<u>PJM Operations Summary</u> December Operations

December Events:

- 2 Synchronized Reserve Events
- 3 Shared Reserve Events
- 2 High System Voltage Actions
- 15 PCLLRWs

CPS1: 145.67% BAAL¹: 99.81% CPS2: 89.05%

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.

Synchronized Reserves (2 Events)

12.18.2019 10:07	12.18.2019 10:15	100% Synchronized Reserves initiated in the PJM RTO for low ACE.	PJM RTO
12.11.2019 16:08	12.11.2019 16:16	100% Synchronized Reserves initiated in the PJM RTO due to loss of 997 MW of generation.	PJM RTO

Shared Reserves (3 Events)

12.27.2019 07:07	12.27.2019 07:22	PJM provided NPCC with 128 MW of Shared Reserves.	NPCC
12.12.2019 05:54	12.12.2019 11:39	PJM provided NPCC with 77 MW of Shared Reserves.	NPCC
12.10.2019 08:54	12.10.2019 09:15	PJM provided NPCC with 233 MW of Shared Reserves.	NPCC

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<u>High System Voltage Action</u> (2 Events)

12.29.2019 22:46	12.30.2019 06:10	PJM issued a High System Voltage Action for the Western regions.	Western
12.29.2019 00:22	12.29.2019 16:45	PJM issued a High System Voltage Action for the Western regions.	Western

PCLLRW (14 Events)

PCLLKVV (14 EVE	21163/		
12.19.2019 17:21	12.20.2019 17:33	A Post Contingency Local Load Relief Warning has been issued to maintain DANVILPL-MILTON DAN-MIL at 99.0 MVA in the PL for Transmission Contingency Control. Additional Comments: Load - No Generation or Switching available	PPL
12.16.2019 15:07	12.20.2019 18:48	A Post Contingency Local Load Relief Warning has been issued to maintain WESCOSVI 138 KV at 127.0 KV in the PL for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	PPL
12.16.2019 13:09	12.19.2019 12:34	A Post Contingency Local Load Relief Warning has been issued to maintain ORDNANCE 138 KV at 127.0 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	AEP
12.11.2019 06:30	12.13.2019 17:43	A Post Contingency Local Load Relief Warning has been issued to maintain SHEFFIEL 138 KV at 127.0 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	AEP
12.10.2019 13:47	12.10.2019 21:06	A Post Contingency Local Load Relief Warning has been issued to maintain NYSWANER 138 KV at 127.0 KV in the FE(APS) for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	FE-AP
12.05.2019 10:26	12.05.2019 16:04	A Post Contingency Local Load Relief Warning has been issued to maintain HORIZON1-AIRPRDQ2 at 171.0 MVA in the FE(ATSI) for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	FE-ATSI

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12.05.2019 08:28	12.05.2019 10:19	A Post Contingency Local Load Relief Warning has been issued to maintain HORIZON1-AIRPRDQ2 at 171.0 MVA in the FE(ATSI) for Transmission Contingency Control. Additional Comments: Load - No Generation or Switching available	FE-ATSI
12.05.2019 06:20	12.16.2019 13:00	A Post Contingency Local Load Relief Warning has been issued to maintain ORDNANCE 138 KV at 127.0 KV in the AEP for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	AEP
12.04.2019 07:44	12.04.2019 18:55	A Post Contingency Local Load Relief Warning has been issued to maintain HORIZON1-AIRPRDQ2 at 171.0 MVA in the FE(ATSI) for Transmission Contingency Control. Additional Comments: Load - No Generation or Switching available	FE-ATSI
12.03.2019 13:07	12.03.2019 16:04	A Post Contingency Local Load Relief Warning has been issued to maintain ARGNT_EK 69 KV at 63.5 KV in the EKPC for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	EKPC
12.03.2019 07:18	12.03.2019 18:51	A Post Contingency Local Load Relief Warning has been issued to maintain HORIZON1-AIRPRDQ2 at 171.0 MVA in the FE(ATSI) for Transmission Contingency Control. Additional Comments: Load - No Generation or Switching available	FE-ATSI
12.03.2019 06:19	12.03.2019 15:06	A Post Contingency Local Load Relief Warning has been issued to maintain SUNBURY 69 KV at 61.6 KV in the PL for Transmission Contingency Control. Additional Comments: Load -No Generation or Switching available	PPL
12.02.2019 16:30	12.03.2019 00:44	A Post Contingency Local Load Relief Warning has been issued to maintain SUNBURY 69 KV at 61.6 KV in the PL for Transmission Contingency Control. Additional Comments: Post Contingency Switching available	PPL
12.02.2019 11:51	12.02.2019 19:58	A Post Contingency Local Load Relief Warning has been issued to maintain HORIZON1-AIRPRDQ2 at 171.0 MVA in the FE(ATSI) for Transmission Contingency Control. Additional Comments: Load - No Generation or Switching available	FE-ATSI

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Non-Market PCLLRW (1 Event)

12.11.2019 07:05 12.11.2019 07:50
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Manual Load Dump Event (0 Event)

Emergency Procedure Event (0 Events)

Manual Load Dump Warning (0 Events)

HLV Schedule Warning (0 Events)

HLV Schedule Action (0 Events)

Cold Weather Alert (0 Event)

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)

Min Gen Alert (0 Events)

Min Gen Declaration (0 Events)

Hot Weather Alert (0 Event)

Shared Reserves (0 Events)