

**System Operations Subcommittee**  
**PJM Operations Summary**  
**June 2016 Operations - Final**

**There were 13 PCLLRWs and 2 High System Voltage events in June**

**CPS1: 137.3%, BAAL: 99.6% PJM (NERC: 100%)<sup>1</sup>, CPS2: (78.4%)<sup>2</sup>, 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.

**Spinning** (1 Event)

Date	Start Time	End Time	Duration ( min )	Region
06/01/2016	9:01:33	9:06:09	4	RTO
Tier 1 Estimate (MW)	Tire 1 Response (MW)	Tire 2 Assigned (MW)	Tier 2 Response (MW)	Tire 2 Penalty (MW)
1280.30*	694.91*	182.0*	23.1*	158.9*
Description				
CONST Limerick 2 SCRAM due to internal plant issues.				

\* These are preliminary numbers and may change upon final review

**High System Voltage Action** (2 Events)

6/9/2016 1:50	6/9/2016 1:58	<p>- 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</p>
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6/9/2016 1:55	6/9/2016 5:15	- 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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**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** (0 Events)

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**Min Gen Alert** (3 events)

6/5/2016 22:36	6/6/2016 5:25	- A Minimum Generation Alert has been issued for the Midnight of 06.06.2016 Expected generation level is within 29 MW of normal minimum energy limits.
6/9/2016 21:16	6/10/2016 5:03	- A Minimum Generation Alert has been issued for the Midnight of 06.10.2016 Expected generation level is within 1018 MW of normal minimum energy limits.
6/11/2016 20:42	6/12/2016 7:30	- A Minimum Generation Alert has been issued for the Midnight period of 06.12.2016 Expected generation level is within -2436 MW of normal minimum energy limits.

**Emergency Procedure** (0 Events)

**PCLLRW** (13 Events)

6/1/2016 12:19	6/1/2016 19:23	- A PCLLRW has been issued to maintain CNTRLHAR 138 KV at 127 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load - No Generation or Switching available
6/6/2016 7:00	6/6/2016 7:40	- A PCLLRW has been issued to maintain W_BEREA 138 KV at 127 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
6/6/2016 13:41	6/6/2016 14:54	- A PCLLRW has been issued to maintain PIDGEON 138 KV at 127 KV in the ATSI for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
6/12/2016 8:18	6/12/2016 11:14	- A PCLLRW has been issued to maintain MONR AE-VINELAND 0711 at 143 MVA in the AE (Atlantic Elec) for Transmission Contingency Control. Additional Comments: Generation - slow response
6/12/2016 13:19	6/12/2016 16:46	- A PCLLRW has been issued to maintain MONR AE-VINELAND 0711 at 143 MVA in the AE (Atlantic Elec) for Transmission Contingency Control. Additional Comments: Generation - slow response
6/14/2016 10:39	6/14/2016 17:56	- A PCLLRW has been issued to maintain ESAYRE 115 KV at 106 KV in the PN for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available

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6/14/2016 16:47	6/14/2016 21:14	- A PCLLRW has been issued to maintain H440 at 127 KV in the N/A for Transmission Contingency Control. Additional Comments: As of 1632 a PCLLRW has been to maintain H440 in the RMU Zone at a minimum of 127 kV post-contingent on the loss of McGirr Rd & Steward 16914 138 kV Line. - This is a manually generated log because RMU is not currently available on the PCLLRW Tool drop-down. The issue has been addressed and should be corrected shortly.
6/14/2016 18:03	6/14/2016 20:16	- A PCLLRW has been issued to maintain CHESTNAE-MOTTS 0796-1 at 101 MVA in the AE (Atlantic Elec) for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
6/15/2016 10:51	6/15/2016 22:44	- A PCLLRW has been issued to maintain ESAYRE 115 KV at 106 KV in the PN for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
6/16/2016 7:21	6/16/2016 21:33	- A PCLLRW has been issued to maintain ESAYRE 115 KV at 106 KV in the PN for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
6/17/2016 7:51	6/17/2016 9:05	- A PCLLRW has been issued to maintain ESAYRE 115 KV at 106 KV in the PN for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
6/20/2016 23:24	6/21/2016 1:30	- A PCLLRW has been issued to maintain MIDLJCT 115 5 TX RE REACT at 106 MVA in the FE (ME) for Transmission Contingency Control. Additional Comments: Generation - slow response
6/22/2016 22:37	6/22/2016 23:48	- A PCLLRW has been issued to maintain 20 BRAID-66 E FRN 2003 at 1341 MVA in the COMED for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available

**Non-PCLLRW** (26 events)

6/1/2016 15:28	6/1/2016 21:11	- A PCLLRW has been issued to maintain COUNTYLI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
6/1/2016 22:50	6/2/2016 0:21	- A PCLLRW has been issued to maintain STULLRUN 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available

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<b>6/3/2016 13:49</b>	<b>6/3/2016 20:52</b>	- A PCLLRW has been issued to maintain COUNTYLI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
<b>6/6/2016 9:44</b>	<b>6/9/2016 13:17</b>	- A PCLLRW has been issued to maintain SULPHURS 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
<b>6/7/2016 10:56</b>	<b>6/7/2016 12:01</b>	- A PCLLRW has been issued to maintain ADAMSIM 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
<b>6/12/2016 14:02</b>	<b>6/12/2016 21:06</b>	- A PCLLRW has been issued to maintain EPROCTOR-NPROCTO2 at 307 MVA in the AEP for Transmission Contingency Control. Additional Comments: BES 2 Facility
<b>6/13/2016 14:36</b>	<b>6/13/2016 15:19</b>	- A PCLLRW has been issued to maintain FRGSNSOU-SMRST_EK TIE at 95 MVA in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
<b>6/13/2016 14:45</b>	<b>6/13/2016 21:16</b>	- A PCLLRW has been issued to maintain BUSSEYVI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
<b>6/14/2016 15:38</b>	<b>6/14/2016 20:19</b>	- A PCLLRW has been issued to maintain W_BARDSJ 69 KV at 61.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
<b>6/14/2016 15:45</b>	<b>6/14/2016 20:19</b>	- A PCLLRW has been issued to maintain BOSTONJ 69 KV at 61.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available

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<b>6/15/2016 13:27</b>	<b>6/15/2016 21:12</b>	- A PCLLRW has been issued to maintain BUSSEYVI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
<b>6/15/2016 13:28</b>	<b>6/15/2016 21:12</b>	- A PCLLRW has been issued to maintain BRUES 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
<b>6/15/2016 18:13</b>	<b>6/15/2016 21:12</b>	- A PCLLRW has been issued to maintain EHUNTING 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
<b>6/16/2016 11:39</b>	<b>6/19/2016 17:16</b>	- A PCLLRW has been issued to maintain BUSSEYVI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
<b>6/16/2016 13:07</b>	<b>6/16/2016 21:32</b>	- A PCLLRW has been issued to maintain COUNTYLI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
<b>6/16/2016 14:47</b>	<b>6/16/2016 21:32</b>	- 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
<b>6/16/2016 15:13</b>	<b>6/16/2016 21:32</b>	- A PCLLRW has been issued to maintain CEDARCR2 1-P XFORMER at 127 MVA in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
<b>6/16/2016 17:45</b>	<b>6/16/2016 21:25</b>	- A PCLLRW has been issued to maintain BULLITCO BULC 161_69 XFR at 117 MVA in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available

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<b>6/20/2016 12:56</b>	<b>6/20/2016 23:51</b>	- A PCLLRW has been issued to maintain COUNTYLI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
<b>6/20/2016 20:08</b>	<b>6/20/2016 20:54</b>	- A PCLLRW has been issued to maintain 3701 -39 PORTA 3701X 1 at 84 MVA in the COMED for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
<b>6/21/2016 12:49</b>	<b>6/23/2016 12:57</b>	- A PCLLRW has been issued to maintain COUNTYLI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
<b>6/23/2016 3:42</b>	<b>6/23/2016 5:14</b>	- A PCLLRW has been issued to maintain DARBY 138 KV at 127 KV in the DAYTON for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
<b>6/23/2016 15:18</b>	<b>6/23/2016 20:26</b>	- A PCLLRW has been issued to maintain HIGHLND2-MARTIDPL HIG-09M1 at 68 MVA in the DAYTON for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available
<b>6/25/2016 16:00</b>	<b>6/25/2016 16:25</b>	- A PCLLRW has been issued to maintain BAYS 138 KV at 127 KV in the APS for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
<b>6/26/2016 16:49</b>	<b>6/27/2016 21:23</b>	- A PCLLRW has been issued to maintain COUNTYLI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available
<b>6/28/2016 13:32</b>	<b>6/28/2016 21:10</b>	- A PCLLRW has been issued to maintain COUNTYLI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available