

***PJM Generator Interconnection Request
Queue #Q35
N. Coshocton (Smurfit Stone) 69kV
Feasibility/Impact Study Report***

**September 2006
#388238**

N. Coshocton (Smurfit Stone) (Q35) Feasibility/Impact Study

General

Smurfit Stone Container Corporation has proposed a project consisting of bringing the existing 15 MW generator at their Coshocton Ohio facility out from behind the meter. The facility is located at 500 N. 4th Street, Coshocton, Coshocton County, Ohio. This project has been assigned position Q35 in the PJM Generation Interconnection Queue. The project is to be evaluated as a capacity resource. The generator was put into service January 1, 2000. The facility wants to sell into the PJM market as soon as possible

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

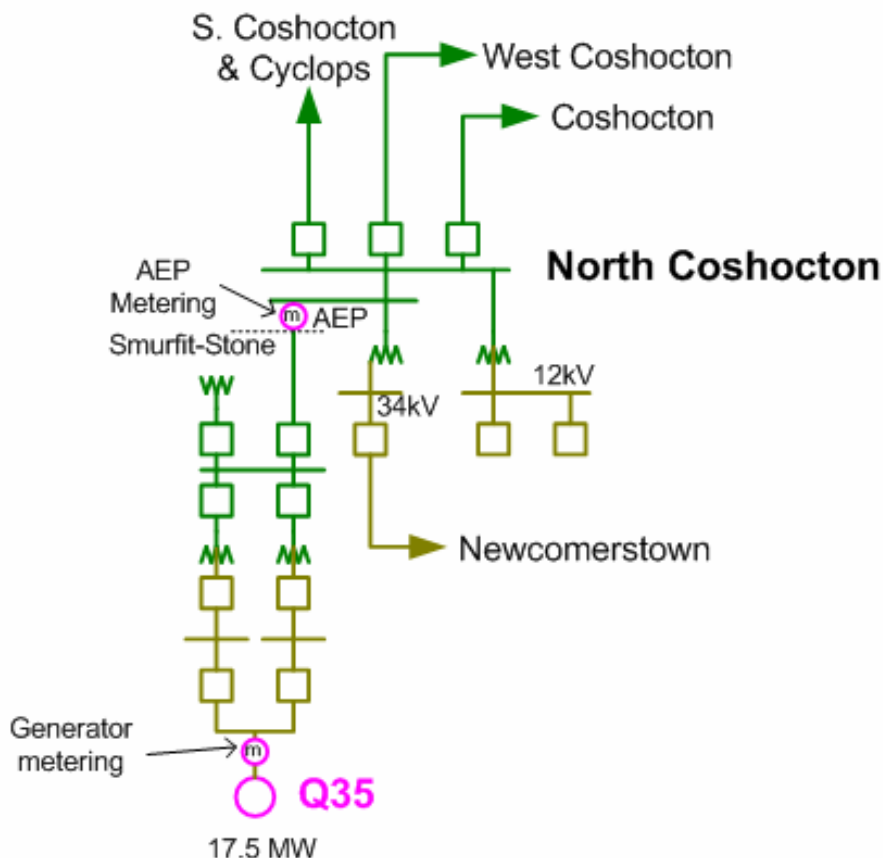
Since the generating facility is already connected and operating in synchronism with the AEP system (Figure #1), the only changes necessary to bring the generating unit out from behind the meter will be to modify the metering and to establish communications between the plant and AEP and PJM.

AEP will install primary and back-up meters and install RTU/SCADA for communication to the AEP control center. To isolate the Smurfit Stone generation from their load, Smurfit Stone needs to install revenue metering on the generator with that information transmitted to the AEP metering location.

AEP estimates the cost of installing the new meters and the RTU/SCADA at **\$200,000** and estimates the time to complete the work as 6 months after execution of the Construction Service Agreement by all parties.

Figure #1

Q35 N. Coshocton 69kV (Smurfit-Stone)



Network Impacts

The #Q35 project was studied as an injection of 15 MW into the North Coshocton 69 kV circuit. Project #Q35 was evaluated for compliance with reliability criteria for summer peak conditions in 2011. Potential network impacts were as follows:

Generator Deliverability

No identified problems

Multiple Facility Contingency – Tower Line Outages

No identified problems

Contribution to Previously Identified Overloads

None

Short Circuit

No identified problems

Stability

No analysis required

New System Reinforcements

None

Contribution to Previously Identified System Reinforcements

None

Cost Allocation

The Q35 project is responsible for 100% of the cost of the attachment facilities estimated to be **\$200,000**.

Unit Capability Data
(Feasibility Study)

Smurfit-Stone Container Corporation
Coshocton, OH

Principal Contact: Thom Dickinson, Energy Director Office Tel: 312 580 4582

Queue Letter & Position / Unit Type (CT, ST, etc.): 2 pole, 3 phase, Wye Connected, 60 Hertz Generator No. 316X459 _____

Generator MVA Base (upon which all reactances, resistance and inertia are calculated):24.5

Generator Nominal Power Factor:0.80 _____

Generator Terminal Voltage (kV): 13.8 _____

Generator Saturated Sub-transient Reactance, $X''_d(v)$ (on MVA Base): 0.115 _____

Generator Step-up Transformer MVA Base: N/A _____

Generator Step-up Transformer Impedance ($R+jX$, on transformer MVA Base):: N/A _____

In addition, please indicate whether the GSU is shared with other units N/A