

CPUC Staff Ex Ante Review

CPUC Staff Project ID Number	PGE 22 T I 769 PRJ - 03569424 Process Heat
CMPA Directory Link	https://deeresources.info/cmpa/projects/20361
PA	PGE
PA Application ID	PRJ - 03569424
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:	6/6/2022
PA CMPA Upload Dates Included in this review:	
First PA Upload	5/27/2022
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	
PA Measure Description(s):	
Measure 1	PROCESS RETROFITNEW-WASTE WATER-MODIFY PROCESS
Measure 2	
Measure 3	
Measure 4	
Measure 5	
Measure 6	
Measure 7	
Measure 8	
Measure 9	
Measure 10	
PA Project Description:	This application package entails the reconfiguration BRO-Op of the lagoon wastewater treatment plant system in [REDACTED]
Bi-Monthly Upload kW Demand Reduction	861.8
Bi-Monthly Upload Annual kWh Impacts	1,654,719.0
Bi-Monthly Upload Therm Impacts	0.0
PA Proposed Incentive \$ (to Customer)	\$109,277.00
Project Documentation kW Demand Reduction	861.8
Project Documentation Annual kWh Impacts	1,654,719.0
Project Documentation Annual Therm Impacts	0.0
Project Documentation Incentive \$ (to Customer)	109,276.0
CPUC Staff Primary Reviewer Name	[REDACTED]
CPUC Staff Primary Reviewer Firm	Verdant Associates
CPUC Staff Review Supervisor Name	[REDACTED]
CPUC Staff Review Supervisor Firm	Quantum Energy Analytics
PA Primary Reviewer Name	[REDACTED]
PA Primary Reviewer Firm	[REDACTED]
CPUC Staff Project Manager	[REDACTED]
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	The CPUC staff has identified several deficiencies for this project. Given this is a Summer Electric Reliability project and the customer has already received an exception from the PA to move forward with this project prior to the CPUC staff review, we are approving this project with exceptions but requiring the following deficiencies to be addressed at the post-installation stage. Please resubmit the project for our review at the post-installation stage.	Continue Document Upload		

2	<p>The PA did not clearly demonstrate that the existing operation reflects equipment performance that maintains essential services. Note that this project would not be viable if the existing system is not able to meet the essential services (i.e., meeting requirements of the Monitoring and Reporting Program Order No. R3-2021-0042, and Time Schedule Order [TSO] No. R3-2021-0038 as required by the California Regional Water Quality Control Board, Central Coast Region).</p> <p>1) TSO No. R3-2021-0038 prescribes interim groundwater limitations that must be met immediately, interim effluent limitations that must be met by December 31, 2022, and final groundwater limitations that must be met by December 31, 2025. The TSO also requires the customer to implement actions required to achieve compliance with General Order No. R3-2004-0066. Provided data by the PA shows that all interim limitations (effective immediately) are currently being met, while average TDS, sodium, and sulfate levels in the groundwater monitoring wells are currently above the final limitations set in the TSO (compliance required by December 31st, 2025). For future submission of this project, please clearly explain how the existing operation would have been able to meet these requirements. If the PA is not able to show the existing system would have been able to meet these requirements, then this is not a valid energy efficiency project.</p> <p>2) It appears that the food processing facility is continuously implementing source control measures to mitigate high concentrations of some constituents in the influent wastewater. The timing and scope of these modifications are not clearly explained in the project files. In the future submission of this project, please clearly explain timing and scope of these modifications and how they impact this project. The PA should also demonstrate that implementation of this project is not related to these source reduction measures.</p>	Eligibility		
3	<p>Savings analysis provided by the PA did not correctly account for a comparable level of service between the baseline and installed operations</p> <p>1) The PA used inconsistent baseline and proposed parameters (i.e., Biological Oxygen Demand [BOD] and total kjeldahl nitrogen [TKN] for baseline vs BOD and total Nitrogen [N] for proposed) to estimate total required aeration horsepower. The PA also used inconsistent values for the same parameters (80 mg/L of BOD reduction for baseline vs 72 mg/L of BOD reduction for proposed). These parameters should remain the same between the baseline and installed system to demonstrate operation equivalency between baseline and installed systems.</p> <p>2) In addition to assuming similar pollutant reduction between the pre- and post-installation stage, savings should be normalized for dissolve oxygen (DO) levels. The existing system exceeded DO levels as required by the permit and therefore the proposed system usage should be normalized to account for DO in baseline and installed systems. Also, given oxygen within the atmosphere can pass through the water surface as dissolved oxygen, it is not clear to us how the PA accounted for this natural oxygen penetration reduction by moving the treatment to a smaller pond. Based on all of these, it is important to normalize the final savings based on DO levels in addition to BOD and total N.</p> <p>3) Food processing facility production data should also be used in the analysis to ensure equivalency between baseline and installed system.</p>	Calculation method		
4	<p>PA only provided one day of logged power data to estimate the usage of existing aerators for the entire 2021 season. The PA provided some facility level consumption data to show that it's reasonable to assume that one day operation is representative of the entire season. We do not agree that this is an accepted assumption given ongoing upgrades (e.g., installation of new effluent pump station, installation of effluent recirculation pump, etc.) that may have impacted the facility level consumption. Given the magnitude of savings, relatively short operating season, and that the facility has the equipment to monitor aerators usage, the PA should have provided more data to cover full operating conditions.</p>	Analysis assumptions		
5	<p>The project feasibility states that the project involves "use of the two existing concrete basins and modify piping and controls to treat the full load using 5 of the existing aerators". However, according to a phone conversation with the PA on 5/27/2022, the project scope does not include any control system upgrade (e.g., aerator speed, DO feedback control, etc.). If this project includes control upgrade, then according to Resolution E-4818, separate claims should be made for operational savings and control upgrade savings. Future submission of this project should clarify whether the project involves any control upgrade.</p>	Missing required information		
6	<p>We are requesting the PA to provide the following data at the post-installation stage. This data should correspond to all ponds not just pond #1. The PA should use this data to proof 1) existing system would have been able to meet level of service and 2) savings are based on equivalent level of service.</p> <p>For the entire 2022 season (July 2022 to October 2022), please provide the following:</p> <ul style="list-style-type: none"> • WWT facility level consumption data (in the lowest increments available) • DO measurements on a weekly basis (preferably daily if available) • Influent and effluent BOD measurements on a weekly basis (preferably daily if available) • Influent and effluent measured N on a weekly basis (preferably daily if available) • Influent and effluent measured flow on a daily basis • Production data from the food processing facility • Logged power data for all aerators (associated with all ponds, lagoons and basins) • Permit compliance report • Size, operating hours and installation timing of other energy consuming equipment installed the WWTP <p>Please also provide the following data for the baseline period (some of this data is provided in pdf format and difficult to use for the analysis):</p> <ul style="list-style-type: none"> • WWT facility level consumption data (in the lowest increments available) for the entire 2021 season • Production data from the food processing facility for the entire 2021 season • Size, operating hours and installation timing of other energy consuming equipment installed at the WWTP during 2021 season • DO measurements on a weekly basis for the entire 2021 season • Influent and effluent BOD measurements on a weekly basis (preferably daily if available) • Influent and effluent measured N on a weekly basis (preferably daily if available) • The January 2021 wastewater alternatives identification technical memorandum: "Time Schedule Order No. R3-2021-0038, when adopted, will require [redacted] to comply with interim limitations and implement actions at the xxx facility proposed in the January 2021 wastewater alternatives identification technical memorandum. The technical memorandum presents studies and facility modifications to achieve compliance with this General Permit." 	M&V plan		

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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. 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.