

Phase 3 Ex Ante Review Findings

Table 1-1: Project Information

IOU	PG&E
Application ID	1433-01
Application Date	TBD
Program ID	PGE2223
Program Name	Heavy Industry Energy Efficiency Program
Program Year	2013
Itron Project ID	X183
IOU Ex Ante Savings Date	8/16/12
ED Measure Name	Install new bladder tank
Project Description	Install vapor bladder tank to reduce vapor combustion unit cycling
Date of ED Review(s)	8/28/2012, 1/11/2013, 2/6/13
Primary Reviewer and Firm	Keith Rothenberg/Energy Metrics
Review Supervisor and Firm	Joseph Ball/Itron
Type of Review (Desk, On-site, Full M&V, Tool)	Desk
ED Recommendation	The project is approved to proceed to the implementation phase. Ex ante savings estimates will be frozen based upon the results of the post implementation M&V. ED will continue to review the project pending fulfillment of data request for more information.

Measure Description

The application documents the installation of a 110,000 ft³ vapor bladder tank to reduce vapor combustion unit (VCU) cycling. According to the documentation, vapor is collected from a tank farm and from a shipping dock. This project involves reducing the combustion of vapor from the tank farm by installing a bladder tank that can contain the tank vapor as it is generated. Vapor in the bladder tank will return to the tanks in the tank farm as the ambient air temperature decreases and vapor pressure decreases. Currently when the tank farm vapor system reaches a defined pressure set point, the VCU cycles on and burns the vapor to reduce vapor system pressure. According to the documentation, the VCU consumes natural gas during its start-up phase to heat the combustor to 1,450 °F. Vapor collected from the shipping dock will not be connected to the bladder tank system.

The application documents 738,715 annual therms savings with an incentive of \$738,715.

Summary of Review

This document is ED's third ex ante review for this project. ED initially reviewed the project in August 2012. ED performed an ex ante review and requested additional information from the IOU regarding the project. Responses were received in September 2012. ED discussed the project with the IOU and third party (3P) implementer in October 2012 and requested additional information for the project in a data request. The IOU response to the data request was received by ED in December 2012. The response included a revised M&V plan that proposed a regression model be used for the M&V. ED provided a second ex ante review in January 2013 which included comments on the proposed M&V plan and numerous questions about the customer's operations. Phone conferences between ED, the IOU and 3P implementer have been held to further discuss the project. The 3P Implementer has recently revised and resubmitted their regression analysis. Additionally an ED representative attended a site visit on February 6, 2013 to learn more about the details of the project and the customer's operations.

ED is still reviewing the M&V plan for the project and analyzing data provided by the IOU. ED may elect to devise its own methodology to determine the impacts of this project. ED will request additional data for the M&V in a separate data request

Review Conclusion

The project is approved to proceed to the implementation phase. Ex ante savings estimates will be frozen based upon the results of the post implementation M&V. ED will continue to review the project pending fulfillment of data request for more information. ED will perform a net to gross review for this project.

Summary of ED Requested Action by the IOU

In order to complete an ex ante review the ED recommends that the IOU submit the following documentation as it becomes available:

1. Requested customer data for the M&V of the project impacts. ED will request this additional data in a separate data request.
2. Provide the EUL for the project.
3. Notice of project completion and commencement of the M&V period.
4. Final cost documentation.

Additional ED requests

1. ED requests that PG&E continue to keep ED informed of progress and next steps on this project.
2. ED requests to be informed of any future site visits including the post-installation inspection, in case it chooses to send a representative on-site.
3. ED requests the opportunity to review the requested data, analysis and calculations prior to the freezing of ex ante savings impacts for this project.

Table 1-1: 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)	Add-on Measure	Approved
Project Cost Basis (Full Cost, Incremental Cost)	Full cost	Approved
RUL (Early retirement projects only, otherwise N/A (not applicable))	NA	NA
EUL	TBD	TBD
First Year kWh Savings	0	TBD
First Year Peak kW Savings	0	TBD
First Year Therms Savings	735,715	TBD
kWh Savings (RUL Period)	NA	TBD
Peak kW Savings (RUL Period)	NA	TBD
Therms Impact (RUL Period)	NA	TBD
kWh Savings (EUL thru RUL Period)	NA	TBD
Peak kW Savings (EUL thru RUL Period)	NA	TBD
Therms Savings (EUL thru RUL Period)	735,715	TBD
Annual Non-IOU Fuel Impact (RUL Period)	NA	NA
Annual Non-IOU Fuel Impact (EUL thru RUL Period)	NA	NA
Net-to-Gross Ratio	Not provided	Assessment not completed

Table 1-2: Detailed Review Findings

Reviewed Parameter	Analysis
Project Gross Savings Baseline (for early retirement projects only, include RUL through EUL baseline)	IOU Proposal: in situ
	ED Assessment: Correct
	ED Recommendation: Approved
Project Cost Basis (for early retirement projects only, include RUL through EUL cost basis treatment)	IOU Proposal: Full cost
	ED Assessment: Full cost is appropriate for add-on measures.
	ED recommendation: Submit final cost documentation for ED review after the completion of the project.
RUL (required for early retirement projects only, otherwise n/a)	IOU Proposal: NA
	ED Assessment: NA.
	ED recommendation: NA
EUL	IOU Proposal: TBD
	ED Assessment: TBD
	ED Recommendation: TBD
Savings Assumptions	IOU Proposal: Regression model
	ED Assessment: TBD
	ED Recommendation: TBD
Calculation Methods/Tool review	IOU Proposal: Regression model
	ED Assessment: TBD
	ED Recommendation: TBD
Pre- or Post-Installation M&V Plan	IOU Proposal: Based on regression model.
	ED Assessment: TBD
	ED Recommendation: TBD
Net-to-Gross Review	IOU Proposal: Not addressed
	ED Assessment: TBD
	ED Recommendation: TBD