

## ***Network Impacts***

Queue project W2-029 was studied as a(n) 5.0MW ( 5.0MW of which was Capacity) injection into the Limerick 500kV Substation bus. The project was studied utilizing an AC analysis, and incorporates all contingency types. Project W2-029 was evaluated for compliance with reliability criteria for summer peak conditions in 2014. 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 evaluated for the Impact Study)*

No problems were identified

### **Short Circuit Analysis**

Not required for the uprate, there are no changes to the Queue W2-029 generator or generator step-up transformer impedance.

### **Power Factor and Reactive Requirements**

Will be performed for the 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 identified.

## NETWORK UPGRADE REQUIREMENTS

### **New System Reinforcements**

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

None identified.

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

*(Overloads initially caused by prior Queue positions with additional contribution to overloading by this project.)*

None identified.