

***Generation Interconnection  
Feasibility Study Report***

***For***

***PJM Generation Interconnection Request  
Queue Position V3-045***

***Zimmer-Spurlock 345kV***

**January 2010  
DOCS 577627v1**

## **General**

The Developer of the V3-045 Zimmer-Spurlock 345kV project has proposed the installation of a 112 MW energy and Capacity hydro-electric generating facility on the Ohio River. The proposed in-service date for this facility is December 31, 2013

## **Network Impacts**

The queue V3-045 project was studied as a 112MW capacity injection into the 345kV Dayton system at a tap point between the Zimmer and Spurlock substations. Project V3-045 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 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 identified.

### **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)*

No problems identified.

### **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.

## **Short Circuit**

PJM has completed the short circuit analysis of the V3-045 queue project Zimmer-Spurlock 345. One option was considered during this study: the option was a tap of the Zimmer-Spurlock 345kV line. Our analysis found no new breakers to be over-duty in the Dayton transmission area.

The study also showed no significant fault current contribution to the breakers which have already been identified as over-duty. This study was performed on the 100kV and above system.