CALIFORNIA ENERGY COMMISSION
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www.energy.ca.gov

**DATE**: February 13, 2015

**TO:** Interested Parties

**FROM**: Dale Rundquist, Compliance Project Manager

**SUBJECT**: **Panoche Energy Center (06-AFC-5C)**
**Staff Analysis of Amendment Proposal to Install Wastewater Storage Tanks**

On October 13, 2014, the Panoche Energy Center, LLC (PECL), filed a petition with the California Energy Commission (Energy Commission) requesting to amend the Final Decision for the Panoche Energy Center (PEC). The modification proposed in the petition would temporarily resolve wastewater disposal difficulties encountered during project operations. Staff prepared an analysis of this proposed change that can be reviewed on the Energy Commission website for this facility (see below).

The simple-cycle, natural gas-fired, 400-megawatt facility was certified by the Energy Commission in its Decision on December 19, 2007, and began commercial operation on July 1, 2009. The facility is located in an unincorporated area approximately 15 miles southwest of the city of Mendota in western Fresno County, California.

Energy Commission staff (staff) reviewed the petition and assessed the impacts of this proposal on environmental quality and on public health and safety. In the Staff Analysis, staff proposes revised Land Use Condition of Certification LAND-1. It is staff's opinion that, with the implementation of the existing conditions of certification in the Energy Commission Decision and this revised condition, the facility would remain in compliance with applicable laws, ordinances, regulations, and standards, and the proposed changes to conditions of certification would not result in any significant, adverse, direct, indirect, or cumulative impacts to the environment (20 Cal. Code of Regs., § 1769). Energy Commission staff intends to recommend approval of the petition at the March 11, 2015, Business Meeting of the Energy Commission.

The Energy Commission's webpage for this facility, http://www.energy.ca.gov/sitingcases/panoche/, has a link to the petition and the Staff Analysis on the right side of the webpage in the box labeled "Compliance Proceeding." Click on the "Documents for this Proceeding (Docket Log)" option. After the Energy Commission decision, the Energy Commission's Order regarding this petition will also be available on the same webpage.

This notice has been mailed to the Commission's list of interested parties and property owners adjacent to the facility site. It has also been e-mailed to the facility listserv. The listserv is an automated Energy Commission e-mail system by which information about

this facility is e-mailed to parties who have subscribed. To subscribe, go to the Commission's webpage for this facility, cited above, scroll down the right side of the project webpage to the box labeled "Subscribe," and provide the requested contact information.

Any person may comment on the Staff Analysis. Those who wish to comment on the analysis should submit their comments by 5:00 p.m., Monday March 9, 2015. To use the Energy Commission's electronic commenting feature, go to the Energy Commission's webpage for this facility, cited above, click on the "Submit e-Comment" link, and follow the instructions in the on-line form. Be sure to include the facility name in your comments. Once submitted, the Energy Commission Dockets Unit reviews and approves your comments, and you will receive an e-mail with a link to them.

Written comments may also be mailed or hand-delivered to:

California Energy Commission
Dockets Unit, MS-4
Docket No. 06-AFC-5C
1516 Ninth Street
Sacramento, CA 95814-5512

All comments and materials filed with and approved by the Dockets Unit will be added to the facility Docket Log and become publically accessible on the Energy Commission's webpage for the facility.

If you have questions about this notice, please contact Dale Rundquist, Compliance Project Manager, at (916) 651-2072, or by fax to (916) 654-3882, or via e-mail to dale.rundquist@energy.ca.gov.

For information on participating in the Energy Commission's review of the petition, please call the Public Adviser at (800) 822-6228 (toll-free in California) or send your e-mail to publicadviser@energy.ca.gov. News media inquiries should be directed to the Energy Commission Media Office at (916) 654-4989, or by e-mail to mediaoffice@energy.ca.gov.

Mail List 7206
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# PANOCHE ENERGY CENTER (06-AFC-5C)
## PETITION TO AMEND
## THE CALIFORNIA ENERGY COMMISSION DECISION FOR THE PANOCHE ENERGY CENTER (06-AFC-5C)
## Executive Summary
**Dale Rundquist**

## INTRODUCTION

On October 13, 2014, the Panoche Energy Center, LLC (PECL), filed a petition with the California Energy Commission (Energy Commission) requesting to amend the Final Decision for the Panoche Energy Center (PEC). The modification proposed in the petition would allow for the construction of a wastewater storage facility to temporarily store excess wastewater for later injection into the existing wastewater injection wells.

The purpose of the Energy Commission's review process is to assess any impacts the proposed modification would have on environmental quality and on public health and safety. The process includes an evaluation of the consistency of the proposed changes with the Energy Commission's Final Decision and an assessment of whether the project, as modified, would remain in compliance with applicable laws, ordinances, regulations, and standards (LORS) (20 Cal. Code Regs., § 1769).

On September 9, 2009, Panoche Energy Center, L.L.C. (PECL), owner of the PEC, filed a petition with the Energy Commission requesting approval to construct and use unlined wastewater surface impoundments (UWSIs) to percolate PEC wastewater into an unusable aquifer as a result of inadequate performance of the four onsite wastewater injection wells. The 2009 petition request is still under review by Energy Commission staff.

The current proposal to amend the 2007 Final Decision requests approval for the construction and operation of the Enhanced Wastewater System on a 3.5-acre portion of the combined 9.18-acre former PEC construction laydown area and pomegranate orchard. According to the 2014 Petition, this proposal is an alternative solution to PEC wastewater disposal difficulties and does not seek to replace or rescind the 2009 Petition. The 2014 Petition also states that the proposed Enhanced Wastewater System is currently the most efficient alternative for providing a reliable option for wastewater disposal during the 2015 peak season should the performance of the injection wells continue to decline and the 2009 Petition is not approved and/or implemented within a timely fashion.

Energy Commission staff (staff) has completed its review of all materials received. The Staff Analysis below is staff's assessment of the project owner's proposal.

## PROJECT LOCATION AND DESCRIPTION

PEC, a simple-cycle, natural gas-fired, 400-megawatt facility, was certified by the Energy Commission in its Decision on December 19, 2007, and began commercial operation on July

1, 2009. The facility is located in an unincorporated area approximately 15 miles southwest of the city of Mendota in western Fresno County, California.

## DESCRIPTION OF PROPOSED MODIFICATIONS

The proposed changes consist of enhanced design measures to accommodate and secure the operational capacity of the existing PEC wastewater injection process. PECL proposes to install three (3) storage tanks, ranging from 250,000 gallons to 500,000 gallons. The storage tanks would temporarily store wastewater during operational periods where the net wastewater production exceeds the injection well capacity (approximately 250 gallons per minute [gpm]). The excess wastewater would be stored for later injection when wastewater production ceased (i.e., when the turbines are offline). The proposed changes also include construction and operation of a permanent stand-by treatment system.

The approximate capacity and dimensions of the Enhanced Wastewater System structures are as follows:

- 500,000-gallon Blowdown Collection Tank: 60 feet diameter by 24 feet high;
- 500,000-gallon Wastewater (RO Reject) Collection Tank: 60 feet diameter by 24 feet high;
- 250,000-gallon Permeate Collection Tank: 48 feet diameter by 20 feet high; and
- Enhanced Wastewater System Building: 120 feet long by 70 feet wide and approximately 20 feet high.

Construction of the Enhanced Wastewater System is projected to begin in early 2015 and last for approximately 14 weeks. The workforce would vary depending on the month of construction and weather conditions. Major construction activities would include site preparation and minor grading, trenching for underground pipelines, installation of equipment, erection of above grade storage tanks and a structure to house treatment equipment.

## NECESSITY FOR THE PROPOSED MODIFICATIONS

PECL was permitted to design, construct and operate six wastewater injection wells. Four wells have been constructed and are in operation. However, the four wells have not demonstrated the capacity to accept discharged wastewater during peak full summer operation of PEC.

## STAFF'S ASSESSMENT OF THE PROPOSED PROJECT CHANGES

The technical area sections contained in this Staff Analysis include staff-recommended changes to an existing condition of certification. Staff believes the changes that the amendment proposes would be consistent with the LORS identified in the Energy Commission's 2007 Decision, and that the project would have no significant land use impacts.

Staff's conclusions in each technical area are summarized in **Executive Summary Table 1**, below.

Energy Commission technical staff reviewed the petition for potential environmental effects and consistency with applicable LORS. Staff has determined that current conditions of certification in the technical or environmental areas of Paleontological Resources and Transmission System Engineering will ensure that the project will remain in compliance with all applicable LORS. No revisions or new conditions of certification in these areas are needed to ensure the project remains in compliance.

Staff has also determined that in the technical or environmental areas of Cultural Resources, Facility Design, Hazardous Materials Management, Industrial Safety and Fire Protection, Noise and Vibration, Public Health, and Transmission Line Safety and Nuisance there is no possibility that the modifications may have a significant effect on the environment and …the modification will not result in a change or deletion of a condition adopted by the commission in the final decision or make changes that would cause the project not to comply with any applicable LORS (Section 1769(a)(2).

Energy Commission staff in the environmental and technical areas of Air Quality, Biological Resources, Soil and Water Resources, and Waste Management prepared analyses that are attached.

Socioeconomics staff found that although the proposed Amendment would require construction workers, there would not be a significant impact on socioeconomic criteria because project construction would be short in duration (14 weeks) and would not require a large construction workforce. The proposed Amendment would not require any permanent employees. Also, there is a more than adequate supply of workers within the Fresno Metropolitan Statistical Area to fulfill workforce needs for this project. Therefore, the proposed Amendment would not induce substantial population growth in the area, either directly or indirectly; displace substantial numbers of people and/or existing housing, necessitating the construction of replacement housing elsewhere; or adversely impact acceptable levels of service for police protection, schools, and parks and recreation. Lastly, the proposed Amendment would comply with applicable LORS.

The proposed Amendment would have no significant socioeconomic impacts and would not affect the Socioeconomics Condition of Certification in the December 2007 Energy Commission Final Decision for the Panoche Energy Center. Because a covered and enclosed industrial building comprising 8,400 square feet would be constructed, Condition of Certification **SOCIO-1** (The project owner shall pay the one-time statutory school development fee to the Mendota Unified School District as required by Education Code Section 17620.) will apply to the Amendment. At least 30 days prior to the start of project construction, the project owner shall provide the Compliance Project Manager (CPM) proof of payment of the statutory development fee.

As there would be no significant socioeconomic impacts from the Amendment, there would be no significant socioeconomic impact on the environmental justice population in the six-mile buffer of the project site, as identified in **Executive Summary Figure 1** (attached).

Traffic and Transportation staff reviewed the proposed petition to amend which proposes to construct and operate up to three new permanent wastewater storage tanks and associated wastewater treatment equipment. The Enhanced Water System (EWS) will resolve wastewater disposal difficulties encountered during project operations. The key tasks involve minor grading and delivery/assembly of new permanent wastewater tanks and treatment facility. The EWS construction would not result in the construction of additional roads or require improvement in any existing roads. An estimated 88 large truck trips per day during weeks three to six would be needed for the project modifications during a 14 week installation period. The existing roadway circulation system has sufficient capacity to handle construction truck traffic. Worker parking and equipment staging will be located within the existing PEC and EWS footprint. The estimated filter cake disposal during operation will average one to two trucks per week, or eight trucks per month, and would not degrade the Level of Service A (LOS A) along West Panoche Road to Interstate 5.

Visual Resources staff found that the new wastewater tanks would range in size from 250,000 to 500,000 gallons and would be 60 feet wide and approximately 24 feet high. The tanks would be located in the middle of the southern portion of the PEC site. The EWS would be contained in a building approximately 120 feet long by 70 feet wide and 20 feet high and would be located on the southwestern edge of the PEC site. The new building would be visually consistent with the existing PEC facility and would be screened from motorists using West Panoche Road by other project structures. The Petition to Amend (PTA) notes that the EWS would be located adjacent to Davidson Road but traffic counts are low and travelers would have short viewing durations and are accustomed to the industrial character of the PEC. The EWS would need to comply with Conditions of Certification **VIS-1** (surface treatment), **VIS-2** (construction lighting), and **VIS-3** (permanent exterior lighting) contained in the 2007 PEC Energy Commission decision. Condition of Certification **VIS-4** (plume formation) would not apply to the EWS. There would be no visual resources impacts.

Staff determined, however, that the technical area of Land Use would be affected by the proposed project changes and has proposed modifications to Condition of Certification **LAND-1** in order to assure compliance with LORS and to reduce potential environmental impacts to a less than significant level. The proposed Condition of Certification **LAND-1** is provided in the Land Use Staff Analysis (attached).

**Executive Summary Table 1**
**Summary of Impacts for Each Technical Area**

| TECHNICAL AREAS REVIEWED | STAFF RESPONSE | | | Revised Conditions of Certification Recom-mended |
|---|---|---|---|---|
| | Technical Area Not Affected | No Significant Environmental Impact* | Process As Amendment | |
| Air Quality | | X | | |
| Biological Resources | | X | | |
| Cultural Resources | | X | | |
| Facility Design | | X | | |
| Hazardous Materials Management | | X | | |
| Land Use | | | X | X |
| Noise & Vibration | | X | | |
| Paleontological Resources | | X | | |
| Public Health | | X | | |
| Socioeconomics | | X | | |
| Soil & Water Resources | | X | | |
| Traffic & Transportation | | X | | |
| Transmission Line Safety & Nuisance | | X | | |
| Transmission System Engineering | | X | | |
| Visual Resources | | X | | |
| Waste Management | | X | | |
| Worker Safety & Fire Protection | | X | | |

*There is no possibility that the proposed modifications may have a significant effect on the environment, and the modifications will not result in a change in or deletion of a condition adopted by the Commission in the Final Decision, or make changes that would cause project noncompliance with any applicable laws, ordinances, regulations, or standards (20 Cal. Code Regs., § 1769 (a)(2)).

## ENVIRONMENTAL JUSTICE

Environmental justice communities are commonly identified as those where residents are predominantly minorities or low-income; where residents have been excluded from the environmental policy setting or decision-making process; where they are subject to a disproportionate impact from one or more environmental hazards; and where residents experience disparate implementation of environmental regulations, requirements, practices,

and activities in their communities. Environmental justice efforts attempt to address the inequities of environmental protection in these communities.

An environmental justice analysis is composed of three parts:

1. identification of areas potentially affected by various emissions or impacts from a proposed project;

2. a determination of whether there is a significant population of minority persons or persons below the poverty level living in an area potentially affected by the proposed project; and

3. a determination of whether there may be a significant adverse impact on a population of minority persons or persons below the poverty level caused by the proposed project alone, or in combination with other existing and/or planned projects in the area.

## CALIFORNIA RESOURCES AGENCY

California law defines environmental justice as “the fair treatment of people of all races, cultures and income with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies” (Gov. Code §65040.12; Pub. Resources Code, §72000). All departments, boards, commissions, conservancies and special programs of the Resources Agency must consider environmental justice in their decision-making process if their actions have an impact on the environment, environmental laws, or policies. Such actions that require environmental justice consideration may include:

- adopting regulations;
- enforcing environmental laws or regulations;
- making discretionary decisions or taking actions that affect the environment;
- providing funding for activities affecting the environment; and
- interacting with the public on environmental issues.

## DEMOGRAPHIC SCREENING ANALYSIS

As part of its CEQA analysis for the Petition to Amend the Panoche Energy Center (PEC) Final Decision, Energy Commission staff used demographic screening to determine whether a low-income and/or minority population exists within the potentially affected area of the PEC project site[1]. The demographic screening is based on information contained in two documents: Environmental Justice: Guidance Under the National Environmental Policy Act (CEQ, December, 1997) and Guidance for Incorporating Environmental Justice Concerns in EPA’s Compliance Analyses (U.S. EPA, April, 1998), which provides staff with information on outreach and public involvement. The Council on Environmental Quality document defines minority individuals as members of the following groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.

[1] Demographic screening data is presented in the end of this section.

Based on the 2010 Census data presented in **Executive Summary Figure 1**, the total population within the six-mile buffer of the project site was 208 persons, with a minority population of 190 persons, or 91.3 percent of the total population. As the minority population is greater than fifty percent, this population constitutes an environmental justice population as defined by Environmental Justice: Guidance Under the National Environmental Policy Act, and would trigger further scrutiny for purposes of an environmental justice analysis.

Staff's demographic screening also identifies a large presence of below-poverty-level population within the County Census Division (CCD) in which the six-mile buffer lies. Staff determined that the poverty data at the CCD level is the lowest level available through the US Census Bureau American Community Survey that retains reasonable accuracy. Given the large minority population within the six-mile buffer, staff believes that the large below-poverty-level rate of the CCD is representative of the six-mile buffer area, in terms of poverty. The Council on Environmental Quality and the U.S. Environmental Protection Agency guidance documents identify a fifty percent threshold to determine whether minority populations are considered environmental justice populations, but do not provide a discrete threshold for below-poverty-level populations.

Using census data staff compares the below-poverty-level population in the Mendota CCD to other appropriate reference geographies. Approximately 5,424 persons, or 44.2 percent of the population within the CCD live below the federal poverty level, which is much greater that the below-poverty-level population in the comparison geographies of the project site. The poverty level in this area is approximately 20 percent greater than the poverty level for Fresno County and almost 30 percent greater than the poverty level for California. When Socioeconomics technical staff identifies the presence of an environmental justice population, staffs from the thirteen technical areas[2] then consider the potential for disproportionate impacts on the environmental justice population.

Energy Commission staff concludes that mitigation measures for short-term construction impacts described above are expected to greatly reduce or eliminate the potential for significant adverse impacts on the environmental justice population within the potential affected area of the proposed site.

[2] The thirteen technical staff/areas are Air Quality, Hazardous Materials Management, Land Use, Noise and Vibration, Public Health, Socioeconomics, Soil and Water Resources, Water Supply, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, Cultural Resources, and Waste Management.

## PROJECT DEMOGRAPHIC SCREENING DATA

**Table 1**
**Minority Populations within the Project Area Plus Fresno County**

| | Six-Mile Buffer of Project Site | Mendota CCD* | Fresno County | California |
|---|---|---|---|---|
| Total | 208 | 12,551 | 930,450 | 37,253,956 |
| Not Hispanic or Latino: White alone | 18 | 327 | 304,522 | 14,956,253 |
| Minority | 190 | 12,224 | 625,928 | 22,297,703 |
| Percent Minority | **91.3** | **97.4** | **67.3** | **59.9** |

**Notes: Bold text**- minority population is greater than 50 percent, * CCD- Census County Division. **Source:** US Census Bureau 2010

**Table 2**
**Poverty Data within the Project Area Plus Fresno County**

| Area | Total | | | Income in the past 12 months below poverty level | | | Percent below poverty level | | |
|---|---|---|---|---|---|---|---|---|---|
| | Estimate* | MOE | CV (%) | Estimate | MOE | CV (%) | Estimate | MOE | CV (%) |
| Census County Division Used to Determine Poverty Status:<br><br>Mendota CCD | 12,278 | +/-278 | 1.38 | 5,424 | +/-821 | 9.20 | 44.2 | +/- 6.6 | 9.08 |
| **Comparison Geographies** | | | | | | | | | |
| Fresno County | 913,669 | +/-815 | .05 | 226,967 | +/-5,782 | 1.55 | 24.8 | +/- 0.6 | 1.47 |
| California | 36,575,460 | +/-3,416 | .01 | 5,590,100 | 3+/-8,396 | .42 | 15.3 | +/- 0.1 | .40 |

**Notes:** * Population for whom poverty status is determined; MOE – Margin of Error; CV – Coefficient of Variation (For data reliability, a CV greater than 15 is generally considered unreliable.).
**Source:** US Census Bureau 2012.

## STAFF RECOMMENDATIONS AND CONCLUSIONS

Staff concludes that the following required findings, mandated by Title 20, California Code of Regulations, section 1769 (a)(3), can be made, and staff recommends approval of the petition by the Energy Commission:

- The proposed modification would not change the findings in the Energy Commission's Decision pursuant to Title 20, California Code of Regulations, section 1755;
- There would be no new or additional unmitigated, significant environmental impacts associated with the proposed modification;
- The facility would remain in compliance with all applicable laws, ordinances, regulations, and standards;
- The modification proposed in the petition would allow PECL to treat and store wastewater on-site until the injection wells could process it;
- The proposed modification would be beneficial to the applicant, because the wastewater tanks will provide a solution to replace the current temporary treatment system with a permanent, reliable system to adequately dispose of project wastewater; and
- The proposed modification is justified because there has been a substantial change in circumstances since the Energy Commission certification, in that of the six permitted wastewater injection wells, four have been built but have shown to be unable to perform as envisioned by the project owner. None of the four wells have demonstrated an ability to accept discarded wastewater during peak summer load periods.

## REFERENCES


CEQ 1997 – Council on Environmental Quality. *Environmental Justice: Guidance Under the National Environmental Policy Act. December 10,* 1997, <http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_ceq1297.pdf>.

US Census Bureau 2010 – United States Census Bureau. P2: Hispanic or Latino, and Not Hispanic or Latino by Race, Universe: Total population, 2010 Census Redistricting Data (Public Law 94-171) Summary File. <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

US Census Bureau 2012 – US Census S1701 Poverty Status in the Past 12 Months 2008-2012 American Community Survey 5-Year Estimates, <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.

US EPA 1998 – United States Environmental Protection Agency, *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses*. April 1998. <http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_epa0498.pdf>.