

Comparison of Response to Synchronized Reserve Events

Historical Data and April 2012 Events

Performance Compliance June 12, 2012

www.pjm.com



Historical Response of Events Greater than 10 Minutes

- MWh response to Synchronized Reserve events greater than 10 minutes
- Tier 1 data includes the response from all resources
- Tier 2 data includes the response from all <u>assigned</u> resources
- Note that Tier 1 provides the majority of the response in all years

	Tier 1 Response		Tier 2 Response								
MWh by Year	Generation	DSR	Gener	ation	Response	DSR		Response	Total Response		
i Gai	Response	Response	Response	Assigned	Percent	Response	Assigned	Percent	Response	Assigned	
2002	1,487		344	514	67%				1,831	514	
2003	6,051		2,045	2,758	74%				8,096	2,758	
2004	5,756		1,410	1,926	73%				7,166	1,926	
2005	9,318		1,805	2,446	74%				11,122	2,446	
2006	2,436	1	626	698	90%	15	12	128%	3,078	709	
2007	6,612	12	1,002	1,195	84%	70	134	52%	7,696	1,329	
2008	4,391	8	659	807	82%	130	200	65%	5,188	1,007	
2009	10,918	5	788	1,311	60%	130	273	48%	11,841	1,584	
2010	22,945	39	1,426	1,819	78%	306	498	61%	24,716	2,317	
2011	4,330	2	1,395	1,997	70%	404	477	85%	6,131	2,474	
2012	845	2	3	15	17%	59	57	102%	908	72	



Historical Response of All Events

- MWh response to all Synchronized Reserve events
- Tier 1 data includes the response from all resources
- Tier 2 data includes the response from all <u>assigned</u> resources
- Note that Tier 1 provides the majority of the response in all years

	Tier 1 Response		Tier 2 Response								
MWh by Year	Generation	DSR	Gener	ation	Response	DSR		Response	Total Response		
i eai	Response	Response	Response	Assigned	Percent	Response	Assigned	Percent	Response	Assigned	
2002	1,897		364	581	63%				2,261	581	
2003	8,793		2,949	4,132	71%				11,742	4,132	
2004	9,434		2,682	3,603	74%				12,116	3,603	
2005	12,869		2,445	3,600	68%				15,314	3,600	
2006	4,578	1	1,153	1,623	71%	25	32	78%	5,756	1,654	
2007	9,413	18	1,089	1,371	79%	76	160	47%	10,595	1,531	
2008	7,232	12	1,215	1,645	74%	174	396	44%	8,633	2,041	
2009	15,622	7	1,012	1,785	57%	148	416	35%	16,788	2,200	
2010	31,595	47	1,656	2,302	72%	311	613	51%	33,608	2,915	
2011	8,239	2	1,814	2,764	66%	474	701	68%	10,530	3,465	
2012	1,758	3	139	352	40%	102	217	47%	2,002	570	



•Overall DSR performance skewed by failure to submit meter data

	Gener	ration TIER 2		DSR TIER 2						
	Telem	netered Data		Sub	mitted Meter	Did not Submit				
			Response			Response		Response		
	RespMWh	AssignMWh	Percent	RespMWh	AssignMWh	Percent	AssignMWh	Percent		
2002	364	581	63%							
2003	2,949	4,132	71%							
2004	2,682	3,603	74%							
2005	2,445	3,600	68%							
2006	1,153	1,623	71%	25	23	107%	9	27%		
2007	1,089	1,371	79%	76	69	109%	90	57%		
2008	1,215	1,645	74%	174	184	95%	213	54%		
2009	1,012	1,785	57%	146	206	71%	209	50%		
2010	1,656	2,302	72%	311	352	88%	261	43%		
2011	1,814	2,762	66%	474	500	95%	201	29%		
2012	139	343	41%	102	94	109%	123	57%		



Minute by Minute Response of Recent Events

