

CPUC Staff Ex Ante Review

CPUC Staff Project ID Number	PGE 22_T_I_528a_PRJ - 02130302_Process Distribution
CMPA Directory Link	https://deeresources.info/cmpa/projects/20352
PA	PGE
PA Application ID	PRJ - 02130302
PA Application Executed Date	3/24/2022
PA Program ID	PGE_Ind_003
PA Program Name	Cascade - INDUSTRIAL SYSTEMS OPTIMIZATION PROGRAM ISOP - Customized Retrofit
PA Program Year	2022
Date of CPUC Staff Review:	1/12/2022
PA CMPA Upload Dates Included in this review:	
First PA Upload	5/31/2022
Second PA Upload	8/23/2022
Third PA Upload	N/A
Fourth PA Upload	
Fifth PA Upload	
Sixth PA Upload	
Seventh PA Upload	
Eighth PA Upload	
PA Measure Description(s):	
Measure 1	
Measure 2	
Measure 3	
Measure 4	
Measure 5	
Measure 6	
Measure 7	
Measure 8	
Measure 9	
Measure 10	
PA Project Description:	Replacement of two 100 hp constant speed rotary screw vacuum pumps with two 100 hp high efficiency rotary screw vacuum pumps with variable speed control at a metal packaging manufacturing plant. A.A
Bi-Monthly Upload kW Demand Reduction	115.2
Bi-Monthly Upload Annual kWh Impacts	956,155.0
Bi-Monthly Upload Therm Impacts	0.0
PA Proposed Incentive \$ (to Customer)	\$132,018.60
Project Documentation kW Demand Reduction	149.4
Project Documentation Annual kWh Impacts	1,488,801.0
Project Documentation Annual Therm Impacts	0.0
Project Documentation Incentive \$ (to Customer)	178,656.0
CPUC Staff Primary Reviewer Name	
CPUC Staff Primary Reviewer Firm	Quantum Energy Analytics
CPUC Staff Review Supervisor Name	
CPUC Staff Review Supervisor Firm	Quantum Energy Analytics
PA Primary Reviewer Name	
PA Primary Reviewer Firm	
CPUC Staff Project Manager	
CPUC Staff Policy Authorization (as needed)	
CPUC Staff Recommendation:	Application ready to proceed with exception(s), as noted
For rejection, action required:	N/A
M&V Review:	Post M&V Review (M&V Results and Final Calculations) Required

Action Number:	Summary of CPUC Staff Required Action by the PA:	Action Category	PA Response (12/9/2022)	CPUC Staff Response (1/12/2023)	ED Resolution
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1	<p>This project (528a) is a resubmission of a previously rejected project (528). CPUC staff issued the rejection disposition for project 528 in September of 2020. Despite this rejection, the customer ordered the equipment a year later. This is an evidence indicating that the customer decision (i.e., replacing constant speed vacuum pumps with variable speed vacuum pumps), more likely than not, was not influenced by the program. According to the PA, the customer mistakenly thought that this project was approved and ordered the equipment. Given the circumstances, we are allowing this project to proceed but going forward the PA is required to:</p> <ul style="list-style-type: none"> - Include all available information that are relevant to the scope of the project in the project package in a clear and transparent way. We issued several SDRs to understand the timeline of the project development/revision process and the customer decision to order the equipment. The PA failed to provide this information in the project package. PG&E must present to CPUC staff its plan on how it will improve in including all the information relevant to the scope of the project in the project package in a clear and transparent way. - Communicate disposition findings to customers in a clear manner. PG&E must present to CPUC staff a guidance document to its internal staff on how it will better communicate project review disposition findings to customers. 	Program influence	All available relevant information has been documented in the Installation Report (IR). A revised customer notification process has been implemented.	The PA did not share the revised customer notification process with us as requested in the original disposition. We request the PA to submit this review but this request should not put this project on hold.
	Please resubmit the project for our review at the post installation stage after post-installation data is collected and final savings are estimated. Given the uncertainty in the facility having variable load, we would like to review the final verified savings.	Continue Document Upload	Submitted	Post-installation package submitted on 12/9/2022. No further action is needed on this.
3	The PA used an existing condition baseline that includes two 14-years old constant speed vacuum pumps for a normal replacement (NR) project. This is not a correct assumption given these two vacuum pumps (two Quincy QSVI-100 pumps) approaching the end of useful life and their efficiency has degraded compared to the design/rated efficiency. The PA needs to revise the savings using newly installed standard practice baseline equipment that meets the customer functional needs.	Analysis assumptions	Standard Practice section of IR updated. Calculations have been revised to use a standard practice baseline.	Thanks for the update. No further action is needed on this.
4	The logged data from March 2020 shows a utilization factor of less than 100% for two (Sullair and Atlas Copco) out four vacuum pumps. The PA assumed a utilization factor of 100% for all pumps. The utilization factor should be updated based on logged data for the two pumps that are not operating 100% of the time during the plant operation.	Analysis assumptions	Baseline energy analysis was corrected with actual utilization rate of	Thanks for the update. No further action is needed on this.
5	The PA allowed the customer to retain existing equipment as the backup but failed to provide an exception approval for this. According to the Statewide Custom Project Guidance Document, for NR measures existing equipment must be decommissioned and removed from site. Decommissioned equipment must not be reused, sold, or retained for backup purposes without PA pre-approval. The PA is required to provide documentation to support this approval at the post-installation stage. This approval should clearly state the conditions under which this was approved. In addition to this, the PA is required to provide evidence (e.g., pictures, customer operation manual, etc.) that clearly shows the existing equipment (Sullair vacuum pump) has been disconnected and only used as a back up.	CPUC Policy	Equipment has been locked out with a physical disconnect.	Thanks for the update. No further action is needed on this.
6	Final savings should be normalized based on the post-installation production data. The PA is required to provide the actual production data to support the normalization of the savings.	Analysis assumptions	Final savings have been normalized to current production.	The actual delivered CFM varies significantly between baseline and installed scenarios. If the reduced delivered/actual CFM is the result of any process/production improvement outside of this project, then savings would need to be normalized based on the revised/improved process. If the reduced CFM is as a result of the original vacuum pumps not being able to turn down to match the actual load, then the current normalization approach is appropriate.
7	Please clarify the source for the incentive rate of \$0.138/kWh.	Incentive calculation	PFS incentive was based on original project development rate associated with previous program. IR rate is \$0.12/kWh. No peak reduction incentive	Thanks for the update. No further action is needed on this.
8	The PA failed to provide cost documentation that supports the incremental measure cost (IMC) calculations. The standard practice baseline cost was estimated based on three vacuum pumps that have different size, capacity and functionality compared to the standard practice baseline pumps. Other costs assumptions (e.g., piping and fittings, labor, etc.) are also not fully supported. Given IMC directly impacts the incentive amount, the PA is required to submit clear documentation to support equipment cost (including vendor quotes for both baseline and installed equipment), and any additional costs included in the IMC analysis. The customer has recently gone through similar upgrades and should have accurate cost data for these additional costs.	Measure cost	Additional cost documentation included in IR.	Thanks for the update. No further action is needed on this.

Note or Instruction Number:	CPUC Staff Notes or Instructions:	Instruction Category	PA Response	CPUC Staff Response (1/12/2023)
1	The customer installed a failed constant speed vacuum pump with VFD vacuum pump (similar to what is proposed in this project) during the project development process. Some project files indicate that the customer was already decided on selecting the proposed equipment to install prior to the developer's engagement. The payback of the project is also within the customer payback criteria.	Program influence		

CPUC Staff Recommendation Definitions	
CPUC Staff Recommendation	Definition
Application ready to proceed without exception	The PA will continue to upload application documents to the CMPA directory through the implementation and claims phases of the project. The PA may proceed to approve the project without waiting for CPUC Staff response. A project is waived from further review at the post-installation stage by CPUC staff, but the PA is responsible for post-installation (IR) review. There will not be conditional approval.
Application ready to proceed with exception(s), as noted	<p>The PA must make revisions or changes as noted in CPUC Staff's review comments before signed agreement with customer. The PA will continue to upload application documents to the CMPA directory through the implementation and claims phases of the project. The PA may proceed to approve the project without waiting for CPUC Staff response. If CPUC Staff decides to perform IR review of a project, CPUC Staff will notify the PA. The scope will be limited to determine if the project was carried out consistent with the application and notes provided during pre-installation review and to obtain information pertaining to whether the eligibility criteria or metrics should be revised.</p> <p>Unless the scope of work presented in project application has changed at IR review, the project will not be reviewed again in the areas specified below. Scope change is defined by substantial changes include significant modifications to the proposed equipment type, size, quantity, configuration, the expansion of a project to include additional retrofits, or the splitting of a project into multiple phases.</p> <p>The following areas will not be reviewed again by CPUC Staff:</p> <ul style="list-style-type: none"> • Calculation Tool • Calculation Methodology • M&V Plan • Baseline • Eligibility • EUL/RUL • Measure Type • Program Influence
Application rejected.	<p>The application is rejected as submitted. The PA shall promptly inform the applicant as to the reasons why the project was rejected and the specific recommendations for the conditions under which the project would be approved. CPUC Staff shall provide the reasons for the rejection or request for modification, including each basis as to why the project is rejected, or modification is requested. In addition, CPUC Staff shall provide specific recommendations for the conditions under which the project would be approved.</p> <p>If any party to the project is unsatisfied with the Commission's directions for the project, a dispute resolution process may be initiated by that party. The Commission shall adopt rules for the conduct of the dispute resolution process. – Section 381.2 (g) (3) (F)</p>
Advisory.	The PA is not formally required to follow instructions or recommendations given in an Advisory review. However, issues found will affect ESPI scoring and may come up again in Ex-Post review.