

Sub-Annual Capacity Market Senior Task Force (SACMSTF) Stakeholder Input

Please provide any questions or comments you may have for the Analysis Group regarding any of the following topics as it performs its evaluation of potential sub-annual capacity market design elements.

Q11 - Sub-Annual Periods

start with a summer and winter period

Please include a slice-of-day scenario (ala CAISO), in addition to a standard seasonal construct

There should be two seasons (summer and winter) May 1 - Oct 31 and Nov 1 - April 30

When will each period begin? Will each be six-months in duration or will there be more than two periods annually? If so, what is the duration of each period? Will each period have shoulder months? If a resource receives a capacity obligation or commitment for one period but another, could this accelerate retirement of resources needed for reliability?

Feasibility of the current annual construct and difficulty of transition to various sub-annual options (i.e. summer/winter, summer/fall/winter/spring, hourly).

For RTOs/ISOs that transitioned to a seasonal model, what were some of the lessons learned and/or some of the unanticipated challenges? Is there analysis available that shows what their auction results would have been and how that compared to the new construct?

Capacity requirements should be set using a planning model with hourly granularity on an adjusted ICAP.

Evaluation should explicitly quantify the potential end-use customer value that could be realized from the implementation of a Sub-Annual market design under the present tight/short capacity market conditions, which are likely to last into the 2030s. Quantification should consider end-use customer cost and improvement to Resource Adequacy reliability.

Will the implementation of a Sub-Annual Capacity market resolve or improve Resource Adequacy issue immediately or in the near term?

Q12 - Auction Structure (e.g., co-optimized vs. sequential) and Timing

co-optimized

Auctions should be sequential and based on the New York model with 6-month strip, rest of period monthly and spot.

Compulsory spot/prompt auction held several days prior to the start of each month

Voluntary auction clears bilateral offers to buy and sell capacity

Six-month seasonal capability periods affect demand curves and supply offers: summer (May to October) and winter (November to April)

Will the auction include sealed bids or a descending clock structure?

How effective would a prompt auction be in an RTO like PJM as compared to other RTOs/ISOs such as MISO, which has a majority of vertically integrated states?

Are some types of resources differently advantaged in a prompt auction vs a forward auction?

Is there a way to have a forward looking price signal while also having a prompt auction?

Longer-term and multi-year commitments of resources may be needed to procure needed supply resources.
 Consider if, and assess how, a sub-annual capacity market design can be integrated into a longer-term capacity procurement design.
 Auction structure should optimize risk distribution between seasons while maintaining overall annual '1 event in 10 years' LOLE to achieve lowest annual customer cost.
 Capacity market design and timing should consider impact on end-use customers. Customers should be provided with ample time to adjust operations if needed to respond to capacity market costs.
 Capacity Auctions should largely be completed such that customers have an accurate assessment of capacity charge rate in time that such knowledge is actionable.

Q13 - Demand Curve

perhaps a unique demand curve per sub season?

Sloped demand curves for two capability periods (winter, summer)

Will a separate demand curve be used for each period? Will the Net-CONE unit/reference resource be the same for each period or will a different unit be chosen for each? Will a different Installed Capacity Requirement (ICR) be applied for each period (presumably lower in winter at least at first)? If resources will be accredited differently for each period, will the demand curve be adjusted accordingly. If accreditation results in different supply stacks for each period will the demand curve be adjusted accordingly?

What would the impacts be if you have large, firm load customers that vacillate between participating in DR season-to-season (i.e. a data center that agrees to curtailment in the summer, but not the winter, and vice versa)?

Sub-annual curves should reflect seasonal Reliability Requirements.

Q14 - Sell Offer Structure

status quo

As NYISO. Monthly offers reflect avoidable cost and net EAS offset

If you clear only one of the seasons, will your costs be recovered in only that one season or would it be recovered throughout the year? How to structure offers when the clearing outcome is unknown (preventing over recovery or under recovery).

How a market seller is able to reflect its risk season to season (moving to a seasonal model implies that the risk changes by season so how each resource could accurately reflect its risk).

As per question in 13, could large DR customers exercise market power season-to-season?

Needs to reflect that capacity market revenue should largely be addressing the 'missing money' not provided by other markets to meet annual going forward costs.

Must offer requirement should apply to all sub-annual periods.

Q15 - Resource Qualifications and Accreditation

status quo - for summer; replicate for winter

We view the Winter Peak Load (WPL) as a suboptimal baseline from which to measure winter curtailment. WPL has an assumption that the peak load corresponds to the peak curtailment, which is not often the case. Alternate baselines provide a more accurate accounting of the quantity and duration of curtailment. Given that PJM is calculating these values from customer meter data, rather than the values provided by distribution utilities, use of other baselines are reasonable and preferable.

Seasonal MRI-based accreditation

Will resources be accredited differently for different periods? For example, some resources may have lower availability in one season vs. another, in this case will the accreditation reflect those differences? Will changes currently under discussion at PJM regarding accreditation be fully implemented prior to the implementation of a sub-annual period?

How do you prevent homogenization of resource types within and across seasons in the future as renewable penetration increases?

How do you ensure year-round resources can adequately reflect their value in a seasonal construct that does not fall neatly into “summer” or “winter” costs of operations, for instance, especially if there is risk they may clear in one season and not the other if they are the marginal resource in a given season.

Would the must-offer requirement be expanded to include all resources eligible to take on a capacity obligation and eliminate any remaining categorical exceptions?

Continue to base accreditation on performance during the market period. Resources that perform well and have desired characteristics should have more value than resources that do not perform as well.

Q16 - CETL Values

CETL values and analysis should be consistent with market period. Any sub-annual seasonal assessment should reflect expected ambient generation output and ambient facility limits.

Q17 - Capacity Cost Allocation

Allocates capacity obligations to LSEs based on their share of forecasted seasonal peak load, adjusted for locational capacity requirements. ICAP is translated to UCAP for summer and winter capability periods

If costs will not be allocated using the same methodology as today, just across more than one period), the consultant is requested to explain why a different methodology is needed and provide examples of alternatives.

Can you clear by season then “smooth out” the allocation across all 12 months of a DY?

If the cost allocation is done by season, would it drive changes to the default service procurement process used by EDCs?

Cost Allocation must remain consistent with beneficiary pays principles. LSE’s with balanced portfolios should not be saddled with excess costs from improper leaning on the Capacity Market.

Any proposed change to cost allocation should go beyond just assessing allocation at the LSE level but should delve further into the allocation at the end-use customer level.

Provide benefits and implications of allocating costs to end-use customers based on annual peak vs. seasonal peak vs. usage only during periods of potential system resource inadequacy.

Q18 - Corresponding Changes to E&AS Must-Offer Obligations and Performance Assessments

status quo adjusted for sub season structure

Why would E&AS Must-Offer Obligations and Performance Assessments need to change under a sub annual capacity market structure? If they must, the consultant is requested to explain why and provide examples of alternatives.

Would PJM tether the performance assessment to the season based on the corresponding risk profile?

Must offer obligation should apply to all sub-annual periods.

Performance Assessments should be based on sub-annual period accreditation.

Q19 - Corresponding Changes to the FRR Alternative

Why would changes to the FRR alternative need to change under a sub annual capacity market structure? If they must, the consultant is requested to explain why and provide examples of alternatives.

Would the FRR need to demonstrate sufficient supply by season per the sub-annual construct?

Q20 - Transition Mechanisms

How would a sub-annual market interact with the 3-year forward auction? Is that still an appropriate model for a sub-annual market?

Transition mechanisms should include realistic time frames for implementation in recognition of potentially significant work that will need to occur at PJM and among market participants.

How do you implement this without further delaying the auction schedule – from a timing perspective this will be going into place (in theory) right as we are getting back on track.

Could you run “dummy” or “shadow” auctions to suss out unforeseen consequences?

Sub-Annual construct would not be implemented in any delivery year in which any capacity market auction has already occurred, and should not be implemented for any Delivery Year for which market participants have less than 6 months of preparation from the time of a final, non-appealable FERC order approving the tariff changes necessary to implement a sub-annual construct.

Q21 - Other

We have no specific concerns. As a winter peaking demand resource provider, we see this sub-annual capacity as an opportunity to bring more resource to the market.

Please ensure to include cost estimates for each of your analyses. In particular, it is important to know whether seasonal resources are likely to increase their bids, and if so, whether a seasonal market will increase costs to consumers.

In the most recent MISO auction, the summer price spiked but the price for the rest of the year was relatively low. Are there examples of RTOs that have included a price smoothing mechanism to help ratepayers manage sudden price spikes?

Would the GROSS and NET CONE need to be seasonalized if moving to a sub-annual model?

Would the “quad review” need to be performed more frequently than every 4 years?

How would any sub-annual model impact the cost to load?