FRIENDSVLLE PROJECT (QUEUE #17) FEASIBILITY STUDY ANALYSIS

Description of Project

The developer wishes to interconnect three 225 MVA combustion turbine generators (CT) and one 340 MVA steam turbine generator (ST) for a maximum total generating capability of 830 MW (summer) at their Friendsville site in Garrett County, Maryland near the town of Friendsville. The project will require a new 500 kV interconnection station (Friendsville), which will be located about 27 miles from Hatfield Substation and about 34 miles from Black Oak Substation on the Hatfield – Black Oak 500 kV line. The CT units will generate at 15 kV, and the ST will generate at 23 kV, using natural gas for fuel. The customer wishes to interconnect into the 500 kV, and plans to have the generators in service and producing power by June 2004.

ANALYSIS RESULTS

Normal (Base) System Conditions

No overloads or other system deficiencies were identified as being caused by this facility under normal system conditions.

Single Contingency Conditions

No overloads or other system deficiencies were identified as being caused by single contingencies.

Multiple Contingency Conditions

No overloads or other system deficiencies were identified as being caused by credible multiple contingencies.

Short Circuit Conditions

No breakers were identified as exceeding their maximum interrupting capacity.

SYSTEM REINFORCEMENTS

Required Direct Interconnection Facilities

Construct substation facilities for Friendsville Substation:

- Install three 500 kV breakers and associated facilities.
- Install 500 kV metering equipment and associated facilities.

  Estimated cost to construct substation = $6,800,000

Loop Hatfield – Black Oak 500 kV line into substation:

- Construct 100 feet of double circuit 500 kV line.

  Estimated cost to construct 500 kV double circuit line = $300,000

Required System Reinforcements

None identified.

Required Short Circuit Reinforcements

None identified.

Summary

Total estimated cost to interconnect the proposed generation facilities = $7,100,000