DOCKETED	
Docket Number:	97-AFC-02C
Project Title:	Sutter Power Plant Application for Certification
TN #:	256149
Document Title:	Petition for Post-Certification Modification
Description:	Decarbonization Capture Project Staff's Data Request Set 1, A1 through A8
Filer:	susan fleming
Organization:	California Energy Commission
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CALIFORNIA ENERGY COMMISSION

CALIFORNIA NATURAL RESOURCES AGENCY

May 3, 2024

Barbara McBride
Calpine Corporation
3003 Oak Road
Walnut Creek, California 94597

RE: Petition for Post-Certification Modification for Sutter Energy Center (97-AFC-02C) Decarbonization Capture Project Staff's Data Request Set 1, A1 through A8

Dear Barbara McBride:

The California Energy Commission (CEC) staff is asking for the information specified in the enclosed Data Requests Set 1 which is necessary for the staff analysis of the Sutter Energy Center (SEC) decarbonization project petition to amend (TN# 250246). The proposed project changes include:

- turbine performance improvements;
- installation of a carbon dioxide (CO2) capture facility and an approximately 16-mile pipeline; and
- construction of three Class VI injection wells to inject the CO2 (a nonhazardous waste stream) for permanent sequestration in a geological storage location.

These Data Requests – Set 1 seek further information in the areas of noise, socioeconomics, and soil and water, based on the contents of the petition to amend.

To assist CEC staff in timely completing its environmental review and to meet the requirements of CEQA (see Cal. Code Regs., tit. 14, §§15108, 15109), CEC staff is requesting responses to the data requests as soon as possible. If you are unable to provide the information requested or need to revise the timeline, please let me know within 10 days of receipt of this letter.

If you have any questions, please email me at John.Heiser@energy.ca.gov.

John Heiser
Compliance Project Manager

Enclosure: Data Requests

Petition for Modification – Sutter Energy Center Decarbonization Project (97-AFC-02C)

DATA REQUESTS – SET 1

TECHNICAL AREA: NOISE AND VIBRATION

Author: Kenneth Salyphone

BACKGROUND: Noise data

The SEC petition to amend consists of a turbine upgrade, installation of a carbon capture facility, installation of a 16-mile pipeline, and construction of three injection wells into which carbon dioxide would be sequestered. Installation of the 16-mile pipeline and construction of the injection wells will be located approximately 10 miles southwest of the SEC.be located approximately 10 miles southwest of the SEC.

The project owner states that the petition would not increase existing noise levels at SEC, that new equipment would meet the requirements of the existing Conditions of Certification, and a noise survey would be conducted after the project is constructed to validate noise levels at the nearest residences. However, it does not mention whether any human noise receptors exist near the planned locations of the injection wells.

DATA REQUESTS

A1. Please identify any human receptors near the locations of the injection wells.

A2. Please provide the daytime and nighttime ambient noise levels at those receptors.

A3. Please provide the aggregate noise levels associated with the construction and operation of the injection wells.

Petition for Modification – Sutter Energy Center Decarbonization Project (97-AFC-02C)

DATA REQUESTS – SET 1

TECHNICAL AREA: SOCIOECONOMICS

Author: Ellen LeFevre

BACKGROUND

Page 10 of the application states, "The Project will be built by entering into a Project Labor Agreement with the California State Building and Construction Trades" and "The Sutter Decarbonization Project will create 20-25 full-time, highly paid, clean energy jobs, resulting in positive economic benefits to the public." However, the number of construction workers required and the length of time to construct the Decarbonization Project is not provided.

DATA REQUESTS

A4. What is the average and peak number of construction workers required for the project?

A5. What is the approximate length of the construction period?

TECHNICAL AREA: SOIL AND WATER

Author: James Ackerman

BACKGROUND: Carbon Capture Facility Footprint

Although the artist's rendition (Figure 1) depicts the relative location of the carbon capture facility, the SEC petition to amend does not include the area of the facility's footprint.

DATA REQUEST

A6. Please provide a plan sheet detail of the carbon capture facility or estimate the surface area of the facility.

Petition for Modification – Sutter Energy Center Decarbonization Project (97-AFC-02C)

DATA REQUESTS – SET 1

BACKGROUND: Injection Zone Stratigraphy and Extent

The petition to amend states that the Kione and Starkey formations are proposed for carbon storage and that these formations are overlain by the Capay Formation and the Sacramento Shale, respectively. Stratigraphic columns of gas fields in the area indicate that the Capay Formation overlies the Starkey Formation, and the Sacramento Shale overlies the Kione Formation. In addition, it should be noted that the Starkey, Sacramento, and Kione formations are Upper Cretaceous in age, while the Capay Formation was deposited during the Eocene Epoch (DOGGR, 1982).

The petition to amend states that Class VI injection wells will be drilled to a depth of 3,100 feet. Based on a review of E-logs in the vicinity (CalGEM 2023), the Class VI wells would be completed in, and presumed to inject into, the Starkey Formation. This was confirmed during staff's July 20, 2023, site visit meeting with applicant. The petition mentions that the Kione Formation is used for saltwater injection 10 miles up-dip from the injection zone but does not mention the Starkey Formation.

DATA REQUESTS

A7. Please revise the description of the injection and related formationsusing the recognized stratigraphic nomenclature. Also, use the recognized stratigraphic nomenclature in future documents.

A8. Assuming the Starkey Formation is continuous as suggested by local E-Logs, please describe how injected carbon dioxide would be contained laterally.

References

DOGGR1982 – California Division of Oil, Gas and Geothermal Resources (DOGGR)California Oil & Gas Fields, Volume III – Northern California. Accessed: June12, 2023. Available online at:https://filerequest.conservation.ca.gov/RequestFile/37042

CalGEM2023 – California Division of Geologic Energy Management (CalGEM). Well Finder website. Accessed: June12, 2023. Available online at:https://maps.conservation.ca.gov/doggr/wellfinder/