

Synchronized Reserve Post Reserve Price Formation (10/01/22)

David Kimmel Senior Engineer, Performance Compliance System Operations Subcommittee December 2, 2022



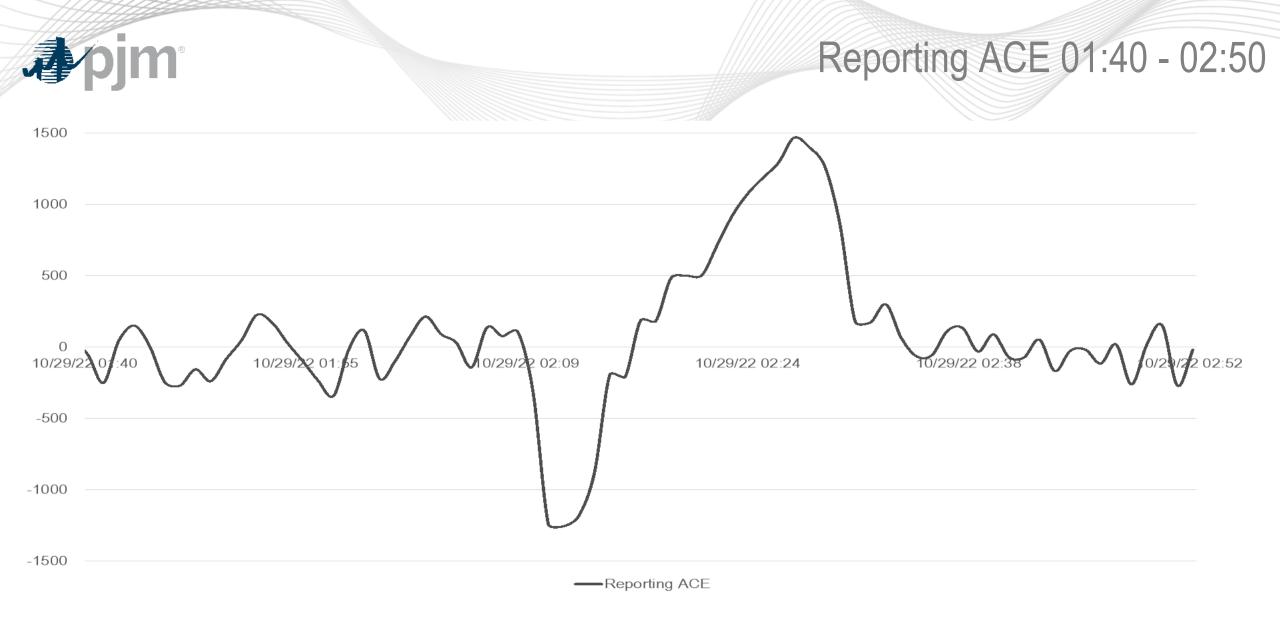
Reserve Price Formation Recap

- Reserve Price Formation became effective 10/01/22
- Previously Tier 1 and Tier reserves were separate
- Now Tier 1 and Tier 2 reserves are referred to as Synchronized Reserves
- The Synchronized Reserves are not separate
- Response to a Synchronized Reserve event is measured using the previous Tier 2 methodology: response versus assignment



10/29/22 Synchronized Reserve Event

- Started at 02:12:11
- Ended at 02:24:03
- Total duration (MM:SS): 11:52
- Penalties apply (for events 10+ minutes in length) for units that did not meet assignment
- Due to the loss of a large unit (954 MW)
- Load ramping down at the time
- Frequency stable





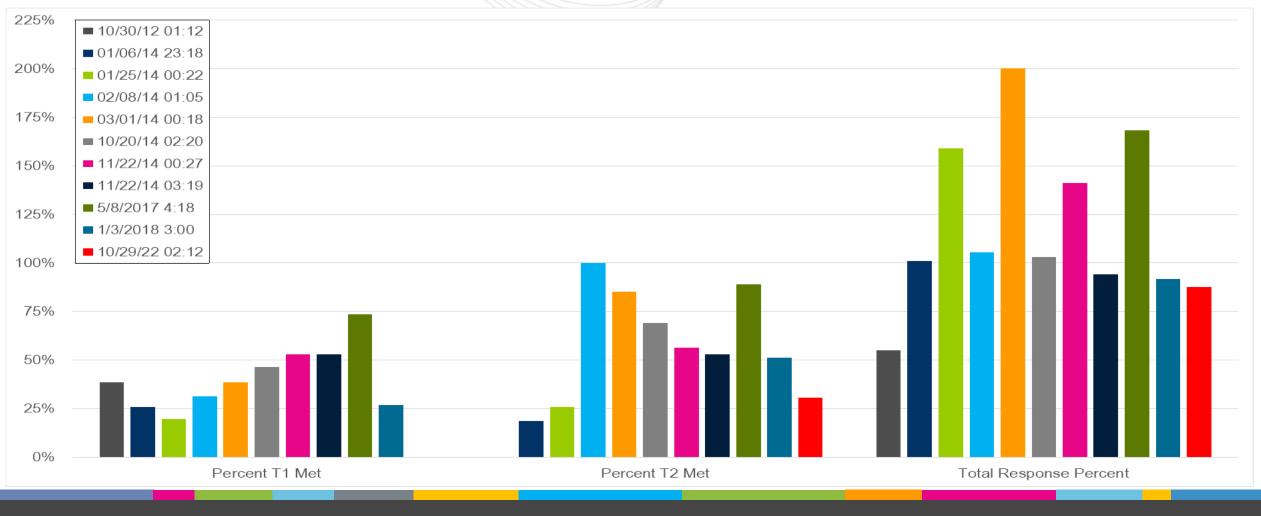
Comparison of Events

Start Time (EPT)	End Time (EPT)	Duration	Zone	Percent T1 Met	Percent T2 Met	Total Response Percent
10/30/12 01:12	10/30/12 01:26	0:14:03	RTO	38.4%	#DN/0!	55.0%
01/06/14 23:18	01/06/14 23:52	0:33:33	RTO	25.8%	18.4%	100.9%
01/25/14 00:22	01/25/14 00:32	0:10:22	MAD	19.6%	25.8%	158.9%
02/08/14 01:05	02/08/14 01:23	0:18:41	RTO	31.1%	99.9%	105.5%
03/01/14 00:18	03/01/14 00:44	0:25:53	RTO	38.6%	85.1%	200.1%
10/20/14 02:20	10/20/14 02:35	0:14:20	RTO	46.4%	69.1%	103.2%
11/22/14 00:27	11/22/14 00:48	0:21:05	RTO	52.8%	56.4%	141.1%
11/22/14 03:19	11/22/14 03:29	0:10:25	RTO	52.9%	52.8%	94.1%
5/8/2017 4:18	5/8/2017 4:28	0:10:03	RTO	73.6%	89.1%	168.4%
1/3/2018 3:00	1/3/2018 3:13	0:12:49	RTO	26.9%	51.1%	91.6%
		Re	serve Price Format	tion		
10/29/22 02:12	10/29/22 02:24	0:11:52	RTO	#DN/0!	30.5%	87.6%



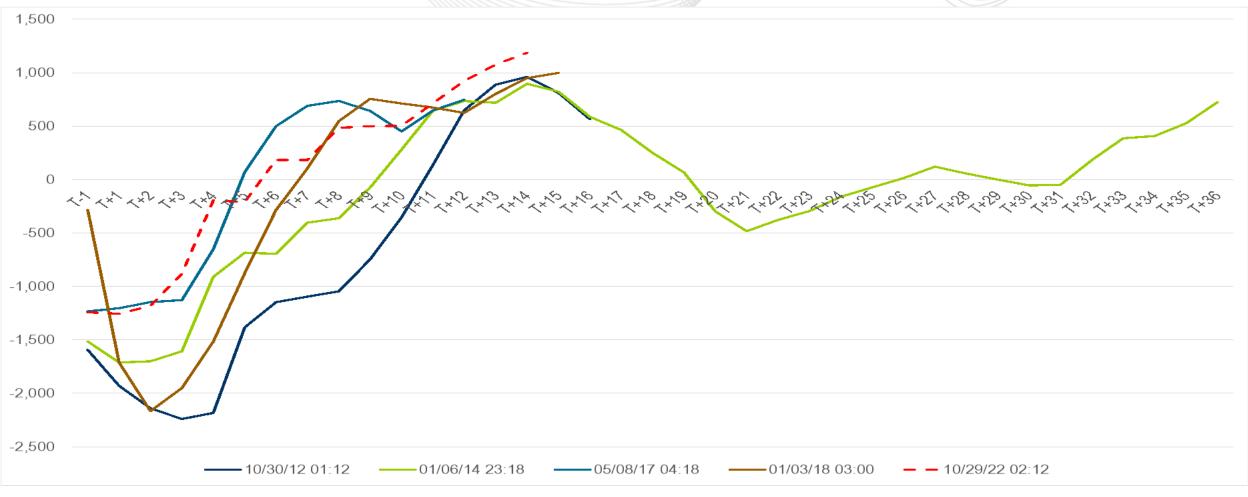
Reporting ACE 01:40 - 02:50

• Previous 10 events that lasted 10+ minutes and started between 22:00 and 05:00





ACE by Minute for Previous Events



*01/25/2014 - 11/22/2014 ACE data is unavailable

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- Synchronized Reserve events over the midnight period are rare (only 3 occurred in past 6 years).
- Reserves fell short of assignment (30.5% of assigned MW responded).
- However, comparing with similar previous events, there have been events with lower T2 response (lowest in past 10 years is 18.4%).
- Received response MW outside of assignment
 - From resources that provided over their assignment
 - From resources that did not have assignment (due to SCED case)
- Total response was lower than 100%. Previous events had similar total response (ranging from 55.0% to 200%)





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