

System Operations Subcommittee
PJM Operations Summary
October 2016 Operations – Final

There were 8 PCLLRWs and 7 High System Voltage events in October

There were 13 PCLLRWs and 3 High System Voltage events in September
CPS1: 129.78%, BAAL: 99.70% PJM (NERC: 100%)¹, CPS2: (81.61%), DCS: 100%

¹PJM 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.

Spinning (2 Events)

10/12/16 14:40	10/12/16 14:47	Spinning in PJM for Unit Trip Byron 2 trip, unit was loaded at 1159. Total Tier 1 Resource Response (MW): 888.87 Total Tier 2 Resource Response (MW): 116.2
10/12/16 08:21	10/12/16 08:26	Spinning in PJM for Unit Trip Zimmer 1 trip due to Boiler Feed pump. Unit was loaded at 1150MW. Total Tier 1 Resource Response (MW): 413.64 Total Tier 2 Resource response (MW): 116.2

High System Voltage Action (7 Events)

10/29/16 23:56	10/30/16 11:00	Issued High System Voltage for PJM-RTO-RTO 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:
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		Distribution Companies/Transmission Owners/Generation
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10/23/16 23:00	10/24/16 05:15	- Issued High System Voltage for PJM-RTO-RTO 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
10/23/16 00:40	10/23/16 14:00	- Issued High System Voltage for PJM-RTO-RTO 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
10/22/16 00:57	10/22/16 09:00	- Issued High System Voltage for PJM-RTO-RTO 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

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10/16/16 02:00	10/16/16 07:15	- Issued High System Voltage for PJM-RTO-RTO 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
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10/09/16 03:57	10/09/16 11:38	- Issued High System Voltage for PJM-RTO-RTO 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
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10/01/16 22:40	10/02/16 10:30	- Issued High System Voltage for PJM-RTO-RTO A High
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Manual Load Dump Warning (0 Events)

HLV Schedule Warning (0 Events)

HLV Schedule Action (0 Events)

Hot/Cold Weather Alert (0 Events)

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)

Shared Reserve (3 Events)

10/09/16 04:30	10/09/16 04:50	-125 MW with NYISO - Bruce 4 - Regulation
10/06/16 08:02	10/06/16 08:17	-88 MW with NYISO - Le Preau Nuclear Station Tripped Offline - Regulation

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10/05/16 12:50	10/05/16 13:05	-89 MW with NYISO - Bridgeport - Regulation
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Min Gen Alert (1 events)

10/08/16 20:04	10/09/16 06:45	- A Minimum Generation Alert has been issued for the Midnight of 10.09.2016 Expected generation level is within 1475 MW MW of normal minimum energy limits. Additional Comments: eDart report 33689
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Emergency Procedure (1 Events)

10/25/16 09:59	10/25/16 14:00	- Issued Geomagnetic Disturbance Warning for PJM-RTO-RTO A Geomagnetic Disturbance Warning has been issued for 09:51 on 10.25.2016 through 14:00 on 10.25.2016 . A GMD warning of K-7 or greater is in effect for this period.
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PCLLRW (8 Events)

10/26/16 09:21	10/26/16 11:11	A PCLLRW has been issued to maintain CNTRLHAR 138 KV at 127.7 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
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10/26/16 09:21	10/26/16 11:11	- A PCLLRW has been issued to maintain CNTRLHAR 138 KV at 127.7 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
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10/19/16 14:04	10/20/16 00:47	- A PCLLRW has been issued to maintain AMOS-CURRY at 158 MVA in the AEP for
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		Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
10/14/16 09:04	10/14/16 21:33	- A PCLLRW has been issued to maintain WESTFALL 115 KV at 105.8 KV in the PN for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
10/07/16 11:29	10/09/16 21:09	- A PCLLRW has been issued to maintain CNTRLHAR 138 KV at 127.7 KV in the EKPC for Transmission Contingency Control. Additional Comments: Additional caps available but voltage is too high to place in service currently. Solution difference of approximately 4 kV between PJM and EKPC, PJM solution more conservative.
10/06/16 14:27	10/06/16 20:40	- A PCLLRW has been issued to maintain CNTRLHAR 138 KV at 127.7 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
10/03/16 14:46	10/03/16 21:19	A PCLLRW has been issued to maintain CNTRLHAR 138 KV at 127.7 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
10/01/16 07:03	10/01/16 23:11	A PCLLRW has been issued to maintain MONUMEST 115 KV at 106 KV in the BGE for Transmission Contingency Control. Additional Comments: Post Contingency Switching available

Non-PCLLRW (14 events)

10/22/16 09:47	10/22/16 09:51	- A PCLLRW has been issued to maintain BLUFFPOI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
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10/21/16 14:54	10/21/16 15:39	- A PCLLRW has been issued to maintain ROGERSVJ 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
10/19/16 12:42	10/21/16 20:56	- A PCLLRW has been issued to maintain EHUNTING 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
10/19/16 12:48	10/20/16 20:15	- A PCLLRW has been issued to maintain BLUFFPOI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
10/19/16 20:36	10/19/16 21:54	- A PCLLRW has been issued to maintain KEITH2-PENN2 KEI-PEN at 50 MVA in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
10/19/16 14:15	10/19/16 21:22	- A PCLLRW has been issued to maintain TUNNELHL 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
10/19/16 11:37	10/19/16 11:46	- A PCLLRW has been issued to maintain EHUNTING 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
10/18/16 11:20	10/18/16 12:54	- A PCLLRW has been issued to maintain MULBERRY 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
10/17/16 12:10	10/17/16 16:12	- A PCLLRW has been issued to maintain MILTONSW 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available

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10/10/16 07:30	10/13/16 13:22	- A PCLLRW has been issued to maintain HILLCRES 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: BES 2 Facility
10/06/16 07:57	10/06/16 18:19	- A PCLLRW has been issued to maintain HILLCRES 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
10/06/16 06:56	10/06/16 11:07	- A PCLLRW has been issued to maintain SWLIMA-WLIMA at 400 MVA in the AEP for Transmission Contingency Control. Additional Comments: long start time for CT's
10/05/16 15:41	10/05/16 16:28	- A PCLLRW has been issued to maintain BULLITCO BULC 161_69 XFR at 121 MVA in the EKPC for Transmission Contingency Control. Additional Comments: MP6 facility
10/04/16 15:03	10/04/16 21:24	- A PCLLRW has been issued to maintain BULLITCO BULC 161_69 XFR at 124 MVA in the EKPC for Transmission Contingency Control. Additional Comments: MP6 facility