

First Addendum To 2006 Baseline RTEP Report

Addendum per the presentation at the October 30, 2006 TEAC:

1. Short circuit violation identified at Loudoun 230 kV substation. The recommended solution is to replace the Loudoun 230 kV breaker by June 2011. The estimated cost is \$0.5 million.
2. The Linden – South Water Front 230 kV new circuit that was originally proposed in the RTEP 2011 is replaced by the following upgrades.
 - The Readington – Branchburg 230 kV circuit contingency overloaded at 113% for the loss of the Whippany – Roseland 230 kV circuit under the 2011 load deliverability test for PSEG zone. The recommended solution is to reconductor the Readington – Branchburg 230 kV circuit with 1590 ACSS by June 2011. The estimated cost is \$4.3 million.
 - The Readington – Roseland 230 kV circuit is contingency overloaded at 102% for the loss of the Whippany – Roseland 230 kV circuit under the 2011 load deliverability test for PSEG zone. The recommended solution is to replace a wave trap on the Readington – Roseland 230 kV circuit by June 2011.
 - The Linden – Tosco 230 kV circuit is contingency overloaded at 113% for the loss of the Deans – West Hempfield 230 kV circuit under the 2011 load deliverability test for PSEG zone. The recommended solution is to reconductor the Linden – Tosco 230 kV circuit with 1590 ACSS conductor by June 2011. The estimated cost is \$2.18 million.
 - The Tosco – G22_MTX 230 kV circuit is contingency overloaded at 119% for the loss of the Deans – West Hempfield 230 kV circuit under the 2011 load deliverability test for PSEG zone. The recommended solution is to reconductor the Tosco – G22_MTX 230 kV circuit with 1590 ACSS conductor by June 2011. The estimated cost is \$0.61 million.
 - The Athenia – Saddlebrook 230 kV circuit is contingency overloaded at 106% for the loss of the Essex – Hudson 230 kV circuit under the 2011 load deliverability test for PSEG zone. The recommended solution is to reconductor the Athenia – Saddlebrook 230 kV circuit by June 2011. The estimated cost is \$1.5 million.
 - The Roseland – West Caldwell 138 kV circuit is contingency overloaded at 102% for the Roseland – Kearney “D” 230 kV circuit under the 2011 load deliverability test for PSEG zone. The recommended solution is to replace a wave trap on the Roseland – West Caldwell 138 kV circuit by June 2011. The estimated cost is \$0.05 million.
 - The Kittatinny – Newton 230 kV circuit is contingency overloaded at 106% for the loss of the Portland – Greystone 230 kV circuit under the 2011 generation deliverability test. The recommended solution is to reconductor the Kittatinny – Newton 230 kV circuit with 1590 ACSS by June 2011. The estimated cost is \$20 million.

3. Total of 22 breakers are required to be replaced at the following substations in Allegheny Power by December 2007.
 - Glen Falls 138 kV
 - Marlowe 138 kV
 - Mitchell 138 kV
 - Trissler 138 kV
 - Weirton 138 kV
 - The estimated cost is total of \$2.34 million, \$0.12 million for each breaker
4. The Dooms 500/230 kV transformer is contingency overloaded for the loss of the Cunningham – Elmont 500 kV circuit. The recommended solution is to add a 2nd Dooms 500/230 kV transformer by June 2007. The estimated cost is \$8.0 million.