

PJM Generator Interconnection
Y2-001 Gosport 34.5 kV
40 MW Capacity
Feasibility Study Report

February 2013
DMS #740699v1

Introduction

This Feasibility Study has been prepared in accordance with the PJM Open Access Transmission Tariff, §36.2, as well as the Feasibility Study Agreement between Interconnection Customer (IC), and PJM Interconnection, LLC (PJM), Transmission Provider (TP). The Interconnected Transmission Owner (ITO) is Virginia Electric and Power Company.

Preface

The intent of this Feasibility Study is to determine a plan, with preliminary cost and construction time estimates, to connect the subject generation interconnection project to the PJM network at a location specified by IC. As a requirement for interconnection, IC may be responsible for the cost of constructing Network Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM and the underlying system. All facilities required for interconnection of a generation interconnection project must be designed to meet ITO technical specifications.

The Feasibility Study estimates do not include the feasibility, cost, or time required to obtain property rights and permits for construction of the required facilities. IC is responsible for its right of way, real estate, and construction permit issues.

General

The queue project Y2-001 was studied as a 40 MW Capacity injection from and existing 50 MW energy resource in the ITO area. Project Y2-001 was evaluated for compliance with reliability criteria for summer peak conditions in 2016. Potential network impacts were as follows:

Network Impacts (Primary Option):

Impactful Contingencies

(The following contingencies resulted in overloads identified below)

None identified.

Generator Deliverability

(Single or N-1 contingencies for the Capacity portion only of the interconnection)

None.

Multiple Facility Contingency

(Double Circuit Tower Line Contingencies only with full energy output. Stuck Breaker and Bus Fault contingencies will be applied during the Impact Study)

None.

Contribution to Previously Identified OverLoads

(OverLoads initially caused by prior Queue positions with additional contribution to overloading by this project. This project may have % allocation of cost responsibility which will be calculated and reported for the Impact Study.)

None.

Short Circuit

(Report Overdutied breakers here)

No changes to previously studied facilities; not required.

Steady-State Voltage Requirements

(Results of the steady-state voltage studies should be inserted here)

Not required; existing unit and energy portion already evaluated.

Stability and Reactive Power Requirement

(Results of the dynamic studies should be inserted here)

Not required; existing unit and energy portion already evaluated.

Attachment Facilities

Existing facilities are sufficient.

Direct Connection Network Upgrades

Existing facilities are sufficient.