

OM#	66	Rev#	0
Effective:	3/14/2011		
Revise/Review By:	5/15/2011		

**NOTE: TO ALLOW FOR POSTING TO THE OASIS, ALL MARKET SENSITIVE DATA HAS BEEN REMOVED FROM THIS OPERATING PROCEDURE.**

## 1. PURPOSE / INTENT

The Eastern Dominion area is a large load pocket with the Atlantic Ocean to the East, two weak ties to CPL in the South and two main 500kV lines from the West. When one 500kV line is out of service, the loss of the remaining 500kV line can result in a voltage collapse with an extremely steep curve. Adequate generation in the area must be on-line to provide reactive support.

To provide guidance to the Real Time and Day Ahead operators, a temporary interface around the Eastern Dominion area labeled **DOMEAST** has been created to monitor for voltage collapse. This will be used to set the appropriate prices for generation required for reactive support during the scheduled Septa-Fentress 500kV line outage.

### Outage Dates:

- 1.) eDart #390704: 3/14 - 4/3
- 2.) eDart #434731: 4/16 - 5/15
  - a. Emergency Recall on both outages is ~3hrs.

## 2. PROCEDURE

In both Real Time and Day Ahead, PJM will operate to the temporary **DOMEAST** Interface to the more restrictive of the Volt Drop limit or the Voltage Collapse point with a 100MW back-off applied based upon the steepness of the voltage drop curve. Due to the long lead time for the generation in the area, it will be necessary to commit adequate steam generation in advance to prevent Real Time voltage control issues.

### Control Options:

**Non-cost:** The capacitors located in the Dominion East (DOM-E) region near the Greenwich and Elizabeth River stations are the most effective at addressing voltage collapse issues. In particular:

- 1) Lynn Haven 230kV
- 2) Greenwich 230kV
- 3) Reeves Ave 230kV
  - a. Take the 115kVcap out if needed to get the 230kV cap in.

**Off-cost:** Units within the DOMEAST Interface will be run based upon cost effectiveness to balance the load.

### **DOMEAST Interface Definition:**

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- 1) Lightfoot – Waller 2102 230kV line
- 2) Lightfoot – Waller 2113 230kV line
- 3) Hopewell – Surry 212 230kV line
- 4) Hopewell – Surry 240 230kV line
- 5) Surry 500/230kV XF
- 6) Suffolk – Kings Fork 289 230kV line
- 7) Suffolk – Thrasher 2110 230kV line (future line)
- 8) Suffolk – Yadkin 565 500kV line
- 9) Winfall – Tanglewood 2020 230kV line
- 10) Lanexa – Dow Tap 34 115kV line
- 11) Lanexa – Newport Reservoir 58 115kV line

**Monitored buses for Voltage Drop violation:**

- 1) Yadkin 500kV
- 2) Elizabeth River 230kV
- 3) Reeves Avenue 230kV

**Monitored contingencies:**

- 1) Suffolk – Yadkin 500kV line
- 2) This will typically be the worst contingency
- 3) Suffolk 500/230kV XF non-sectionalized
- 4) Surry #1 Nuclear Unit
- 5) Surry – Suffolk 500kV line

**3. REFERENCES**

None

**4. ASSOCIATED APPLICATIONS**

*Applications that may be impacted by any revisions to this Operating Memo should be noted within this section.*

<b>IEP Procedure ID:</b>	n/a	<b>Event Name:</b>	
<b>Note:</b>			

<b>SCADA/EMS:</b>	n/a	<b>Display:</b>	
<b>Note:</b>			

<b>System Impacts:</b>	n/a	<b>Title:</b>	
<b>Note:</b>			

**5. REVISION HISTORY**

Rev. #	Date	Author	Description
0	3/8/2011	C Pilog	OM Creation. Reviewed and approved by PJM and Dominion Operations