

## CPUC Staff Ex Ante Review

CPUC Staff Project ID Number	PGE 22 T C 777 PRJ - 03738758 Process Distribution
CPMA Directory Link	<a href="https://deeresources.info/cmpa/projects/20405">https://deeresources.info/cmpa/projects/20405</a>
PA	PGE
PA Application ID	PRJ - 03738758
PA Application Executed Date	
PA Program ID	PGE_Pub_010
PA Program Name	AESC - RAPIDS - Water Wastewater Optimization
PA Program Year	
Date of CPUC Staff Review:	7/12/2022
PA CMPA Upload Dates Included in this review:	
First PA Upload	5/31/2022
Second PA Upload	
Third PA Upload	
Fourth PA Upload	
Fifth PA Upload	
Sixth PA Upload	
Seventh PA Upload	
Eighth PA Upload	
PA Measure Description(s):	
Measure 1	PROCESS RETROFITNEW-PUMPS-REPLACE
Measure 2	
Measure 3	
Measure 4	
Measure 5	
Measure 6	
Measure 7	
Measure 8	
Measure 9	
Measure 10	
PA Project Description:	This application entails the optimization of the plant 3-W system by replacing the existing constant speed pumps with new pumps equipped with variable frequency drives VFDs and a pressure control loop.
Bi-Monthly Upload kW Demand Reduction	27.9
Bi-Monthly Upload Annual kWh Impacts	251,900.0
Bi-Monthly Upload Therm Impacts	0.0
PA Proposed Incentive \$ (to Customer)	\$34,410.00
Project Documentation kW Demand Reduction	27.9
Project Documentation Annual kWh Impacts	251,900.0
Project Documentation Annual Therm Impacts	0.0
Project Documentation Incentive \$ (to Customer)	34,410.0
CPUC Staff Primary Reviewer Name	
CPUC Staff Primary Reviewer Firm	DNV
CPUC Staff Review Supervisor Name	
CPUC Staff Review Supervisor Firm	DNV
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	ED Resolution
1	In the most recent informal data request, PG&E acknowledged that the originally submitted calculation files did not accurately reflect grid-adjusted impacts. PG&E submitted a revised calculation file (rev3) that appears to correctly adjust savings after accounting for PG&E electric purchases via 15-minute interval data. Please submit revised savings values in the next quarterly submission.	Continue Document Upload		
2	Please submit this project for post-installation review. The post-installation submittal should account for other exceptions described below.	Continue Document Upload		

3	<p>The submitted calculation file contains a variety of hard-coded or contradictory fields that cannot be fully vetted in this review. Please include fully linked calculation files (i.e., no hard-coded fields or detailed explanations of their derivation) in the post submittal. Please ensure consistency in savings calculation assumptions throughout the file. Two examples of hard-coded or inconsistent values include:</p> <ul style="list-style-type: none"> <li>- The hard-coded baseline pump kW is assumed to be 28.99 kW, which contradicts other values in the spreadsheet: 27.3 kW (Eligible Savings cell Z44, Pre-Logged Data cell AI16).</li> <li>- The proposed pumps' peak demand kW (30.12 kW, Eligible Savings cell V9) is hard-coded without explanation and appears to contradict the proposed pump kW in the interval analysis (20.21 kW).</li> </ul>	Analysis assumptions		
4	<p>The post-installation M&amp;V plan specifies amperage metering of the three new pumps. Since the new pumps will be equipped with VFDs, metering must occur as close to the pumps' disconnect as possible, to prevent distortion from the VFD signal. Spot measurements should be taken at various speeds to create an amps vs. Hertz curve over the expected range of pump speeds. VFD efficiency (97% as estimated in Eligible Savings cell AB62) should be accounted for when comparing pre/post kW and outputs. As specified in the PFS section 6, pre-install pump operation data should be normalized to post-install MGD levels to ensure apples-to-apples comparison.</p>	Calculation method		

Note or Instruction Number:	CPUC Staff Notes or Instructions:	Instruction Category	PA Response	ED Resolution
1	Various project documents refer to the 2016 PG&E Study "Energy Baseline Study for Municipal Wastewater Treatment Plants" as an ISP study. Per Commission memo "CPUC Staff Comments on PG&E Municipal Wastewater Treatment Baseline Document" items #4 and #5, the study reflects dominant characteristics of existing equipment, not "typical practice for current new installations or upgrades today" as required by an ISP study. We reiterate the Commission's position that the 2016 PG&E WWTP Study should not be considered an ISP study.	Baseline		
2	In future WWTP submittals with uncertain standard practice conditions, please include basic information on other key WWTP components such as pumps, diffusers, aerators, and blowers. This information (e.g., quantity, horsepower, age, controls method) will allow more comprehensive review of the customer's standard practices in the context of the 2016 PG&E WWTP Baseline Study.	Baseline		

CPUC Staff Recommendation Definitions	
CPUC Staff Recommendation	Definition
<b>Application ready to proceed without exception</b>	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.
<b>Application ready to proceed with exception(s), as noted</b>	<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>• EUL/RUL</li> <li>• Measure Type</li> <li>• Program Influence</li> </ul>
<b>Application rejected.</b>	<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>
<b>Advisory.</b>	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.