

Measuring Impacts and Persistence of O&M and Energy Management Behavior Change in the Industrial Sector

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CEE Program Meeting

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My Four Points

1. All Industrial Programs Feature Behavior Change.
2. There is a Broad-Based Call for Increased Behavior Change Orientation.
3. The Three Challenges to Evaluating Continuous Energy Improvement
4. Evaluation approaches of greatest importance *are ones that monitor and improve programs.*

All Industrial Programs Feature Behavior Change

- 1) Every industrial program and project has behavior change elements:
 - To obtain customer commitments
 - To influence decision-making processes
 - To change the way a plant is operated and maintained

There is a Broad-Based Call for Increased Behavior Change Orientation

- 2) There is a need to increase the behavior-influencing elements of programs, motivated by the changing demands of:
- Policy Makers
 - Customers
 - Program Managers

There is a Call for an Increase in Behavior Change Orientation

Policy Makers want:

- Collaboration
- Leveraging
- Innovation
- Partnerships
- Integration

In short,

- **Smarter and more effective relationships;**
- **Energy efficiency as part of an energy management strategy.**

Source: California Strategic Energy Plan

There is a Call for an Increase in Behavior Change Orientation

Customers want:

- To meet environmental goals (internal and external)
- To improve overall operations
- To manage costs

There is a Call for an Increase in Behavior Change Orientation

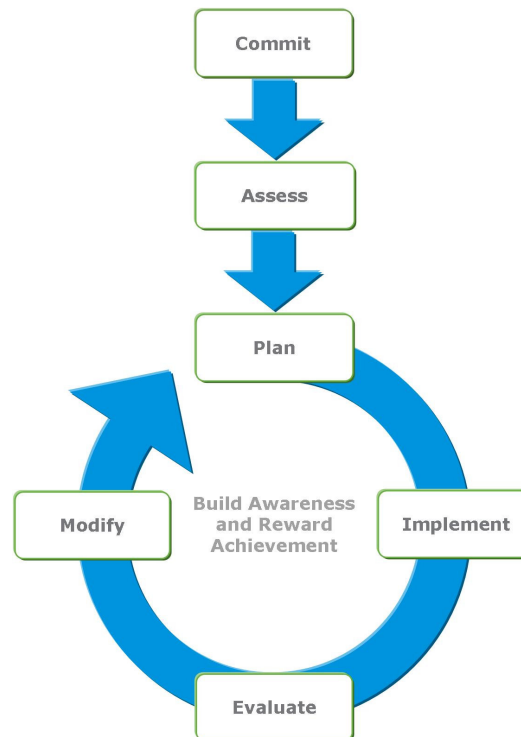
IOU Programs want:

- To meet Integrated Resource goals
- To satisfy increasingly complex customer needs
- To accelerate the volume and size of projects in the face of increased goals and 'higher hanging fruit'

California IOUs want Continuous Energy Improvement in their Industrial Programs

CEI: *'A statewide package of products and services aimed at helping customers engage in long-term, strategic energy planning.'*

Source: PG&E 2009-2011
Program Filing





The Three Challenges to Evaluating Continuous Energy Improvement...



The Three Challenges to Evaluating Continuous Energy Improvement...

1. 'Continuous'
2. 'Energy'
3. 'Improvement'

PG&E CEI+GHG Pilot Program

- Focus on Food Processing –
 - Energy-intensive
 - High sensitivity to regional trends associated with global warming.
 - Strong customer interest in curbing energy use and taking accountability for their own GHG emissions.
- A key PG&E objective: “to help PG&E develop a more strategic relationship with its customers and establish the basis for more effectively engaging customers in PG&E’s energy efficiency and load management programs.”

Evaluation approaches of greatest importance *are ones that monitor and improve programs*

The PG&E CEI+GHG Pilot defines **specific, measurable goals** by establishing an energy baseline and a tracking process capable of delineating progress of energy efficiency measures **and** strategies.

Evaluation approaches of greatest importance *are ones that monitor and improve programs*

Suggestion -

Review the CEI project plan and develop appropriate **Key Performance Indicators** to inform timely project change decisions.

Continuous Energy Improvement Sample Project Checklist

Activity	CEI Process Checklist - Key Items
Assess	Complete Baseline Survey
Assess	Identify Priorities and Action Items, Present Survey Results
Recognize	Evaluate Any Past Awareness Activities and Effectiveness
Commit	Identify & Organize Energy/Environmental Team - Discuss Action Plan
Commit	Hold Weekly Energy Team Meeting
Evaluate	Monthly Reporting to Executive Team
Recognize	Finalize Employee Awareness/Continuous Energy Improvement Plan for the Year
Plan	Implement Ongoing Employee Recognition Program Coordinated with Awareness Activities
Plan	Develop High Level Key Performance Indicators and Goals
Implement	Track, Report and Provide Feedback on High Level Key Performance Indicators
Commit	Complete Facility Energy and GHG Commitment Statement
Evaluate	Develop Standard Reporting Process for Target vs. Actual
Evaluate	Include Corrective Action Taken on Out Of Tolerance Conditions
Implement	Create Monthly Report Comparing Energy Use/Unit Actual to Baseline and Target
Implement	Review Current Operating Instructions on Manuals from Energy Efficiency Perspective. Modify Instructions/SOPs to focus on Efficiency Practices & Awareness.
Evaluate	Training Gap Analysis, Interface with HR, Plant Manager, Champion
Implement	Prepare List of Capital Projects to Reduce Energy Costs, Improve Energy Management
Evaluate	Review Project Inventory: Correlate with KPIs, Potential Savings, GHG Impacts
Evaluate	Final Pilot Presentation to Executive Team
Modify	After Presentation and Feedback, Modify Action Plan Goals and Strategies as Needed

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Items in Yellow are Traditional Program Activities

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Items in Green are EM&V Activities

Measuring Impacts and Persistence

Questions? Contact:

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