

**System Operations Subcommittee**  
**PJM Operations Summary**  
**November 2015 Operations (Complete)**

There were **24** PCLLRWs and **14** High System Voltage events in November

CPS1: 158.0%, BAAL: 99.7% PJM (NERC 100%) <sup>1</sup>, CPS2: (87.7%), DCS: 100%

<sup>1</sup>PJM directly measures the total number of BAAL excursions in minutes compared to the total number of minutes within a month with a target value for this performance goal at 99% on a daily and monthly basis. NERC rules limit the recovery period to no more than 30 minutes for a single event.

<sup>2</sup>PJM is participating in the BAAL field trial which substitutes for CPS2 compliance.

**Manual Load Dump Warning (1 Event)**

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| 11/10/2015<br>12:45 | 11/10/2015<br>14:46 | Manual<br>Load<br>Dump<br>Warning | <u>PJM Drill: Yes - PJM-RTO-RTO As of 12:45 on 11.10.2015 hours, an EEA3 and a Manual Load Dump Action of 1800 MW has been requested. Total load shed is 1800 MW. This is a drill. do DO NOT SHED LOAD. This is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
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**HLV Schedule Warning (1 Event)**

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| 11/10/2015<br>7:51 | 11/10/2015<br>14:48 | HLV<br>Schedule<br>Warning | <u>PJM Drill: Yes - PJM-RTO-RTO As of 07:51 on 11.10.2015 a Heavy Load Voltage Schedule Warning has been issued. This is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
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**HLV Schedule Action (1 Event)**

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| 11/10/2015<br>8:47 | 11/10/2015<br>14:48 | HLV<br>Schedule<br>Action | <u>PJM Drill: Yes - PJM-RTO-RTO As of 08:47 on 11.10.2015 a Heavy Load Voltage Schedule Action has been issued. this is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
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**Hot/Cold Weather Alert** (1 Event)

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| 11/10/15<br>07:33 | 11/10/2015<br>14:48 | Cold Weather<br>Alert | <p>- <u>PJM-RTO-RTO - As of 07:33 on 11.09.2015 hours, a Cold Weather Alert has been issued for the 11.10.2015 Operating Day &amp; Midnight . As indicated in M-13, members are expected to perform the following actions:</u></p> <ul style="list-style-type: none"> <li><u>&lt;li&gt;Generation (Gen) dispatchers review and update their unit parameters in eMkt through the Cold Weather Alert period paying particular attention to accurate Start-up &amp; Notification, Min Run Time, Max Run Time, Eco Min/Max and Emergency Min/Max information.&lt;/li&gt;</u></li> <li><u>&lt;li&gt;Gen dispatchers with dual fuel units confirm the equipment is functional &amp; amount of alternate fuel available.&lt;/li&gt;</u></li> <li><u>&lt;li&gt;Outages to the alternate fuel capability will be submitted to PJM via eMkt.&lt;/li&gt;</u></li> <li><u>&lt;li&gt;Alternate fuel restrictions will also be communicated via eMkt.&lt;/li&gt;</u></li> <li><u>&lt;li&gt;Gen dispatchers review fuel supply/delivery schedules in anticipation of greater than normal operation of units.&lt;/li&gt;</u></li> <li><u>&lt;li&gt;Transmission/Gen dispatchers review plans to determine if any maintenance/testing, scheduled/being performed, on any monitoring, control, transmission/generating equipment can be deferred/cancelled.&lt;/li&gt;</u></li> </ul> <p><u>This is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u></p> |
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**Max Emergency Gen Alert** (1 Event)

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| 11/10/15<br>10:15 | 11/10/2015<br>14:46 | Max<br>Emergency<br>Generation | <p><u>PJM Drill: Yes - PJM-RTO-RTO As of 10:15 on 11.10.2015 hours, a Maximum Emergency Generation Action has been issued. Any off system energy sales from PJM capacity resources may be recalled as necessary. This is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u></p> |
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**Primary Reserve Warning** (1 Event)

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| 11/10/2015<br>9:46 | 11/10/2015<br>14:46 | Primary<br>Reserve<br>Warning | <p><u>PJM Drill: Yes - PJM-RTO-RTO As of 09:46 on 11.10.2015 hours, a Primary Reserve Warning has been issued. Actual primary reserves are less than the requirement. this is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u></p> |
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**Voltage Reduction Warning** (1 Event)

|                     |                     |                                 |   |
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| 11/10/2015<br>10:45 | 11/10/2015<br>14:46 | Voltage<br>Reduction<br>Warning | <u>PJM Drill: Yes - PJM-RTO-RTO As of 10:45 on 11.10.2015 hours, a Voltage Reduction Warning and Reduction of Non-Critical Plant Load has been issued. Actual Synchronized (or Spinning) Reserves are less than the Synchronized (or Spinning) Reserve requirement. this is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
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**Voltage Reduction** (2 Events)

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| 11/10/2015<br>11:30 | 11/10/2015<br>14:46 | Voltage<br>Reduction | <u>PJM Drill: Yes - COMED-Control Area As of 12:00 on 11.10.2015 hours, a Voltage Reduction Action of 2.5 % has been issued City of Chicago . NOTE: Curtailment of Non-Essential Building Load should be issued prior to, but no later than the same time as a Voltage Reduction. this is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
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| 11/10/2015<br>12:00 | 11/10/2015<br>14:46 | Voltage<br>Reduction | <u>PJM Drill: Yes - PJM-RTO-RTO As of 12:00 on 11.10.2015 hours, a Voltage Reduction Action of 5 % has been issued PJM-RTO . NOTE: Curtailment of Non-Essential Building Load should be issued prior to, but no later than the same time as a Voltage Reduction. this is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
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**Emergency Energy Request** (1 Event)

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| 11/10/2015<br>8:40 | 11/10/2015<br>14:48 | Emergency<br>Energy<br>Request | <u>PJM Drill: Yes - As of 08:40 on 11.10.2015 hours, PJM has issued a Request to Purchase Emergency Energy. PJM is accepting bids for Emergency Energy. PJM anticipates the need for emergency energy from the period of 08:37 on 11.10.2015 through 14:30 on 11.10.2015 hours EPT today. Please submit your bids as described in section 2 of the Emergency Procedures Manual. this is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
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**Max Emergency Generation** (1 Event)

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|-------------------|---------------------|--------------------------------|---|
| 11/10/15<br>10:15 | 11/10/2015<br>14:46 | Max<br>Emergency<br>Generation | <u>PJM Drill: Yes - PJM-RTO-RTO As of 10:15 on 11.10.2015 hours, a Maximum Emergency Generation Action has been issued. Any off system energy sales from PJM capacity resources may be recalled as necessary. This is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
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**Min Gen Declaration** (0 Events)

**Min Gen Event** (0 Events)

**Local Min Gen Event** (0 Events)

**Spinning** (2 Events)

|                     |                     |          |   |
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| 11/12/2015<br>11:34 | 11/12/2015<br>11:42 | Spinning | <u>Spinning in PJM for Unit Trip Susquehanna unit 1</u>         |
| 11/21/2015<br>12:09 | 11/21/2015<br>12:18 | Spinning | <u>Spinning in RTO for Unit Trip GAVIN 2 loaded at 1146 MW.</u> |

**High System Voltage** (14 Events)

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| 11/1/2015<br>23:54 | 11/2/2015<br>5:05 | Emergency<br>Procedure | <u>- Issued High System Voltage for PJM-RTO-RTO As of 23:54 on 11.01.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u> |
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|                   |                   |                        |  |
|-------------------|-------------------|------------------------|--|
| 11/03/15<br>00:11 | 11/3/2015<br>5:15 | Emergency<br>Procedure | - <u>Issued High System Voltage for PJM-RTO-RTO As of 00:11 on 11.03.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u> |
| 11/03/15<br>23:55 | 11/4/2015<br>5:07 | Emergency<br>Procedure | - <u>Issued High System Voltage for PJM-RTO-RTO As of 23:55 on 11.03.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u> |
| 11/5/2015<br>0:14 | 11/5/2015<br>5:13 | Emergency<br>Procedure | - <u>Issued High System Voltage for PJM-RTO-RTO As of 00:14 on 11.05.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u> |

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|-------------------|-------------------|------------------------|---|
| 11/6/2015<br>0:43 | 11/6/2015<br>5:06 | Emergency<br>Procedure | <p>- <u>Issued High System Voltage for PJM-RTO-RTO As of 00:43 on 11.06.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u></p> |
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| 11/8/2015<br>1:15 | 11/8/2015<br>9:19 | Emergency<br>Procedure | <p>- <u>Issued High System Voltage for PJM-RTO-RTO As of 01:15 on 11.08.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u></p> |
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|--------------------|--------------------|------------------------|---|
| 11/10/2015<br>0:45 | 11/10/2015<br>6:10 | Emergency<br>Procedure | <p>- <u>Issued High System Voltage for PJM-RTO-RTO As of 00:45 on 11.10.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u></p> |
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| 11/11/15<br>00:45 | 11/11/2015<br>5:02 | Emergency<br>Procedure | <p>- <u>Issued High System Voltage for PJM-RTO-RTO As of 00:45 on 11.11.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u></p> |
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|-------------------|--------------------|------------------------|---|
| 11/15/15<br>23:48 | 11/16/2015<br>5:32 | Emergency<br>Procedure | <p><u>- Issued High System Voltage for MIDATL-Region As of 23:48 on 11.15.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u></p> |
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| 11/17/15<br>01:10 | 11/17/2015<br>5:02 | Emergency<br>Procedure | <p><u>- Issued High System Voltage for MIDATL-Region As of 01:10 on 11.17.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u></p> |
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|-------------------|--------------------|------------------------|--|
| 11/18/15<br>23:51 | 11/19/2015<br>5:06 | Emergency<br>Procedure | - Issued High System Voltage for MIDATL-Region As of 23:51 on <u>11.18.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u> |
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| 11/26/15<br>21:10 | 11/27/2015<br>6:32 | Emergency<br>Procedure | - Issued High System Voltage for PJM-RTO-RTO As of 21:10 on <u>11.26.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u> |
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| 11/27/15<br>22:36 | 11/28/2015<br>8:45 | Emergency<br>Procedure | - Issued High System Voltage for PJM-RTO-RTO As of 22:36 on <u>11.27.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u> |
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| 11/28/15<br>22:17 | 11/29/2015<br>8:30 | Emergency<br>Procedure | - <u>Issued High System Voltage for PJM-RTO-RTO As of 22:17 on 11.28.2015 hours, all companies shall take the following actions on the Bulk Electric System: 1. All switchable capacitors are out of service. 2. All reactors are in service. 3. TOs are requested to review and adjust LTC settings as appropriate. All LTC (230 kV and above) and voltage schedule adjustments shall be coordinated with PJM Dispatch. 4. All SVCs are absorbing reactive power. 5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible. 6. Generation Owners shall communicate with PJM and the TO restrictions to their generator's ability to absorb MVARs if that capability varies from the existing "D" curve. Target: Distribution Companies/Transmission Owners/Generation</u> |
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**Min. Gen Advisory** (0 Event)

**Shared Reserves** (0 Events)

**Min Gen Alert** (3 Events)

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| 11/05/15<br>23:21   | 11/6/2015<br>5:11  | Min Gen<br>Alert | - <u>As of 23:21 on 11.05.2015 hours, a Minimum Generation Alert has been issued for the Midnight of 11.06.2015 Expected generation level is within -1759 MW of normal minimum energy limits.</u>    |
| 11/26/2015<br>21:55 | 11/27/2015<br>6:32 | Min Gen<br>Alert | - <u>As of 21:43 on 11.26.2015 hours, a Minimum Generation Alert has been issued for the Midnight of 11.27.2015 Expected generation level is within -1955 MW MW of normal minimum energy limits.</u> |
| 11/27/15<br>19:57   | 11/28/2015<br>8:00 | Min Gen<br>Alert | - <u>As of 19:57 on 11.27.2015 hours, a Minimum Generation Alert has been issued for the Midnight of 11.28.2015 Expected generation level is within -1787 MW of normal minimum energy limits.</u>    |

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**Capacity Emergencies** (18 Events)

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|--------------------|---------------------|------------------------|--|
| 11/10/2015<br>7:36 | 11/10/2015<br>14:48 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Unit Startup Notification Alert for PJM-RTO-RTO As of 07:36 on 11.09.2015 , a Unit Startup Notification Alert has been issued in anticipation and in effect for the operating day 11.10.2015 until event cancellation. This is a drill Additional Comments: This is a drill</u> |
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| 11/10/2015<br>7:41 | 11/10/2015<br>14:48 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Primary Reserve Alert for PJM-RTO-RTO As of 07:41 on 11.09.2015 hours, a Primary Reserve Alert has been issued for RTO This is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
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| 11/10/2015<br>7:42 | 11/10/2015<br>14:48 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Low Voltage Alert for PJM-RTO-RTO As of 07:42 on 11.09.2015 hours, a Low Voltage Alert has been issued for 11.10.2015 Test Day &amp; Midnight This is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
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| 11/10/2015<br>7:43 | 11/10/2015<br>14:48 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Voltage Reduction Alert for PJM-RTO-RTO As of 07:43 on 11.09.2015 hours, a Voltage Reduction Alert has been issued for RTO . Estimated operating reserves are less than the Synchronized (or Spinning) Reserve requirement. This is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
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| 11/10/2015<br>9:04 | 11/10/2015<br>14:48 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Pre-Emergency Load Mgmt Reduction Action for FE-ME-Transmission Zone, PSEG-Transmission Zone, PECO-Transmission Zone, PEPCO-Transmission Zone, BGE-Transmission Zone As of 09:15 on 11.10.2015 (Notification Time), a Pre-Emergency Load Management has been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Quick 30 . Product(s) dispatched: Limited DR Extended Summer DR Annual DR Capacity Performance</u> |
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|--------------------|---------------------|------------------------|---|
| 11/10/2015<br>9:04 | 11/10/2015<br>14:48 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Pre-Emergency Load Mgmt Reduction Action for RECO-Transmission Zone, AECO-Transmission Zone, DAY-Control Area, BGE-Transmission Zone, EKPC-Control Area, DEOK-Control Area, PEPCO-Transmission Zone As of 09:15 on 11.10.2015 (Notification Time), a Pre-Emergency Load Management has been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Long 120 . Product(s) dispatched: Limited DR</u> |
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| 11/10/2015<br>9:04 | 11/10/2015<br>14:48 | Emergency<br>Procedure | <p><u>PJM Drill: Yes - Issued Pre-Emergency Load Mgmt Reduction Action for FE-ATSI-Control Area As of 09:15 on 11.10.2015 (Notification Time), a Pre-Emergency Load Management has been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Long 120 . Product(s) dispatched: Limited DR Extended Summer DR Annual DR</u></p> |
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|--------------------|---------------------|------------------------|--|
| 11/10/2015<br>9:04 | 11/10/2015<br>14:48 | Emergency<br>Procedure | <p><u>PJM Drill: Yes - Issued Pre-Emergency Load Mgmt Reduction Action for PSEG-Transmission Zone, FE-ME-Transmission Zone, DAY-Control Area, EKPC-Control Area, AEP-Control Area, BGE-Transmission Zone, DEOK-Control Area As of 09:15 on 11.10.2015 (Notification Time), a Pre-Emergency Load Management has been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Short 60 . Product(s) dispatched: Limited DR</u></p> |
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| 11/10/2015<br>9:05 | 11/10/2015<br>14:48 | Emergency<br>Procedure | <p><u>PJM Drill: Yes - Issued Pre-Emergency Load Mgmt Reduction Action for PSEG-Transmission Zone, PECO-Transmission Zone, DPL-Transmission Zone, COMED-Control Area, DEOK-Control Area, DAY-Control Area, FE-ATSI-Control Area, AECO-Transmission Zone, PPL-Transmission Zone, FE-PN-Transmission Zone, FE-ME-Transmission Zone, DOM-Control Area, FE-AP-Control Area, FE-JC-Transmission Zone, AEP-Control Area, DUQ-Control Area As of 09:15 on 11.10.2015 (Notification Time), a Pre-Emergency Load Management has been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Quick 30 Long 120 Short 60 . Product(s) dispatched: Limited DR Extended Summer DR</u></p> |
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| 11/10/2015<br>9:05 | 11/10/2015<br>14:48 | Emergency<br>Procedure | <p><u>PJM Drill: Yes - Issued Emergency Load Mgmt Reduction Action for AECO-Transmission Zone, DEOK-Control Area, DAY-Control Area, DUQ-Control Area, FE-AP-Control Area As of 09:15 on 11.10.2015 (Notification Time), a NERC level EEA2 and Emergency Load Management have been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Quick 30 . Product(s) dispatched: Limited DR</u></p> |
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| 11/10/2015<br>9:05 | 11/10/2015<br>14:48 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Emergency Load Mgmt Reduction Action for BGE-Transmission Zone As of 09:15 on 11.10.2015 (Notification Time), a NERC level EEA2 and Emergency Load Management have been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Quick 30 . Product(s) dispatched: Limited DR Extended Summer DR Annual DR</u> |
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| 11/10/2015<br>9:05 | 11/10/2015<br>14:46 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Emergency Load Mgmt Reduction Action for BGE-Transmission Zone, FE-ATSI-Control Area As of 09:15 on 11.10.2015 (Notification Time), a NERC level EEA2 and Emergency Load Management have been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Short 60 . Product(s) dispatched: Extended Summer DR</u> |
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| 11/10/2015<br>9:05 | 11/10/2015<br>14:46 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Emergency Load Mgmt Reduction Action for FE-AP-Control Area, DUQ-Control Area, FE-PN-Transmission Zone, DAY-Control Area, PSEG-Transmission Zone, FE-ME-Transmission Zone As of 09:15 on 11.10.2015 (Notification Time), a NERC level EEA2 and Emergency Load Management have been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Long 120 . Product(s) dispatched: Limited DR</u> |
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| 11/10/2015<br>9:05 | 11/10/2015<br>14:46 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Emergency Load Mgmt Reduction Action for FE-ATSI-Control Area As of 09:15 on 11.10.2015 (Notification Time), a NERC level EEA2 and Emergency Load Management have been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Long 120 . Product(s) dispatched: Extended Summer DR</u>   |
| 11/10/2015<br>9:05 | 11/10/2015<br>14:46 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Emergency Load Mgmt Reduction Action for AEP-Control Area, PSEG-Transmission Zone, DEOK-Control Area, PEPCO-Transmission Zone, FE-JC-Transmission Zone, FE-ME-Transmission Zone, BGE-Transmission Zone, PECO-Transmission Zone, COMED-Control Area, FE-ATSI-Control Area, FE-PN-Transmission Zone, DPL-Transmission Zone, DOM-Control Area, PPL-Transmission Zone As of 09:15 on 11.10.2015 (Notification Time), a NERC level EEA2 and Emergency Load Management have been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Quick 30 Long 120 . Product(s) dispatched: Extended Summer DR Annual DR Limited DR</u> |



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| 11/10/2015<br>9:05  | 11/10/2015<br>14:46 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Pre-Emergency Load Mgmt Reduction Action for EKPC-Control Area, RECO-Transmission Zone As of 09:15 on 11.10.2015 (Notification Time), a Pre-Emergency Load Management has been issued. Load reductions should be implemented by end of Notification Time plus lead time and remain in place until released by PJM. Mandatory DR reduction time periods are based on product specific requirements. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: Quick 30 . Product(s) dispatched: Limited DR</u>                          |
| 11/10/2015<br>10:30 | 11/10/2015<br>14:46 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Emergency Voluntary Energy Only Demand Response for PJM-RTO-RTO As of 10:30 on 11.10.2015 (Notification Time), an Emergency Voluntary Energy Only Demand Response has been issued. Load reduction is expected to be implemented as soon as possible and is requested to remain reduced as long as possible or until cancelled by PJM. CSPs should review eLRS for specific registration details. Lead time(s) dispatched: n/a . Product(s) dispatched: n/a Control Zone(s) only. this is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u> |
| 11/10/2015<br>11:15 | 11/10/2015<br>14:46 | Emergency<br>Procedure | <u>PJM Drill: Yes - Issued Manual Load Dump Warning for PJM-RTO-RTO As of 11:15 on 11.10.2015 hours, a Manual Load Dump Warning has been issued. This is a drill Additional Comments: 2015 Winter Emergency Procedures Drill</u>  |

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**PCLLRW** (6 Events)

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| 11/20/15<br>17:20 | 11/21/2015<br>3:34  | Post<br>Contingency<br>Local Load<br>Relief<br>Warning | - <u>As of 17:10 on 11.20.2015 a PCLLRW to maintain WARD 115 KV at 106 KV in the PN area has been issued for Transmission Contingency Control. Additional Comments: Pre-contignecy voltage too high for caps at mansfield and nils valley - NA</u> |
| 11/23/15<br>07:23 | 11/23/2015<br>8:38  | Post<br>Contingency<br>Local Load<br>Relief<br>Warning | - <u>As of 07:19 on 11.23.2015 a PCLLRW to maintain MILFORD- STEELE 23076 at 597 MVA in the DPL (Delmarva) area has been issued for Transmission Contingency Control. Additional Comments: Generation - slow response - NA</u>                     |
| 11/23/15<br>21:26 | 11/24/2015<br>0:08  | Post<br>Contingency<br>Local Load<br>Relief<br>Warning | - <u>As of 21:24 on 11.23.2015 a PCLLRW to maintain MILFORD- STEELE 23076 at 597 MVA in the DPL (Delmarva) area has been issued for Transmission Contingency Control. Additional Comments: Generation - slow response - NA</u>                     |
| 11/24/15<br>06:53 | 11/24/2015<br>7:28  | Post<br>Contingency<br>Local Load<br>Relief<br>Warning | - <u>As of 06:50 on 11.24.2015 a PCLLRW to maintain MILFORD- STEELE 23076 at 597 MVA in the DPL (Delmarva) area has been issued for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available - NA</u>     |
| 11/30/15<br>07:13 | 11/30/2015<br>21:32 | Post<br>Contingency<br>Local Load<br>Relief<br>Warning | - <u>As of 07:06 on 11.30.2015 a PCLLRW to maintain ZENITH 138 KV at 127 KV in the ATSI area has been issued for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available - NA</u>                        |
| 11/30/15<br>07:45 | 11/30/2015<br>21:33 | Post<br>Contingency<br>Local Load<br>Relief<br>Warning | - <u>As of 07:43 on 11.30.2015 a PCLLRW to maintain SPRUCE 138 KV at 127 KV in the ATSI area has been issued for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available - NA</u>                        |

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**Non-PCLLRW (18 Events)**

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| 11/2/2015<br>9:49  | 11/2/2015<br>11:26 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 09:46 on 11.02.2015 a Non-Market PCLLRW to maintain ELYNCHBU 138 KV at 127 KV in the AEP area has been issued for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available - caps avail at East Lynchburg, Reusens</u>                    |
| 11/2/2015<br>10:15 | 11/2/2015<br>10:25 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 10:10 on 11.02.2015 a Non-Market PCLLRW to maintain HANNA II 138 KV at 127 KV in the DAYTON area has been issued for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available - NA</u>  |
| 11/03/15<br>16:29  | 11/3/2015<br>17:59 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 16:25 on 11.03.2015 a Non-Market PCLLRW to maintain OPOSSUMC 138 KV at 127 KV in the AEP area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - open 765 kV reactor at Cloverdale</u>                              |
| 11/4/2015<br>15:09 | 11/4/2015<br>20:40 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 15:05 on 11.04.2015 a Non-Market PCLLRW to maintain ROSS 138 KV at 127 KV in the AEP area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - AEP will place the Ross 138 kV capacitor in service.</u>               |
| 11/5/2015<br>9:05  | 11/5/2015<br>20:19 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 08:58 on 11.05.2015 a Non-Market PCLLRW to maintain DUPONTCS 138 KV at 127 KV in the AEP area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - 69 kV caps available. RT voltage too high to place in service.</u> |
| 11/5/2015<br>9:05  | 11/5/2015<br>20:19 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 08:58 on 11.05.2015 a Non-Market PCLLRW to maintain DUPONTCS 138 KV at 127 KV in the AEP area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - 69 kV caps available. RT voltage too high to place in service.</u> |
| 11/9/2015<br>6:52  | 11/9/2015<br>11:41 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 06:47 on 11.09.2015 a Non-Market PCLLRW to maintain SCIPPO 138 KV at 127 KV in the AEP area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - Place 138 KV Ross Capacitor #5 in service.</u>                       |

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| 11/12/15<br>09:18   | 11/12/2015<br>9:39  | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 09:00 on 11.12.2015 a Non-Market PCLLRW to maintain HANTHORN-THAYER HAN-THA at 213 MVA in the AEP area has been issued for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available - NA</u>   |
| 11/16/15<br>08:07   | 11/16/2015<br>10:14 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 08:03 on 11.16.2015 a Non-Market PCLLRW to maintain FARLEY2 - LIB CHUR TIE at 72 MVA in the EKPC area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - KU to open the 624 cb at Farley</u>                   |
| 11/17/2015<br>16:44 | 11/20/2015<br>12:15 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 16:42 on 11.17.2015 a Non-Market PCLLRW to maintain SCIPPO 138 KV at 127 KV in the AEP area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - Ross 138kv cap available</u>                                    |
| 11/18/2015<br>10:43 | 11/18/2015<br>17:17 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 10:40 on 11.18.2015 a Non-Market PCLLRW to maintain CABINCRE 138 KV at 127 KV in the AEP area has been issued for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available - NA</u>  |
| 11/20/2015<br>1:55  | 11/20/2015<br>2:09  | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 01:48 on 11.20.2015 a Non-Market PCLLRW to maintain STUART2 138 KV at 127 KV in the DAYTON area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - AEP can place in service the 69KV capacitor at Seamans.</u> |
| 11/20/2015<br>2:19  | 11/20/2015<br>11:51 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 02:10 on 11.20.2015 a Non-Market PCLLRW to maintain STUART2 138 KV at 127 KV in the DAYTON area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - AEP can place in service the 69KV capacitor at Seaman.</u>  |
| 11/20/15<br>06:45   | 11/20/2015<br>10:58 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - <u>As of 06:40 on 11.20.2015 a Non-Market PCLLRW to maintain FARLEY2 - LIB CHUR TIE at 72 MVA in the EKPC area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - Open Farley 128-624 69kv CB</u>                       |

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| 11/21/15<br>01:36   | 11/22/2015<br>2:58  | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - As of 01:31 on 11.21.2015 a Non-Market PCLLRW to maintain STUART2 138 KV at 127 KV in the DAYTON area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - NA                                  |
| 11/30/15<br>13:40   | 11/30/2015<br>21:33 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - As of 13:38 on 11.30.2015 a Non-Market PCLLRW to maintain SULPHURS 138 KV at 127 KV in the AEP area has been issued for Transmission Contingency Control. Additional Comments: BES 2 Facility - NA  |
| 11/30/2015<br>17:18 | 11/30/2015<br>21:32 | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - As of 17:15 on 11.30.2015 a Non-Market PCLLRW to maintain STUART2 138 KV at 127 KV in the DAYTON area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - Install 69KV Cap at Seaman station. |
| 11/30/2015<br>23:02 | Not closed          | Non-Market<br>Post<br>Contingency<br>Local Load<br>Relief Warn | - As of 22:56 on 11.30.2015 a Non-Market PCLLRW to maintain SULPHURS 138 KV at 127 KV in the AEP area has been issued for Transmission Contingency Control. Additional Comments: Post Contingency Switching available - Upper Sandusky 69 KV cap AA           |