

## ***Network Impacts***

The Queue Project W3-132 was studied as a(n) 19.4MW(Capacity 7.37MW) injection into ComEd's system on the 34kV bus at TSS 122 Belvidere. Project W3-132 was evaluated for compliance with reliability criteria for summer peak conditions in 2015. Potential network impacts were as follows:

### **Generator Deliverability**

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

No violations identified.

### **Multiple Facility Contingency**

(Double Circuit Tower Line, Line with Failed Breaker and Bus Fault contingencies for the full energy output)

No violations identified.

### **Short Circuit**

To be determined in the System Impact Study

### **Steady-State Voltage Requirements**

To be determined in the System Impact Study

### **Stability and Reactive Power Requirement**

To be determined in the System Impact Study

### **New System Reinforcements**

None required

### **Contribution to Previously Identified System Reinforcements**

None required

### **Energy Portion of Interconnection Request**

PJM also studied the delivery of the energy portion of the surrounding generation. Any potential 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 Transmission Interconnection request.

*Note: Only the most severely overloaded conditions are listed. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which analyzes all overload*

*conditions associated with the overloaded element(s) identified. As a result of the aggregate energy resources in the area, the following violations were identified.*

None identified.

### ***Network Impacts for Alternate POI***

#### ***Network Impacts***

The Queue Project W3-132 was studied as a(n) 19.4MW(Capacity 7.37MW) injection into ComEd's system on the 34kV bus at TSS176 Stillman Valley. Project W3-132 was evaluated for compliance with reliability criteria for summer peak conditions in 2015. Potential network impacts were as follows:

#### **Generator Deliverability**

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

No violations identified.

#### **Multiple Facility Contingency**

(Double Circuit Tower Line, Line with Failed Breaker and Bus Fault contingencies for the full energy output)

No violations identified.

#### **Short Circuit**

To be determined in the System Impact Study

#### **Steady-State Voltage Requirements**

To be determined in the System Impact Study

#### **Stability and Reactive Power Requirement**

To be determined in the System Impact Study

#### **New System Reinforcements**

None required

#### **Contribution to Previously Identified System Reinforcements**

None required

### **Energy Portion of Interconnection Request**

PJM also studied the delivery of the energy portion of the surrounding generation. Any potential 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 Transmission Interconnection request.

*Note: Only the most severely overloaded conditions are listed. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which analyzes all overload conditions associated with the overloaded element(s) identified. As a result of the aggregate energy resources in the area, the following violations were identified.*

None identified.

### **Common Potential Issues (either POI)**

**Impacts on the MISO member transmission systems are not included in this analysis, but they will be included in the Impact Study, which may reveal upgrades needed in the MISO system not identified in this Feasibility Study.**