

2023 Fourth Quarter Synchronized Reserve Performance

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Operations Committee

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Number of Events

2023	Total Number of Events	Number of Events ≥ 10 min
Q1	4	2
Q2	3	0
Q3	1	0
October	0	0
November	2	0
December	2	1
Year To Date	12	3

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Synchronized Reserve Response

Event				2		
Date		11/07/23		11/10/23		
Start Time		16:19:01		01:21:36		
End Time		16:24:23		01:29:40		
Duration	00:05:22			00:08:04		
Region	RTO			RTO		
Resource Type	Gen	DR	Total	Gen	DR	Total
Assigned (MW)	1961	126	2087	1819	135	1954
Estimated Expected Response (MW)	1052 68		1120	1468	109	1576
Actual Response (MW)	721 73 794		794	982	99	1080
Percent Response To Estimated Expected Response(%)	68% 109% 71%		71%	67%	91%	69%
Penalty (MW)	0 0 0			0	0	0

Event	3			4		
Date		12/14/23		12/19/23		
Start Time		19:41:33		09:51:31		
End Time	19:53:48			09:58:01		
Duration	00:12:15			00:06:30		
Region	RTO			RTO		
Resource Type	Gen DR		Total	Gen	DR	Total
Assigned (MW)	2224 488		2712	2334	353	2687
Estimated Expected Response (MW)	2224 488		2712	1517	230	1747
Actual Response (MW)	1025 411		1436	924	173	1098
Percent Response To Estimated Expected Response(%)	46% 84%		53%	61%	75%	63%
Penalty (MW)	1199	77	1276	0	0	0

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All Event Performance

	Synchronized Reserve Response					Zone		
2023	Gene	ration	Response	DS	SR	Response	RTO	MAD
	Response	Assigned	Percent	Response	Assigned	Percent	KIO	IVIAD
2023 Q1	5,603	7,193	78%	444	636	70%	3	1
2023 Q2	2,926	7,842	37%	412	555	74%	3	0
2023 Q3	756	2,215	34%	76	101	76%	1	0
Oct								
Nov	1,703	3,780	45%	172	261	66%	2	0
Dec	1,950	4,558	43%	584	841	69%	2	0
YTD	12,938	25,588	51%	1,689	2,394	71%	11	1



Ten Minute Or Greater Event Performance

	Synchronized Reserve Response						Zone	
2023	Gene	ration	Response	DS	SR	Response	RTO	MAD
	Response	Assigned	Percent	Response	Assigned	Percent	KIO	IVIAD
2023 Q1	1,967	3,557	55%	333	525	63%	2	0
2023 Q2	0	0	100%	0	0	100%	0	0
2023 Q3	0	0	100%	0	0	100%	0	0
Oct								
Nov								
Dec	1,025	2,224	46%	411	488	84%	1	0
YTD	2,992	5,781	52%	744	1,013	73%	3	0

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Synchronized Reserve Penalties

2023	Synchronized Reserve Penalties (\$)		
Q1	2,058,397.31		
Q2	0.00		
Q3	0.00		
October	0.00		
November	0.00		
December	407,183.23		
Year To Date	2,465,580.54		

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