

DOCKETED	
Docket Number:	08-AFC-10C
Project Title:	Lodi Energy Center Project
TN #:	262275
Document Title:	Lodi Energy Center (08-AFC-10C) FX Turbine Upgrade PTA Order
Description:	Lodi Energy Center (08-AFC-10C) FX Turbine Upgrade Petition to Amend Order
Filer:	Ashley Gutierrez
Organization:	California Energy Commission
Submitter Role:	Commission Staff
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STATE OF CALIFORNIA
STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

IN THE MATTER OF:

Docket No.: 08-AFC-10C

***Northern California Power Authority,
LLC.
Lodi Energy Center
Post Certification Petition to Amend***

ORDER ON PETITION TO AMEND

I. BACKGROUND

On June 11, 2024, Northern California Power Agency, LLC (NCPA), the project owner of the Lodi Energy Center (LEC), filed a post certification petition ([TN 256804](#)) with the California Energy Commission (CEC) requesting to amend the LEC Final Commission Decision (Decision) to upgrade the gas turbine with new Siemens FX hot gas path components, including newly advanced design blades, seals, vanes, and vane carriers from Turbine Stages 1 through 4. The efficiency upgrade would improve the turbine's thermal energy conversion process allowing LEC to generate an additional 15 megawatts (MWs) during ambient conditions. On July 25, 2024, NCPA filed a supplemental Title V Minor Modification pursuant to San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 2520. SJVAPCD approved the proposed changes to LEC's Title V Permit and issued its Final Determination of Compliance on January 29, 2025.

To ensure LEC's existing CEC air quality conditions of certification (COCs) conform with the SJVAPCD amended operating permit under Title V of the Federal Clean Air Act, staff proposes to modify and add new Air Quality (AQ) COCs to the CEC's Decision.

The LEC is a 296 MW, natural gas-fired, thermal power plant operating in combined-cycle configuration. The project is located in Lodi, San Joaquin County. It was certified by the CEC on April 21, 2010, and began commercial operation on November 1, 2013.

Based on a review of the petition and the SJVAPCD amended operating permit, Staff proposes to modify the existing COCs and add the following new AQ COCs:

- Modification of the combustion turbine generator (CTG) equipment description to reflect the increase in maximum CTG power output;
- Modification of emission limits in existing COCs **AQ-25** (increase in hourly CTG particulate matter 10-micrometers or less in diameter (PM₁₀) and ammonia (NH₃) startup, shutdown, and combustor tuning emission limits), **AQ-29** (increase in hourly CTG nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), and sulfur oxides (SO_x) normal operation emission limits), **AQ-30** (increase in hourly CTG NH₃ startup, shutdown, and combustor tuning emission limits), **AQ-32** (increase in daily CTG PM₁₀ and NH₃ startup, shutdown, and combustor tuning emission limits), **AQ-33** (increase in daily CTG NO_x, CO, VOC, and SO_x normal operation emission limits);
- Modification of existing COCs **AQ-46** and **AQ-47** to reflect the District requirement to source test the CTG within 60 days of initial startup after project implementation;
- Addition of new COCs: **AQ-104** (exhaust stack requirements), **AQ-105** (startup time duration limits), **AQ-106** (continuous temperature monitoring of oxidation catalyst requirement), **AQ-107** (oxidation catalyst allowable normal operation temperature range), **AQ-108** (oxidation catalyst temperature measurement during VOC source test), and **AQ-109** (reporting of any projected actual emission exceedances).

The modification to the CTG equipment would necessitate an increase to the hourly and daily emission limits and the project owner would be required to source test the CTG within 60 days of initial startup of the project. However, the proposed increase in hourly and daily emission limits are small and air quality modeling results show that the project is not expected to cause an exceedance of any air quality emission standards. Staff has determined that the minor increase in hourly and daily emission limits, proposed modifications to the AQ COCs, and addition of new AQ COCs would not result in significant impacts to the ambient air quality and the environment.

The proposed amendments to the Decision are necessary to ensure consistency with the project's Title V operating permit. The modifications and additions proposed by the CEC staff to the Air Quality COCs would allow the project to continue to operate in compliance with the Decision, the SJVAPCD permit requirements, and applicable laws, ordinances, regulations, and standards (LORS).

II. STAFF RECOMMENDATION

Staff recommends the CEC approve the petition to amend including the new and modified COCs provided herein.

Staff has reviewed the petition for potential environmental effects and consistency with applicable LORS pursuant to California Code of Regulations, title 20, section 1769. Staff concludes that, with the addition of new or amended conditions of certification (**AQ-25**, **AQ-29**, **AQ-30**, **AQ-32**, **AQ-33**, **AQ-46**, **AQ-47**, **AQ-104**, **AQ-105**, **AQ-106**, **AQ-107**, **AQ-108** and **AQ-109**) the effect on the environment would be less than significant. Staff also

concludes that the project would continue to comply with all applicable LORS and that the findings specified in California Code of Regulations, title 20, section 1748(b), do not apply to the proposed changes. Staff also concludes the proposed new and modified AQ COCs do not meet any of the criteria requiring the preparation of subsequent or supplement review pursuant to Public Resources Code section 21166 or California Code of Regulations, title 14, sections 15162 and 15163. Finally, staff concludes that the new and modified COCs are consistent with the requirements contained in permits issued by the SJVAPCD. Staff's assessment of the petition was subject to a 30-day comment period and no substantive comments were received.

III. ENERGY COMMISSION FINDINGS

Based on the record, including staff's analysis, the CEC concludes that the proposed new and modified COCs will not result in any significant impacts to public health and safety, or to the environment. The CEC finds that:

- The petition meets all the filing criteria of California Code of Regulations, title 20, section 1769(a), concerning post-certification project modifications.
- The new and modified COCs will not change the findings in the CEC's Final Decision, pursuant to California Code of Regulations, title 20, section 1748.
- The project will remain in compliance with all applicable laws, ordinances, regulations, and standards, subject to the provisions of Public Resources Code section 25525.
- Any environmental impacts will be less than significant with the addition of new or amended conditions of certification: **(AQ-25, AQ-29, AQ-30, AQ-32, AQ-33, AQ-46, AQ-47, AQ-104, AQ-105, AQ-106, AQ-107, AQ-108 and AQ-109)**.
- The proposed new or modified AQ COCs do not meet any of the criteria requiring the preparation of subsequent or supplement review pursuant to Public Resources Code section 21166 or California Code of Regulations, title 14, sections 15162 and 15163.
- Notice of the staff assessment was mailed to the CEC's list of interested parties and property owners of all parcels within 500 feet of any affected project linears and 1,000 feet of the project site as well as emailed to the LEC subscription list.
- The staff assessment was posted to the docket on February 12, 2025, and was subject to a 30-day comment period.

IV. CONCLUSION AND ORDER

Based on its independent review of staff's analysis ([TN 261730](#)), the CEC hereby adopts the CEC Findings set forth herein and approves the petition to amend and the new and modified conditions of certification to the Commission Final Decision proposed in the Staff Recommendations.

IT IS SO ORDERED.

CERTIFICATION

The undersigned Secretariat to the CEC does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the CEC held on March 17, 2025.

AYE: Hochschild, Gunda, McAllister, Gallardo, Skinner

NAY: NONE

ABSENT: NONE

ABSTAIN: NONE

Dated: March 18, 2025

SIGNED BY:

Kristine Banaag
Secretariat