

***PJM Generator Interconnection Request  
Queue #R84  
Harrison (Picway #5) 138kV  
Feasibility/Impact Study***

**419907  
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## R84 Harrison (Picway #5) 138kV Feasibility/Impact Study

### General

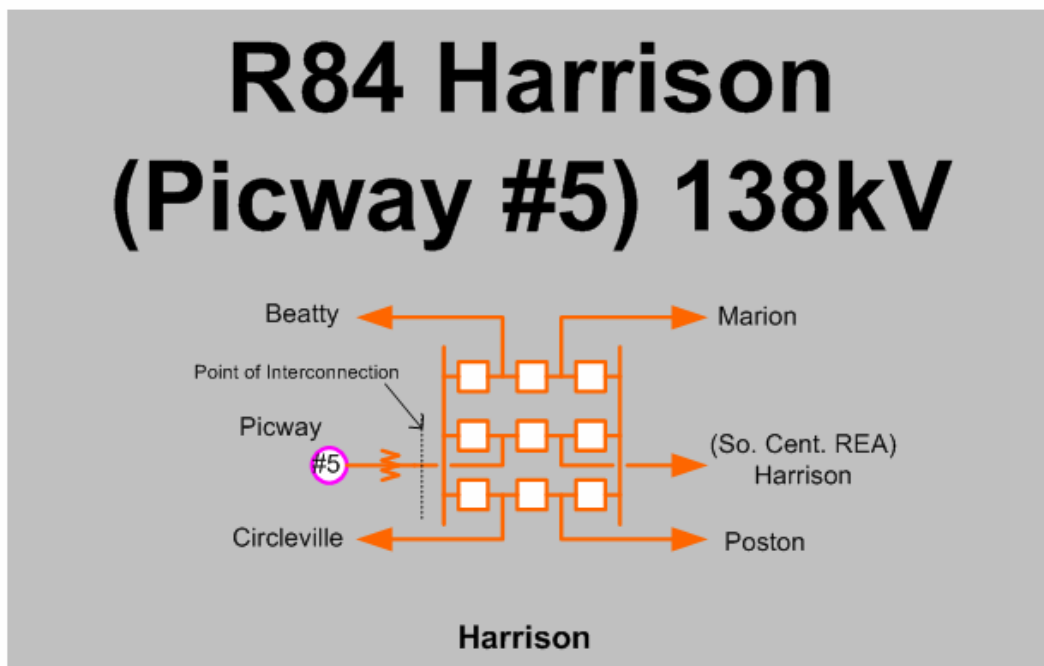
American Electric Power Service Corporation as agent for the operating companies of the American Electric power system (Interconnection Customer) has requested an increase of 5 MW to the Capacity Interconnection Rights for Unit #5 at the Picway station. The increase is requested so that the rights will reflect the demonstrated capability of the unit. The Picway plant is located at 9301 US Route 23, Lockbourne, Pickaway County, Ohio.

The intent of the Feasibility / Impact study is to determine system reinforcements and associated costs and construction time estimates required to facilitate the addition of the new generating plant to the transmission system. The reinforcements include the direct connection of the generator to the system and any network upgrades necessary to maintain the reliability of the transmission system.

### Direct Connection

The existing direct connection facilities have sufficient capability to accommodate the additional 5 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 #R84 project was studied as a capacity increase of 5 MW at the Harrison 138 kV substation due to the additional capability at Picway #5. Project #R84 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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