

Legend

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Thank You

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