PJM Operations Summary

December 2023 Operations

December Events:

1 Shared Reserve Event

14 PCLLRW Events

4 Non-Market PCLLRW Events

2 High System Voltage Events

2 Synchronized Reserve Events

1 Geomagnetic Disturbance Warning Event

CPS1: 139.69% CPS2: 85.10% BAAL: 99.94%

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.

Shared Reserve (1 Event)

Effective Start Time	Effective End Time	Message	Region
12.19.2023	12.19.2023	PJM received 600 MW of NPCC Shared Reserves	NPCC
09:55	10:12		

PCLLRW (14 Events)

Effective Start Time	Effective End Time	Message	Region
12.22.2023	12.22.2023	A Post Contingency Local Load Relief Warning has been issued to	FE-PN
06:46	14:42	maintain SHAWVILL BNK 1A-S GSU XFMR at 126.0 MVA in the	
		FE(PN) for Transmission Contingency Control.	
		Additional Comments: Generation - slow response	
12.20.2023	12.20.2023	A Post Contingency Local Load Relief Warning has been issued to	FE-ME
06:53	07:32	maintain ORRTANNA 115 KV *F06 at 105.8 KV in the FE(ME)	
		for Transmission Contingency Control.	
		Additional Comments: Generation - slow response	
12.14.2023	12.19.2023	A Post Contingency Local Load Relief Warning has been issued to	AEP
09:10	16:35	maintain PADFORK 138 KV BB_4215 at 127.0 KV in the AEP for	
		Transmission Contingency Control.	
		Additional Comments: Load -No Generation or Switching	
		available	
12.14.2023	12.17.2023	A Post Contingency Local Load Relief Warning has been issued to	EKPC
06:16	18:21	maintain CROOKSVJ 69 KV ND_185 at 63.5 KV in the EKPC for	
		Transmission Contingency Control.	
		Additional Comments: Load -No Generation or Switching	
		available	
12.12.2023	12.12.2023	A Post Contingency Local Load Relief Warning has been issued to	FE-ATSI
06:51	07:24	maintain LEMOYNE2 -WFREMONT LEM-WFR at 225.0 MVA in	

PJM Operations Summary

December 2023 Operations

		the FE(ATSI) for Transmission Contingency Control. Additional Comments: Generation - slow response	
12.12.2023 06:42	12.12.2023 06:51	A Post Contingency Local Load Relief Warning has been issued to maintain LEMOYNE2 -WFREMONT LEM-WFR at 225.0 MVA in the FE(ATSI) for Transmission Contingency Control. Additional Comments: Generation - slow response	FE-ATSI
12.12.2023 06:34	12.15.2023 16:41	A Post Contingency Local Load Relief Warning has been issued to maintain TOPMOST 138 KV BB_2214 at 127.0 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	AEP
12.12.2023 06:31	12.15.2023 12:48	A Post Contingency Local Load Relief Warning has been issued to maintain ARGNT_EK 69 KV ND_185 at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	EKPC
12.12.2023 06:30	12.15.2023 12:48	A Post Contingency Local Load Relief Warning has been issued to maintain ROWAN_CO 138 KV ND_151 at 127.7 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	EKPC
12.11.2023 20:09	12.15.2023 16:40	A Post Contingency Local Load Relief Warning has been issued to maintain BONNYMAN 138 KV *E03 at 127.0 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	AEP
12.07.2023 06:16	12.09.2023 18:50	A Post Contingency Local Load Relief Warning has been issued to maintain TOPMOST 138 KV BB_2214 at 127.0 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	AEP
11.29.2023 02:34	12.01.2023 07:17	A Post Contingency Local Load Relief Warning has been issued to maintain CROOKSVJ 69 KV ND_185 at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	EKPC
11.28.2023 07:25	12.08.2023 16:43	A Post Contingency Local Load Relief Warning has been issued to maintain TYNER 161 KV ND_141 at 148.9 KV in the EKPC for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	EKPC
11.07.2023 11:11	12.05.2023 19:48	A Post Contingency Local Load Relief Warning has been issued to maintain MORELAND 138 KV BB_3234 at 127.0 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	AEP

PJM Operations Summary

December 2023 Operations

Non-Market PCLLRW (4 Event)

Effective Start Time	Effective End Time	Message	Region
12.12.2023	12.15.2023	A Non-Market Post Contingency Local Load Relief Warn has	EKPC
07:11	12:47	been issued to maintain FALLROCK 161 KV ND_143 at 148.9 KV	
		in the EKPC for Transmission Contingency Control.	
		Additional Comments: Post Contingency Switching available	
12.11.2023	12.15.2023	A Non-Market Post Contingency Local Load Relief Warn has	EKPC
19:47	12:48	been issued to maintain CYNTHIA2 69 KV ND_188 at 63.5 KV in	
		the EKPC for Transmission Contingency Control.	
		Additional Comments: Load -No Generation or Switching	
		available	
12.11.2023	12.14.2023	A Non-Market Post Contingency Local Load Relief Warn has	AEP
19:10	17:59	been issued to maintain EXPRESSW-PERKINST EXP-PERT at 88.0	
		MVA in the AEP for Transmission Contingency Control.	
		Additional Comments: Load -No Generation or Switching	
		available	
11.13.2023	12.09.2023	A Non-Market Post Contingency Local Load Relief Warn has	AEP
19:04	19:02	been issued to maintain EXPRESSW-PERKINST EXP-PERT at 86.0	
		MVA in the AEP for Transmission Contingency Control.	
		Additional Comments: Market Priority 6 Facility	

High System Voltage (2 Event)

Effective	Effective		
Start Time	End Time	Message	Region
12.17.2023	12.17.2023	A High System Voltage Action has been issued; all companies	RTO
00:01	06:20	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	
12.03.2023	12.03.2023	adjustments shall be coordinated with PJM Dispatch.	RTO
01:34	06:53	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.	

PJM Operations Summary

December 2023 Operations

Synchronized Reserve Event (2 Events)

Effective	Effective		
Start Time	End Time	Message	Region
12.19.2023 09:51	12.19.2023 09:57	100% Synchronized Reserve Event has been initiated for the PJM_RTO region.	RTO
12.14.2023 19:41	12.14.2023 19:53	100% Synchronized Reserve Event has been initiated for the PJM_RTO region.	RTO

Geomagnetic Disturbance Warning (1 Event)

Effective	Effective		
Start Time	End Time	Message	Region
12.01.2023	12.01.2023	A Geomagnetic Disturbance Warning has been issued for 06:55	RTO
06:55	16:00	on 12.01.2023 through 16:00 on 12.01.2023 . A GMD warning of	
		K7 or greater is in effect for this period.	
		Additional Comments: End time extended to 1600 EST	

Hot Weather Alert (0 Event(s))

Maximum Generation Emergency/Load Management Alert (0 Event(s))

Maintenance Outage Recall (0 Events)

<u>Unit Startup Notification Alert (0 Event(s))</u>

Voltage Reduction Warning (0 Event(s))

Voltage Reduction (0 Event(s))

Manual Load Dump Event (0 Event(s))

Manual Load Dump Warning (0 Event(s))

Max Emergency Gen Alert (0 Event(s))

Max Emergency Generation (0 Event(s))

Min Gen Alert (0 Event(s))

Min Gen Declaration (0 Event(s))

Local Min Generation Event (0 Event(s))

HLV Schedule Warning (0 Event(s))

HLV Schedule Action (0 Event(s))

Primary Reserve Warning (0 Event(s))

Manual Load Dump Warning (0 Event(s))

Emergency Energy Request (0 Event(s))