

SCRSTF – Potential Solution in the form of a Seasonal RPM Construct

J. Wilson, July 7, 2016

The following is a draft potential solution based on introducing a seasonal component to the RPM construct, showing one possible approach (periods, parameters, etc. can be adjusted based on input).

Design Component	Approach – First year of implementation (transition; May 2017 for 2020/21 delivery year)	Approach – Second and following years (if different)
<i>Performance periods (seasons)</i>	Summer (June 1 to Sept. 30) and Winter (Oct. 1 to May 31)	
<i>Reliability Req'ts (Summer, Winter)</i>	Summer requirement based on LOLE = 0.09; PJM to propose conservative approach to Winter requirement using LOLE = 0.01 Winter (RTO); analogous approach (90/10) for LDAs	Sharpen pencils on these calculations
<i>Auction schedule</i>	Status quo (joint May auction to acquire Summer and Winter requirements; plus incremental auctions)	
<i>Auction parameters</i>	Status quo (current VRR curve shapes, Net CONE values used with Seasonal requirements)	
<i>UCAP ratings</i>	PJM to establish summer and winter ratings	
<i>Seasonal offers</i>	All resources may submit Annual offers, or separate offers for Summer and Winter performance periods; Annual offers clear if combined seasonal clearing prices exceed offer price. (Note: Annual and Seasonal offers and clearing prices expressed in \$/MW-day but paid on 365 day basis; so seasonal prices are additive)	
<i>Offer price caps</i>	Status quo for Annual offers; owner can select summer, winter caps to sum to Annual cap; or IMM to propose alternative approach.	
<i>Transitional Winter price floor</i>	\$ value or related to annual or Summer price; if floor applies, resources offering \geq floor price are cleared.	No winter price floor
<i>Non-performance charge rates</i>	Status quo for annual resources; PJM to recommend seasonal values	
<i>Max non- performance charges</i>	Status quo for annual resources; PJM to recommend seasonal values	
<i>Demand resource M & V</i>	Separate SCRSTF issue; proposed changes should be included here too	
<i>Outage scheduling (mtce, planned)</i>	Status quo (may require clarification for summer, winter seasonal restrictions)	
<i>Capacity Intercon. Rights (CIRs)</i>	PJM to establish summer and winter CIRs	May consider changes
<i>Cost allocation</i>	Status quo	May consider changes to reflect seasonal prices, loads

Anticipated benefits of a seasonal RPM construct:

- Allows all resources to reflect seasonal ratings, availability, costs, risks, CIRs in offers
- Accommodates resources with seasonal differences including but not limited to wind, solar, demand response, and gas-fired generation with firm fuel challenges
- Sets separate prices for incremental summer and winter capacity – price signal
- Meets seasonal requirements efficiently with least cost resources for each season
- Tailors winter procurement quantity to winter reliability need (lower than summer)
- May reduce cost while increasing reliability
- More consistent with neighboring regions that have, or plan to have, seasonal capacity constructs (NYISO, MISO, IESO)
- Can be combined with other approaches to resources with seasonal differences, including aggregation, changes to DR M&V or a Base product, on a transitional or long-term basis