

DOCKETED

Docket Number:	01-AFC-19C
Project Title:	SMUD Cosumnes Power Plant - Compliance
TN #:	244135
Document Title:	STATEMENT OF STAFF APPROVAL OF POST CERTIFICATION CHANGE
Description:	On July 6, 2022, the Sacramento Municipal Utility District Financing Authority (SFA) filed a post-certification petition (TN# 243844) with the California Energy Commission (CEC) requesting to modify the Cosumnes Power Plant (CPP).
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Submitter Role:	Commission Staff
Submission Date:	7/20/2022 1:49:47 PM
Docketed Date:	7/20/2022



STATEMENT OF STAFF APPROVAL OF POST CERTIFICATION CHANGE COSUMNES POWER PLANT (01-AFC-19C)

On July 6, 2022, the Sacramento Municipal Utility District Financing Authority (SFA) filed a post-certification petition ([TN# 243844](#)) with the California Energy Commission (CEC) requesting to modify the Cosumnes Power Plant (CPP).

The CPP is a 603-megawatt combined-cycle natural gas facility located adjacent to the former Rancho Seco Nuclear Plant in southern Sacramento County. The project was certified by the CEC on September 9, 2003, and began commercial operation on February 24, 2006.

DESCRIPTION OF PROPOSED CHANGE

The project owner seeks approval to allow for the temporary simple-cycle operation of the CPP combustion turbines due to a failed steam turbine generator stator bus bar, rendering the steam turbine generator inoperable. SFA proposes to continue to operate the CPP in a simple-cycle configuration until the steam turbine generator is repaired. Due to supply chain issues, the repair is expected to be completed as early as November 2022 or as late as January 2023. The proposed change to simple-cycle operation during the steam turbine generator outage is needed in order to continue generating electricity during the summer peak electrical period.

The proposed operation of the CPP combustion turbines in simple-cycle configuration will not require the physical alteration of the combustion turbines, heat recovery steam generators (HRSG), or air emission control systems. The combustion turbines and HRSG will continue to operate the same as before the steam turbine failure, but at lower than base load operating rates (the maximum expected 2 on 0 operating rate is estimated at 80 percent of base load). Steam generated in the HRSG will bypass the steam turbine generator and will be sent directly to the condenser. In order to eliminate the possibility of damaging the steam turbine, the low-pressure steam turbine rotor was removed. The operation of the CPP combustion turbines simple-cycle configuration is a technology modification and all other characteristics and operations of the facility remain unchanged.

To access the post-certification petition, go to the [CEC's project webpage](https://www.energy.ca.gov/powerplant/combined-cycle/cosumnes-power-plant), <https://www.energy.ca.gov/powerplant/combined-cycle/cosumnes-power-plant>. A link to the petition is accessible through the webpage in the box labeled "Compliance Proceeding." Click on the "Documents for this Proceeding ([Docket Log](#))" option.

CEC STAFF REVIEW AND CONCLUSIONS

California Code of Regulations, title 20, section 1769 requires a project owner to petition the CEC for the approval of any change the project owner proposes to the project design, operation, or performance requirements of a certified facility.

The CEC staff reviewed the petition for potential environmental effects and consistency with applicable LORS. The CEC staff's conclusions for all technical and environmental areas are summarized in **Table 1**.

TABLE 1
Summary of Conclusions for all Technical and Environmental Areas

Technical Areas Reviewed	CEQA				Conforms with applicable LORS
	Potentially Significant Impact	Less Than Significant Impact with Mitigation (with Revised or New COCs)	Less Than Significant Impact (with or without Existing COCs)	No Impact	
Air Quality			X		X
Biological Resources				X	X
Cultural Resources				X	X
Efficiency			X		
Facility Design					X
Geological Hazards and Paleontological Resources				X	X
Hazardous Materials Management			X		X
Land Use				X	X
Noise and Vibration			X		X
Public Health			X		X
Reliability					
Socioeconomics			X		
Soil and Water Resources				X	X
Traffic and Transportation			X		X
Transmission Line Safety and Nuisance				X	X
Transmission System Engineering					X
Visual Resources				X	X
Waste Management			X		X
Worker Safety and Fire Protection				X	X

Areas shown in gray are not subject to CEQA consideration or have no applicable LORS the project must comply with.

Staff has concluded that the modified project would continue to comply with applicable LORS, and the project change would not result in any significant adverse environmental impacts or require a change to any conditions of certification. The bases for each of staff's conclusions are provided below:

AIR QUALITY

Operation in simple-cycle mode would not affect any criteria pollutant emissions. Exhaust parameters, emission rates, and emission controls would remain the same as when the facility is operated as a combined-cycle facility and compliance with all existing conditions of certification (COCs) in the Final Commission Decision (Final Decision) would continue to be met and the facility would continue to comply with all applicable LORS.

Operation of the CPP combustion turbines in simple-cycle mode would result in an increase in greenhouse (GHG) emissions on a pound per unit energy basis (either British thermal unit or megawatt). However, a review of the air quality COCs shows that the project does not have a GHG emission limitation. Nonetheless, CPP would comply with the non-baseload emission limit of 50 kilograms of carbon dioxide (CO₂) per gigajoule of heat input (120 lb CO₂/One million British Thermal Units (MMBtu)) during simple-cycle operation by the exclusive use of natural gas as fuel.

There would be no changes to any conditions of certification as a result of this modification and the impact would be less than significant. Refer to the Air Quality analysis at the end of this document for further details.

BIOLOGICAL RESOURCES

The project modifications would not result in an increase of criteria air pollutants (i.e., nitrogen oxide emissions), and would not result in any change to the physical environment or ground disturbance activities. Therefore, with the implementation of existing Conditions of Certification BIO-2, BIO-3 and BIO-4 in the Final Decision, the proposed modifications would not have any impacts on biological resources and the project would remain in compliance with all LORS and would not exceed permit limits.

CULTURAL RESOURCES

At least 12 known cultural resources were located in or near the vicinity of the project site. However, the proposed project change would not result in any ground-disturbing activities or any alterations that would affect these archaeological resources. Therefore, this proposed project change would not impact cultural resources.

EFFICIENCY

With the steam turbines being inoperable due to a failed steam generator stator bus bar, and the gas turbines operating alone in a simple-cycle mode, the steam produced in the HRSG would not be used to spin the steam turbine generator for additional power generation. Steam generated in the HRSGs to prevent the HRSG from overheating would bypass the steam turbine and would be sent directly to the condenser. Thus, this petition would result in the facility exhibiting a lower thermal efficiency than the efficiency level reached under the combined-cycle mode of operation. The thermal efficiency of the project in simple-cycle mode could be similar to the average efficiency of other simple-cycle units it would dispatch against and would depend on ambient and operating conditions. The alternative would be to keep the facility shut down, which would prevent the facility from returning to service as soon as possible. Therefore, the plant's return to service to generate power for the electricity grid, though in a simple-cycle mode, would outweigh the decline in efficiency. The impact on the plant's thermal efficiency would be less than significant.

FACILITY DESIGN

There would be no new construction as the result of this petition. There would be no impact to facility design.

GEOLOGICAL AND PALEONTOLOGICAL RESOURCES

This petition does not affect the geological or paleontological resources and geologic hazards as described in the Final Decision. The repair work proposed would occur completely within the CPP site and requires no excavations, earth moving, or foundation installation. No additional geological or paleontological resources and no geologic hazards have been identified in the project area. Therefore, no impacts to geological or paleontological resources are expected. The proposed modification would not create a significant impact to geological or paleontological resources and no additional mitigation measures are required. The petition does not require changes to the COCs for geological and paleontological resources. Therefore, the petition would have no impacts to geological or paleontological resources and geologic hazards.

HAZARDOUS MATERIALS MANAGEMENT

The project change from combined-cycle to simple-cycle would not result in or require any changes to the hazardous materials management of the facility. Therefore, the potential hazardous material management impacts would be less than significant with continued implementation of the existing conditions of certification.

LAND USE

Operation of the CPP combustion turbines in simple-cycle configuration and the proposed repairs to the steam turbine generator would not constitute a change in land use. The proposed modifications would not result in additional project features being developed on the project site. All proposed modifications would be associated with existing facilities at CPP and would not be visible once completed. No excavation activities are required. The CPP facility would remain consistent with applicable LORS and there is no land use related COCs applicable to the change in the Final Decision. The proposed change would not physically divide an established community or cause a significant environmental impact due to a conflict with LORS adopted for the purpose of avoiding or mitigating an environmental effect. Further, the change would not result in the conversion of Farmland or forest land or conflicts with agricultural operations. Therefore, the modifications would have no impacts to land use.

NOISE AND VIBRATION

Activities in the repair to the steam turbine generator associated with this petition would be temporary and would occur during daytime hours that are consistent with the local ordinance (Sacramento County Code section 6.68.090(e) or Sacramento County General Plan (B)(13) Noise). Any noise generated during these activities would result in a less-than-significant impact with implementation of the existing Noise conditions of certification in the Final Decision.

The operation of the plant's combustion turbines in simple-cycle mode would not result in an increase to noise levels. Thus, operational noise impacts would be less than significant.

PUBLIC HEALTH

Operation in simple-cycle mode would not affect any toxic air contaminant (TACs) emissions. Exhaust parameters and emission rates would remain the same as when the facility is operated as a combined-cycle facility and compliance with all CEC conditions of certification would continue to be met. Therefore, the project change would not have a significant impact to the sensitive groups or the general population.

RELIABILITY

This petition would result in the facility generating lower capacity (megawatts) due to the steam generator being offline. However, the alternative would be to keep the facility shut down, which would prevent the facility from returning to service as soon as possible. Therefore, the plant's return to service to generate power for the

electricity grid, though in a simple-cycle mode, would still support the transmission grid it's connected to. There would be no impact to the plant's reliability.

SOCIOECONOMICS

The proposed repairs to the steam turbine generator would utilize a temporary contract maintenance workforce with the same level of workforce used for routine annual maintenance activities (estimated 5-to-7-week outage period with 100 to 200 workers at any one time), which is significantly smaller numbers than were required for the original project construction. Operation of the CPP combustion turbines in simple-cycle configuration and the proposed repairs to the steam turbine generator would not necessitate additional operations workforce. There is no socioeconomics related LORS or COCs applicable to the change and there would be less than significant temporary workforce related impacts on population and housing, and on public services.

SOIL AND WATER

The proposed modification would not involve construction or ground disturbing activities at the CPP site. Additionally, the modification would not result in an increase in water consumption, nor would it impact the amount or quality of stormwater discharged off-site. Therefore, the proposed modification would not result in adverse impacts on soil and water resources.

TRAFFIC AND TRANSPORTATION

The proposed repairs to the steam turbine generator would utilize a temporary workforce and truck deliveries within the same level used for routine annual maintenance activities at CPP (estimated total of 30 freight truck trips with up to 4 truck trips per week for several weeks of the estimated 5-to-7-week outage period). The proposed operation of the combustion turbines in simple-cycle configuration would not result in additional vehicle trips to the site. The CPP facility would remain consistent with applicable LORS and there are no traffic and transportation related COCs applicable to the change in the Final Decision. Therefore, the proposed modifications would have less significant impacts on traffic or transportation.

TRANSMISSION LINE SAFETY AND NUISANCE

The proposed modification to operate the CPP in a simple-cycle configuration until the steam turbine is repaired would not impact the transmission line. The modification will comply with applicable LORS and will not require a change to any of the COCs. Therefore, there would be no transmission line safety and nuisance impacts.

TRANSMISSION SYSTEM ENGINEERING

The proposed modification to operate the CPP in a simple-cycle configuration until the steam turbine generator is repaired and the simple-cycle operates at an estimated 80 percent of the base load will not impact the transmission system. The modification will comply with applicable LORS and will not require a change to any of the COCs.

VISUAL RESOURCES

Operation of the CPP combustion turbines in simple-cycle configuration would not require the physical alteration of the combustion turbines or HRSGs and the repair activities of the steam turbine generator would not be visible to the public. Changes to the exhaust stack or cooling tower visible plumes are not expected while operating in simple-cycle configuration because steam generated in the HRSGs would bypass the steam turbine generator and be sent directly to the condenser. The CPP facility would remain in compliance with LORS pertaining to visual resources and in compliance with existing visual resources COCs, including PLUME-1 (cooling tower operation data recording and reporting). The requested change would not have a substantial adverse effect on a scenic vista, scenic resources, the existing visual character or quality of public views of the project site and its surroundings or create a new source of substantial light or glare adversely affecting day or nighttime views in the area. Therefore, the project change would have no impacts to visual resources.

WASTE MANAGEMENT

This petition does not require changes to the waste management environmental baseline information as described in the Final Decision. The proposed CPP modification does not result in an increase in hazardous materials use or waste generation at the site, beyond the normal construction waste generated during a maintenance outage. No waste streams other than those already identified in the waste management plan will be generated. Therefore, no impacts to waste management are expected. The proposed operation of the combustion turbines in simple-cycle mode will not result in the generation of additional waste. The proposed CPP modifications will not require additional mitigation measures and conforms to applicable LORS related to waste management. Therefore, the petition is expected to have a less than significant to waste management.

WORKER SAFETY AND FIRE PROTECTION

The project change from combined-cycle to simple-cycle would not result in or require any construction related activities. Therefore, the project change would have no impact on worker safety or the environment.

CALENVIROSCREEN

Staff reviewed CalEnviroScreen 4.0 data to determine whether the United States census tract where the CPP is located (6067009406) is identified as a disadvantaged community. This science-based mapping tool is used by the California Environmental Protection Agency to identify disadvantaged communities based on geographic, socioeconomic, public health, and environmental hazard criteria pursuant to Health and Safety Code section 39711 as enacted by Senate Bill 535 (De León, Chapter 830, Statutes of 2012). The CalEnviroScreen 4.0 overall percentile score for this census tract is 5.6 and, thus, is not identified as a disadvantaged community¹.

ENVIROMENTAL JUSTICE

Environmental Justice Figure 1 shows 2020 census blocks in the six-mile radius of the CPP with a minority population greater than or equal to 50 percent. The population in these census blocks represents an environmental justice (EJ) population based on race and ethnicity as defined in the United States Environmental Protection Agency's *Guidance on Considering Environmental Justice During the Development of Regulatory Actions*. Staff conservatively obtains demographic data within a six-mile radius around a project site based on the parameters for dispersion modeling used in staff's air quality analysis. Air quality impacts are generally the type of project impacts that extend the furthest from a project site. Beyond a six-mile radius, air emissions have either settled out of the air column or mixed with surrounding air to the extent the potential impacts are less than significant. The area of potential impacts would not extend this far from the project site for most other technical areas included in staff's EJ analysis.

Based on California Department of Education data in the **Environmental Justice Table 1**, staff concluded that the percentage of those living in the Aroche Union Elementary and Oak View Union Elementary school district (in a six-mile radius of the project site) and enrolled in the free or reduced-price meal program is not larger than those in the reference geography. Thus, it is not considered an EJ population based on low income as defined in *Guidance on Considering Environmental Justice During the Development of Regulatory Actions*. **Environmental Justice – Figure 2** shows where the boundaries of the school district are in relation to the six-mile radius around the CPP site.

¹ The four categories of geographic areas identified by CalEPA as disadvantaged are: 1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0, 2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores, 3) Census tracts identified in the 2017 DAC designation, regardless of their scores in CalEnviroScreen 4.0, and 4) Lands under the control of federally recognized Tribes. Source: CalEPA Final Designation of Disadvantaged Communities: May 2022 <https://calepa.ca.gov/envjustice/ghqinvest/>

**Environmental Justice – Table 1
 Low Income Data within the Project Area**

SACRAMENTO COUNTY SCHOOL DISTRICTS IN SIX-MILE RADIUS	Enrollment Used for Meals	Free or Reduced-Price Meals	
Arcohe Union Elementary	464	145	31.2%
REFERENCE GEOGRAPHY			
Sacramento County	243,002	132,811	54.7%
SAN JOAQUIN COUNTY SCHOOL DISTRICTS IN SIX-MILE RADIUS	Enrollment Used for Meals	Free or Reduced-Price Meals	
Oak View Union Elementary	371	116	31.3%
REFERENCE GEOGRAPHY			
San Joaquin County	152,384	90,283	59.2%

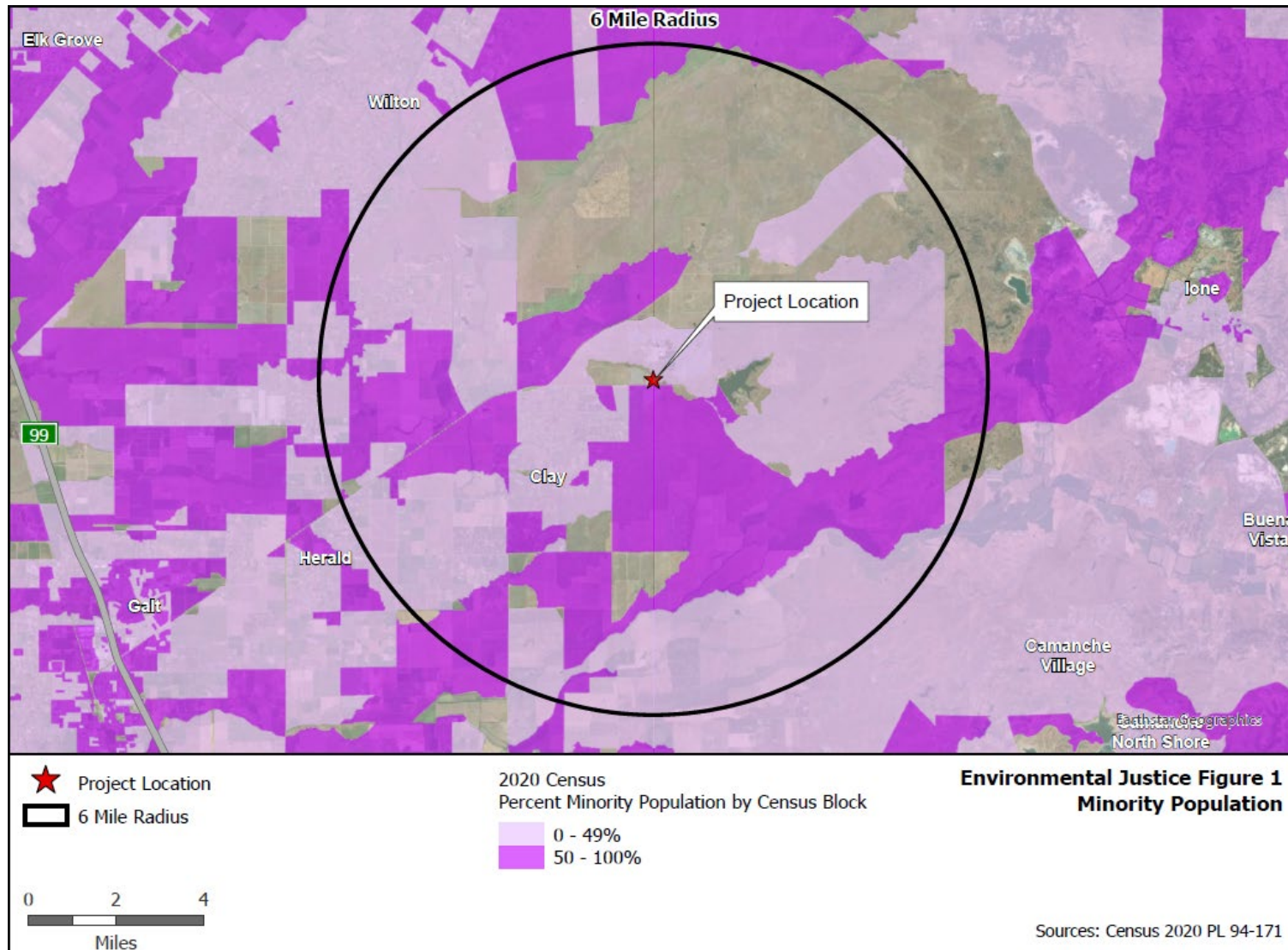
Source: CDE 2022. California Department of Education, DataQuest, Free or Reduced-Price Meals, District level data for the year 2021-2022, <http://dq.cde.ca.gov/dataquest/>.

The following technical areas (if affected) consider impacts to EJ populations: Air Quality, Cultural Resources (indigenous people), Hazardous Materials Management, Land Use, Noise and Vibration, Public Health, Socioeconomics, Soil and Water Resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, Waste Management, and Worker Safety and Fire Protection.

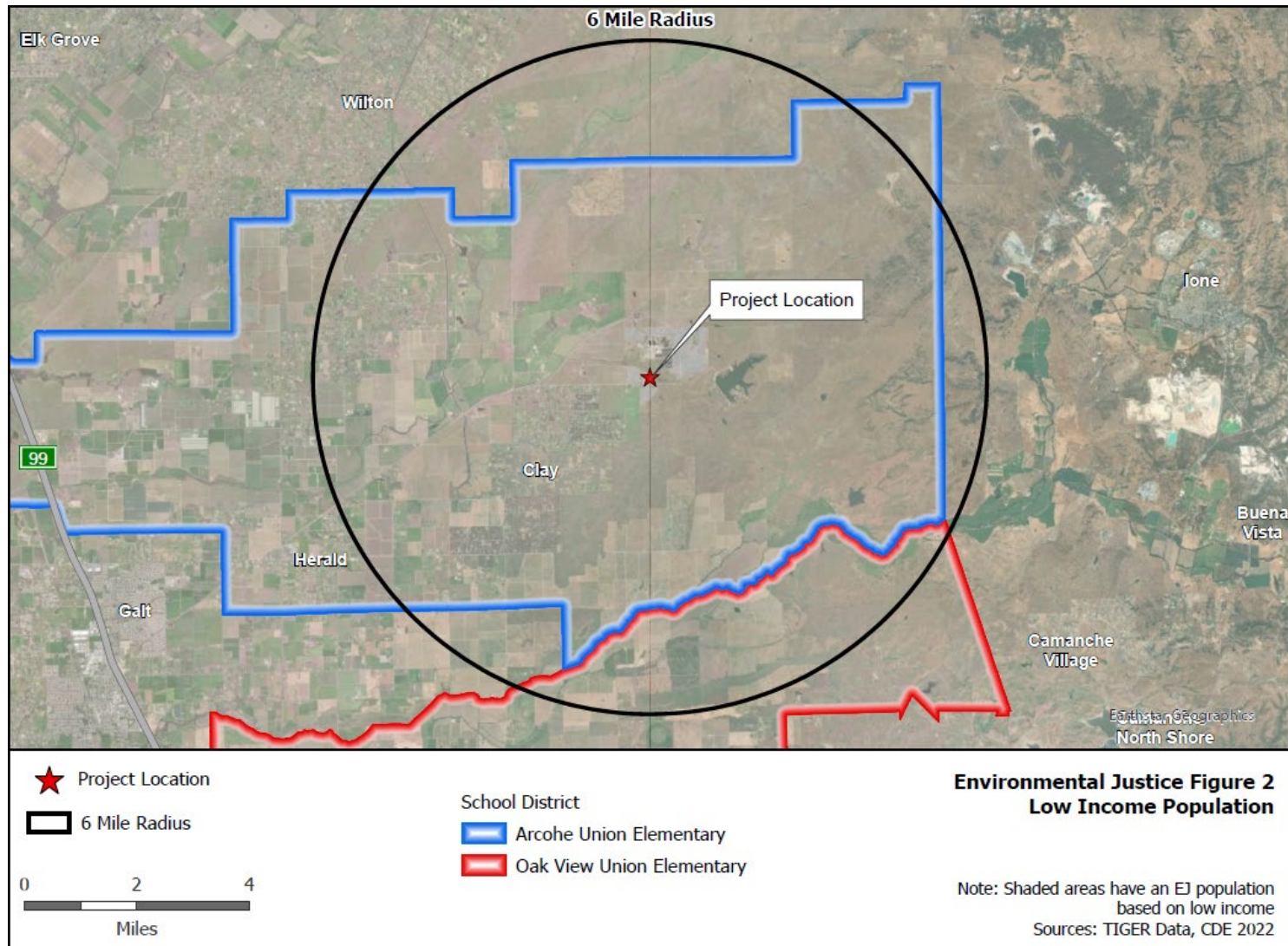
Environmental Justice Conclusions

For this petition, the following technical areas considered impacts to EJ populations: Air Quality, Hazardous Materials, Noise and Vibration, Public Health, Socioeconomics, Traffic and Transportation, and Waste Management. For these technical areas, staff concludes that impacts would be less than significant, and thus would be less than significant on the EJ population represented in **Environmental Justice Figure 1**.

Environmental Justice Figure 1 – Minority Population



Environmental Justice Figure 2 – Low Income Population



CEC STAFF DETERMINATION

CEC staff has determined for this petition that approval by the Commissioners at a noticed business meeting or hearing is not required and the proposed changes meet all the criteria for approval by staff because:

Pursuant to California Code of Regulations, title 20, section 1769(a)(3)(A):

- i. There is no possibility that the change may have a significant impact on the environment, or the change is exempt from the California Environmental Quality Act;
 - ii. The changes would not cause the project to fail to comply with any applicable laws, ordinances, regulations, or standards; and
 - iii. The changes will not require a change to, or deletion of, a condition of certification adopted by the Commission in the final decision or subsequent amendments.
- i.

Staff also concludes that none of the findings specified in section 1748(b) apply to the proposed changes and the proposed changes do not meet any of the criteria requiring the production of subsequent or supplemental review pursuant to Public Resources Code, section 21166.

WRITTEN COMMENTS

This statement of CEC staff approval of the proposed project changes has been filed in the [docket for this project](#). Pursuant to California Code of Regulations, title 20, section 1769(a)(3)(C), any person may file an objection to CEC staff's determination within 14 days of the filing of this statement on the grounds that the project change does not meet the criteria set forth in sections 1769(a)(3)(A) or (a)(3)(B). Absent any objections as specified in section 1769(a)(3)(C), this petition will be approved 14 days after this statement is filed.

Written comments or objections to staff's determination may be submitted using the CEC's e-Commenting feature, as follows: Go to the [CEC's project webpage](#) and click on either the "Comment on this Proceeding," or "[Submit e-Comment](#)" link. When your comments are filed, you will receive an email with a link to them.

Written comments or objections may also be mailed to:

California Energy Commission
Docket Unit, MS-4
Docket No. 01-AFC-19C
715 P Street
Sacramento, CA 95814-5512

All comments and materials filed with the Docket Unit will be added to the [facility Docket Log](#) and be publicly accessible on the [CEC's project webpage](#).

If you have questions about this notice, please contact Compliance Project Manager Mary Dyas, Safety and Reliability Office, Compliance Monitoring and Enforcement Unit, at (916) 628-5418, or via email at mary.dyas@energy.ca.gov.

For information on public participation, please contact the CEC's Office of Public Advisor, Energy Equity, and Tribal Affairs at (916) 957-7910 or email at publicadvisor@energy.ca.gov.

News media inquiries should be directed to the CEC's Media Office at (916) 654-4989, or by email at mediaoffice@energy.ca.gov.

List Serve: Cosumnes Power Plant

Cosumnes Power Plant (01-AFC-19C)

Air Quality, Public Health, and Greenhouse Gases

Jacquelyn Record

INTRODUCTION

On July 6, 2022, Sacramento Municipal Utility District (SMUD) Financing Authority (SFA or project owner) submitted a Petition to Amend (PTA) to the California Energy Commission (CEC) for the Cosumnes Power Plant (CPP) to operate the CPP combustion turbines in a temporary simple-cycle configuration due to a failed steam turbine (ST) stator bus bar, designating the ST inoperable (Jacobs 2022). SFA proposes to continue to operate the CPP in a simple-cycle configuration until the ST is repaired. Due to supply chain issues, the repair is expected to be completed from November 2022 to January 2023.

The outage of the ST is expected to result in 292 megawatts (MWs) of lost capacity, which is dependent on ambient conditions. While temporarily in simple-cycle mode, CPP would continue to provide generating capacity during the critical time of the summer peak demand. The combustion turbine generators (CTGs) and heat recovery steam generator (HRSG) would continue to operate the same as before the ST failure, but at lower than base load operating rates (the maximum expected 2 on 0 [two CTGs and no ST] operating rate is estimated at 80 percent of base load). The range of expected output for the 1 on 0 operation is 100 to 180 megawatts (MWs), and the expected output for the 2 on 0 operation is 200 to 270 MWs. Steam generated in the HRSG would bypass the ST and would be sent directly to the condenser.

The proposed temporary operation of the CPP CTGs in a simple-cycle configuration would not require the physical alteration of the CTGs, HRSG, or air emission control systems. Therefore, would not result in an increase in criteria pollutant emissions, greenhouse gas (GHG) emissions, or toxic air contaminants (TACs) from the facility or cause significant environmental impacts, and the facility would continue to comply with all applicable laws, ordinances, regulations, and standards (LORS). There would be no changes to any conditions of certification (COCs) as a result of this petition. There would be no adverse impacts on any Environmental Justice populations as the requested modifications would not increase facility emissions.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS

The project would continue to comply with all applicable LORS. The requested modification does not trigger any new LORS.

ADDITIONAL PROPOSED CONDITIONS OF CERTIFICATION

No modifications to the Air Quality conditions of certification are needed as part of the request to operate in simple-cycle mode. The facility would continue to comply with all COCs in the Final Decision.

ANALYSIS

No construction air quality impacts are expected as a result of the proposed temporary modification. The repairs done to the ST would not result in any new construction activity with excavation or heavy-duty earth-moving equipment. The restoration of the ST to an operational condition would require a contract maintenance workforce, but in significantly smaller numbers than were required for the original project construction or other routine maintenance events.

This temporary modification would allow all the HRSG steam to be routed to the condenser and ensure the safe operation of the facility in simple-cycle mode. The proposed change to simple-cycle operation during the ST outage is needed to continue generating electricity during the summer peak electrical period and mitigate against system load vulnerability and instability for the SMUD service area. Staff would like to note that the ST and its associated generator do not emit combustion pollutants and do not fire fuel.

Since the ST cannot be utilized, and out of an abundance of caution, SFA will remove the low-pressure ST rotor to eliminate the possibility of damaging the ST. The operation of the CPP combustion turbines' simple-cycle configuration is a technology modification and all other characteristics and operations of the project remain unchanged (Jacobs 2022). Upon completion of the repairs to the ST, the facility would return to the combined-cycle operation capabilities and normal operation is expected.

The CTGs exhaust would continue to go through the heat recovery HRSG and subsequent post-combustion emission control equipment (i.e., selective catalytic reduction systems and oxidation catalysts) keeping the exhaust parameters and emission rates the same as when the facility is operated in combined-cycle mode. According to the PTA, this modification would not affect the existing continuous emissions monitoring systems from precisely and accurately monitoring the exhaust gases for concentrations of oxides of nitrogen, carbon monoxide, and oxygen (Jacobs 2022).

The CPP would continue to operate the two permitted combustion turbines and the associated emission control and monitoring devices in compliance with the existing permit conditions and emission limits. The plant will make no special alterations to operating scenarios to maintain compliance with the CPP's permit other than running the turbines at a reduced fuel input (~1900 Metric Million British Thermal Unit [MMBTU]/hr) instead of their Sacramento Metro Air Quality Management District

(SMAQMD or District) permitted maximum (2100 MMBTU/hr). The CEC permit does not have this Air Quality COCs associated with the project.

On July 13, 2022, the project owner submitted a variance petition application to SMAQMD for a variance of their permit to operate with the use of the ST and the associated electric generator. A variance is an administrative exception to allow a business to continue operating in violation of SMAQMD rules without penalty while it takes appropriate steps to meet air pollution control requirements. Variances can be granted only by the SMAQMD Hearing Board, and not by SMAQMD inspectors or engineers. The District and the project owner continue to work together to determine the best course of action for the SMAQMD permitted maximum for fuel input. While the proposed project operational change can be done with the equipment installed, the District, CEC staff, and the project owner would continue to monitor the project operations and environmental performance to ensure safe operations within the permit limits.

CRITERIA POLLUTANT EMISSIONS ANALYSIS

Operation in simple-cycle mode would not affect any criteria pollutant emissions. Exhaust parameters and emission rates would remain the same as when the facility is operated as a combined-cycle facility and compliance with all CEC conditions of certification would continue to be met.

TOXIC AIR CONTAMINANTS EMISSIONS ANALYSIS

Operation in simple-cycle mode would not affect any TACs emissions. Exhaust parameters and emission rates would remain the same as when the facility is operated as a combined-cycle facility and compliance with all CEC COCs would continue to be met.

GREENHOUSE GAS EMISSIONS

Operation of the CPP combustion turbines in simple-cycle mode would result in an increase in GHG emissions on a pound per unit energy basis (either British thermal unit or megawatt). However, a review of the air quality COCs shows that the project does not have a GHG emission limitation. A review of the federal GHG regulations (Title 40, Code of Federal Regulations, Subpart TTTT - Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units) applies to emission units installed after January 8, 2014. The CPP began commercial operation in February 2006 and is not subject to Subpart TTTT. The facility would continue to comply with all CEC COCs (Jacobs 2022).

California adopted an emission performance standard (EPS), based on Senate Bill 1368, that limits the state's utilities from entering into long-term investment for baseload power plants with GHG emissions that exceed those of a combined-cycle combustion turbine project. SFA is not entering into a long-term investment into a power plant but

is making repairs on a failed component at the CPP. The proposed project would not increase generation capacity over design conditions, is not intended to extend the life of the CPP, and is not intended to convert a non-base load plant into a base load plant. Therefore, the EPS does not apply to the CPP (Jacobs 2022).

The units are not subject to Subpart TTTT since the facility commenced construction in 2011 and this rule went into effect on October 23, 2015. Nonetheless, the CPP would comply with the non-baseload emission limit of 50 kg of CO₂ per GJ of heat input (120 lb CO₂/MMBtu) during simple-cycle operation by the exclusive use of natural gas as fuel.

CONCLUSIONS

The proposed temporary modification to the project would not result in an increase in criteria pollutant emissions, GHG emissions, or TACs from the facility or cause significant environmental impacts, and the facility would continue to comply with all LORS. There would be no changes to any conditions of certification as a result of this petition. There would be no adverse impacts to any environmental justice populations as the requested modifications would not increase facility emissions.

REFERENCES

- CEC 2003 – California Energy Commission, Cosumnes Power Plant Project Commission Decision - POS (01-AFC-19) Commission Decision, September 2003.
- Jacobs 2022 – SFA Cosumnes Power Plant, Petition to Amend Temporary Simple Cycle Operation, TN 243844, docketed July 6, 2022.