HENRY PROJECT (QUEUE #64)
FEASIBILITY STUDY ANALYSIS

DESCRIPTION OF PROJECT

The developer wishes to interconnect 100-1500 kW wind turbine generators for a maximum total generating capability of 150 MW at their Henry site in Grant County, West Virginia near the community of Henry. The project will require a 138 kV interconnection at William Substation. The customer wishes to interconnect into the 138 kV and have their generating facility in service and producing power by December 31, 2002.

ANALYSIS RESULTS

Normal (Base) System Conditions

No overloads or system deficiencies were identified.

Single Contingency Conditions

No overloads or system deficiencies were identified as being caused by credible 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 or other equipment were identified as being over their maximum interrupting or through-fault rating.

SYSTEM REINFORCEMENTS

Required Direct Interconnection Facilities

Interconnect at William Substation:

- Relocate 138 kV capacitor.
- Install new 138 kV dead-end structure, air break structure and 138 kV breaker.
- Install 138 kV metering and associated facilities.

Estimated cost to install facilities at William Substation = **$610,000**

Required System Reinforcements

Protective relaying

- Design and test relays at NUG site
- Review and re-coordinate relays on AP system affected by generation facility addition.

Estimated cost for protective relay work = **$60,000**

Required Short Circuit Reinforcements

There were no short circuit reinforcements required.

Summary

Total estimated cost for interconnection and reinforcements facilities = **$670,000**.