

#R03 - Adams-Allen (Adams County) 138kV **Generation Interconnection**

This analysis was completed to assess the reliability impact for a new generator interconnecting to the PJM system as a capacity resource.

Network Impacts

The R03 project was studied as a 130 MW (26 MW of Capacity) injection into the Adams-Allen 138kV circuit. Project R03 was evaluated for compliance with reliability criteria for summer peak conditions in 2012. Potential network impacts are as follows:

Generator Deliverability (This evaluation is done at the Capacity value)

No problems were identified

Multiple Facility Contingency (This evaluation is done at the Full plant output)

No problems were identified

Short Circuit

No problems identified.

Contribution to Previously Identified Overloads

No problems were identified

New System Reinforcements

None

Contribution to Previously Identified System Reinforcements

None

Delivery of Energy Portion of interconnection Request

PJM also studied the delivery of the energy portion of this interconnection request in addition to evaluating for Capacity Interconnection Rights. Any problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Merchant Transmission Interconnection request.

As a result of the aggregate energy resources in the area, the following violations were identified:

No problems were identified.

Local 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 single contingency performance criteria in accordance with the AEP FERC Form 715. Therefore, this criterion was used to assess the impact of the proposed facility on the AEP System. The Community project was studied as a 130 MW net capability consistent with the interconnection application. The results are summarized below.

Normal System (2009 Summer Conditions)

- No problems identified.

Single Contingency (2009 Summer Conditions)

- No problems identified.

Short Circuit Analysis

- No problems identified.

Stability Analysis

- Stability studies were not performed as part of this Feasibility Study and are not normally performed as part of a Feasibility Study effort. The stability assessments will be done in the System Impact Study. Based upon the results of the future System Impact Study, the extent of system upgrades could change and the associated costs could be significantly different.

Reactive Requirements

PJM requires a power factor correction to 95% lead/lag as defined in section 4.7.1.1 of Appendix 2 of Attachment O of the PJM OATT for interconnection of wind generating facilities. It is expected that the developer will adhere to this standard.