DOCKETED	
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Project Title:	Los Esteros Phase II Compliance
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Document Title:	Petition for Post Certification Modification for Los Esteros Tanager BESS
Description:	(03-AFC-02C) Project Staff's Data Request Set 2, A42 through A63
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CALIFORNIA ENERGY COMMISSION

CALIFORNIA NATURAL RESOURCES AGENCY

November 18, 2025

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 2, A42 through A63

Dear Barbara McBride:

The California Energy Commission (CEC) staff is asking for the information specified in the enclosed Data Requests Set 2 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 2 seeks further information in the areas of Transmission System Engineering and Air Quality 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 – Los Esteros Tanager BESS Project (03-AFC-02C)

DATA REQUESTS – SET 2

Technical Area: Transmission System Engineering

As indicated in the LECEF PTA, the proposed 200 MW Tanager BESS project would be connected to the Los Esteros Substation with a 0.5-mile-long gen-tie line from the project substation.

Staff requires detailed information on the proposed changes to the licensed project facilities and evidence demonstrating that the change in the point of interconnection would not impact the transmission system downstream of the facilities licensed by the CEC.

DATA REQUESTS

A42. Please provide the California Independent System Operator (California ISO) Queue Cluster 12 Phase II Interconnection Study Report. Please include the Area report, all the appendices, and attachments.

A43. Please provide any sensitivity studies (charging and discharging battery storage) conducted due to the interconnection of the battery storage.

A44. Please provide the existing generator tie-line information, including conductor type, current-carrying capacity, and any additional relaying systems for protection, as well as the necessary structures for integrating the battery storage.

A45. Please provide details of the Remedial Actions Schemes or Special Protection Schemes, if any, that are planned to be utilized due to the integration of the battery project.

A46. Please provide a detailed one-line diagram of the Los Esteros Substation after the interconnection of the proposed Tanager BESS project. Show all equipment ratings, including bay arrangement of the breakers, disconnect switches, and buses.

A47. The project PTA proposed that a portion of the gen-tie line should be built underground past the Silicon Valley Power (SVP) switchyard. Please provide the routing information of the underground segment, the detailed duct bank information, cable sizes, and their current capacity.

A48. Please provide any letters of approval that the SVP has issued, if any.

Petition for Modification – Los Esteros Tanager BESS Project (03-AFC-02C)

DATA REQUESTS – SET 2

Technical Area: Air Quality, Public Health and Greenhouse Gas Emissions

OPERATIONAL IMPACTS ANALYSIS

BACKGROUND

The Bay Area Air District's (BAAD) 2022 CEQA Guidelines outline a multi-step process to determine the significance of a project's criteria air pollutant impacts (page 5-7). Project screening is the first step in this process, where project construction and operational characteristics are compared against screening criteria to provide a conservative indication of whether the project's criteria air pollutant impacts would be significant. If a project's construction and/or operational characteristics meet the screening criteria, then the criteria air pollutant impacts for that portion of the project (i.e. construction and/or operation) can be considered less than significant.

The project as proposed meets two of the three criteria for operational emission impacts: the project size is below the screening level for the project land use type (706 thousand square feet [or 16.2 acres, as described on page 1-1 of the Cultural Resources Assessment] versus the 998 thousand square feet limit for the project's General Light Industrial land use type), and the project would not include new stationary sources. However, there is not enough information in the petition to determine whether the project meets the third criterion: that project operation would not overlap with construction activities.

In order to determine whether project operational emission impacts can be deemed less than significant under BAAD's 2022 CEQA guidelines, staff requires a schedule for all phases of the project.

DATA REQUEST

A49. Please provide a schedule for all construction, commissioning, and operation phases. This schedule should include a start and end date for all phases.

BATTERY ENERGY STORAGE SYSTEM REFRIGERANT PROHIBITION

BACKGROUND

Table 3 of Section 95374 of the Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Stationary Air-conditioning, and Other End-Uses (17 CCR Section 95371, et seq.) restricts chillers used for industrial process refrigeration from using refrigerants with a GWP greater than 750 to 2,200, with the specific GWP limit

depending on the temperature of the chilled fluid exiting the chiller. Following a conversation with staff from the California Air Resources Board's HFC Reduction Team (TN# 266964), CEC staff found that BESS cooling systems would likely operate with chilled fluids whose temperatures exceed 2 degrees Celsius (or 35 degrees Fahrenheit) and would therefore be subject to a 750 GWP limit.

In order to determine the GWP limit the BESS cooling system would be subject to and to determine whether the BESS cooling system would comply with the HFC prohibitions stated in 17 CCR Section 95371, et seq., staff requires additional information.

DATA REQUESTS

A50. Please provide manufacturer specifications for the BESS cooling system that detail the temperature at which the chilled fluid would exit the BESS cooling system.

A51. Please demonstrate how the proposed refrigerant would comply with the HFC prohibitions stated in 17 CCR Section 95371, et seq.

A52. If the proposed refrigerant does not comply with the HFC prohibitions stated in 17 CCR Section 95371, et seq., please propose an alternative refrigerant and provide an annual GHG emissions calculation due to refrigerant leakage (in metric tons of carbon dioxide equivalent).

GREENHOUSE GAS THRESHOLDS OF SIGNIFICANCE

BACKGROUND

Section 3.3 of BAAD's 2022 CEQA Guidelines provides thresholds of significance to evaluate a project's climate impacts associated with its greenhouse gas (GHG) emissions. The BAAD provides two methods for demonstrating that climate impacts would be less than significant: (A) the project must include specific project design elements (detailed in Table 3-2, page 3-6 of BAAD's 2022 CEQA Guidelines) or (B) the project must demonstrate that it is consistent with a local GHG reduction strategy (GHGRS).

To determine whether the project's climate impacts from GHGs would be considered less than significant under BAAD's 2022 CEQA guidelines, staff require information about how the project would comply with the BAAD's climate impact thresholds of significance.

Petition for Modification – Los Esteros Tanager BESS Project (03-AFC-02C)

DATA REQUESTS – SET 2

DATA REQUESTS

A53. Please describe how the project's climate impacts from GHGs would be considered less than significant when compared to the climate impact thresholds of significance listed in BAAD's 2022 CEQA Guidelines (Table 3-2, page 3-6).

A54. If the project opts to use Option A of the climate impact thresholds of significance (Table 3-2, page 3-6 of BAAD's 2022 CEQA Guidelines) to show that climate impacts would be less than significant, please provide a description of how the project would implement each of the project design elements listed under Option A.

A55. If the project opts to use Option B of the climate impact thresholds of significance (Table 3-2, page 3-6 of BAAD's 2022 CEQA Guidelines) to show that climate impacts would be less than significant, please complete the Development Compliance Checklist (Attachment A of the City of San José 2030 GHGRS) to show consistency with the City of San José 2030 GHGRS.

SULFUR HEXAFLUORIDE-INSULATED EQUIPMENT PHASE-OUT

BACKGROUND

According to the Amendments to the Regulation for Reducing Sulfur Hexafluoride (SF_6) Emissions from Gas Insulated Switchgear, which became effective on January 1, 2022, starting on the applicable phase-out dates, no person may acquire SF_6 gas-insulated equipment (GIE) for use in California unless one of following provisions apply:

1. An SF_6 phase-out exemption was approved by the Executive Officer of the California Air Resources Board (CARB), or SF_6 GIE were acquired in response to a failure, pursuant to 17 CCR Section 95357.

2. The SF_6 GIE device was present in California and reported to CARB pursuant to 17 CCR Section 95355(a) for a data year prior to the applicable phase-out date listed in Table 1 or Table 2 of 17 CCR Section 95352.

3. The SF_6 GIE device was purchased by the GIE owner prior to the applicable phase-out date listed in Table 1 or Table 2 of 17 CCR Section 95352 for the relevant GIE characteristics and enters California no later than 24 months after the purchase date.

4. The SF_6 GIE manufacturer replaces a defective SF_6 GIE device under the terms of the manufacturer's warranty.

Petition for Modification – Los Esteros Tanager BESS Project (03-AFC-02C)

DATA REQUESTS – SET 2

Page 2 of the petition states that proposed project would include the installation of a "new Tanager 34.5-/230kV switchyard located within the security fence of the LECEF", but does not specify the type or number of switchgear equipment that would be installed. Staff need to confirm the type, size, and number of all SF_6 GIE proposed to be installed as part of the project to determine whether the Regulation for Reducing Sulfur Hexafluoride (SF_6) Emissions from Gas Insulated Switchgear (17 CCR Section 95350, et seq.) would be applicable to the project.

DATA REQUESTS

A56. If the project proposes to install any SF_6 GIE, please provide the voltage capacity, short-circuit current rating, and number of all SF_6 GIE proposed to be installed as part of the project

A57. Please confirm which of the four provisions the project owner would rely upon to comply with the current SF_6 phase-out regulation. If the project would not qualify for the exemption, please propose an alternative to SF_6.

A58. If the project owner intends to rely on Option 3 of the provisions shown above, please confirm whether the proposed circuit breakers and gas-insulated switchgear would be purchased prior to the applicable phase-out date and enter California no later than 24 months after the purchase date.

BATTERY ENERGY STORAGE SYSTEM DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS

BACKGROUND

Staff need to better understand the direct and indirect GHG emissions associated with the battery energy storage system (BESS). Since battery performance degrades over time and gradually decreases round-trip efficiency, staff expects that battery augmentation would be performed to offset battery degradation and to maintain project performance commitments, leading to an increase in auxiliary loads. Staff need to determine the total number of battery enclosures by the midpoint of the project's life cycle.

Staff will also need the annual indirect GHG emissions associated with energy losses due to transmission and charging/discharging cycle losses, as well as annual indirect GHG emissions due to auxiliary loads for both the beginning (year 1 of operation) and the midpoint of the project life. Additionally, if grid power is used to charge the BESS, staff needs to know the indirect GHG emissions associated with charging from the electrical grid and the carbon intensity value used to derive the indirect GHG emissions

associated with grid charging.

Staff require the spreadsheet file(s) of the emissions calculations with live, embedded calculations to complete the analysis.

DATA REQUESTS

A59. Please estimate the annual indirect GHG emissions (metric tons of CO_2e) resulting from energy losses due to transmission and charging/discharging cycles. Please include assumptions that account for the degradation of round-trip efficiency over the project lifetime in the calculation of indirect GHG emissions.

A60. Please estimate the annual indirect GHG emissions (metric tons of CO_2e) from auxiliary loads, such as BESS cooling. Please include assumptions that account for the BESS efficiency degradation over the project lifetime in the calculation of indirect GHG emissions.

A61. If the BESS would be charged by the grid, please calculate the indirect GHG emissions associated with charging from the grid and displaced GHG emissions with discharging to the grid. Provide assumptions for the number of hours annually that the BESS could be charged by the grid, the GHG emission intensity factor from the electrical grid during charging and discharging considering carbon neutrality by 2045, and the efficiency degradation over the project lifetime in the calculation of indirect GHG emissions.

A62. Please provide a copy of the spreadsheet file(s) containing the emissions calculations performed for A59, A60, and A61 with live, embedded calculations.

PROJECT OPERATIONAL EMISSIONS

BACKGROUND

In response to Data Request A5, the applicant stated that "BESS projects do not increase the emissions of criteria pollutants" and because of this, no quantification of operational emissions of the project would be required.

Staff experience with BESS projects of similar size has shown that operational emissions from worker vehicles (for maintenance activities), vendor and haul truck trips (for maintenance activities), and water usage are still to be expected even if the BESS is unmanned and remotely controlled. Because of this, staff will require that the project owner quantify operational emissions related to those activities and any other operational activities resulting from the petition.

Additionally, because BAAD CEQA Guidelines recommend (on page 5-6) that "operational emissions … be modeled using the most current version of the California Emissions Estimator Model (CalEEMod)", staff will require that operational emissions related to the petition be modeled using the recent version of CalEEMod.

DATA REQUEST

A63. Please quantify all operational emissions resulting from project operational activities (including worker trips, trips from vendors and haul trucks, water usage, and any other activities expected to result in operational emissions) using the most recent version of CalEEMod and provide a JSON file containing the CalEEMod project used to quantify those operational emissions.