## Blythe Energy Center Transmission Line Poject Request for Staff Approved Modification (99-AFC-08T)

DOCKET	
99-AFC-8C	
DATE	
RECD.	Feb 11 2011

## **TECHNICAL AREA:** Transmission System Engineering AUTHOR: Ajoy Guha

## BACKGROUND

The submitted drawing no. E1-1 indicates that the proposed two 230 kV tie lines from the high side of the generator step-up transformers (GSU) of CTG #1 and CTG #2 to the proposed 230 kV GIS substation would be built as partial overhead and partial underground lines. The proposed 230 kV tie line from the high side of the STG GSU transformer to the new 230 kV GIS substation switchgear would be built as an underground cable line.

The California ISO approval of modified interconnection was obtained last time in 2007.

## DATA REQUESTS

- Provide respective lengths of the overhead and underground portions of the tie lines and a physical layout scaled drawing (legible) showing <u>distinctly</u> the routes of the proposed 230 kV lines from the BEP 230 kV switchyard to the new 230 kV GIS substation and relative spacing between the lines including Right of Way (ROW) widths, if any.
- 2. Submit Pole design diagrams for intermediate and dead-end structures of the generator overhead 230 kV tie lines showing configuration of insulators and conductors with their respective position measurements on the pole. Provide the sizes, types and ampere rating of the overhead line conductors.
- 3. Submit a design diagram showing termination of an underground 230 kV cable line to an overhead 230 kV line with respective measurements on an H-frame (or any other) structure for all three phases.
- 4. Submit a design diagram of Duct Bank construction (or any other type) for the proposed 230 kV underground cable lines (including grounding and communication cables, if applicable). Provide the type, size and ampere rating of the 230 kV underground cables for all transmission outlets including BEP 230 kV line to Julian Hinds.
- Please mention whether the GIS substation would be an indoor type or outdoor type. Accordingly provide a physical layout scaled drawing (legible) of the substation showing location of 230 kV GIS switchgear, any other major equipment and termination of all four underground cable lines.
- 6. Provide a scaled layout diagram showing how the existing BEP 230 kV transmission line to SCE Julian Hinds substation would be re-routed and connected to the new 230 kV GIS substation. Also provide a Pole design diagram with the overhead line conductor sizes and ampere rating.
- 7. Provide a letter from the California ISO with their approval of the current scheme for modified interconnection of BEP to the new 230 kV GIS substation.