

CALIFORNIA ENERGY COMMISSION1516 NINTH STREET
SACRAMENTO, CA 95814-5512

May 19, 2011

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

DOCKET	
02-AFC-1C	
DATE	MAY 19 2011
RECD.	MAY 19 2011

**SUBJECT: Blythe II Power Plant Project (02-AFC-1C)
Petition to Amend Data Request #22-26**

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 is necessary for Energy Commission staff to more fully understand the project and the proposed amendment and to assess the impacts of the project.

This Data Request #22-26 is being made in the areas of Transmission System Engineering. The Data Request was developed as a result of staff's review of the proposed Blythe II Project Amendment Petition (Petition) filed with the Energy Commission on October 23, 2009. Written responses to the enclosed Data Request is due to the Energy Commission staff on or before June 2, 2011 or at such later date as may be mutually agreed.

If you are unable to provide the information, or object to providing the requested information, please notify me within 14, days of receipt of this request. Any objections to the Data Request 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) 654-4745, or E-mail me at cstora@energy.state.ca.us.

Sincerely,

CHRISTINE STORA
Compliance Unit

cc: Docket Unit

BLYTHE II POWER PLANT PROJECT PETITION TO AMEND (02-AFC-1C) DATA REQUESTS

**Technical Area: Transmission System Engineering
Author: 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 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 Procedure (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 to meet the National Environmental Policy Act (NEPA) environmental requirements on federal lands.

BACKGROUND

Please refer to the May 13, 2010 CEC Data Requests and your subsequent Data Responses set 1 & supplement 2 dated September, 2010 and October, 2010 respectively. The diagrams of the proposed Keim 500 kV substation were found incomplete. The design diagrams of gen tie lines were found incomplete as they did not include all pertinent information as desired and also were of poor quality. During CEC TSE staff's last meeting with David Wiseman on February 1, 2011, the above discrepancies were discussed.

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22. 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. The diagram must show only the facilities which would be built during interconnection of BEP II. Also explain the future purpose of building the Keim substation.
23. Provide a complete physical layout drawing of the proposed Keim 500 kV substation showing major equipment and transmission line outlets. The diagram must correspond to the way the substation would be built during interconnection of BEP II.
24. 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 Colorado River substation, submit design diagrams¹ for transmission steel tubular poles or lattice towers for both the intermediate and dead-end structures showing the heights of the structures above and below ground, configuration of insulators and conductors (including ground conductors) with their respective position measurements on the structure, spacing between conductors and ground clearance.

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) and the proposed 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. 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 implication of inclusion of the Keim substation as the point of interconnection/interconnection facility besides the SCE/ California ISO plan were discussed with your representatives during a meeting on May 4, 2010 and lastly with David Wiseman on February 1, 2011.

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25. Should the applicant still considers the proposed Keim 500 kV substation as the point of interconnection/interconnection facility for BEP II, submit a letter

¹ All diagrams should be of professional quality

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from SCE stating that Edison is aware of adding the Keim 500 kV substation between the BEP 500 kV switchyard and the Colorado River 500 kV substation and that the inclusion of the Keim substation will not affect the results of the interconnection analyses (System Impact Study and Facilities study) and will not affect LGIA for the interconnection of BEP II.

26. As discussed, submit a copy of the revised signed LGIA which would include Keim 500 kV substation as an interconnection facility between the BEP II switchyard and Colorado River substation.