PJM Generator Interconnection Request
Queue #W1-063
Branchburg-Elroy 500kV
Feasibility/Impact Study Report

June 2010
#597917

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W1-063 Branchburg-Elroy 500kV Feasibility Study

General

H-P Energy Resources, L.L.C. (H-P) has requested increasing the emergency rating on the Branchburg terminal of the Branchburg-Elroy 500kV 5017 circuit from 2983 MVA to 3016 MVA by upgrading the line disconnect and wave trap. H-P has requested this upgrade be in place by June 1, 2011.

The intent of the 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

Not Applicable

Network Upgrades

At the project kick-off teleconference one of the action items for PSE&G was to confirm the rating of the equipment on the Branchburg terminal of the 5017 circuit.

Evaluation by PSE&G has shown that the Branchburg terminal has the following summer ratings.

- The summer normal rating is presently 2654MVA, limited by a wavetrap on the Branchburg terminal.
- The summer emergency rating is presently 3016MVA, limited by the same wavetrap on the Branchburg terminal.

Conclusion

The Branchburg-Elroy 500kV 5017 circuit already has a summer emergency rating of 3016 MVA. Replacing the equipment as requested by H-P is not required to meet the rating.

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