# PJM Generation Interconnection Facilities Study Report For Queue Project AC1-110

"Aurora 138 kV"

Revision 0

## Transmission Owner Facilities Study Summary

# Description of Project

Aurora Generation, LLC, the Interconnection Customer (IC) is proposing a 30 MW Energy (30 MW Capacity) upgrade to the existing Units 3 and 4 at the Aurora Generating Station located at 2909 North Eola Rd, Aurora, Illinois. The System Impact Study for this project determined that an "A-Contact" logic needs to be incorporated into the 138kV blue bus at TSS 111 Electric Junction Substation to limit the total clearing time to 9 cycles for a fault on 345/138kV transformer 81.

# Amendments to the System Impact Study Data or System Impact Study Results

None.

### Interconnection Customer's Submitted Milestones Schedule

In their Attachment N submittal, the Interconnection Customer requested an in-service date of June 1, 2017. That date was not attainable due to the required PJM studies. The revised in-service date, which is based on the Interconnected Transmission Owner's construction schedule, is August 28, 2023.

# Scope of Customer's Work

Aurora Generation, LLC, to uprate capability of Units 3 & 4 from 152 MW to 167 MW each.

# Description of Facilities Included in the Facilities Study

Generating Units 3 & 4 owned by Aurora Generation, LLC, and TSS 111 Electric Junction owned by ComEd.

# Total Costs of Transmission Owner Facilities included in Facilities Study

NETWORK #	SITE LOCATION	TOTAL PROJECT COST
N6285	Witness Testing at TSS 111 Electric Junction	\$99,939
N6285	Update and test relay and protection settings at TSS 111 Electric Junction	\$133,538
	Total Cost of ComEd Work	\$233,477

# <u>Summary of Milestones Schedules for Completion of Work Included in Facilities Study</u>

Description	Duration (# of Days)
Design, engineering, and tie-in Construction at TSS 111 Electric Junction Substation	Day 1 – 600
Acceptance testing at TSS 111 Electric Junction Substation	Day 590 – 640

Note: Schedule durations begin following receipt of a fully executed ISA and CSA.

# Transmission Owner Facilities Study Results

Transmission Lines - New

None.

<u>Transmission Lines – Upgrades</u>

None.

New Substation/Switchyard Facilities

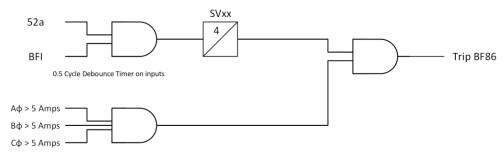
None.

# Upgrades to Substation/Switchyard Facilities

At ComEd TSS 111 Electric Junction (PJM Network Upgrade Number N6285)

• Configure 138kV Transformer 81 breaker failure to trip logic in Figure 1.

52a Tripping Logic added internally to 451 relay



TCT 8.5 using 52a Tripping 52a Tripping Timeline with Standard Tripping

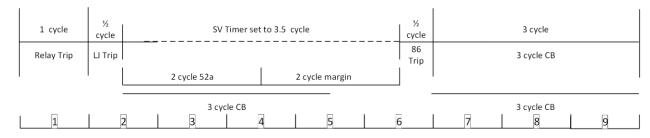


Figure 1.

# Metering and Communications

None.

# Environmental, Real Estate, and Permitting Issues

None.

# Summary of Results of Study

The 138kV breaker on transformer 81 will need to be configured for a 9 cycle trip.

# <u>Schedule</u>

Description	Duration (# of Days)
Approval of ISA/CSA by All Parties	
Design, engineering, and tie-in construction at TSS 111 Electric Junction Substation	Day 1 – 600
Acceptance testing at TSS 111 Electric Junction Substation	Day 590 – 640

 $Note: Schedule\ durations\ begin\ following\ receipt\ of\ a\ fully\ executed\ ISA\ and\ CSA.$ 

# Single Line

