



Second Addendum To 2003 Baseline RTEP Report

The reinforcements described below were required on the PJM system due to requests received to retire the following generators. Ongoing analysis may identify the need for additional reinforcements to support these retirements.

Sewaren 1, 2, 3, 4
Hudson 1

1. The single contingency involving the Branchburg – Deans 500kV circuit along with the Deans 500/230kV transformer results in an overload on the Branchburg – Flagtown 230kV circuit under the 2008 load deliverability test for the Eastern MAAC. The recommended solution is to build a new 230kV section from Branchburg – Flagtown and move the Flagtown-Somerville 230kV circuit to the new section. The estimated cost is \$10 million.
2. The single contingency involving the Branchburg – Readington 230kV circuit results in an overload on the Flagtown-Somerville-Bridgewater 230kV circuit under the 2008 load deliverability test for the Eastern MAAC. The recommended solution is to reconductor the Flagtown-Somerville-Bridgewater 230kV circuit with 1590ACSS by June 2008. The estimated cost is \$12 million.
3. The single contingency involving the Alburtis-Branchburg 500kV circuit results in an overload on the Elroy-Hosensack 500kV circuit under the 2008 load deliverability test for the Eastern MAAC. The recommended solution is to replace terminal equipments on both Elroy and Hosensack 500kV substations by June 2008. The terminal equipments involve two 500kV circuit breakers and two wave traps at Elroy substation, and two 500kV circuit breakers, a CT, two disconnect switches and a wave trap at Hosensack substation. The estimated cost is \$5 million.
4. The single contingency involving the Elroy – Hosensack 500kV circuit results in an overload on the Alburtis – Branchburg 500kV circuit under the 2008 load deliverability test for the Eastern MAAC. The recommended solution is to replace terminal equipments on both Alburtis and Branchburg 500kV substations by June 2008. The terminal equipments involve a wave trap on Alburtis substation, and a wave trap on Branchburg substation. The estimated cost is \$0.3 million.
5. The double circuit line contingency involving the loss of Portland – Greystone and Kittatinny – Pohatcong 230kV circuits results in an overload on the Kittatinny – Newton 230kV circuit under the 2008 generation deliverability test. The recommended solution is to replace a line trap at the Newton 230kV substation by June 2008. The estimated cost is \$0.1 million.
6. The Portland – Greystone 230kV circuit is normally overloaded under the 2008 load deliverability test. The recommended solution is to upgrade the Portland-Greystone 230kV circuit by June 2008. The estimated cost is \$20 million.
7. The Eastern MAAC area under 2008 load deliverability test is reactive deficient for both pre-contingency and Post contingency. The need for over 1000MVAR reactive device have been identified. PJM will continue working with the Transmission Owners to identify the best solution for the area. Factors that will be considered include the voltage level for capacitor installations and the correct mix of dynamic and static capacitors.