

## Demand Response Event Performance (mandatory vs voluntary)

SCSTF 5/6/16



## DR availability requirements mandatory event – required to respond or receive penalty voluntary event – no capacity penalty

Requirement	(Today) Limited DR (15/16 – 17/18)	(Today) Extended Summer DR (15/16 – 17/18)	(Today) Annual DR (16/17 – 17/18)	(CP) Base Capacity DR (18/19 & 19/20 DY only)	(CP) Capacity Performance DR (16/17 DY & beyond)
Availability	Non-NERC holiday weekday, June – Sept	June – Oct & May	Any day during DY*	June - Sep	Any day during DY*
Maximum Number of Interruptions	10 interruptions	Unlimited	Unlimited	Unlimited	Unlimited
Hours of Day Required to Respond (Hours in EPT)	12:00 PM – 8:00 PM	10:00 AM – 10:00 PM	June – Oct & May: 10 AM – 10 PM Nov. – April: 6 AM- 9 PM	10:00 AM – 10:00 PM	June – Oct. & May: 10 AM – 10 PM Nov. – April: 6 AM- 9 PM
Maximum Duration of Interruption	6 Hours	10 Hours	June – Oct : 12 hours Nov – April: 15 hours	10 Hours	June – Oct : 12 hours Nov – April: 15 hours

<sup>\*</sup>unless on an approved maintenance outage during Oct – Apr.

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Delivery	Event	Test	
year	performance	performance	
2009/10	No Events	118%	
2010/11	100%	111%	
2011/12	91%	107%	
2012/13	104%	116%	
2013/14	94%	129%	
2014/15	No Events	144%	
2015/16	No Events	133%	

See Annual Load Management Performance Report for Details http://www.pjm.com/markets-and-operations/demand-response.aspx



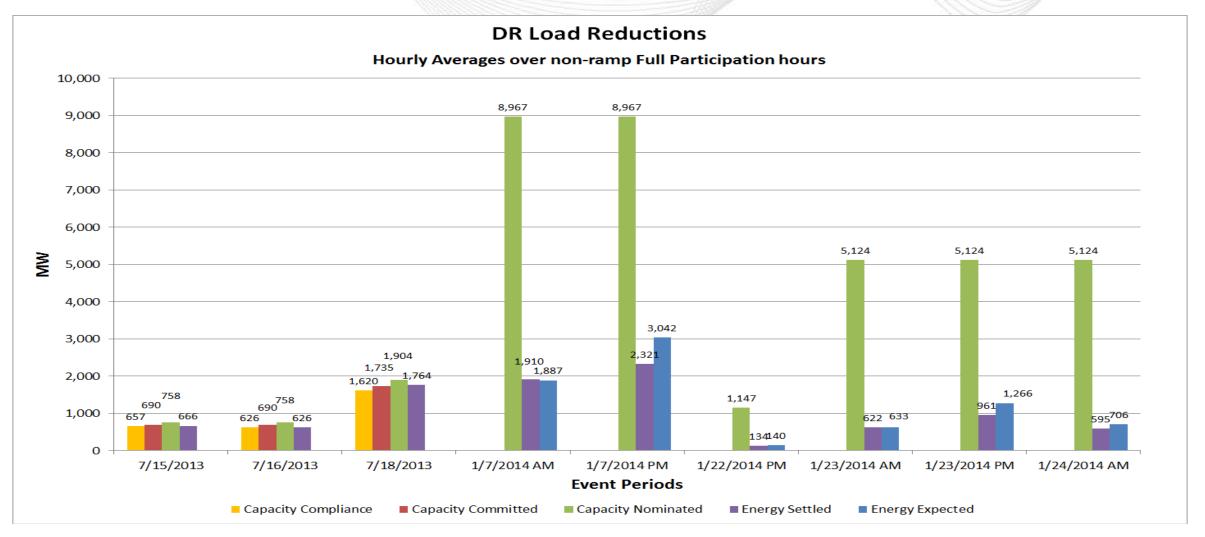
## DR load reductions – energy vs capacity

- Capacity nomination capacity load reduction expected from individual registration. Sum
  of capacity nomination may be >=< capacity commitment</li>
- Capacity commitment load reduction that must be achieved to avoid penalty.
- Capacity compliance load reduction achieved during event
- Energy Settled amount of energy load reduction that received energy market compensation during event
- Energy Expected expected energy load reduction reported by CSP to PJM in advance to use for PJM dispatch decisions.

Capacity Load Reduction calculated different than Energy Load Reductions



## DR performance – example mandatory & voluntary events





- Mandatory Events
  - Energy Settlements very close to Capacity Compliance amount
  - Energy Settlements/Capacity Registered = 88%
- Voluntary Events
  - Energy Settlements/Capacity Registered = 12 to 25% or average
     19%

Minimal experience but there are significant capacity load reductions in winter for voluntary events

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