

## **Ex Ante Review Show Stopper Findings**

**Table 1-1: Project Information**

<b>IOU</b>	PG&E
<b>Application ID</b>	2K13190534
<b>Application Date</b>	8/28/2013
<b>Program ID</b>	PGE21011
<b>Program Name</b>	Commercial Calculated Incentives
<b>Program Year</b>	2014
<b>Itron Project ID</b>	X380
<b>IOU Ex Ante Savings Date</b>	10/21/2013
<b>Measure Name</b>	HVAC and Lighting retrofits
<b>Project Description</b>	Several lighting projects spanning multiple locations and one HVAC central plant retrofit project for an institutional office facility.
<b>Date of CPUC Staff Review</b>	6/3/2014
<b>Primary Reviewer / Firm</b>	Charles Ehrlich / Itron
<b>Review Supervisor / Firm</b>	Nikhil Gandhi / Strategic Energy Technologies, Inc.
<b>CPUC Staff Project Manager</b>	██████████ / California Public Utilities Commission, Energy Division
<b>CPUC Staff Policy Authorization (as needed)</b>	
<b>Type of Review (Desk, On-site, Full M&amp;V, Tool)</b>	Desk
<b>CPUC Staff Recommendation</b>	Further project review is waived. Once the project is completed, savings trued-up, and incentives paid, please submit all additional documentation requested in this disposition including revised savings estimates for the HVAC project based upon pre- and post-installation monitoring.

## **Measure Description**

This project includes six separate facilities owned and operated by an institutional ratepayer. All of the facilities include comprehensive lighting retrofits and one of the facilities in climate zone three also includes a set of HVAC central plant retrofits. The lighting measures savings are estimated using the lighting template currently under review by CS and are informed by on-site scoping audits of each facility. The initial project submission appeared to include new VAV boxes as well as central plant upgrades but the VAV boxes were later removed.

## **Review Summary**

CS reviewed the application package and found it mostly complete and that it provides a good understanding of the project scope. Some of the details of the project led to additional data requests and two conference calls to iron out the details. The primary issues resolved are as follows:

- Lighting – Some of the rows in the spreadsheet containing the pre-installation lighting logger data were hidden and required explanation. The project review team responded to a number of questions from CS and most importantly, revised the lighting template to minimize the potential for mischaracterizing peak demand impacts.
- HVAC – The HVAC measure savings were estimated using a bin method and did not appear to have sufficient data to explain the large variability in loads expected at this facility. CS provided a detailed list of issues to be addressed via CMPA including the need for additional pre- and post-installation monitoring in order to accurately characterize the variable HVAC loads for this facility.

## **Review Conclusion**

CS finds the lighting project meets program requirements and has no show stopper issues; however, CS cannot assess the savings for the HVAC project with sufficient accuracy until the final post-installation data has been collected. Commission staff waives further project review and directs PG&E to apply the default 0.9 GRR at the time of the final savings claim to the lighting measures and to revise project savings claims and incentives based upon the final trued-up savings calculations after the post-installation data has been collected as discussed in prior meetings and CMPA data requests. It is not clear if this project will be claimed in the 2014 program year or a subsequent year due to the lengthy build-out and M&V monitoring requirements.

### **Summary of CPUC Staff Requested Action by the IOU**

Commission staff requests that PG&E submit the following:

1. The final completed IR package including revised savings calculations for the HVAC project based upon pre- and post-installation monitoring.
2. A summary of the project's final savings claims, which include the application of the 0.9 default GRR to the lighting measures' final savings estimates, only.
3. Incentive payments along with the actual Claim ID for each measure

Finally, PG&E should retain all project documentation including design documents, photos, specifications, models, assumptions, logged data, itemized contractor invoices and updated incremental measure costs, etc. for future ex post evaluation. Please upload to CMPA the specific data requested in prior data requests.