CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

May 27, 2010

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David L. Wiseman
Galati Blek
455 Capitol Mall, Suite 350
Sacramento, CA 95814

**SUBJECT: BLYTHE ENERGY PROJECT, PHASE II (02-AFC-1C)**
**AMENDMENT NO. 1, DATA REQUESTS #1-14**

Dear Mr. Wiseman:

Pursuant to Title 20, California Code of Regulations, section 1769, the California Energy Commission (Energy Commission) staff requests the information specified in the enclosed Data Requests. The information requested is necessary for Energy Commission staff to more fully understand the project and the proposed amendment and to assess whether the project will result in adverse impacts.

This set of Data Requests (#1-14) is being made in the areas of air quality and transmission systems engineering. The Data Requests were developed as a result of staff's review of the proposed Blythe Energy Project, Phase II Amendment Petition (Petition) filed with the Energy Commission on October 23, 2009. A modification to the Petition was filed on January 4, 2010 and supplemental information was filed on February 16, 2010. Written responses to the enclosed Data Requests are due to the Energy Commission staff on or before June 1, 2010 or at such later date as may be mutually agreed.

If you are unable to provide the information requested, or object to providing the requested information, please notify me within 14, days of receipt of this request. Any objections to the Data Requests must contain the reasons for not providing the information, and the grounds for any objections (see Title 20, California Code of Regulations, section 1769).

If you have any questions, please call me at (916) 651-8891, or E-mail me at mdyas@energy.state.ca.us.

Sincerely,

MARY DYAS
Compliance Project Manager

cc: Docket Unit

**BLYTHE ENERGY PROJECT, PHASE II, AMENDMENT NO. 1 (02-AFC-1C)**
**Data Requests**

**Technical Area: AIR QUALITY**
**Author: Tao Jiang**

## BACKGROUND

EPA has established a new, short-term $NO_2$ standard of 100 ppb based on a 3-year average of the 98th-percentile of the annual daily maximum 1-hour concentration at an air monitoring station. The final rule for the new NAAQS was published in the Federal Register on February 9, 2010, and the standard became effective on April 12, 2010. According to EPA's April 1, 2010 Memorandum titled "Applicability of the Federal Prevention of Significant Deterioration Permit Requirements to New and Revised National Ambient Air Quality Standards," permits issued on or after April 12, 2010 must demonstrate that the source's allowable emissions will not cause or contribute to a violation of the new short-term $NO_2$ NAAQS. Although this applies to projects subject to a federal Prevention of Significant Deterioration decision after April 12, 2010, Energy Commission staff need to include the new standard in its evaluation of Laws, Ordnances, Regulations and Standards (LORS).

## DATA REQUEST

1. Please provide the revised $NO_2$ modeling analyses for normal operation to demonstrate the compliance with the new, short-term EPA $NO_2$ standard.

**Technical Area: Transmission System Engineering**
**Author(s): Ajoy Guha, P. E. and Mark Hesters**

## INTRODUCTION

The Transmission System Engineering (TSE) analysis examines whether or not the facilities associated with the proposed interconnection conforms to all applicable LORS required for safe and reliable electric power transmission. Staff's analysis evaluates adequacy of the power plant switchyard, generator tie line and termination facilities at the point of interconnection identified by the transmission owner. Staff also needs to determine the system reliability impacts of the project interconnection and to identify the downstream facilities needed to support the reliable interconnection of the proposed Blythe Energy Project Phase II (BEP II). The interconnection must comply with the Utility Planning and Construction Criteria, North American Electric Reliability Council (NERC) Planning Standards, NERC/Western Electricity Coordinating Council (WECC) Planning Standards, and California Independent System Operator (California ISO) Planning Standards. In addition the California Environmental Quality Act (CEQA) requires the identification and description of the "Direct and indirect significant effects of the project on the environment."

For the compliance with planning and reliability standards and the identification of indirect or downstream transmission impacts, staff relies on the System Impact Study (SIS) and Facilities Study (FS) as well as a review of these studies by the agencies responsible for insuring the interconnecting grid meets reliability standards, in this case, Southern California Edison (SCE) and California ISO according to their current Large Generator Interconnection Procedures (LGIP). The studies analyze the effect of the proposed project on the ability of the transmission network to meet reliability standards. When the studies determine that the project will cause the transmission to violate reliability requirements, the potential mitigation or upgrades required to bring the system into compliance are identified. The mitigation measures often include modification and construction of downstream transmission facilities. The CEQA requires environmental analysis of any downstream facilities for potential indirect impacts of the proposed project. Staff also coordinates with the co-lead federal agencies, Bureau of Land Management (BLM) and the Western Area Power Administration to meet the National Environmental Policy Act (NEPA) environmental requirements on federal lands.

## BACKGROUND

The description of the proposed new BEP II 500 kV integration switchyard and interconnection facilities between generators and the switchyard including major equipment and their ratings are incomplete as provided in the Amendment (BEP II Amendment, section 6.1.4, page 82, Figure 1-2).

## DATA REQUESTS

2. Please provide a complete electrical one-line diagram of the BEP II 500 kV integration switchyard showing the following:
   a. The MVA and voltage rating of each new generator
   b. All major equipment for generators' interconnection to the switchyard including:
      - any buses,
      - bus duct connectors and/or cables,
      - breakers & disconnect switches on the 16 kV low side,
      - generator step-up (GSU) transformers (MVA & kV),
      - short overhead conductors or cables,
      - arrangements of buses, breakers, and disconnect switches on the 500 kV side and their respective sizes and/or ratings in amperes.
   c. The termination facilities for the transmission outlets.
3. Please provide a complete physical layout drawing of the proposed switchyard showing major equipment and transmission line outlets.

## BACKGROUND

Staff observes that according to the submitted California ISO's unexecuted Large Generator Interconnection Agreement (LGIA) and SCE's Facilities Study (FS), the point of interconnection is identified as SCE's new Colorado River 500 kV substation (CRS) bus (ex-Midpoint substation).The Keim 500 kV substation is not included in the proposed interconnection facilities which comprise of only a 500 kV overhead generator tie line from the BEP II switchyard to the CRS and its terminating facilities at the CRS (Position 6 as a double breaker line position on a breaker and a half configuration per LGIA). However, the Desert Southwest 500 kV Transmission Project (DSWTP) EIS/EIR report only includes the proposed new Keim 500 kV substation as an interconnection facility (BEP II Amendment, section 1.2, page 2; section 6.1.1, page 81; section 6.1.5, Page 82).

The description of the new interconnection facilities, the proposed Keim 500 kV substation and the SCE CRS, including generator tie lines, are incomplete as provided in the Amendment (BEP II Amendment, section 6.1.2, page 81, Figure 1-2).

## DATA REQUESTS

4. Please provide a letter from the California ISO stating that the inclusion of the Keim 500 kV substation as an interconnection facility is adequate and permissible.

5. Please provide a complete electrical one-line diagram of the proposed new Keim 500 kV substation showing arrangements of buses, breakers, disconnect switches and their respective sizes and/or ratings in amperes along with the termination facilities of the proposed transmission outlets.
6. Please provide a complete physical layout drawing of the proposed Keim substation showing major equipment and transmission line outlets.
7. Please provide an electrical one-line diagram of the proposed new Colorado River 500 kV substation showing general arrangements of its buses, breakers, disconnect switches with specifics of the termination facilities of the proposed BEP II 500 kV generator tie line and their respective sizes and/or ratings in amperes.
8. For the new 500 kV overhead generator tie lines between the proposed BEP II integration switchyard and Keim 500 kV substation, and from the Keim Substation to the CRS, please provide lengths of the tie lines and their conductor sizes, types, and ampere ratings.
9. Please provide design diagrams for transmission steel lattice towers for the intermediate and dead-end structures showing the heights of the structure above and below ground, configuration of insulators and conductors (including ground conductors) with their respective position measurements on the structure.

## BACKGROUND

Staff received SCE's System Impact Study (SIS) of March 15, 2006 and Facilities Study (FS) of February 2, 2007 for BEP II 520 MW net generation output, but did not receive the Feasibility Study Report for the BEP II amended 570 MW net output (BEP II Amendment, sections 6.1.5 & 6.1.6, page 82).

## DATA REQUESTS

10. Please provide the Feasibility Study Report for BEP II 570 MW net generation performed by SCE and California ISO with a mitigation plan for any identified reliability criteria violations.
11. Please provide a letter from the California ISO stating that the Feasibility study for interconnection of the BEP II 570 MW generation to the California ISO grid waives any requirements for further SIS and/or FS and is still valid for the deferred BEP II on-line date from 2011-2013.

## BACKGROUND

The BEP II Amendment filing states that the proposed DSWTP 500 kV line has undergone complete environmental analysis (CEQA EIR completed by the lead agency, Imperial Irrigation District and NEPA EIS completed by the BLM) and received its record of decision from the U. S. Department of Interior on September 10, 2007. It also indicates that the BLM has issued the ROW grant and acquisition of the remaining

private parcels along the route is underway (BEP II Amendment, sections 6.1.1 & 6.1.2, page 81).

## DATA REQUESTS

12. Provide description of the 500 kV generator tie line routes along with physical layout drawings showing distinctly the routes of the proposed 500 kV overhead interconnection lines from the BEPII 500 kV switchyard to the proposed Keim 500 kV substation and then to the new SCE Colorado River 500 kV substation, including Right-of-Way (ROW) widths.

13. Please describe whether the ROW would be through private or public lands.

14. Provide the final DSWTP EIR/EIS report for staff's review of the environmental impacts of the switchyard and interconnection facilities and their mitigation.