

System Operations Subcommittee

PJM Operations Summary

July 2018 Operations

There was 1 Load Shed Event, 31 PCLLRWs and 0 High System Voltage events in July

There were X DCS reportable event in July

CPS1: X% BAAL: X%¹ CPS2: X%

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.

DCS (0 Events)

Spinning (1 Events)

07.04.2018 10:56	07.04.2018 11:03	Spinning in PJM for Unit Trip Loss of St. Charles – Kelson Ridge
07.10.2018 15:45	07.10.2018 15:58	Spinning in PJM for Low ACE low ACE due to load at the peak, loss of Harrison 2 and Prairie State
07.23.2018 09:02	07.23.2018 09:10	Spinning in PJM for Unit Trip PJM unit loss of Martins Creek 3 followed by the loss of Wildcat loaded at 5 minutes later
07.23.2018 15:43	07.23.2018 15:49	Spinning in PJM for loss of Oregon Energy Center
07.24.2018 16:17	07.24.2018 16:24	Spinning in PJM for loss of Wildcat CC, Sammis #2 and West Deptford within 5 minutes of each other. The trips and runbacks were unrelated.

High System Voltage Action (0 Events)

Manual Load Dump Warning (0 Events)

HLV Schedule Warning (0 Events)

HLV Schedule Action (0 Events)

Hot/Cold Weather Alert (7 Events)

06.27.2018 08:00	07.01.2018 22:00	A Hot Weather Alert has been issued from 05:00 on 07.01.2018 through 22:00 on 07.01.2018 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	PJM-RTO
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		<p>& update unit parameters in Markets Gateway through the Hot Weather Alert period paying particular attention to accurate Start-up & Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max information. -- Submit alternate fuel capability & 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 & will not affect the Planned Outage est. end date. -- For dual fuel units, confirm the equipment is functional & amount of alternate fuel available.</p>	
06.29.2018 09:44	07.02.2018 23:00	<p>A Hot Weather Alert has been issued from 07:00 on 07.02.2018 through 23:00 on 07.02.2018 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 & update unit parameters in Markets Gateway through the Hot Weather Alert period paying particular attention to accurate Start-up & Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max information. -- Submit alternate fuel capability & alternate fuel restrictions via Markets Gateway. -- Review fuel supply/delivery schedules in anticipation of greater</p>	DOM, MIDATL

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		<p>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 & will not affect the Planned Outage est. end date. -- For dual fuel units, confirm the equipment is functional & amount of alternate fuel available.</p>	
07.01.2018 08:16	07.03.2018 23:00	<p>A Hot Weather Alert has been issued from 07:00 on 07.03.2018 through 23:00 on 07.03.2018 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 & update unit parameters in Markets Gateway through the Hot Weather Alert period paying particular attention to accurate Start-up & Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max information. -- Submit alternate fuel capability & 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 & will not affect the Planned Outage est. end date. -- For dual fuel units, confirm the equipment is functional & amount of alternate fuel available.</p>	DOM, MIDATL
07.08.2018 10:25	07.10.2018 22:25	<p>A Hot Weather Alert has been issued</p>	DOM,

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		<p>from 06:00 on 07.10.2018 through 22:25 on 07.10.2018 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.</p> <p>GENERATION DISPATCHERS: -- Review & update unit parameters in Markets Gateway through the Hot Weather Alert period paying particular attention to accurate Start-up & Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max information. -- Submit alternate fuel capability & 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 & will not affect the Planned Outage est. end date. -- For dual fuel units, confirm the equipment is functional & amount of alternate fuel available.</p>	MIDATL
07.13.2018 09:50	07.14.2018 22:00	<p>A Hot Weather Alert has been issued from 06:00 on 07.14.2018 through 22:00 on 07.14.2018 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.</p>	AEP, APS, DAYTON, DEOK, EKPC, FE-ATSI,MIDATL

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		<p>GENERATION DISPATCHERS: -- Review & update unit parameters in Markets Gateway through the Hot Weather Alert period paying particular attention to accurate Start-up & Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max information. -- Submit alternate fuel capability & 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 & will not affect the Planned Outage est. end date. -- For dual fuel units, confirm the equipment is functional & amount of alternate fuel available. Additional Comments: Forecasted temperatures for 7/14/18 range from 90 to 96 degrees. Forecasted THIs for 7/14/18 range from 78 - 84 degrees.</p>	
07.13.2018 12:05	07.15.2018 22:00	<p>A Hot Weather Alert has been issued from 06:00 on 07.15.2018 through 22:00 on 07.15.2018 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.</p> <p>GENERATION DISPATCHERS: -- Review & update unit parameters in Markets Gateway through the Hot Weather Alert period paying particular attention to accurate Start-up & Notification, Min/Max Run Time, Eco Min/Max and</p>	AEP, DEOK, DOM,EKPC, MIDATL

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		<p>Emergency Min/Max information. -- Submit alternate fuel capability & 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 & will not affect the Planned Outage est. end date. -- For dual fuel units, confirm the equipment is functional & amount of alternate fuel available. Additional Comments: Forecasted temperatures will range from 91 to 95 degrees. Forecasted THIs will range from 80 to 83 degrees.</p>	
07.13.2018 12:20	07.16.2018 22:00	<p>A Hot Weather Alert has been issued from 06:00 on 07.16.2018 through 22:00 on 07.16.2018 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 & update unit parameters in Markets Gateway through the Hot Weather Alert period paying particular attention to accurate Start-up & Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max information. -- Submit alternate fuel capability & alternate fuel restrictions via Markets Gateway. -- Review fuel supply/delivery schedules in anticipation of greater than normal operation of units. --</p>	DOM, MIDATL

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		Provide PJM with estimate of time needed to return any unit on a Planned Outage. This 'Early Return Time' should be updated via eDART & will not affect the Planned Outage est. end date. -- For dual fuel units, confirm the equipment is functional & amount of alternate fuel available. Additional Comments: Forecasted temperatures are 92 - 94 degrees, forecasted THIs are 82 - 83 degrees.	
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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 (5 Event)

07.10.2018 15:50	07.10.2018 16:02	-1000 MW - Harrison 2/Prairie State/Load	PJM-RTO
07.16.2018 15:12	07.16.2018 15:27	-83 MW - Ontario multiple units runback for 600 MW loss - Regulation	NPCC
07.22.2018 12:40	07.22.2018 13:10	-317 MW - 4 Pickering units tripped (IESO) - Regulation	NPCC
07.23.2018 09:09	07.23.2018 09:21	395 MW - PJM unit Loss of Wild Cat loaded at 789MW	PJM-RTO
07.25.2018 12:00	07.25.2018 12:20	-122 MW - Bruce (ONT) - Regulation	NPCC

Min Gen Alert (1 Event)

07.07.2018 20:41	07.08.2018 07:10	A Minimum Generation Alert has been issued for the Midnight period of 07.08.2018 . Expected generation level is within -1760 MW of normal minimum energy limits. eDART Min Gen Report ID#: 34312 .	PJM-RTO
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Emergency Procedure (1 Event)

07.18.2018 11:14	07.18.2018 12:37	A Load Shed Directive	AEP
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		has been issued to mitigate overloads on Low Voltage at Lonesome in AEP .	
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PCLLRW (27 Events)

06.29.2018 13:00	07.07.2018 13:00	A Post Contingency Local Load Relief Warning has been issued to maintain YUKONAEP 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	AEP
07.01.2018 14:02	07.02.2018 21:00	A Post Contingency Local Load Relief Warning has been issued to maintain LEON_EKP 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	EKPC
07.02.2018 11:18	07.02.2018 12:49	A Post Contingency Local Load Relief Warning has been issued to maintain MIAMIFOR-CLIFTYCR TIE at 134 MVA in the DEOK for Transmission Contingency Control. Additional Comments: Load - No Generation or Switching available	DEOK
07.03.2018 13:35	07.03.2018 20:11	A Post Contingency Local Load Relief Warning has been issued to maintain 02HUMMEL 138 KV at 127 KV in the ATSI for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	FE-ATSI
07.03.2018 15:04	07.03.2018 20:10	A Post Contingency Local Load Relief Warning has been issued to maintain LEON_EKP 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	EKPC
07.04.2018 12:41	07.04.2018 21:11	A Post Contingency Local Load Relief Warning has been issued to maintain LEON_EKP 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	EKPC

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07.05.2018 14:01	07.05.2018 20:07	A Post Contingency Local Load Relief Warning has been issued to maintain LEON_EKP 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	EKPC
07.10.2018 12:48	07.15.2018 16:10	A Post Contingency Local Load Relief Warning has been issued to maintain YUKONAEP 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	AEP
07.10.2018 14:53	07.10.2018 18:01	A Post Contingency Local Load Relief Warning has been issued to maintain LEON_EKP 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	EKPC
07.13.2018 15:45	07.13.2018 16:42	A Post Contingency Local Load Relief Warning has been issued to maintain LEON_EKP 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	FE-ATSI
07.13.2018 16:41	07.13.2018 20:06	A Post Contingency Local Load Relief Warning has been issued to maintain LEON_EKP 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	EKPC
07.14.2018 15:31	07.14.2018 21:12	A Post Contingency Local Load Relief Warning has been issued to maintain LEON_EKP 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	EKPC
07.16.2018 11:12	07.16.2018 23:57	A Post Contingency Local Load Relief Warning has been issued to maintain CLINHOSP-INLAND CLI-INL1 at 337 MVA in the ATSI for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	FE-ATSI

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07.16.2018 15:46	07.16.2018 20:42	A Post Contingency Local Load Relief Warning has been issued to maintain WARD 115 KV at 105.8 KV in the PN for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available - Blossburg is unavailable (tripped earlier). Potter 115kv caps in APS are unavailable due to RTU being down. FE-E had a switching solution to open the 115kv Potter CB at Niles Valley, but cannot do it due to distribution issues. FE agrees area is a load pocket.	FE-PN
07.17.2018 15:23	07.17.2018 15:45	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	AEP
07.17.2018 17:02	07.17.2018 21:00	A Post Contingency Local Load Relief Warning 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	EKPC
07.18.2018 15:51	07.18.2018 18:43	A Post Contingency Local Load Relief Warning has been issued to maintain EELKHART-MOTTVILL at 192 MVA in the AEP for Transmission Contingency Control. Additional Comments: Load - No Generation or Switching available	AEP
07.23.2018 17:49	07.23.2018 18:25	A Post Contingency Local Load Relief Warning has been issued to maintain 12IRV-BENNING 69048R at 118 MVA in the PEPCO for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	PEPCO
07.24.2018 06:45	07.24.2018 07:48	A Post Contingency Local Load Relief Warning has been issued to maintain TITUSVIL 115 KV at 105.8 KV in the PN for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	FE-PN

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07.24.2018 11:46	07.29.2018 14:55	A Post Contingency Local Load Relief Warning has been issued to maintain YUKONAEP 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	AEP
07.26.2018 20:57	07.26.2018 21:04	A Post Contingency Local Load Relief Warning 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	AE
07.29.2018 19:23	07.29.2018 20:03	A Post Contingency Local Load Relief Warning has been issued to maintain 840 QUAR 138 KV at 127 KV in the COMED for Transmission Contingency Control. Additional Comments: Load - No Generation or Switching available	COMED
07.29.2018 19:23	07.29.2018 19:54	A Post Contingency Local Load Relief Warning has been issued to maintain 11 FISK 38TR72 12 at 78 MVA in the COMED for Transmission Contingency Control. Additional Comments: Load - No Generation or Switching available	COMED
07.30.2018 10:16	Not Closed	A Post Contingency Local Load Relief Warning has been issued to maintain WARTONHI 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available, Post Contingency Switching Solution: Open Warton Hill 138 kV CB "A" to Coal Mine Shedding ~27 MW load	AEP
07.30.2018 10:29	07.30.2018 10:42	A Post Contingency Local Load Relief Warning has been issued to maintain TAYLORCO 161 KV at 148.9 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load - No Generation or Switching available	EKPC
07.30.2018 13:07	07.30.2018 20:45	A Post Contingency Local Load Relief Warning has been issued to maintain TAYLORCO 161 KV at 148.9 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -	EKPC

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		No Generation or Switching available	
07.30.2018 14:34	Not Closed	A Post Contingency Local Load Relief Warning has been issued to maintain YUKONAEP 138 KV at 127 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	AEP

Non-PCLLRW (4 Events)

07.09.2018 15:29	07.09.2018 16:19	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain SBOUNDRY 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	EKPC
07.14.2018 11:25	07.14.2018 20:30	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain S_EAST-POFOK SEAS-HOL at 237 MVA in the CPP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	CPP
07.15.2018 09:40	07.16.2018 09:55	A Non-Market Post Contingency Local Load Relief Warn has been issued to maintain S_EAST-POFOK SEAS-HOL at 237 MVA in the CPP for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	CPP
07.16.2018 11:44	07.16.2018 20:27	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	DAYTON