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CALIFORNIA ENERGY COMMISSION

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CEC-57 (Revised 1/19)



STATEMENT OF STAFF APPROVAL OF PROPOSED CHANGE

SUTTER ENERGY CENTER

(97-AFC-02C)

On October 17, 2019, Calpine Construction Finance Company, LP (Calpine CCFC Sutter Energy, LP) (project owner) (97-AFC-02C) filed a petition (TN#: 230269) with the California Energy Commission (CEC) to modify the Final Commission Decision for the Sutter Energy Center. The project owner is requesting to modify Air Quality Condition of Certification AQ-32 to enhance operational flexibility.

The combined-cycle, 578-megawatt, natural gas-fired facility was certified by the CEC on April 14, 1999 and began commercial operation on July 2, 2001. The Sutter Energy Center (SEC) is located adjacent to Calpine's Greenleaf Unit #1 cogeneration power plant, approximately seven miles southwest of Yuba City, on South Township Road near the intersection with Best Road.

DESCRIPTION OF PROPOSED CHANGE

This petition seeks to remove subsections 5 and 6 of Condition of Certification AQ-32 to conform the condition to requested changes to the SEC's Title V Operating Permit.¹

The removal of subsections 5 and 6 of Condition AQ-32 would remove the limitations on startup and shutdown hours for the SEC as follows: (Text to be removed is in ~~strike through~~; new text is in **bold and underline**)

AQ-32

1. Combined-Cycle Gas Turbine Generator (CTG) startups are defined as the time period commencing with the introduction of fuel flow into the gas turbine and ending at the start of the first hour period when Nitrogen oxides (NOx) concentrations do not exceed 2.5 parts per million, volumetric dry (ppmvd) at 15% Carbon dioxide (O₂) averaged over 1-hour and the Carbon monoxide (CO) concentrations do not exceed 4.0 parts per million (ppm) at 15% O₂ averaged over 1 hour.
2. For each CTG, a startup shall not exceed 360 consecutive minutes.

¹On September 21, 2018 the CEC approved a petition to change subsections 5 and 6 of Condition AQ-32 for the Sutter Energy Center, LLC by revising the total number of startup and shutdown events.

3. Shutdowns are defined as the time period commencing with a 15-minute period during which the 15-minute average NO_x concentrations exceed 2.5 ppmvd at 15% O₂ or the 15-minute average CO concentration exceeds 4.0 ppm at 15% O₂ and ending when fuel flow to the gas turbine is discontinued.
4. For each CTG, a shutdown shall not exceed 60 consecutive minutes.
5. ~~The maximum duration of startups for both CTGs shall be 800 hours per year and 204 hours per calendar quarter.~~ **Deleted**
6. ~~The maximum duration of shutdowns for both CTGs shall be 600 hours per year, and 152 hours per calendar quarter.~~ **Deleted**
7. Compliance with the above yearly limits shall be calculated based on a rolling 12-month average.
8. All emissions during startups and shutdowns shall be included in all calculations of daily, quarterly, and annual mass emissions required by this permit.
9. For each duct burner, the total hours of combusting fuel shall not exceed 5,460 per calendar year.
10. For each CTG the total hours of Power Augmentation Steam Injection shall not exceed 2,000 hours per calendar year.
11. The maximum hourly emissions from each gas turbine/duct burner are given in the table below and shall be averaged over a rolling three-hour period, except for the NO_x emissions and all hourly startup emission rates, which shall be averaged over a one-hour period. Additionally, excepting the total emissions per startup and total emissions per shutdown which are not averaged over any time frame.

NECESSITY OF PROPOSED CHANGE

The proposed change is necessary to conform the CEC's conditions of certification to requested changes to the Feather River Air Quality Management District (District) Title V permit to remove the limitations on the startup and shutdown hours for the facility. This change would also allow the facility operational flexibility to respond to grid reliability needs and market conditions.

The petition requesting the project change has been docketed and is available on the Energy Commission's webpage for this facility at:

<https://ww2.energy.ca.gov/sitingcases/sutterpower/index.html>

CEC technical staff reviewed the petition for potential environmental effects and consistency with applicable laws, ordinances, regulations, and standards (LORS). Because no physical changes would occur to the facility or at the site, staff determined the following technical areas are not affected by the proposed changes to Condition

AQ-32: Biological Resources, Cultural Resources, Facility Design, Geological and Paleontological Resources, Hazardous Materials Management, Land Use, Noise and Vibration, Power Plant Efficiency, Power Plant Reliability, Public Health, Socioeconomics, Soil and Water Resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Transmission System Engineering, Visual Resources, Waste Management, and Worker Safety and Fire Protection.

In the technical area of Air Quality, staff has concluded that the changes to Condition AQ-32 would not cause a significant impact on the environment or cause the project to not comply with all applicable LORS. In addition, the project change would not affect any population including the environmental justice population as shown in **Environmental Justice Figure 1, Figure 2, and Table 1.**

Staff's conclusions for each technical or environmental area are summarized in the table on the following page.

TABLE 1: SUMMARY OF STAFF CONCLUSIONS

| Technical/Environmental Areas Reviewed | Technical Area Not Affected | CEQA | | | Conforms with Applicable LORS | Revised Condition of Certification Recommended |
|--|-----------------------------|--------------------------------|--|------------------------------|-------------------------------|--|
| | | Potentially Significant Impact | Less Than Significant Impact with Mitigation | Less Than Significant Impact | | |
| Air Quality | | | | X | X | X |
| Biological Resources | X | | | | | |
| Cultural Resources | X | | | | | |
| Efficiency and Reliability | X | | | | | |
| Facility Design | X | | | | | |
| Geological and Paleontological Resources | X | | | | | |
| Hazardous Materials Management | X | | | | | |
| Land Use | X | | | | | |
| Noise and Vibration | X | | | | | |
| Power Plant Efficiency | X | | | | | |
| Power Plant Reliability | X | | | | | |
| Public Health | X | | | | | |
| Socioeconomics | X | | | | | |
| Soil and Water Resources | X | | | | | |
| Traffic and Transportation | X | | | | | |
| Transmission Line Safety and Nuisance | X | | | | | |
| Transmission System Engineering | X | | | | | |
| Visual Resources | X | | | | | |
| Waste Management | X | | | | | |
| Worker Safety and Fire Protection | X | | | | | |

ENERGY COMMISSION STAFF REVIEW AND CONCLUSIONS

Staff concludes the following for the technical area affected by the proposed change:

Air Quality. The project owner proposes to delete Condition **AQ-32 part (5)** and **AQ-32 part (6)**, which currently limit the number of SEC startup and shutdown hours on a quarterly and annual basis. The project owner does not request making any change to the existing startup and shutdown emissions limits. Although emissions during startup and shutdown events count towards compliance with the daily, quarterly, and annual mass emissions limits, no changes in the daily, quarterly, or annual limits are proposed.

The removal of parts **(5)** and **(6)** of **AQ-32** would not cause the project to fail to comply with any applicable Feather River Air Quality Management District) rules and regulations. CEC staff have reviewed the project's modified Title V Operating and Title IV Acid Rain permits from the District. The project would continue to comply with the requirements of each permit.

The deletion of the parts **(5)** and **(6)** of **AQ-32** would not affect the existing facility-wide emission limits and would not increase daily, quarterly, or annual emissions for any criteria pollutant. Therefore, there is no possibility that this change would have a significant effect on the environment.

Environmental Justice

Environmental Justice – Figure1 shows 2010 census blocks in the six-mile radius of the SEC site 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 Yuba City Unified School District (in a six-mile radius of the project site) and enrolled in the free or reduced price meal program is larger than those in the reference geography, and thus this population is 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 SEC site.

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

| SCHOOL DISTRICT IN SIX-MILE RADIUS | Enrollment Used for Meals | Free or Reduced Price Meals | |
|---|----------------------------------|------------------------------------|-------|
| Franklin Elementary | 478 | 119 | 24.9% |
| Winship Robbins Elementary | 1,787 | 762 | 42.6% |
| Yuba City Unified | 13,236 | 9,538 | 72.1% |
| REFERENCE GEOGRAPHY | | | |
| Sutter County | 23,690 | 14,897 | 62.9% |

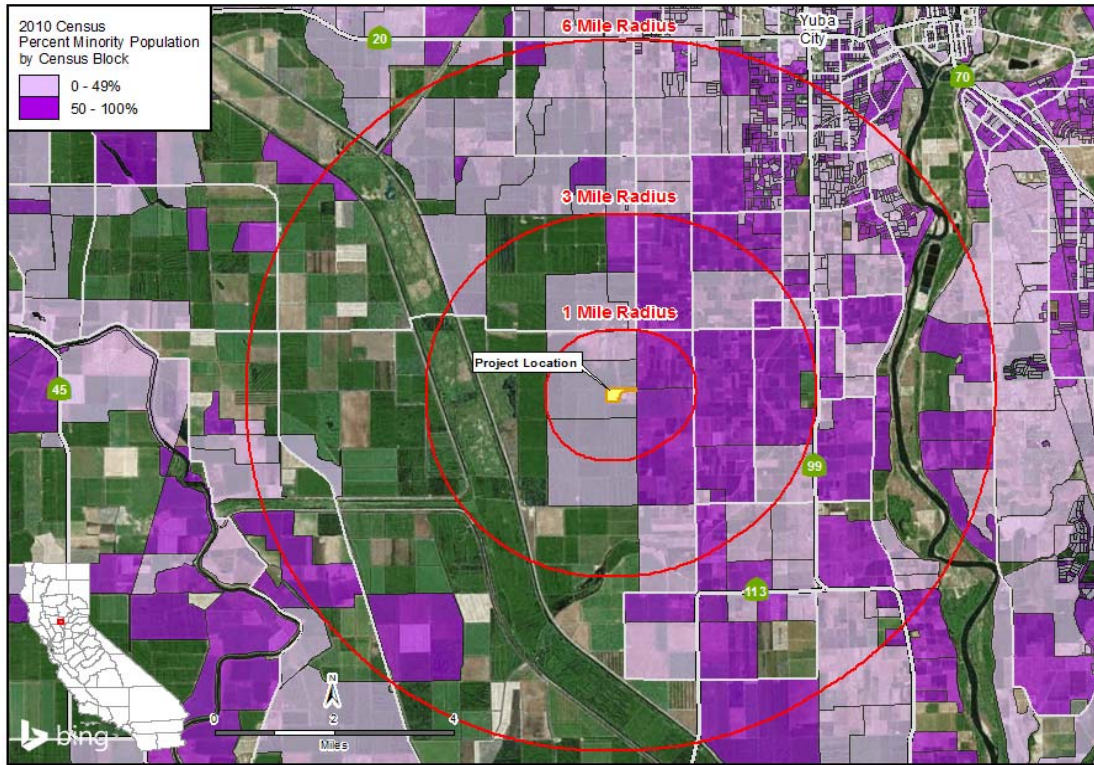
Source: CDE 2018. California Department of Education, DataQuest, Free or Reduced Price Meals, District level data for the year 2017-2018, <<http://dq.cde.ca.gov/dataquest/>>.

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

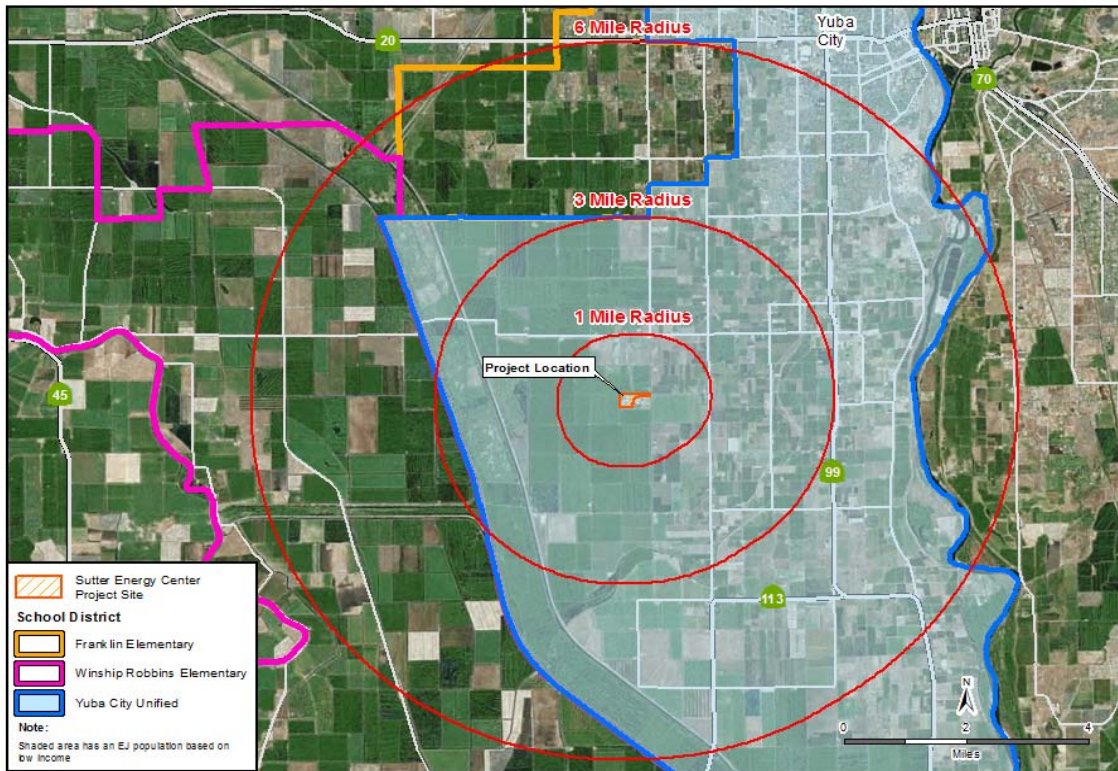
Air Quality is the only technical area that considers EJ that would be affected by the project change. In the Air Quality analysis, staff concluded that there is no possibility that a significant effect on the environment could occur by removing parts **(5)** and **(6)** of Condition of Certification **AQ-32**. The project change would not cause significant air quality impacts for any population in the project’s six-mile radius, including the EJ population represented in **Environmental Justice Figure 1, Figure 2, and Table 1**.

ENVIRONMENTAL JUSTICE - FIGURE 1
Sutter Energy Center - Census 2010 Minority Population by Census Block



CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION
SOURCE: Census 2010 PL 94-171 Data

ENVIRONMENTAL JUSTICE - FIGURE 2
Sutter Energy Center - Environmental Justice Population Based on Low Income



CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION
SOURCE: TIGER Data, CA Dept of Education DataQuest

ENERGY COMMISSION STAFF DETERMINATION

Section 1769(a)(3)(A), Title 20, California Code of Regulations states, "(s)taff shall approve the change where staff determines:

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

Regarding petitions to change Air Quality conditions of certification, section 1769(a)(3)(B)states, "(s)taff, in consultation with the air pollution control district where the project is located, may approve any change to a condition of certification regarding air quality, provided:

- (i) that the criteria in subdivisions (a)(3)(A)(i) and (ii) are met; and
- (ii) that no daily, quarterly, annual or other emission limit will be increased as a result of the change."

CEC staff has determined that the proposed project change meets the criteria for approval at the staff level, and therefore the petition does not require approval by the CEC at a noticed business meeting or hearing.

WRITTEN COMMENTS

Any person may file an objection to staff's determination within 14 days of the date of this statement on the grounds that the project change does not meet the criteria set forth in section 1769(a)(3)(A) and (B). As specified in 1769(a)(3)(C), any such objection must make a showing supported by facts that the change does not meet the criteria in subdivision (a)(3)(A) and (B). Speculation, argument, conjecture, and unsupported conclusions or opinions are not sufficient to support an objection to staff approval. Absent any such objections, this staff approval will become final 14 days after this statement is filed in the docket.

This statement is being sent electronically to the SEC listserv. Any person may comment on the petition. To use the CEC's electronic commenting feature, go to the CEC's webpage for this facility, cited above, click on the "[Submit e-Comment](#)" link,² and follow the instructions in the online form. Be sure to include the facility name in your comments.

Written comments may also be mailed to:

²<https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=97-AFC-02C>

California Energy Commission
Docket Unit, MS-4
Docket No.97-AFC-02C
1516 Ninth Street
Sacramento, CA 95814-5512

All comments and materials filed with and posted by the Docket Unit will be added to the facility Docket Log and be publicly accessible on the CEC's webpage for the facility.

If you have questions about this statement, please contact John Heiser, Project Manager, at (916) 653-8236 or via email at John.Heiser@energy.ca.gov

For information on public participation, please contact the CEC's Public Advisor at (916) 654-4489, or at (800) 822-6228 (toll-free in California). The Public Advisor's Office can also be contacted via 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: Sutter Energy Center