

mile southwest of the proposed project site; and the Midway Sunset alternative located on Crocker Springs Road. The third alternative was a review of site possibilities within the overall Midway Sunset oil field. (11/12/99 RT 45; Ex. 23, p. 347.) The analysis of each of these location alternatives is detailed in the evidence of record, and indicates that development at these sites would result in potentially greater environmental impacts than the proposed project.

Furthermore, the Energy Commission has certified two projects in the local area, the La Paloma Generating Project (98-AFC-2) and the Elk Hills Power Project (99-AFC-1). Staff considered the alternative sites for these projects (8 for La Paloma and 3 for Elk Hills) when preparing the Sunrise alternatives analysis. The Sunrise alternative sites, when evaluated in combination with the La Paloma and Elk Hills alternative sites, provided a reasonable range of alternatives when considering whether any alternative sites would eliminate or reduce any potentially significant impacts associated with the proposed Sunrise site.

- **Page 31**, modify finding 4 and add new Finding 5 as follows:

- "4. ~~The no project alternative would avoid or lessen the creation of a~~ No alternative to the project considered in the case, including but not limited to the 'no project' alternative, would avoid or lessen any direct, indirect, or cumulative significant adverse environmental impacts of the SPP, because as mitigated the SPP will not cause any such impacts.
- "5. No alternative to the project considered by the Commission, including but not limited to the 'no project' alternative, is feasible, because none are capable of meeting the key project objective, which is generating power during the potentially critical period of the summer of 2001."

POWER PLANT RELIABILITY

- **Page 74**, line 4: peaking ~~baselead~~ facility such as the Sunrise project

TRANSMISSION SYSTEM ENGINEERING

- **Pages 86-94**, make the following revisions:

5. Cumulative Impacts

~~Cumulative impacts are two or more individual impacts on the environment that, when considered together, are considerable or that compound or increase other environmental impacts. The impacts may be changes which result from the~~

~~proposed project or from a number of separate projects. The Commission examines the incremental impact of the proposed project when added to other closely related past, present, and reasonably foreseeable probable future projects. (Cal. Code of Regs., tit. 14, /15355; see also Cal. Code of Regs., tit. 14, /15126.)~~

The sole issue that was contested in the area of Transmission System Engineering involves the challenge of the Transmission Agency of Northern California (TANC) to the adequacy of the cumulative impacts analysis.²⁶ TANC is a joint powers agency and public entity organized pursuant to a Joint Powers Agreement. Its members are the cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, and Ukiah, as well as the Modesto Irrigation District, the Sacramento Municipal Utility District, and the Turlock Irrigation District. Plumas-Sierra Rural Electric Cooperative is an associate member of TANC. TANC provides electrical transmission facilities and services to its members. TANC imports power through TANC's facilities and contracts from north of the California-Oregon border and south of the Midway Substation.

a) TANC's Contentions

TANC's challenge to the cumulative impacts analysis involves two interrelated issues: (1) potential cumulative effects on the transmission system ("cumulative system effects") , and (2) potential cumulative effects on the environment that could result from the cumulative system effects ("cumulative environmental effects"). With regard to environmental effects, CEQA defines cumulative impacts as two or more individual impacts on the environment that, when considered together, are considerable or that compound or increase other environmental impacts. In assessing cumulative environmental impacts, the Commission examines the incremental impact of the proposed project when

²⁶ TANC petitioned to intervene in the Sunrise case on August 31, 1999. Applicant filed opposition to TANC's petition on September 15, 1999, and the Committee granted the petition to intervene on October 1, 1999.

added to other closely related past, present, and reasonably foreseeable probable future projects. (Cal. Code of Regs., tit. 14, /15355; see also, Cal. Code of Regs., tit. 14, /15126.)

i) Cumulative System Effects

TANC's witness acknowledged that he had no disagreement with the **DFS detailed facility** studies carried out by PG&E or with the testimony filed by **Independent System Operator (ISO)** witness Ron Daschmans. (Exs. 19, 20, 36; 11/5/99 RT 120.) These documents concluded that the Sunrise project would not have a significant impact on the transmission system. Nevertheless, the TANC witness argued that when the transmission system at Midway is fully loaded, the addition of the generation from the Sunrise ~~Cogeneration and~~ Power Project to the transmission grid would result in congestion at Midway and in a one-for-one reduction in power imports from southern California into northern California. TANC is concerned that such an event would impact its members' rights to use the transmission system. (11/5/99 RT 120.)

The TANC witness concluded that therefore, it would be prudent to conduct further studies of the cumulative transmission impacts of new power generators such as Sunrise. TANC is concerned that the accumulation of new generators at the Midway substation will lead to congestion management problems which will harm the ability of its members to import power from southern California to northern California. The witness also noted that the Sunrise connection could impact the ability of TANC members to undertake southbound transactions on the California Oregon Intertie (COI) or on Path 15.²⁷ (Ex. 39; 11/5/99 RT 119-120.)

²⁷ Path 15 is term used to describe the Los Banos — Gates — Midway and Los Banos — Midway 500 kV transmission lines. This collection of transmission lines can be subject to congestion when fully loaded.

ii) Cumulative Environmental Effects

TANC urges the Commission to conduct further studies to examine the impact of the Sunrise project on transmission congestion and to examine the potential environmental impacts of the steps the ISO may take to resolve the congestion, such as remedial action schemes. Yet TANC witness David Larson stated that he did not recommend a delay in the Sunrise case in order to carry out such studies. (11/5/99 RT 126.)

b) Applicant's Contentions

Applicant argues that the additional studies TANC requests and the issues TANC is asking the Commission to resolve are beyond the Commission's legal siting jurisdiction. Sunrise cites Public Resources Code section 25107 which defines an electric transmission line for purposes of the Commission's siting authority as any electric power line carrying electric power from a thermal power plant within the state to a point of junction with any interconnected transmission system. Applicant notes that this language has been defined in regulations and interpreted by the courts to mean the first point of interconnection.²⁸ The first point of interconnection for the Sunrise project is the point at which the power plant's transmission line interconnects with the Midway substation. Applicant ~~states~~ asserts that TANC is asking the Commission to remedy impacts that occur, if at all, beyond the first point of interconnection and beyond the Commission's siting jurisdiction.

Applicant further argues that the Commission's obligation to examine safety and reliability issues concerning a proposed power plant is, in the case of the plant's transmission line, limited to the first point of interconnection with the transmission system. Sunrise adds that Commission regulations require Staff analysis to

²⁸ 20 CCR, / 1702(n); See also *Public Utilities Commission v. Energy Resources Conservation and Development Commission*, (1984) 150 Cal.-App.3d 437.

focus on those safety and reliability matters not expected to be considered by other agencies.²⁹ Applicant states that in this case, the other agency is the Cal-ISO which, since the passage of AB 1890, has authority for ensuring efficient use and reliable operation of the state's transmission grid.³⁰

c) Cal-ISO's Contentions

The Cal-ISO presented the sworn expert testimony of Ron Daschmans, a Grid Planning Engineer at the Cal-ISO. (Ex. 36.) In doing his analysis Mr. Daschmans relied on the two PG&E Interim Design Facilities Studies. (Ex. 19 and 20.) These studies indicated that their stability assessment showed no difference with or without the Sunrise project and further showed no downstream impacts on the system beyond the Midway substation.³¹ Even the witness for TANC stated that we certainly don't have any disagreement with the results of the analysis. (11/5/99 RT 120:5-6.) Mr. Daschmans and the Cal-ISO concurred with the PG&E analysis and determined that the Sunrise project can be operated at the specified levels within applicable system reliability criteria for the contingencies analyzed. To mitigate any further potential impacts, Condition of Certification TSE-1, proposed by the Commission staff, ensures that the Sunrise project will file a Final Detailed Facilities Study, including a description of remedial action scheme (RAS) sequencing, before constructing its transmission facilities. (Ex. 32, p. 71.)

d) Staff's Contentions

²⁹ 20 CCR, §1743(b).

³⁰ The Applicant cites Public Utilities Code, Section 345 in support of this assertion

³¹ In spite of TANC's request that the Commission carry out additional studies, TANC's own witness seemed comfortable with the existing system for analyzing transmission interconnection. I think the studies that we envision and prepared in testimony will all be done as part of the ongoing studies that PG&E is doing at the present time. (11/5/99 RT 126:15-16.)

i) Cumulative System Effects

For its part the Commission staff notes that ~~aside from the review by~~ the Cal-ISO ~~review included an~~, ~~no~~ analysis of cumulative system impacts ~~has been performed to account for for~~ all the projects which may tie into the Midway substation. ~~However~~, Staff cites the same statutory authority as does Applicant ~~and points out that the Commission's~~ to explain its own failure to carry out such a cumulative analysis ~~is, in fact, in accordance with the statutes that govern both the Energy Commission and the Cal-ISO.~~

ii) Cumulative Environmental Effects

The the Commission staff did analyze the cumulative effects of combined projects on the environment. In every case, Staff found that the Sunrise project either did not contribute to cumulative impacts or, if such potential existed, the proposed mitigation measures would assure that the impacts were reduced to below the level of significance.³²

COMMISSION DISCUSSION

We need not, and therefore do not, resolve the question of the Commission's jurisdiction to examine transmission system effects beyond the first point of interconnection. (We note, however, that Public Utilities Code Section 345 speaks only in very general terms about the duties of the Cal-ISO and does not appear to restrict the Commission's power plant certification jurisdiction.) The limits on the Commission's certification jurisdiction do not necessarily limit the

³² For example, cumulative impacts to biological resources will be mitigated through take avoidance measures and habitat compensation purchases. (Ex. 63, pp. 16-17.) Applying the Conditions of Certification can mitigate significant cumulative impacts to cultural resources. (Ex. 23, p. 209; also see evaluation of transmission line cumulative impacts in Ex. 23 at pp. 198, 205, and 208-209.) No cumulative impacts to visual resources are expected from transmission lines due the existing degraded visual landscape in oil fields. (Ex. 23, p. 141.) Under land use, since the Kern County Zoning Ordinance permits transmission lines in the area by right, staff found no cumulative significant impacts from project lines. (Ex. 23, p. 68-69.)

scope of the effects that the Commission must analyze in granting a certificate. That is especially true in the context of our CEQA-required assessment of environmental impacts, where the concept of the cumulative impacts of a proposed project with other past, present, and reasonably foreseeable future projects obviously goes beyond any one agency's permitting jurisdiction.

It is indisputable that CEQA requires us to assess all of the reasonably foreseeable, significant, environmental impacts, of the Sunrise project, whether individual or cumulative, and whether before, at, or beyond the first point of interconnection. In order to assess those environmental impacts, it is necessary also to assess transmission system effects, both before and beyond the first point of interconnection. (We expect that the Staff will perform such necessary analyses in future cases. If permitted by our regulations and other controlling authority, and absent an order to the contrary from the presiding Committee, Staff may rely on the analyses of other entities, but it should always at least provide an independent check on the work of others.)

In the Sunrise proceeding, the evidentiary record in the Sunrise case is adequate to resolve all issues concerning both cumulative transmission system effects and cumulative environmental impacts.

The testimony of the Cal-ISO shows based on the best information currently available, that there will be no significant individual or cumulative transmission effects as a result of the Sunrise project.

~~The Commission is aware of a number of power plant projects, which have either been proposed for connection to the Midway substation or which could impact the substation. These include the licensed La Paloma project as well as the Sunrise, Elk Hills, Midway Sunset, Pastoria, and Morro Bay projects. In addition, we W-e note that in the case other proceedings where transmission line engineering plans of other proposed projects are more specific than speculative,~~

the Commission staff ~~did analyze~~ has analyzed the cumulative effects of combined projects, including Sunrise, La Paloma, Elk Hills, and Midway-Sunset on the environment. In every case, Staff found that the Sunrise project either did not contribute to cumulative impacts or, if such potential existed, the proposed mitigation measures would assure that the impacts were reduced to below the level of significance.³³ ~~However, beyond the first point of interconnection, the evidentiary record in this case lacks specific information regarding how power from the plants in west Kern County will affect the integrated transmission system.~~³⁴

~~The record before us demonstrates that Staff and the Cal-ISO have provided an adequate analysis of the cumulative environmental and transmission system impacts related to the Sunrise project. However, in the future, in order to expand the information available to decision makers and the public regarding how a project's transmission system engineering may contribute to cumulative impacts on the environment,³⁵ the Sunrise Committee is recommending that the Commission direct Staff to expand its scope of analysis in this area. Rather than focus on the environmental impacts resulting from system upgrades identified by the ISO,³⁶ the Committee believes the Commission should require Staff to look~~

³³ ~~See footnote 28. For example, cumulative impacts to biological resources will be mitigated through take avoidance measures and habitat compensation purchases. (Ex. 63, pp. 16-17.) Applying the Conditions of Certification can mitigate significant cumulative impacts to cultural resources. (Ex. 23, p. 209; also see evaluation of transmission line cumulative impacts in Ex. 23 at pp. 198, 205, and 208-209.) No cumulative impacts to visual resources are expected from transmission lines due the existing degraded visual landscape in oil fields. (Ex. 23, p. 141.) Under land use, since the Kern County Zoning Ordinance permits transmission lines in the area by right, staff found no cumulative significant impacts from project lines. (Ex. 23, p. 68-69.)~~

³⁴ ~~Furthermore, with the passage of AB 1890, the legislature made clear that the Cal-ISO, and not the Energy Commission, has jurisdiction to analyze system impacts of adding new generation to the controlled grid. (Public Resources Code section 345.)~~

³⁵ ~~This is as opposed to an evaluation of impacts to the integrated transmission system beyond the point at which a power plant ties in to the system. Such non-environmental transmission system impacts are analyzed by the Cal-ISO.~~

³⁶ ~~The Cal-ISO typically identifies transmission system impacts from the proposed project in conjunction with impacts from other relevant projects that have previously been licensed by the Commission.~~

~~forward to all projects which are reasonably foreseeable, probable future projects . [Cal. Code of Regs., tit. 14, /15355(b).] In this way Staff could better determine whether the proposed project is likely to contribute to cumulative transmission impacts which will cause a physical change in the environment and, if so, whether the project's incremental contribution to such impacts is considerable. The discussion of cumulative impacts should reflect their severity and likelihood of occurring, but need not be as detailed as the discussion of the project's direct impacts.~~

~~In the case of the Sunrise project, In the instant proceeding, the testimonies of Applicant and the Cal-ISO address the La Paloma and Sunrise transmission connections to the Midway substation.³⁷ (Ex. 19, 20; Ex. 36; 11/5/99 RT 46-47.) Staff testimony included a cumulative analysis of combining the La Paloma, Sunrise and Midway Sunset projects. A brief discussion of impacts from the Elk Hills project was also included. (Ex. 32, pp. 68-69.)~~ To further inform the record, the Committee hereby takes administrative notice of the transmission cumulative impacts analysis in the Elk Hills case. (Docket No. 99-AFC-1: Ex. 19, p. 340; 1/25/00 RT 30:7-12, 35:14-19, 36:3-8.) That record, in conjunction with the Cal-ISO testimony in the Sunrise record, makes it clear that any physical up-grades to the transmission system which are necessitated by any of these projects will be minor and have *de minimus minimis* cumulative impacts.³⁸

~~Yet, Because of the evidence in the record as described above, we reject TANC's claim that the record is inadequate. No record is ever perfect in the abstract; if any proceeding is delayed long enough then additional information will become available. But it would be absurd to suggest that the law requires an agency to wait forever; indeed, the Commission's duty under the law is to reach a~~

³⁷ The testimony revealed that no substantial upgrades were required either to the Midway substation or to the downstream-integrated system. (Ex. 36.)

³⁸ Of three interconnection variations for Elk Hills, the largest impact is on the Route 1B variation which would require that additional 115 to 70 kilovolt transmission capacity be provided for the Taft substation. (1/25/00 RT 36:3-8.)

~~decision within twelve months. We are confident that the record contains all of the relevant information that is available at the present time and that such information is adequate. even if the record contained further information concerning downstream cumulative impacts to the transmission system, the environmental effects of transmission impacts such as the congestion alleged by TANC, cannot be known to us without engaging in extensive speculation. TANC itself gave no indication that further studies might reveal evidence of potentially significant impacts on the transmission system or on the environment (for example, Even TANC s own witness could not be sure which of its power plants it would operate in the event of transmission congestion), and in the absence of any reason to hope that further studies would clarify or add to the record we decline to order them here. Furthermore, We also note, with regard to environmental impacts, regardless of transmission concerns, that many of its TANC's member-s members' plants are subject to air quality operating limitations which they cannot exceed. (1/10/00 RT pp. 234, 235, 245.) Thus, it is impossible to know which power plants are most likely to operate and what environmental impacts will result. CEQA does not require the Commission to carry out its environmental analysis as a lead agency by engaging in such speculation. (Cal. Code of Regs., tit. 14,/15145.)~~

~~In sum, addition, for the Sunrise project to be found to have significant cumulative impacts, it must be found that its contribution to an environmental impact is cumulatively considerable . [Cal. Code Regs., tit. 14,/15064(i)(1) and (2).] However, we find that the record before us contains all of the information reasonably available at this time and demonstrates that the project will not contribute to cumulatively considerable impacts related to transmission system engineering or to the environment, and we find that there is no reason to believe that further studies would reveal any such impacts. We find, therefore, that having reviewed the Sunrise project in conjunction with other probable future projects in the area, it will not contribute to cumulative impacts which are significant.~~

~~The Cal-ISO carried out its duty in this case through the sworn expert testimony of Ron Daschmans, a Grid Planning Engineer at the Cal-ISO. (Ex. 36.) In doing his analysis Mr. Daschmans relied on the two PG&E Interim Design Facilities Studies. (Ex. 19 and 20.) These studies indicated that their stability assessment showed no difference with or without the Sunrise project and further showed no downstream impacts on the system beyond the Midway substation.³⁹ Even the witness for TANC stated that we certainly don't have any disagreement with the results of the analysis. (11/5/99 RT 120:5-6.) Mr. Daschmans and the Cal-ISO concurred with the PG&E analysis and determined that the Sunrise project can be operated at the specified levels within applicable system reliability criteria for the contingencies analyzed. If additional information is revealed upon completion of the Final Detailed Facilities Study, To mitigate any further potential impacts, Condition of Certification **TSE-1**, proposed by the Commission staff, ensures that ~~the Sunrise project will file a Final Detailed Facilities Study, including a description of~~ there will be a remedial action scheme (RAS) sequencing, fully capable of mitigating any adverse impacts, before Sunrise may begin constructing its transmission facilities. (Ex. 32, p. 71.)~~

~~Based on the evidence of record, we conclude that the Commission lacks the legal authority to regulate a project's cumulative system impacts to the transmission system beyond the project's first point of interconnection with the integrated system. The Cal-ISO has such authority and, based on its analysis of the La Paloma and Sunrise projects, it has determined that the Sunrise project will not have a significant negative impact on the system. However, as the lead agency examining this project under CEQA, the Commission will continue to analyze the cumulative environmental impacts related to transmission system upgrades resulting in whole or in part from Commission projects.~~

³⁹ In spite of TANC's request that the Commission carry out additional studies, TANC's own witness seemed comfortable with the existing system for analyzing transmission interconnection. I think the studies that we envision and prepared in testimony will all be done as part of the ongoing studies that PG&E is doing at the present time. (11/5/99 RT 126:15-16.)

FINDINGS AND CONCLUSIONS

- ~~1. The California Independent System Operator is the legally designated agency to analyze downstream non-environmental transmission system impacts beyond the first point of a project's interconnection with the integrated system.~~
2. The California Independent System Operator has determined that interconnecting the Sunrise Cogeneration and Power Project at the Midway substation will not create adverse impacts to the reliability of the electrical system.
3. The California Independent System Operator has determined that interconnecting the Sunrise Cogeneration and Power Project will not require the construction of additional transmission facilities downstream of the Midway substation.
4. The Sunrise Cogeneration and Power Project will operate according to remedial action schemes specified by the California Independent System Operator.
5. The California Independent System Operator's determinations are based on its review of the preliminary interconnection and facilities study.
6. A final Detailed Facilities Study is forthcoming and the testimony of record establishes that this document is not expected to alter the findings and conclusions reached concerning the acceptability or impacts (to the transmission system or to the environment) of interconnecting the Sunrise Cogeneration and Power Project at the Midway substation.
7. The outlet line from the project to the first point of interconnection is designed to transport a total line capacity of approximately 952 MW.
- ~~8. Possible cumulative transmission system impacts will be addressed by the Cal-ISO in future proceedings, as more information about future projects becomes available.~~
9. The Commission is responsible as lead agency under the California Environmental Quality Act, to analyze the environmental effects of

changes to the transmission system which are related to the addition of new power plants licensed by the Commission.

10. Both alternative transmission routes B and F are deemed acceptable and one may be constructed.
11. This Decision does not address economic cost allocations of transmission mitigation among project developers.
12. With the implementation of the various mitigation measures specified in this Decision, neither proposed transmission interconnection alternative of the Sunrise project will contribute to significant direct, indirect, or cumulative transmission system or environmental impacts.
13. The Conditions of Certification below ensure that the transmission related aspects of the La Paloma Generating Project Sunrise Power Project will be designed, constructed, and operated in conformance with the applicable laws, ordinances, regulations, and standards identified in the appropriate portion of Appendix A of this Decision.

We therefore conclude that interconnection of the project at the Midway substation is acceptable, and that it will not result in the violation of any criteria pertinent to transmission engineering.

AIR QUALITY

On November 17, 2000, the San Joaquin Valley Unified Air Pollution Control District (District) issued its final determination of compliance (FDOC) for the Sunrise Power Project. The following air quality amendments modify the Revised PMPD to conform its language to that of the FDOC. Air quality conditions not included below remain as they appear in the Revised PMPD.

- **Page 130:** first full paragraph, sixth line:

Edison Mission Energy and its affiliate parent, Southern California Edison

- **Page 145:**

AQ-C3 The project owner shall install oxidizing soot filters on all suitable construction equipment used either on the power plant construction site or on associated linear construction sites. Where the oxidizing soot filter is determined to unsuitable, the owner shall install and use an oxidation catalyst. Suitability is to be determined by an independent California Licensed Mechanical Engineer

who will stamp and submit for approval an initial and all subsequent Suitability Reports as necessary containing at a minimum the following:

Initial Suitability Report:

- A list of all fuel burning, construction related equipment used,
- A determination of the suitability of each piece of equipment to firstly work with an oxidizing soot filter,
- A determination of the suitability of each piece of equipment to secondly work with an oxidation catalyst,
- If a piece of equipment is determined to be unsuitable for an oxidizing soot filter, an explanation by the independent California Licensed Mechanical Engineer as to the cause of this determination,
- If a piece of equipment is determined to be unsuitable for both an oxidizing soot filter and an oxidizing catalyst, an explanation by the independent California Licensed Mechanical Engineer as to the cause of this determination.

Installation Report

Following the installation of either the oxidizing soot filter or oxidizing catalyst as prescribed in the Initial Suitability Report, a California Licensed Mechanical Engineer will issue an Installation Report that either confirms that the installed device is functioning properly or that installation was not possible and the cause. The owner/operator shall attach to this report a copy of receipts of purchase for the appropriate equipment and payment for labor to install, if applicable.

Subsequent Suitability Reports

If a piece of construction equipment is subsequently determined to be unsuitable for an oxidizing soot filter or oxidizing catalyst after such installation has occurred, the filter or catalyst may be removed immediately. However, notification must be sent to the CPM for approval containing an explanation for the change in suitability within 10 days. Changes in suitability are restricted to the following three explanations that must be identified in any subsequent suitability report. Changes in suitability may not be based on the use of high-pressure fuel injectors, timing retardation and/or reduced idle time.

- ¥1. The filter or catalyst is reducing normal availability of the construction equipment due to increased downtime, and/or power output due to increased backpressure by 20% or more.

- ¥2. The filter or catalyst is causing or reasonably expected to cause significant damage to the construction equipment engine.
- ¥3. The filter or catalyst is causing or reasonably expected to cause a significant risk to nearby workers or the public.

Verification: The project owner will submit to the CPM for approval, the initial suitability report stamped by an independent California Licensed Mechanical Engineer, 15 days prior to breaking ground on the project site. The project owner will submit to the CPM for approval, the installation report, stamped by an independent California Licensed Mechanical Engineer prior to the use of the identified construction equipment. The project owner will submit to the CPM for approval, subsequent suitability reports as required, stamped by an independent California Licensed Mechanical Engineer no later than 10 working days following a change in the suitability status of any construction equipment.

- **Page 146:**

SJVUAPCD Permit No. S-3492746-1-0: 165 MW NOMINALLY RATED ~~COGENERATIONS~~SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM #1 CONSISTING INCLUDING OF GENERAL ELECTRIC FRAME 7FA, NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH/ DRY LOW-NO_x COMBUSTORS, ~~UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG), SELECTIVE CATALYTIC REDUCTION, AND OXIDATION CATALYST.~~

SJVUAPCD Permit No. S-3746492-2-0: 165 MW NOMINALLY RATED ~~COGENERATIONS~~SIMPLE-CYCLE PEAK-DEMAND POWER GENERATION SYSTEM #2 CONSISTING INCLUDING OF GENERAL ELECTRIC FRAME 7FA, NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH/ DRY LOW-NO_x COMBUSTORS, ~~UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG), SELECTIVE CATALYTIC REDUCTION, AND OXIDATION CATALYST.~~

- **Page 147:**

AQ-2 The project owner shall submit ~~selective catalytic reduction, oxidation catalyst, and~~ continuous emission monitor design, installation and operational details to the District at least 30 days prior to commencement of construction. [District Rule 2201]

Verification: The project owner shall provide copies of the design drawings of the catalyst system chosen and the continuous emission monitor design detail to the CPM and the District at least 30 days prior to commencement of construction.

- **Page 147:**

AQ-5 Combustion turbine generator (CTG) and electric generator lube oil vents shall be equipped with mist eliminators to maintain ~~visible~~ emissions

from lube oil vents ~~no greater than~~~~shall not exceed~~ 5% opacity, except for three minutes in any hour. [District Rule 2201]

Verification: The project owner shall make the site available for inspection by representatives of the District, CARB and the Commission.

- **Page 147:**

AQ-7 CTG exhaust shall be equipped with continuously recording emissions monitor(s) dedicated to this unit for NO_x (~~before and after the SCR unit~~), CO, and O₂. Continuous emissions monitor(s) shall meet the requirements of 40 CFR part 60, Appendices B and F, and 40 CFR part 75, and District-approved protocol and shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, provided the CEM(s) pass the relative accuracy requirement specified in condition **AQ-23**. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits in Conditions **AQ-14**, **-15**, **-16**, and **-17**. [District Rule 2201]

Verification: The project owner shall make the site available for inspection by representatives of the District, CARB and the Commission.

- **Page 148:**

AQ-9 CTG shall be ~~fired~~ exclusively ~~burner~~ natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as S) per 100 dry standard cubic feet of natural gas. [District Rule 2201]

Verification: Please refer to Condition **AQ-30**.

- **Page 148:**

AQ-10 Startup is defined as the period beginning with turbine initial firing until the unit meets the lbs/hr and ppmvd_d emission limits in Condition **AQ-15**. Shutdown is defined as the period beginning with initiation of turbine shutdown sequence and ending with cessation of firing of the gas turbine engine. Startup and shutdown durations shall not exceed a time period of 40 minutes each~~hour~~ per occurrence. [District Rule 2201 and 4001]

Verification: Please refer to Condition **AQ-31**.

- **Page 149:**

AQ-14 During startup or shutdown of any combustion turbine generator(s), combined emissions from the two CTGs (S-3~~492746~~-1 and -2) shall not exceed

the following: NO_x—~~112.5~~145.24 lbs and CO —~~513.1~~364.86 lbs in any one-hour. [CEQA]

Verification: The project owner shall provide records of the emissions as part of the quarterly reports of Condition **AQ-31**.

- **Page 150:**

AQ-15 Emission rates from each ~~gas turbine engine heat recovery steam generator exhaust~~CTG, except during startup and/or shutdown events, shall not exceed any of the following:

PM ₁₀ :	9.0 lbs/hr
SO _x (as SO ₂):	3. 8 <u>5</u> lbs/hr
NO _x (as NO ₂):	16.5 <u>60.93</u> lbs/hr and 2.5 <u>9.0</u> ppmvd @ 15% O ₂ <u>Averaged over 1-hour</u>
VOC:	2. 8 <u>1</u> lbs/hr and 1. 2 <u>3</u> ppmvd @ 15% O ₂ <u>averaged</u> <u>Over 3-hours</u>
CO:	24.4 <u>29.14</u> lbs/hr and 6 <u>7.5</u> ppmvd @ 15% O ₂ <u>averaged</u> <u>over 3-hours</u>
Ammonia:	10 ppmvd @ 15% O ₂ <u>averaged over 24-</u> <u>Hours</u>

NOx (as NO2) emission concentration limit is a one-hour rolling average. All other emission concentration limits are three-hour rolling averages
[District Rules 2201, 4001, and 4703]

Protocol: Each one-hour period in a one-hour rolling average will commence on the hour. Each one-hour period in a 3-hour rolling average will commence on the hour. The 3-hour average will be compiled from the three most recent 1-hour periods. ~~Each one-hour period in a 24-hour average for ammonia slip will commence on the hour. The 24-hour average will be calculated starting and ending at twelve midnight.~~ [District Rule 2201]

Verification: The project owner shall provide records of the emissions as part of the quarterly reports of Condition **AQ-31**.

- **Page 150:**

AQ-16 Emission rates from each CTG ~~heat recovery steam generator exhaust, on days when a startup or shutdown occurs,~~ shall not exceed the following:

PM ₁₀ :	220.0 <u>158</u> lbs/day
So _x (as SO ₂):	83.7 <u>64.17</u> lbs/day

NO_x(as NO₂): [421.51038.88](#) lbs/day
 VOC: [83.578.96](#) lbs/day
 CO: [733.6792.24](#) lbs/day
 [District Rule 2201]

Protocol: Daily emissions will be compiled for a 24-hour period starting and ending at twelve-midnight. [District Rule 2201]

Verification: The project owner shall provide records of the emissions as part of the quarterly reports of Condition **AQ-31**.

- **Page 151:**

AQ-17 Annual emissions from the CTG calculated on a twelve consecutive month rolling basis shall not exceed any of the following:

PM₁₀: [79,00034,292](#) lbs/year
 SO_x(as SO₂): [28,54013,222](#) lbs/year
 NO_x(as NO₂): [135,708215,060](#) lbs/year
 VOC: [23,57016,718](#) lbs/year
 CO: [203,486166,721](#) lbs/year
 [District Rule 2201]

Protocol: Each calendar month in a twelve consecutive month rolling emissions total will commence at the beginning of the first day of the month. The twelve consecutive month rolling emissions total to determine compliance with annual emission limits will be compiled from the twelve most recent calendar months. [District Rule 2201]

Verification: The project owner shall provide records of the emissions as part of the quarterly reports of Condition **AQ-31**.

- **Page 151:**

AQ-18 Prior to or upon startup of either ~~Upon implementation of S-3492476-1-0~~ and/or '2-0, emission offsets ~~certificates~~ shall be ~~surrendered~~provided for all calendar quarters in the following amounts, at the offset ratio specified in Rule 2201 (6/15/95 version) in the following table at least 30 days prior to the commencement of construction.

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
PM ₁₀	44,2243,964	44,7157,584	45,20718,780	45,2073,964

SO _x (as SO ₂)	14,075	14,231	14,387	14,387
NO _x (as NO ₂)	66,924 21,036	67,668 41,894	68,411 111,094	68,411 21,036
VOC	11,624	11,753	11,882	11,882

[District Rule 2201]

Prior to or upon startup of either S-3746-1-0 or 2-0, the following emissions offsets shall be provided to the District to provide additional environmental benefits during the initial phase of this project and shall be used towards the offset requirements, if needed, when the next phase of this project is implemented:

	<u>Quarter 1</u>	<u>Quarter 2</u>	<u>Quarter 3</u>	<u>Quarter 4</u>
PM ₁₀	<u>67,364</u>	<u>64,647</u>	<u>51,763</u>	<u>69,001</u>
SO _x (as SO ₂)	<u>14,075</u>	<u>14,231</u>	<u>14,387</u>	<u>14,387</u>
NO _x (as NO ₂)	<u>67,207</u>	<u>0</u>	<u>18,105</u>	<u>26,538</u>
VOC	<u>13,949</u>	<u>14,104</u>	<u>14,259</u>	<u>14,259</u>

Verification: The project owner shall provide copies of all the necessary ERC certificates to the CPM no later than 30 days prior to the commencement of construction.

- **Page 152:**

AQ-22 Source testing to demonstrate compliance with PM₁₀ short-term emission limit (lbs/hr) shall be conducted within 60 days of initial operation, again within 9 months of initial operation during the winter (December, January, or February), and annually thereafter by District witnessed sampling of exhaust gas by qualified independent source testers. If CTG is operated during the winter (December, January, or February) then additional testing shall be conducted within 30 days of such operation. [District Rule 1081]

Verification: Please refer to the information requirements of Condition **AQ-25**.

- **Page 152:**

AQ-23 Source testing of startup NO_x, CO, VOC, and PM₁₀ mass emission rates shall be conducted for one of the gas turbine engines (S-34923746-1-0 or -2-0) upon initial operation and at least once every seven years thereafter by District witnessed in-situ sampling of exhaust gases by a qualified independent source test firm. CEM relative accuracy shall be determined during startup source testing in accordance with 40 CFR 60, Appendix B District-approved protocol. [District Rule 1081]

Verification: Please refer to the information requirements of Condition **AQ-25**.

- **Page 153:**

AQ-24 Compliance with natural gas sulfur content limit shall be demonstrated within 60 days of operation of each ~~gas turbine engine-CTG~~ and periodically as required by 40 CFR 60 Subpart GG and 40 CFR 75. [District Rules 1081, 2540, and 4001]

Please refer to the information requirements of Condition **AQ-30**.

- **Page 154:**

AQ-28 The project owner shall notify the District of ~~a)~~ the date of initiation of construction no later than 30 days after such date, ~~b)~~ the date of anticipated startup not more than 60 days nor less than 30 days prior to such date, and ~~e)~~ the date of actual startup within 15 days after such date. [District Rule 4001]

Verification: The project owner shall notify the CPM and the District of the date of initiation of construction no later than 30 days after such date. The project owner shall notify the CPM and the District of the date of anticipated startup not more than 60 days nor less than 30 days prior to such date, and the date of actual startup within 15 days after such date.

- **Page 154:**

AQ-29 The project owner shall maintain hourly records of NO_x, ~~and CO, and ammonia~~ emission concentrations (ppmv @ 15% O₂), and hourly, daily, and annual records of NO_x and CO emissions. Compliance with the hourly, daily, and annual VOC emission limits shall be demonstrated by the CO CEM data and the CO/VOC relationship determined by annual CO and VOC source tests. [District Rule 2201]

Verification: The project owner shall provide records of the emissions as part of the quarterly reports of Condition **AQ-31**.

AQ-30 The project owner shall maintain records of SO_x lbs/hr, lbs/day, and lbs/twelve month rolling ~~average~~ emissions. SO_x emissions ~~rates~~ shall be based on fuel use records, natural gas sulfur content, and mass balance calculations. [District Rule 2201]

Verification: The project owner shall provide records of the information described above as part of the quarterly reports of Condition **AQ-31**.

- **Page 154:**

AQ-31 The project owner shall maintain the following records for each CTG: occurrence, duration, and type of any startup, shutdown, or malfunction; emission measurements; total daily and annual hours of operation; and hourly quantity of fuel used. [District Rules 2201 and 4703]

Verification: The project owner shall compile required data and copies of the daily logs and submit the information to the CPM in quarterly reports submitted no later than ~~60~~30 days after the end of each calendar quarter.

- **Page 156:**

AQ-38 Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and ~~total accuracy compliance source~~ testing ~~are both~~ performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080]

Verification: The project owner shall submit the continuous emission monitor audit results with the quarterly reports required of Condition **AQ-40**.

AQ-41This approval and permit shall expire on December 31, 2002. The equipment authorized by this approval and permit shall cease operation no later than December 31, 2002. The equipment shall not be operated beyond December 31, 2002 unless the permittee has filed an application for Determination of Compliance or an Authority Construct and an Application for Certification or amendment to the existing Conditions of Certification for a modification of the project to a combined cycle or cogeneration project and has received prior authorization form the District and California Energy Commission to construct the combined cycle or cogeneration project. Any application seeking authorization to amend the simple-cycle power plant to a combined cycle power plant, or a cogeneration plant shall be treated as a modification of the existing equipment. The project shall be subject to Best Available Control Technology requirements for new equipment effective at the time such application for modification is deemed complete. By initiating construction under this permit, the owner waives any vested right in operating this equipment as a simple cycle power plant beyond December 31, 2002.

Verification: The project owner shall submit an Application for Certification or an amendment to the existing Conditions of Certification and obtain approval by December 31, 2002 or cease all operation of the Sunrise Simple Cycle Plant.

- **Page 157:**

AQ-42 The project owner shall not claim emission reduction credit for any additional NOx emission reductions above and beyond the original ERC package that may result from a conversion of the simple cycle project to a combined cycle or cogeneration project. The original ERC package in its entirety, including NOx ERCs, may be used to offset the emissions from the combined cycle or cogeneration conversion. In the event of a permanent shutdown of the simple cycle facility, the project owner shall not claim emission reduction credit for NOx reductions beyond those based on actual NOx emissions adjusted to reflect emissions at 5 ppm. In the event of a permanent shutdown of the simple cycle facility, the project owner will discuss disposition of the ERCs in the Facility's Closure Plan.

Verification: The project owner shall submit to the CPM for review and comment any application for ERCs within 30 days of submittal to the District.

- **Page 157:**

AQ-43: Electrical production capacity factor for CTG shall not exceed 28% on an annual basis. For a given year, capacity factor shall be calculated as: $\{(total\ MW\ produced\ per\ year \times total\ hours\ of\ operation\ per\ year) / (1,445,400\ MW\text{-}hrs,\ which\ is\ the\ total\ net\ MW\ rating\ for\ CTG,\ 165\ MW,\ times\ 8,760\ hours\ per\ year)\}$.

Verification: The project owner shall maintain records on site of electrical production capacity factors to demonstrate compliance with this condition.

SOCIOECONOMICS

- **Page 287,** Finding 10: The ~~present net value of the~~ estimated property taxes which will be imposed
- **Page 289,** delete entirely Condition of Certification **SOCIO-3.**

These amendments to the Sunrise Power Project Revised Presiding Member s Proposed Decision are hereby proposed by the Committee.

Dated: December 6, 2000

**ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION**

MICHAL C. MOORE, Commissioner
Presiding Member
Sunrise AFC Committee

ROBERT PERNELL, Commissioner
Associate Member
Sunrise AFC Committee

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