

DOCKETED	
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Project Title:	Los Esteros Phase II Compliance
TN #:	269329
Document Title:	Petition for Post-Certification Modification for Los Esteros Tanager Battery Energy Storage System (BESS) (03-AFC-02C) Project
Description:	Staff's Data Request Set 3, A64 through A81
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California
ENERGY COMMISSION



CALIFORNIA
**NATURAL
RESOURCES
AGENCY**

March 26, 2026

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

RE: Petition for Post-Certification Modification for Los Esteros Tanager Battery Energy Storage System (BESS) (03-AFC-02C) Project Staff's Data Request Set 3, A64 through A81

Dear Barbara McBride:

The California Energy Commission (CEC) staff is asking for the information specified in the enclosed Data Requests Set 3 which is necessary for the staff analysis of the Los Esteros Calpine Tanager BESS project petition to amend (TN# 261280). The proposed project changes include:

The project owner seeks approval to modify the LECEF Decision and develop a 200 MW with approximately 1,600 mega-watt hours, lithium-ion phosphate (LFP) battery energy storage system (BESS) on approximately 10 acres.

These Data Requests – Set 3 seek further information in the areas of Air Quality, Public Health, Greenhouse Gas Emissions and Worker Safety and Fire Protection, 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

**Los Esteros Critical Energy Facility PTA for
Tanager Battery Energy Storage System (Tanager BESS) Project
03-AFC-02C**

Technical Area: Air Quality/Public Health/Greenhouse Gas Emissions

Authors: Huei-An (Ann) Chu, Ph.D., Andres Perez

BACKGROUND: Battery Energy Storage System (BESS) Thermal Runaway/Fire Impacts

In Data Response Set 1C (TN 268268), the project owner conducted the thermal runaway analysis including the dispersion modeling analysis. However, CEC staff needs further analysis of the worst-case impacts during a potential BESS thermal runaway/fire event. The project owner modeled impacts from Hexane (C6 total), Carbon Monoxide (CO), Benzene, Toluene, Butane (C4 total), Propene, and Propane. Additionally, a review of the literature indicates that other toxic air contaminants (TACs), such as hydrogen fluoride (HF), hydrogen chloride (HCl), hydrogen cyanide (HCN), particulate matter (including ultrafine particulates), acrolein, formaldehyde, sulfur dioxide, nitrogen dioxide, phosphoryl fluoride, and carbonyl fluoride could also be released.

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- A64. In addition to the toxic air contaminants (TACs) modeled in Table 4 (TN 268268), please also provide a dispersion modeling analysis of the TACs mentioned above using available representative data from the literature review or measured from any BESS test.
- A65. If the modeling data originates from literature review, provide a copy of the referenced literature. If the modeling data come from a BESS test, then provide the specific analytical method(s) for determining the presence of off-gassing constituents in the test, including sample collection methods, laboratory preparation methods, analytical methods, the MDL (method detection limit) or PQL (practical quantitation limit) or RL (reporting limit) for all measured constituents, and all QA/QC (quality assurance/quality control) data including results of a spiked sample.
- A66. Please compare all the modeled TACs concentrations (the ones modeled in TN 268268 and the ones requested above) to appropriate health-based exposure thresholds, including the U.S. EPA Acute Exposure Guideline Levels (AEGs), the OEHHA/CARB acute Reference Exposure Levels (RELs), and Emergency Response Planning Guidelines (ERPGs) thresholds but excluding the Immediately Dangerous to Life or Health (IDLH) levels since they are not health protective.
- A67. Please demonstrate whether the acute hazard Index (HI) of TACs would be higher than the significance threshold of 1.0 at sensitive receptors. If the acute HI would exceed 1.0 or the criteria air pollutant impacts would cause or contribute to any exceedance of ambient air quality standards, please explain what mitigation

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measures are planned to be implemented to reduce the impacts to less than significant.

- A68. Please provide the dispersion modeling files of AERMOD and HARP.
- A69. Please provide the UTM coordinates of the five (5) hypothetical locations of thermal runaway events at the Tanager BESS site.
- A70. Other than the highest 1-hour modeling concentrations of TACs in Table 4 (TN 268268), please also report the 1-hour modeling concentrations of TACs of the two sensitive receptors: (1) the one approximately 500 meters towards the south-southeast, (2) the one approximately 822 meters towards the west-southwest with multiple sensitive receptors.
- A71. Some AEGL-1 values in Table 3 and Table 4 (TN 268268) are wrong. Please correct the AEGL-1 values for Butane and Propane.

Technical Area: Worker Safety and Fire Protection

BACKGROUND: Battery Energy Storage System (BESS) Technology

In response to Data Request A25, the applicant provided specifications for the proposed BESS currently under consideration, the Hithium Infinity Block Generation 2 model 6x2P416S-EU (rated energy capacity of 5.016 megawatt-hours). In response to Data Request A28, the applicant outlined the Hazard Mitigation Analysis (HMA). The applicant also proposed COC TANAGER WORKER SAFETY-6 on an HMA. Staff requires the draft HMA for the proposed BESS to assess the hazards and impacts associated with the BESS manufacturer/model being proposed.

DATA REQUESTS

- A72. Provide the Hazard Mitigation Analysis in accordance with the 2025 edition of the California Fire Code for the proposed BESS.
- A73. Provide a history of failure incidents involving at least one enclosure or multiple enclosures of the proposed BESS at a single facility, and a complete description of the proposed measures to prevent failure incidents for the proposed project (provided under confidential cover if trade secrets and commercially sensitive information are included).

BACKGROUND: BESS Location and Installation

In response to Data Request A30, the applicant listed contacts at the San Jose Fire Department (SJFD): James Dobson, Jagdev Mavi, and Paul Thomas.

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Staff requires the contact information for an official at the SJFD who will serve as a contact person for staff.

- A74. Provide the contact information (name, title, email address, phone number) for the contact(s) at the San Jose Fire Department with knowledge of the proposed project.

BACKGROUND: Water-Based Fire Protection Systems for BESS Project

In response to Data Requests A33 through A37, the applicant stated “The Project team is completing an analysis of the existing hydrant system at the LECEF to determine if the system is sufficient to incorporate the Tanager project. The final design will be developed in coordination with the SJFD.” The applicant also proposed COC TANAGER WORKER SAFETY-7 on a fire water supply.

Staff requires additional details of the research efforts the applicant has completed or plans to complete related to the site’s fire water supply and hazard mitigation analyses. Staff requires additional details for the project’s proposed fire prevention, extinguishing, and suppression systems (fire protection), and detection and alarm systems in order to verify that the project has proposed adequate project features to mitigate adverse impacts to project personnel, emergency first responders, and the public. Staff requires complete descriptions of project features. A complete description includes a schematic and a diagram of a typical BESS enclosure. A complete description specifies information including, but not limited to, the location(s) of project features, the specific listings and design standards, the more stringent local fire department requirements, and all significant assumptions, methodologies, and computational methods used in arriving at conclusions in the document.

- A75. Please provide a fire water supply analysis to confirm adequate water supply. Provide a discussion of the project’s worst-case fire flow requirements in GPM (gallons per minute) for each of the project’s exposure hazards (e.g. transformer fire, BESS fire). Provide descriptions of all significant assumptions, methodologies, and computational methods used in arriving at those conclusions.
- A76. Please provide a schematic, equivalent to at least 30 percent design plans, and a complete description of the proposed fire protection systems for the proposed project, such as the fire water loop, fire water storage tanks, fire pumps, fire hydrants, etc.
- A77. Please provide a schematic, equivalent to at least 30 percent design plans, and a complete description of the proposed fire detection and alarm systems for the proposed project. Include a discussion of the monitoring capability and

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technology for the proposed project, such as off-site remote monitoring and/or monitoring by personnel at the existing LECEF control room.

BACKGROUND: Emergency Response and Emergency Action Plan

In response to Data Requests A38 and A39, the applicant provided draft outlines of the emergency response plan (ERP) and states “The project team has met with the City of San Jose Fire Department and will continue to coordinate regarding updates to the site ERP.”

Staff requires additional information on safety training programs for project personnel (construction, and operations and maintenance), and important coordinated trainings for local emergency response agencies (e.g. fire department).

- A78. Please provide description of the emergency response training that will be offered to the local emergency management agencies during construction and operations of the proposed project. Provide a discussion of the content, frequency, and emergency scenarios to be covered in the training.
- A79. Please provide a complete description of the proposed emergency response training provided to project personnel (workers and management) during construction and operations should a failure incident involving the BESS occurs.
- A80. Please provide the most current emergency response recommendations from the proposed BESS manufacturer.
- A81. Please provide a discussion of the proposed project’s consistency with local standard requirements for response time and distance from fire stations, EMS capabilities, and hazardous materials teams.