DOCKETED

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Dan Thompson
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SOLAR ENERGY GENERATING SYSTEMS VIII AND IX PETITION FOR POST CERTIFICATION CHANGE TO ADD A BATTERY ENERGY STORAGE SYSTEM
DATA REQUEST SET 2
(88-AFC-01C & 89-AFC-01C)

Dear Mr. Thompson:

California Energy Commission (CEC) staff requests the information specified in the enclosed data requests regarding the proposal to add battery storage at the Solar Energy Generating Systems (SEGS) VIII & IX site (88-AFC-01C and 89-AFC-01C).

These data requests, numbered B1 through B15, are being made to the technical areas of Transmission System Engineering, Public Health, Transmission Line Safety and Nuisance and Worker Safety and Fire Protection. Written responses to the enclosed data requests are due as soon as possible.

If you have any questions regarding the enclosed data requests, please call me at (916) 653-8236 or email me at John.Heiser@energy.ca.gov.

Sincerely,

John Heiser
Compliance Project Manager

Enclosure (Data Request Packet)
cc: Docket 88-AFC-01C
              89-AFC-01C

POST-CERTIFICATION PETITION FOR SOLAR ENERGY GENERATING SYSTEM VIII & IX BATTERY ENERGY STORAGE SYSTEM (88-AFC-01C & 89-AFC-01C)

CEC Staff's Data Requests Set 2, B1 – B15

Technical Area: Transmission System Engineering
Author: Laiping Ng

DATA REQUESTS

B1. Provide a detailed description of any changes in design, construction, and operation of any electric transmission facilities associated with the addition of energy storage and to the existing SEGS VIII and IX facilities. Providing descriptions and drawing of both the existing and proposed facilities would be the most effective way to communicate the proposed changes.

B2. Please describe and provide a schematic diagram of the feedback control schemes that have been proposed to regulate the net output of the SEGS VIII and SEGS IX, after the addition of the battery energy storage system (BESS), so as not to exceed 160 Mega Watt (MW) at the point of interconnection to the California Independent System Operator (California ISO) grid.

B3. Since the BESS would be charging from the California ISO control grid, a load interconnection agreement is needed from the utility provider to ensure the existing transmission system is capable of delivering the needed power for the battery for charging under the worst condition. Please provide a load interconnection agreement from the

B4. Please discuss the expected method of operation of the BESS at different times of day and describe how it would be utilized to regulate the voltage and frequency of the system.

Technical Areas: Public Health, Transmission Line Safety and Nuisance
Author: Nancy Fletcher

BACKGROUND

The petitioner is proposing the addition of a BESS with a maximum capacity of up to 80 MW to the existing SEGS VIII and IX.

DATA REQUESTS

B5. Please provide the distance from the BESS facility to the closest following receptors: 1) residential, 2) offsite worksite, and 3) airport.

B6. Figure 1 of the petition includes the proposed BESS. Figure 1 shows the outer property boundary but does not include boundaries for SEGS VIII and IX. The CEC has separate licenses for SEGS VIII and IX. Please provide information on the where the equipment would be located with respect to SEGS VIII and IX project boundaries in order to assist staff in determining if any additional condition of certification would need to be included on one or both licenses.

B7. Please provide a description on the proposed overhead transmission line shown in Figure 3: SEGS Electrical Configuration – Onsite Switchyard View of the Data Request Responses (TN 229725). Please include the type of line, approximate length, and applicable codes and standards.

Technical Area: Worker Safety and Fire Protection
Author: Brett Fooks

BACKGROUND

On page 2-2 of the petition, the project owner states that the BESS could be in a container or within an enclosure constructed on site. However, no further information is given on the definition of the BESS enclosure.

DATA REQUEST

B8. Please provide a written description of what the BESS enclosure would be and provide the dimensions of the enclosure and the associated California Building Code occupancies. In addition, please provide a dimensional plan

view of the maximum build out for the BESS that would use containers and for the BESS that would use enclosures

BACKGROUND

On page 2-1 of the petition, the project owner states that lithium-ion cells would be the basis of the BESS. However, the exact chemistry of the lithium-ion battery has not been provided.

DATA REQUEST

B9. Please describe the lithium-ion chemistry being proposed for the BESS.

BACKGROUND

On page 2-2 of the petition, the project owner mentions the elements of the fire protection system for the BESS. However, there are several code elements that have not been mentioned as a part of the fire safety of the BESS.

DATA REQUESTS

B10. Please provide a hazard mitigation analysis for the lithium-ion BESS as defined per National Fire Protection Association (NFPA) 855 section 4.1.4.

B11. Please describe the process through which the lithium-ion BESS would be certified as Underwriters Laboratories (UL) 9540 compliant.

B12. Please provide the results of any UL 9540A testing that has been done on the lithium-ion BESS design to be used on the project site.

B13. Please describe how thermal runaway protection would be enacted on the lithium-ion BESS.

B14. Please describe how the lithium-ion BESS would employ explosion control per NFPA 855 section 4.12.

B15. Please describe if there is a water supply and or fire hydrants near the lithium-ion BESS.