STF-GDS-4-2

Question:

Referencing IRP Main Document Chapter 12, page 12-87, the Company stated that "This region relies on the transmission system to bring in needed power from South Georgia."

a. Please provide study reports and supporting documentation, including power flow models and workpapers, that analyze or assess how much power the existing transmission system can deliver into north Georgia from other parts of the State prior to the retirement of Bowen Units 1 & 2.

b. Please provide study reports and supporting documentation, including power flow models and workpapers, that analyze or assess how much power the existing transmission system can deliver into north Georgia from other parts of the State after the retirement of Bowen Units 1 & 2.

c. Please provide study reports and supporting documentation, including power flow models and workpapers, that analyze or assess how much power the existing transmission system can deliver into north Georgia from other parts of the State after the retirement of Bowen Units 1, 2, 3, & 4.

Response:

- a. As reflected in the first slide in the response to TS STF-DEA-2-29 Attachment A, coal unit retirements create a large generation deficit in North Georgia and a large surplus in the rest of the state, resulting in a need for additional transmission capacity from south to north Georgia. The studies performed to date focused on identifying and quantifying the thermal loading issues under various unit retirement scenarios to obtain an overview of likely future generation scenarios.
- b. Given that many facilities are heavily loaded presently, the Company found it unnecessary to perform studies quantifying how much power the existing transmission system can deliver into north Georgia from other parts of the state prior to or following any Bowen unit retirements. It would not take a great deal of additional south-to-north transfers to identify the first limit, so such an analysis would provide minimal value. It is therefore necessary for the Company to employ a wholistic approach in the ongoing studies to find the best strategic solutions rather than addressing the first limit with the least expensive solution, then addressing the next limit with its least expensive solution and so on.
- c. Please see STF-DEA-2-29 for models and workpapers. As stated in part (b), the Company has not performed an analysis to quantify how much power the existing

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transmission system is capable of delivering to north Georgia from other parts of the state.