

Innovative Opportunities for Food Producers

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Agenda

- Food Producer's Priorities
- CA FP Available Programs/Offerings
 - IOU EE Programs
 - IOU Strategic Energy Management Programs
 - Other Offerings
- Case Studies
 - Process Optimization

Food Producer's Priorities

- Safety
- Product Quality & Volume
- Costs & Budget
- Competitive Landscape
- Energy

CA FOOD PRODUCERS - AVAILABLE PROGRAMS/OFFERINGS

IOU EE Programs

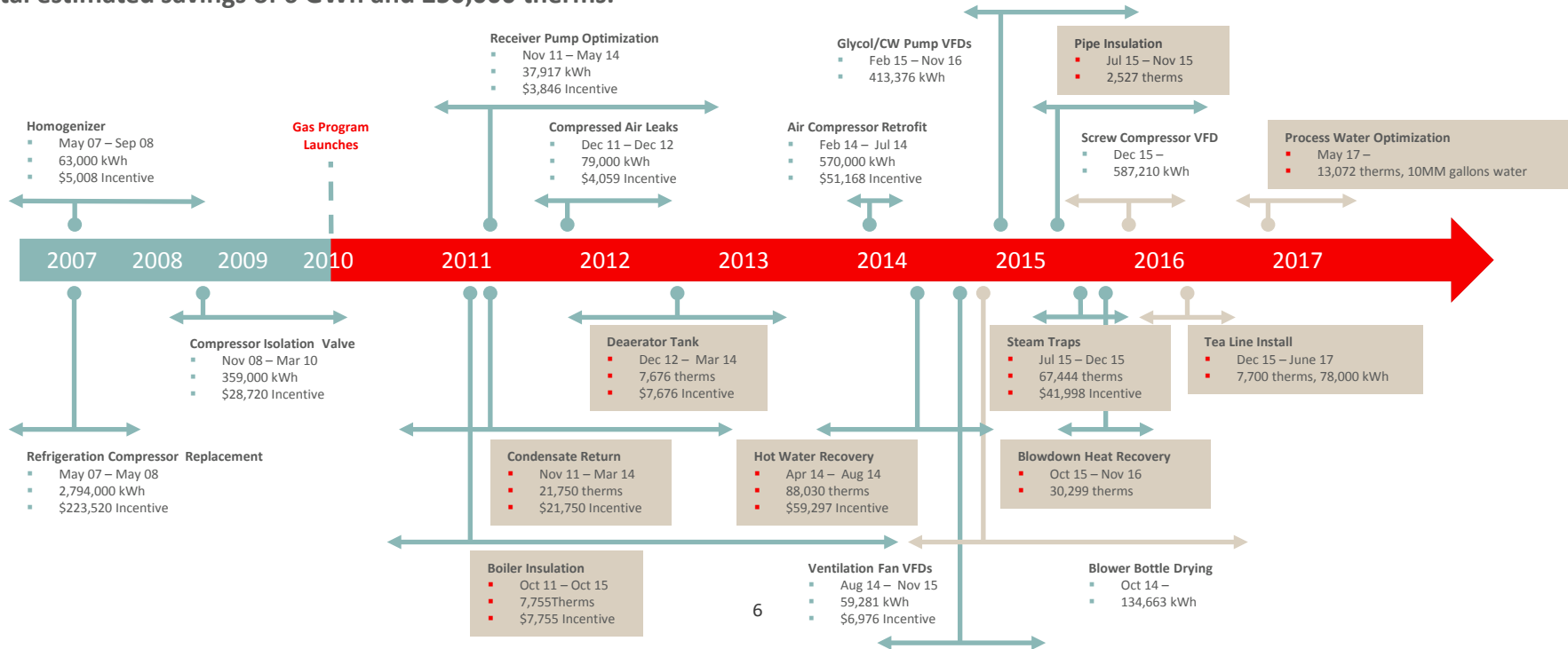
Purpose:

- Encourage investment in energy efficiency projects by providing an incentive for qualified energy efficiency measures that would not have been implemented without the program influence

Building Momentum & Trust with a Food Producer

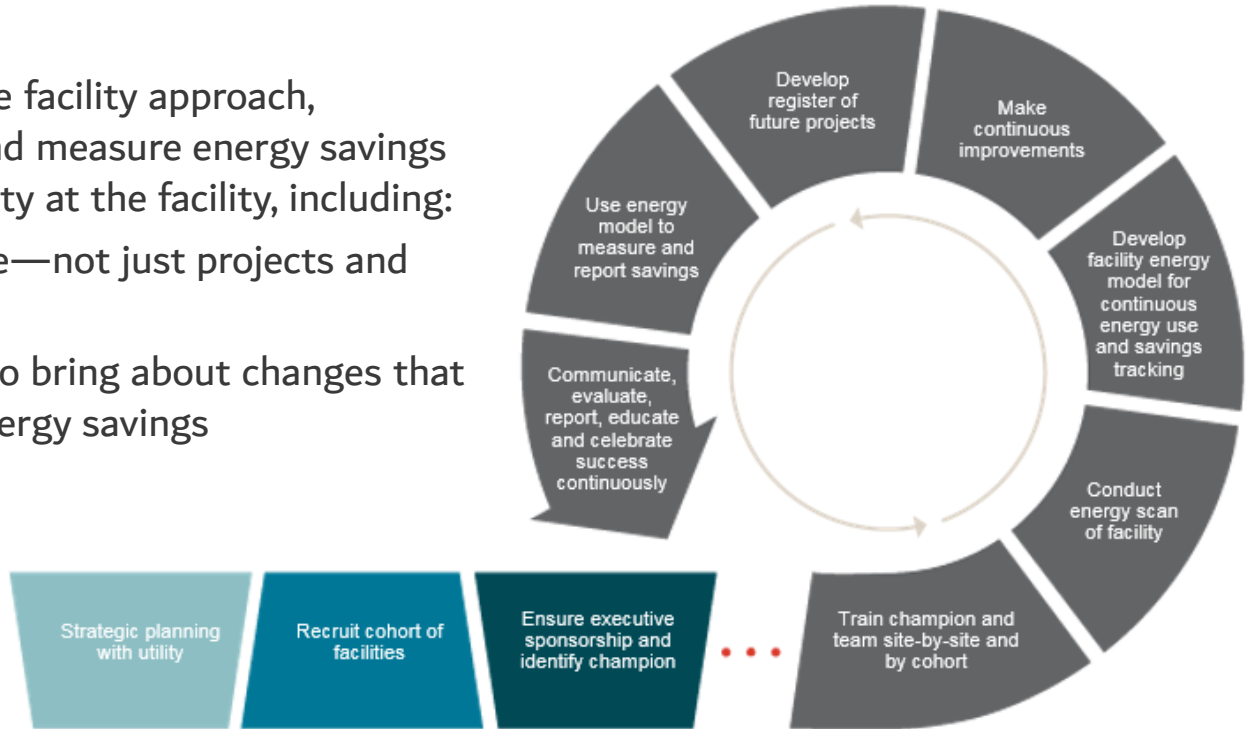
19 utility-funded projects over three funding cycles and three utilities.

Total estimated savings of 6 GWh and 250,000 therms.



IOU Strategic Energy Management Programs

- Purpose:
 - SEM is a holistic, whole facility approach, designed to identify and measure energy savings from all program activity at the facility, including:
 - SEM focuses on people—not just projects and equipment
 - Motivates employees to bring about changes that lead to long-lasting energy savings



Why SEM?

- **Benefits:**
 - Positions PG&E as a strategic energy partner
 - Energy savings measured at meter level
 - Ongoing technical support
 - No free-ridership implications
 - Existing conditions baseline!
 - Additional milestone incentives

Other Programs/Offerings

- Food Production Investment Program (FPIP)
 - \$60 MM in funds available
 - Driving equipment replacement & early adoption

- Electric Program Investment Charge (EPIC)

CASE STUDIES

Case Study: Process Optimization



Significant energy savings for Food Producer
Project Developer recommended improvements to the plant's CIP system and secured incentives from IOU

Industry

Butter and Cheese Producer

Recommended Measure

- Install a preheating system that utilizes waste heat from the cogeneration system for the Clean-In-Place (CIP) system

Customer Support

- Completed Feasibility study, determined energy baseline and estimated energy savings to secure utility project approval and incentive
- Conducted M&V to confirm realized energy savings and seek final utility approval

Results

Saved 117,904 therms in annual energy consumption

Incentive Payment Received from Utility

\$111,977

Expected Payback

1.35 Years

Case Study: Heat Recovery



Significant energy savings for Food Producer
Project Developer recommended improvements to the plant's oven and secured incentives from IOU

Industry

Snack Food Manufacturer

Recommended Measure

- Upgrading the proposed new oven with a heat recovery system.
- Heat recovery system will utilize three heat exchangers to preheat the oven intake air

Customer Support

- Completed Feasibility study, determined energy baseline and estimated energy savings to secure utility project approval and incentive
- Conducted M&V to confirm realized energy savings and seek final utility approval

Results

Saved 99,955 therms in annual energy consumption

Incentive Payment Received from Utility

\$82,894

Expected Payback

1 Year

Case Study: Evaporator Fan Optimization



Significant energy savings for Food Producer
*Project Developer recommended improvements to the
plant's refrigeration system and secured incentives
from IOU*

Industry

Fresh mixed salads and greens

Recommended Measure

- Replace evaporator fan motors with Electronically Commutated Motors (ECM).
- Add ECM controls to the pre-existing evaporators

Customer Support

- Completed Feasibility study, determined energy baseline and estimated energy savings to secure utility project approval and incentive
- Conducted M&V to confirm realized energy savings and seek final utility approval

Results

Estimated savings of almost 600,000 kWhs in annual energy consumption

Incentive Payment Received from Utility

Estimated to be ~\$60,000

Expected Payback

1.3 Years

**Project is approved for installation and awaiting project completion*

Thank you

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