Y3-037 Amos #3 765kV

Generation Interconnection

Local Network Impacts

The impact of the proposed generating facility on the AEP System was assessed for adherence with applicable reliability criteria. AEP planning criteria require that the transmission system meet performance parameters prescribed in the AEP FERC Form 715[1] and Connection Requirements for AEP Transmission System[2]. Therefore, these criteria were used to assess the impact of the proposed facility on the AEP System. Project #Y3-037 was studied as a 36 MW (36 MW capacity) increase at the Amos #3 generating unit consistent with the interconnection application. Project #Y3-037 was evaluated for compliance with reliability criteria for summer peak conditions in 2017.

Potential network impacts were as follows:

Normal System (2017 Summer Conditions Capacity Output)

- No problems identified

Single Contingency (2017 Summer Conditions Capacity Output)

- No problems identified

Multiple Contingency (2017 Summer Conditions Capacity Output)

- No problems identified

Contribution to Previously Identified Overloads (2017 Summer Conditions Capacity Output)

- No problems identified

Normal System (2017 Summer Conditions Full Output)

- No problems identified

1 https://www.aep.com/about/codeofconduct/oasis/transmissionstudies/GuideLines/2012%20AEP%20PJM%20FERC%20715_Final_Part%204.pdf

2 https://www.aep.com/about/codeofconduct/OASIS/TransmissionStudies/Requirements/AEP_Interconnection_Requirements_rev0.pdf

Single Contingency (2017 Summer Conditions Full Output)

- No problems identified

Multiple Contingency (2017 Summer Conditions Full Output)

- No problems identified

Contribution to Previously Identified Overloads (2017 Summer Conditions Full Output)

- No problems identified

Short Circuit Analysis

- Not required

Stability Analysis

- Stability studies were not performed as part of this Feasibility Study. The stability assessments will be performed during the System Impact Study.

Voltage Variations

- No problems identified.

Additional Limitations of Concern

- No known additional limitations of concern.

Local/Network Upgrades

- No problems identified.

Network Impacts

The Queue Project #Y3-037 was studied as a(n) 36 MW (Capacity 36 MW) additional injection at Amos 765kV station in the AEP area. Project #Y3-037 was evaluated for compliance with reliability criteria for summer peak conditions in 2013. Potential network impacts were as follows:

Generator Deliverability

(Single or N-1 contingencies for the Capacity portion only of the interconnection)

No problems were identified.

Multiple Facility Contingency
(Double Circuit Tower Line contingencies only for the full energy output. Stuck breaker and bus fault contingencies will be performed for the Impact Study)

No problems were identified.

Short Circuit

No problems were identified

Stability Analysis
This analysis will be completed in the final Impact Study.

Contribution to Previously Identified Overloads

(This project contributes to the following contingency overloads, i.e. "Network Impacts", identified for earlier generation or transmission interconnection projects in the PJM Queue)

None.

New System Reinforcements

(Upgrades required to mitigate reliability criteria violations, i.e. "Network Impacts", initially caused by the addition of this project generation)

None

Contribution to Previously Identified System Reinforcements

(Overloads initially caused by prior Queue positions with additional contribution to overloading by this project. This project may have a % allocation cost responsibility which will be calculated and reported for the Impact Study)

None