

***PJM Generator Interconnection Request  
Queue #R87  
Muskingum River #5 345kV  
Feasibility/Impact Study***

**420229  
May 2007**

# R87 Muskingum River #5 138kV Feasibility/Impact Study

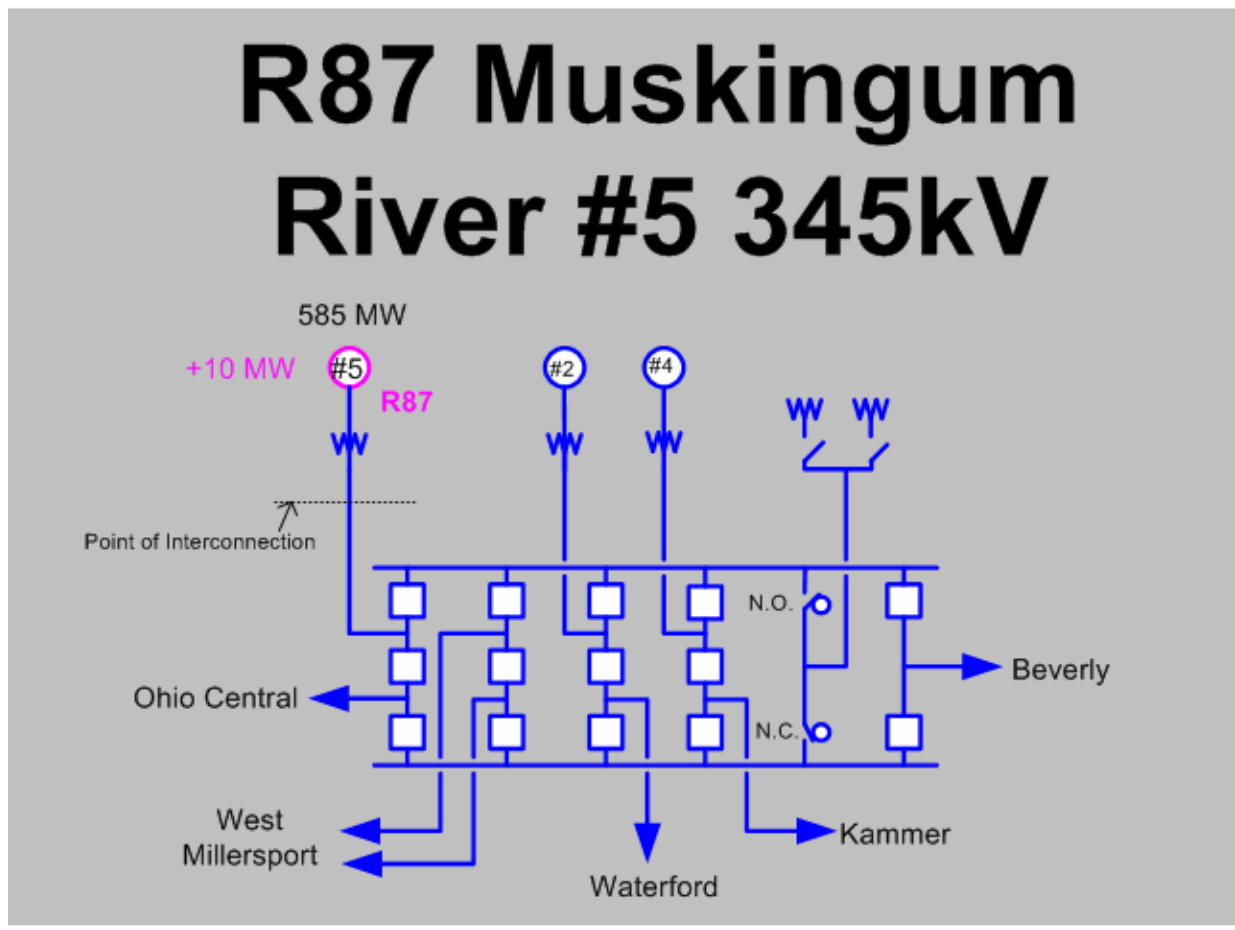
## General

American Electric Power Service Corporation as agent for the operating companies of the American Electric power system (Interconnection Customer) has requested an increase of 10 MW to the Capacity Interconnection Rights for Unit #5 at the Muskingum River station. The increase is requested so that the rights will reflect the demonstrated capability of the unit. The Muskingum River plant is located at 1501 Sparling Road, Waterford, Washington County, Ohio.

## Direct Connection

The existing direct connection facilities have sufficient capability to accommodate the additional 10 MW of output from the generating unit #1. Therefore there is no need to change the existing facilities. See Figure #1.

Figure #1



### **Network Impacts**

The #R87 project was studied as a capacity increase of 10 MW at the Muskingum River 345 kV substation due to the additional capability at unit #5. Project #R87 was evaluated for compliance with reliability criteria for summer peak conditions in 2011 to determine if Capacity Interconnection Rights can be granted. Potential network impacts were as follows:

### **Generator Deliverability**

No problems identified

### **Multiple Facility Contingency**

No problems identified

### **Contribution to Previously Identified Overloads**

No problems were identified

### **Short Circuit**

Not required, since there are no changes to the generating unit electrical characteristics.

### **New System Reinforcements**

None

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

None

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