

Final Phase III Ex Ante Review Addendum

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

IOU	Pacific Gas and Electric Company
Application ID	NC0122507
Application Date	11/16/2012
Program ID	PGE21031
Program Name	Commercial Calculated Incentives (NRNC)
Program Year	2012
CPUC Staff Project ID	X241
IOU Ex Ante Savings Date	7/18/2013
Measure Name	New Data Center
Project Description	A new data center space is being constructed in an existing building on 6 of the 8 floors. The data center area (Bldg F) is 16,926 ft ² . Building G is a 153,969 ft ² cold shell. This project covers mechanical improvements (a high-efficiency chiller, a waterside economizer, & high temperature differential/variable-speed CRAH units) that will allow this data center to operate while consuming less energy than the standard efficiency baseline data center.
Date of CPUC Staff Review(s)	1/9/2013, 6/6/2013, 8/27/2013, 11/21/2013 (addendum)
Primary Reviewer / Firm	Dale Tutaj//DNV KEMA
Review Supervisor / Firm	Doug Maddox / JJ Hirsch & Assoc
CPUC Staff Project Manager	██████ ████ ████ ██████████ ██████████ ██████████ ██
CPUC Policy Authorization (as needed)	
Type of Review (Desk, On-site, Full M&V, Tool)	Desk
CPUC Staff Recommendation	Approves final savings of 1,722,535 kWh and 155.1 kW, and approves the revised incremental cost of \$490,588 and incentive of \$245,294.

Summary of Addendum

The final phase EAR disposition for this project has been submitted to the utility. In the final disposition, the incremental cost was adjusted from due to a change in the incremental cost calculation. Subsequently, this incremental cost was reviewed by the utility. An additional error was identified, changing the incremental cost to \$235,069.

On 11/13/2013 the utility submitted a new incremental cost estimate. In this submittal, an additional cost of \$255,519 was added to the previously calculated cost of \$235,069. This additional cost brought up the total incremental cost of the project to \$490,588. In their explanation, the IOU mentioned that this additional cost is for the aisle containment system that was previously not included in the incremental cost estimate. It is unclear why the incremental cost was not included in the previous incremental cost estimates. The bid showing the itemized cost estimates was provided. The aisle curtains and hardware assemblies are \$118,976. Including taxes, freight, labor, overhead and profit, the curtain containment is \$194,368. The electrical equipment containment and hardware is \$16,626. Including taxes, freight, labor, overhead and profit, the electrical containment is \$28,554.

This additional cost pertains to the incremental energy savings associated with adding aisle containment system to the data center as compared to the hot aisle and cold aisle, ducted return system. This is a small data center with less than [REDACTED] of load and according to the 2011 Baseline document, data center of this size falls under Type II air management scheme. The air management for the Type II system requires a hot aisle/cold aisle ducted return, with an airflow efficiency of 1,508 cfm/kW.

Since the aisle containment system was included in the scope it is appropriate to include it in the project cost. With the revised incremental cost of \$490,588 the incentive is revised to \$245,294.00

Review Conclusion

Final ex ante savings are approved. The incremental cost and incentive have been revised.

Summary of CPUC Staff Requested Action by the IOU

No action required.

Table 1-2 Energy Savings Summary, Project Costs & Incentive

Description	IOU Ex Ante Claim	CPUC Staff Recommendations
First Year kWh Savings	1,722,535 kWh	Accepted
First Year Peak kW Savings	155.1 kW	Accepted
First Year Therms Savings	-	Accepted
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 (RUL thru EUL Period)	1,722,535 kWh	Accepted
Peak kW Savings (RUL thru EUL Period)	155.1 kW	Accepted
Therms Savings (RUL thru EUL Period)	-	Accepted
Annual Non-IOU Fuel Impact (RUL Period)	N/A	N/A
Annual Non-IOU Fuel Impact (RUL thru EUL Period)	N/A	N/A
Project Costs for Baseline #1 (RUL or EUL)	\$490,588	Revised value accepted
Project Costs for Baseline #2 (EUL minus RUL period)	N/A	N/A
Project Incentive Amount	\$245,294	Revised value accepted