

**CPUC Staff Ex Ante Review**

<b>CPUC Staff Project ID Number</b>	PGE 23 T I 923 PRI - 04394996 CompAir
<b>CPUC Directory Link</b>	<a href="https://deereasures.info/cmpa/projects/21175">https://deereasures.info/cmpa/projects/21175</a>
<b>PA</b>	PGE
<b>PA Application ID</b>	PRI - 04394996
<b>PA Application Executed Date</b>	
<b>PA Program ID</b>	PGE Ind 003
<b>PA Program Name</b>	INDUSTRIAL SYSTEMS OPTIMIZATION PROGRAM ISOP -
<b>PA Program Year</b>	
<b>Date of CPUC Staff Review:</b>	2/13/2024
<b>PA CMA Upload Dates Included in this review:</b>	
First PA Upload	1/2/2024
Second PA Upload	N/A
Third PA Upload	N/A
Fourth PA Upload	
Fifth PA Upload	
Sixth PA Upload	
Seventh PA Upload	
Eighth PA Upload	
<b>PA Measure Description(s):</b>	
Measure 1	PROCESS COMPRESSED AIR - REPLACE AIR COMPRESSOR - To-CodeStd
Measure 2	
Measure 3	
Measure 4	
Measure 5	
Measure 6	
Measure 7	
Measure 8	
Measure 9	
Measure 10	
<b>PA Project Description:</b>	To-code accelerated replacement of one existing 250hp fixed speed screw air compressor with one new 250hp VFD screw air compressor at a wire manufacturing facility
<b>Bi-Monthly Upload kW Demand Reduction</b>	22.1
<b>Bi-Monthly Upload Annual kWh Impacts</b>	272,733.0
<b>Bi-Monthly Upload Therm Impacts</b>	0.0
<b>PA Proposed Incentive \$ (to Customer)</b>	\$32,728.00
<b>Project Documentation kW Demand Reduction</b>	22.1
<b>Project Documentation Annual kWh Impacts</b>	272,733.0
<b>Project Documentation Annual Therm Impacts</b>	0.0
<b>Project Documentation Incentive \$ (to Customer)</b>	\$2,728.0
<b>CPUC Staff Primary Reviewer Name</b>	
<b>CPUC Staff Primary Reviewer Firm</b>	DNV
<b>CPUC Staff Review Supervisor Name</b>	
<b>CPUC Staff Review Supervisor Firm</b>	DNV
<b>PA Primary Reviewer Name</b>	
<b>PA Primary Reviewer Firm</b>	
<b>CPUC Staff Project Manager</b>	
<b>CPUC Staff Policy Authorization (as needed)</b>	
<b>CPUC Staff Recommendation:</b>	Application ready to proceed with exception(s), as noted
<b>For rejection, action required:</b>	N/A
<b>M&amp;V Review:</b>	Post M&V Review NOT Required

Action Number:	Summary of CPUC Staff Required Action by the PA:	Action Category	PA Response	ED Resolution	Due Date
1	The project involves a to-code accelerated replacement of a constant-speed air compressor with a variable-speed air compressor. It is unclear from the submitted documentation if the installed compressor satisfies all Title 24 (2022) requirements in Section 120.6 (e): "All new compressed air systems, and all additions or alterations of compressed air systems where the total combined horsepower (hp) of the compressor(s) is 25 hp or more shall meet the requirements of Subsections 1 through 5." The subsections include mandatory requirements related to: a) trim compressor and storage, b) controls, c) monitoring, d) leak testing of compressed air piping, e) pipe sizing, and f) compressed air system acceptance. While the PFS addressed the a) trim compressor and storage and b) controls requirements, the other requirements were not addressed. Please amend the project documentation to demonstrate compliance with other code requirements triggered by this compressor replacement.	Baseline	The post-install project documentation will include the Incentive Recipient Certification of Contractor License and Permits form signed by the incentive recipient, that certifies that the measure was installed in accordance with Public Utilities Code Section 399.4 (b) (1), recipients of incentives must certify that they have used a licensed contractor, as appropriate, and have complied with applicable permitting requirements for the installation to receive a rebate or incentive from PG&E.		
2	Per PFS page 5, "The proposed air compressor will run 24/7, day shift, night shift and weekends while the existing 200 HP air compressor fixed speed will be as backup." However, the submitted calculation workbook ("PRE Compressed Air Savings Calc Final" row 13) assumes that the proposed air compressor operates for 8,923 hours per year, which exceeds the maximum 8,760 hours possible per year. Please revise the savings estimate to reflect more realistic operation, including any assumed downtime for annual maintenance.	Analysis assumptions	There are two air compressors in operating in a lead and standby control sequence where they alternate on a daily schedule for night shift and day shift. There is some overlap when the compressors are switching from standby to lead for different shifts at 1.9% of the operating time. This additional run time will be eliminated in the measure case since only one (new) compressor will be running for both shifts. The calculations and PFS were updated to clarify the existing and proposed operation.		
3	Please revise the M&V plan to incorporate the CAGI performance curve of the installed compressor to more realistically estimate cfm from metered post-installation kW data. The pre-installation savings estimate appears to use generic kW/cfm performance curves from Airmasters.	M&V plan	The M&V plan has been modified to include the use of the CAGI performance curve.		

4	<p>The submitted documentation includes contradictory information on the assumed pressure setpoint of the proposed compressed air system. Per its CAGI Sheet, the proposed air compressor will operate at 125 psig. However, the savings analysis ("PRE Compressed Air Savings Calc: Final") shows that the proposed air compressor is assumed to operate at 115 psig. Table 4.1 of the PFS shows that the proposed air compressor will operate at 110 psig. Please revise the pre-installation savings estimate to reflect the most appropriate discharge pressure setpoint.</p>	Analysis assumptions	The air compressor will operate at 115 psig. The values in Table 4.1 are the rated values; headings and values have been updated for more clarity.	

Note or Instruction Number:	CPUC Staff Notes or Instructions:	Instruction Category	PA Response	ED Resolution
1	<p>The to-code accelerated replacement project generates savings only during the first period, i.e. the remaining useful life of the existing air compressor (4.3 years). Section 1.5 of the "2021 Investor Owned Utility Customized Offering Procedures Manual for Business" states that "Measures that will not provide the PA with 100% of the related energy benefits for at least five (5) years from receipt of incentive are generally ineligible. PAs may allow selected measures with less than five years of operation at their sole discretion." However, the submitted documentation did not include explicit approval from the PA granting this exception.</p>	Eligibility	<p>The "2021 Investor Owned Utility Customized Offering Procedures Manual for Business" is retired and no longer used. PG&amp;E offers 100% 3P designed programs which are administered through third parties such as [REDACTED] ISOP program. We have 3P guidelines for each platform, deemed, custom and NMEC that align with CPUC Statewide Custom Project Guidance document v1.4, located here <a href="https://file.ac/DEr-2p-bk3A/">https://file.ac/DEr-2p-bk3A/</a>. This project is from [REDACTED] 3P program ISOP, <a href="https://www.pge.com/assets/pge/docs/save-energy-and-money/rebate-and-incentives/PGE-ISOP-Overview-Cascade.pdf">https://www.pge.com/assets/pge/docs/save-energy-and-money/rebate-and-incentives/PGE-ISOP-Overview-Cascade.pdf</a>, which follows the PG&amp;E Platform resource savings rulebook located here, <a href="https://www.pge.com/assets/pge/docs/about/doing-business-with-pge/PGE-Resource-Savings-Rulebook.pdf">https://www.pge.com/assets/pge/docs/about/doing-business-with-pge/PGE-Resource-Savings-Rulebook.pdf</a>. This has been the active rulebook since "2021 Investor Owned Utility Customized Offering Procedures Manual for Business" was retired at the end of 2021. The 3P ISOP program never had to follow the "2021 Investor Owned Utility Customized Offering Procedures Manual for Business" since it is a 3P program. The ISOP program is not a PG&amp;E designed core program, the 3P programs have been following the PG&amp;E resource Savings Rulebook since 6/30/2020.</p> <p>The EUL of the measure, i.e. new compressor, is 13 years. There is no persistence of savings requirement based on the RUL of a measure. The commission reviewer is using an old retired 2021 rule book and is out of date with the PA rules currently being followed by PG&amp;E 3P implementers. Therefore, we provided the links to the 3P implementers program rules and PG&amp;E platform active rules that are applicable to this custom 3P project.</p> <p>EUL of the measure is 13 years which is longer than the measure simple payback. The measure will be in service for 13 years, the EUL of the measure case equipment. RUL of proposed equipment is not used as the persistence metric for the measure. There is no exception because the rule cited by the CPUC is not a PA, or 3P rule.</p> <p>Please find the following current rule information in the current PG&amp;E Resource Savings Rulebook v4.0,</p> <ol style="list-style-type: none"> <li>1. Definition of Persistence on page 21.</li> <li>2. Project Payback Section 4.2.3 on page 116</li> </ol>	

[REDACTED]

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"> <li>• Calculation Tool</li> <li>• Calculation Methodology</li> <li>• M&amp;V Plan</li> <li>• Baseline</li> <li>• Eligibility</li> <li>• EUI/RUI</li> <li>• Measure Type</li> <li>• Program Influence</li> </ul>
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 ESPs scoring and may come up again in Ex-Post review.