

2021 Third Quarter Synchronized Reserve Performance & 2022 Penalty Days

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Operations Committee

December 2, 2021

2021	Total Number of Events	Number of Events \geq 10 min
1 st Quarter	2	1
2 nd Quarter	5	2
July	2	0
August	2	1
September	1	0
Year To Date	12	4



Synchronized Reserve Response

Event Date	Event Duration (HH:MM:SS)	Tier 1 Estimate (MW)	Tier 1 Response (MW)	Tier 2 Assigned (MW)	Tier 2 Response (MW)
07/21/21	00:04:58	838	291	1,001	1,001
07/25/21	00:06:06	709	419	863	863
08/23/21	00:17:37	880	598	896	667
08/24/21	00:07:21	904	658	1,120	1,120
09/27/21	00:08:25	680	385	1,137	1,137

*Tier 2 Response is equal to Tier 2 Assigned for events less than ten minutes



All Event Performance

2021	Tier 1 Response			Tier 2 Response						Zone	
	Generation Response	Response Percent	DSR Response	Generation		Response Percent	DSR		Response Percent	RTO	MAD
			Non-Tier 1 Estimate	Response	Assigned		Response	Assigned			
2021 Q1	1,213	35%	152	636	929	69%	478	529	90%	2	0
2021 Q2	5,529	59%	237	809	881	92%	574	697	82%	5	0
Jul	710	46%	99	1,272	1,272	100%	592	592	100%	2	
Aug	1,256	70%	155	1,254	1,293	97%	534	723	74%	2	
Sep	385	57%	98	852	852	100%	284	284	100%	1	
YTD	9,093	54%	741	4,823	5,227	92%	2,461	2,825	87%	12	0



Ten Minute Or Greater Event Performance

2021	Tier 1 Response			Tier 2 Response						Zone	
	Generation Response	Response Percent	DSR Response	Generation		Response Percent	DSR		Response Percent	RTO	MAD
			Non-Tier 1 Estimate	Response	Assigned		Response	Assigned			
2021 Q1	635	47%	117	304	597	51%	236	287	82%	1	0
2021 Q2	1,421	54%	127	634	706	90%	373	497	75%	2	0
Jul											
Aug	598	68%	42	525	564	93%	143	332	43%	1	
Sep											
YTD	2,654	55%	286	1,463	1,868	78%	752	1,116	67%	4	0



Tier 1 Credits And Tier 2 Penalties

2021	Tier 1 Credits	Tier 2 Penalties
1 st Quarter	\$22,525	\$86,640
2 nd Quarter	\$78,540	\$152,762
July	\$16,027	\$0
August	\$46,487	\$265,855
September	\$126,863	\$0
Year To Date	\$290,441	\$505,256

- There were 33 Synchronized Reserve Events between November 1, 2019 and October 31, 2021 with an average days between events of 22.59 days.
- The 2022 penalty days effective January 1, 2022 is 22 days.
- The 2021 penalty days was 25 days.



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**2021 Third Quarter Synchronized Reserve
Performance**

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