

Ex Ante Review Findings

Table Error! No text of specified style in document.-1: Project Information

IOU	Pacific Gas and Electric Company
Application ID	NC0117907
Application Date	02/06/2011
Program ID	Not Provided
Program Name	Customized New Construction Savings By Design Program
Program Year	2012
Itron Project ID	TBD
IOU Ex Ante Savings Date	TBD
ED Measure Name	Low NOx fire-tube Boiler
Project Description	Install new 800 HP, Low NOx fire-tube Boiler
Date of ED Review(s)	03/20/2012
Primary Reviewer and Firm	CD Nayak/DNV KEMA
Review Supervisor and Firm	Joseph Ball/Itron
Type of Review (Desk, On-site, Full M&V, Tool)	Desk Review
ED Recommendation	Energy savings estimates were not provided and cannot be not approved, pending fulfillment of data request for more information

Measure Description

The energy savings measure is to install a new 800 HP, Low NOx fire-tube Boiler. The project is part of a new construction cold storage facility that also contains offices and a lab.

Summary of Review

Documents provided for review include the following: building drawings (floor plans, sections, and electrical), e-mail correspondences between PG&E and the customer, new boiler cut sheet, incentive application, and local guideline - “Best Performance Standard for boiler waste heat recovery”. The application does not contain the claimed energy savings.

The available documents have very limited information, such as address of the project site, site and contractor’s contact information, building type, building usage information, and associated building systems.

However, the available documents do not provide the information on the project scope, the list equipment associated with the project, proposed operation strategies, control setpoints, details of energy saving measures to be implemented, the calculations used to determine the projected energy savings, and other assumptions and consideration used in the preparation of energy savings estimation, building occupancy schedule, name of building metered energy streams, anticipated energy savings, project budget, and schedule.

With the receipt of requested documentation/information, ED can evaluate the appropriateness of the methodology used for the energy savings calculation. Additional documentation will be needed to complete the ex-ante review for this project.

Review Conclusion

Energy savings estimate was not provided and cannot be not approved, pending fulfillment of requested data and subsequent opportunity for ED to re-evaluate the project and the savings analyses.

Summary of ED Requested Action by the IOU

The supporting documents provided were insufficient to substantiate the energy savings estimate of this project. So, ED requests that the IOU provide the following additional documentation for the completion of the ex-ante review of this project:

1. Provide the detail scope of the project

2. Provide energy savings associated with the boiler measure
3. Provide nameplate/design information, such as boiler capacity, efficiency, design stack temperature, HHW supply and return temperatures
4. Provide “live” fully functioning (unlocked and hard-coded) Savings calculation Spreadsheets or energy model for the measures
5. Provide the list of recommended measures/ Provide vendor quotes, proposals, or cost estimates, or invoices as they become available
6. Describe the baseline control strategies, sequence of operation, and underlying assumptions
7. Provide the list of proposed equipment associated with this project, and their rated capacities, other design details, and mechanical schedules
8. Provide EUL of the boiler and the source of the EUL
9. Provide incremental cost of the high efficiency boiler
10. Provide code/standard/industry standard practice to establish baseline efficiency and controls

Table 1-2: Project Overview

Description	IOU Proposed Ex Ante Data	ED Recommendations
Project Baseline Type (Early Replacement, Normal Replacement, Capacity Expansion, New Construction, System Optimization, Add-on Measures)	New construction	New construction
Project Cost Basis (Full Cost, Incremental Cost)	Information not available	Incremental Cost; provide any available vendor/implementer quotes or proposals.
RUL (Early retirement projects only, otherwise N/A (not applicable))	N/A	N/A
EUL	Not Provided	Review of 2008 DEER documentation indicates: EUL for boiler is 20 years.
First Year kWh Savings	Not Provided	NA
First Year Peak kW Savings	Not Provided	NA
First Year Therms Savings	Not Provided	TBD
kWh Savings (RUL Period)	N/A	N/A
Peak kW Savings (RUL Period)	N/A	N/A
Therms Impact (RUL Period)	N/A	N/A
kWh Savings (EUL thru RUL Period)	N/A	NA
Peak kW Savings (EUL thru RUL Period)	N/A	NA
Therms Savings (EUL thru RUL Period)	N/A	TBD

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Description	IOU Proposed Ex Ante Data	ED Recommendations
Period)		
Annual Non-IOU Fuel Impact (RUL Period)	N/A	N/A
Annual Non-IOU Fuel Impact (EUL thru RUL Period)	N/A	N/A
Net-to-Gross Ratio	Not available	None at this time

Table 1-3: Detailed Review Findings

Reviewed Parameter	Analysis
Project Gross Savings Baseline (for early retirement projects only, include RUL through EUL baseline)	IOU Proposal: New Construction
	ED Assessment: New construction; a description of all measures included in this SBD project were not included in the documentation provided, and therefore Couldn't be assessed
	ED Recommendation: Further documentation needed to establish the baseline
Project Cost Basis (for early retirement projects only, include RUL through EUL cost basis treatment)	IOU Proposal: N/A
	ED Assessment: Incremental cost over baseline
	ED recommendation: Incremental cost over baseline
RUL (required for early retirement projects only, otherwise n/a)	IOU Proposal: N/A
	ED Assessment: N/A
	ED recommendation: N/A
EUL	IOU Proposal: Not Provided
	ED Assessment: 20 years based on 2008 DEER for boiler
	ED Recommendation: 20 years
Savings Assumptions	IOU Proposal: No savings calculations are provided
	ED Assessment:

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Reviewed Parameter	Analysis
	<p>No savings calculations are available to assess the savings assumptions</p> <p>ED Recommendation: Requested additional data to review and verify the savings estimate such as the boiler data, baseline controls strategy. Please see the data request for details</p>
Calculation Methods/Tool review	<p>IOU Proposal: No savings calculations are provided</p>
	<p>ED Assessment: Savings calculation method could not be assessed.</p>
	<p>ED Recommendation: Provide “live” fully functioning calculations</p>
Pre- or Post-Installation M&V Plan	<p>IOU Proposal: No M&V plan was provided</p>
	<p>ED Assessment: An assessment could not be performed.</p>
	<p>ED Recommendation: None at this time</p>
Net-to-Gross Review	<p>IOU Proposal: Not provided</p>
	<p>ED Assessment: Not done at this time.</p>
	<p>ED Recommendation: None at this time.</p>