

**System Operations Subcommittee**  
**PJM Operations Summary**  
**December 2017 Operations – Final**

**There were 9 PCLLRWs and 4 High System Voltage events in December**  
**There was DCS reportable event in December**

**CPS1: %    BAAL: %<sup>1</sup>    CPS2: %**

<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.

**DCS** ( Events)

**Spinning** (0 Events)

**High System Voltage Action** (4 Events)

11.04.2017 00:01	11.04.2017 10:30	<p>A High System Voltage has been issued; all companies shall take the following actions on the Bulk Electric System:</p> <ol style="list-style-type: none"> <li>1. All switchable capacitors are out of service.</li> <li>2. All reactors are in service.</li> <li>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.</li> <li>4. All SVCs are absorbing reactive power.</li> <li>5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible.</li> <li>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.</li> </ol> <p>Target: Distribution Companies/Transmission Owners/Generation</p>
11.05.2017 00:01	11.05.2017 12:20	<p>A High System Voltage has been issued; all companies shall take the following actions on the Bulk Electric System:</p> <ol style="list-style-type: none"> <li>1. All switchable capacitors are out of service.</li> <li>2. All reactors are in service.</li> <li>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.</li> <li>4. All SVCs are absorbing reactive power.</li> <li>5. Generation Owners shall operate generators at the lower bandwidth of their voltage schedule when possible.</li> <li>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.</li> </ol>

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		Target: Distribution Companies/Transmission Owners/Generation
11.05.2017 23:50	11.06.2017 05:15	A High System Voltage has been issued; 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
11.19.2017 00:33	11.19.2017 07:05	A High System Voltage has been issued; 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

**Manual Load Dump Warning** (0 Events)

**HLV Schedule Warning** (0 Events)

**HLV Schedule Action** (0 Events)

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**Hot/Cold Weather Alert (5 Events)**

12.27.2017 11:13	Not Closed	<p>A Cold Weather Alert has been issued from 06:00 on 01.01.2018 through 22:00 on 01.02.2018 Per M-13, members are expected to perform the following actions:  TRANSMISSION/GEN DISPATCHERS review plans to determine if any maintenance/testing, scheduled/being performed, on any monitoring, control, transmission/generating equipment can be deferred/canceled.  GENERATION DISPATCHERS:  -- Review &amp; update unit parameters in Markets Gateway through the Cold Weather Alert period paying particular attention to accurate Start-up &amp; Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max information.  -- Submit alternate fuel capability &amp; alternate fuel restrictions via Markets Gateway.  -- Review fuel supply/delivery schedules in anticipation of greater than normal operation of units.  -- Provide PJM with estimate of time needed to return any unit on a Planned Outage. This 'Early Return Time' should be updated via eDART &amp; will not affect the Planned Outage est. end date.  -- For dual fuel units, confirm the equipment is functional &amp; amount of alternate fuel available.</p>	PJM-RTO
12.27.2017 11:12	Not Closed	<p>A Cold Weather Alert has been issued from 06:00 on 12.31.2017 through 22:00 on 12.31.2017 Per M-13, members are expected to perform the following actions:  TRANSMISSION/GEN DISPATCHERS review plans to determine if any maintenance/testing, scheduled/being performed, on any monitoring, control, transmission/generating equipment can be deferred/canceled.  GENERATION DISPATCHERS:  -- Review &amp; update unit parameters in Markets Gateway through the Cold Weather Alert period paying particular attention to accurate Start-up &amp; Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max information.  -- Submit alternate fuel capability &amp; alternate fuel restrictions via Markets Gateway.  -- Review fuel supply/delivery schedules in anticipation of greater than normal operation of units.  -- Provide PJM with estimate of time needed to return any unit on a Planned Outage. This 'Early Return Time' should be updated via eDART &amp; will not affect the Planned Outage est. end date.  -- For dual fuel units, confirm the equipment is functional &amp; amount of alternate fuel available.</p>	WESTERN

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<p>12.27.2017 11:09</p>	<p>Not Closed</p>	<p>A Cold Weather Alert has been issued from 06:00 on 12.30.2017 through 22:00 on 12.30.2017 Per M-13, members are expected to perform the following actions:  TRANSMISSION/GEN DISPATCHERS review plans to determine if any maintenance/testing, scheduled/being performed, on any monitoring, control, transmission/generating equipment can be deferred/canceled.  GENERATION DISPATCHERS:  -- Review &amp; update unit parameters in Markets Gateway through the Cold Weather Alert period paying particular attention to accurate Start-up &amp; Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max information.  -- Submit alternate fuel capability &amp; alternate fuel restrictions via Markets Gateway.  -- Review fuel supply/delivery schedules in anticipation of greater than normal operation of units.  -- Provide PJM with estimate of time needed to return any unit on a Planned Outage. This 'Early Return Time' should be updated via eDART &amp; will not affect the Planned Outage est. end date.  -- For dual fuel units, confirm the equipment is functional &amp; amount of alternate fuel available.</p>	<p>COMED, DAYTON, DEOK</p>
<p>12.25.2017 09:50</p>	<p>12.28.2017 22:00</p>	<p>A Cold Weather Alert has been issued from 06:00 on 12.27.2017 through 22:00 on 12.28.2017 Per M-13, members are expected to perform the following actions:  TRANSMISSION/GEN DISPATCHERS review plans to determine if any maintenance/testing, scheduled/being performed, on any monitoring, control, transmission/generating equipment can be deferred/canceled.  GENERATION DISPATCHERS:  -- Review &amp; update unit parameters in Markets Gateway through the Cold Weather Alert period paying particular attention to accurate Start-up &amp; Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max information.  -- Submit alternate fuel capability &amp; alternate fuel restrictions via Markets Gateway.  -- Review fuel supply/delivery schedules in anticipation of greater than normal operation of units.  -- Provide PJM with estimate of time needed to return any unit on a Planned Outage. This 'Early Return Time' should be updated via eDART &amp; will not affect the Planned Outage est. end date.  -- For dual fuel units, confirm the equipment is functional &amp; amount of alternate fuel available.  Additional Comments: Forecasted low temperatures (degrees): AEP 8, COMED 1, DAY 5, DEOK 8, FE-ATSI 8</p>	<p>AEP, COMED, DAYTON, DEOK, FE- ATSI</p>

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12.25.2017 09:50	12.26.2017 22:00	<p>A Cold Weather Alert has been issued from 06:00 on 12.26.2017 through 22:00 on 12.26.2017 Per M-13, members are expected to perform the following actions:</p> <p>TRANSMISSION/GEN DISPATCHERS review plans to determine if any maintenance/testing, scheduled/being performed, on any monitoring, control, transmission/generating equipment can be deferred/canceled.</p> <p>GENERATION DISPATCHERS:</p> <ul style="list-style-type: none"> <li>-- Review &amp; update unit parameters in Markets Gateway through the Cold Weather Alert period paying particular attention to accurate Start-up &amp; Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max information.</li> <li>-- Submit alternate fuel capability &amp; alternate fuel restrictions via Markets Gateway.</li> <li>-- Review fuel supply/delivery schedules in anticipation of greater than normal operation of units.</li> <li>-- Provide PJM with estimate of time needed to return any unit on a Planned Outage. This 'Early Return Time' should be updated via eDART &amp; will not affect the Planned Outage est. end date.</li> <li>-- For dual fuel units, confirm the equipment is functional &amp; amount of alternate fuel available.</li> </ul> <p>Additional Comments: Forecasted low temperature 3 degrees.</p>	COMED
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- Primary Reserve Warning** (0 Events)
- Voltage Reduction Warning** (0 Events)
- Voltage Reduction** (0 Events)
- Emergency Energy Request** (0 Events)
- Max Emergency Gen Alert** (0 Events)
- Max Emergency Generation** (0 Events)
- Local Min Generation Event** (0 Events)

**Shared Reserve** (1 Event)

12.07.2017 15:04	12.07.2017 15:19	-207 MW with NYISO – 7040 Line Phase 2, - Regulation
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**Min Gen Alert** (0 Events)

**Emergency Procedure** (0 Events)

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**PCLLRW (9 Events)**

12.03.2017 23:54	12.04.2017 12:28	A Post Contingency Local Load Relief Warning has been issued to maintain COLUMBIA-NORTHEA2 TIE at 143 MVA in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
12.05.2017 07:20	12.05.2017 09:06	A Post Contingency Local Load Relief Warning has been issued to maintain AUBURNC5 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
12.07.2017 07:22	12.07.2017 07:52	A Post Contingency Local Load Relief Warning has been issued to maintain BakerLane at 127.7 KV in the EKPC for Transmission Contingency Control. Additional Comments: no Switching available at this time.
12.11.2017 17:03	12.11.2017 17:06	A Post Contingency Local Load Relief Warning has been issued to maintain WESTFALL 115 KV at 105.8 KV in the PN for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
12.13.2017 02:17	12.13.2017 03:11	A Post Contingency Local Load Relief Warning has been issued to maintain GREENBRI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
12.13.2017 18:10	12.13.2017 19:16	A Post Contingency Local Load Relief Warning has been issued to maintain CHURCH-NEWMERED 6704-1 at 105 MVA in the DPL (Delmarva) for Transmission Contingency Control.
12.19.2017 07:29	12.21.2017 04:30	A Post Contingency Local Load Relief Warning has been issued to maintain COREY 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
12.24.2017 09:03	12.26.2017 16:47	A Post Contingency Local Load Relief Warning has been issued to maintain POLEYARD 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
12.26.2017 11:48	12.26.2017 14:38	A Post Contingency Local Load Relief Warning has been issued to maintain WESTFALL 115 KV at 105.8 KV in the PN for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available

**Non-PCLLRW (18 Events)**

12.01.2017 06:35	12.02.2017 18:35	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain PARKWAY1 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
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12.04.2017 07:23	12.04.2017 12:32	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain PARKWAY1 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
12.05.2017 18.11	12.06.2017 00:10	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain PARKWAY1 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
12.06.2017 05:55	12.07.2017 20:57	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain PARKWAY1 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
12.06.2017 06:39	12.06.2017 07:58	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain W_SOMERS 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
12.12.2017 17:59	12.12.2017 21:25	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain WMILTON-09GRNVIL at 165 MVA in the DAYTON for Transmission Contingency Control. Additional Comments: Post Contingency Generation redispatch available
12.13.2017 06:22	12.13.2017 09:31	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain CLAYVILL 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
12.13.2017 06:23	12.13.2017 09:32	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain JELLCRKJ 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
12.15.2017 09:50	12.15.2017 10:19	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain GASTON 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
12.18.2017 09:11	12.18.2017 09:45	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain PARKWAY1 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
12.18.2017 09:17	12.18.2017 09:45	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain FOX_HOLL 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
12.18.2017 19:34	12.18.2017 21:07	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain MUNFVLKU 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available

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12.19.2017 01:05	12.19.2017 05:22	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain MOTTVILL 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
12.20.2017 18:42	12.20.2017 20:58	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain WMILTON-09GRNVIL at 165 MVA in the DAYTON for Transmission Contingency Control. Additional Comments: BES 2 Facility
12.21.2017 07:33	12.21.2017 19:50	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain HIGHLND2 69 KV at 63.5 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
12.22.2017 08:03	12.22.2017 20:00	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain HIGHLND2 69 KV at 63.5 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
12.23.2017 08:58	12.27.2017 12:46	Non-Market Post Contingency Local Load Relief Warn has been issued to maintain HIGHLND2 69 KV at 63.5 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
12.27.2017 07:07	12.27.2017 12:47	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain WMILTON-09GRNVIL at 165 MVA in the DAYTON for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available