# AMP's Views on a Seasonal Capacity Concept

Steven Lieberman June 23, 2022







- AMP supports a holistic discussion of potential reforms to RPM as opposed to piecemeal approach
- No one size fits all approach
  - Seasonal designs in MISO and NY (may) work for them, but may not work for PJM
- Preferable to have a mix of capacity:
  - Annual Capacity
  - Sub-annual Capacity
- No reason to look solely at only 2 seasons (*i.e.*, winter, summer)
  - Shoulder months are unique with separate challenges from summer and winter months
    - Planned outages (generation, transmission) in spring, fall months



- More granular auctions (*i.e.*, 12 or 4 vs 2) better recognizes:
  - Monthly or quarterly availability of resources
    - ELCC
    - Thermals
    - DR, EE, etc.
  - Monthly variation in resource capacity
    - Hydro
    - Thermals
    - Intermittent
  - Outages vary across year
    - Planned outages for maintenance
    - Unplanned outages
  - Varying load (demand) profile shape



- AMP supports exploring the issue of a sub-annual design to complement, but not replace, the annual BRA
  - At least quarterly, if not monthly
  - Seasonal (winter and summer) is too broad
- AMP offers two approaches, each involving a modification to the quantity of annual capacity procured (cleared) in the BRA:

Option 1: Procure capacity up to Point B on the VRR curve Option 2: Procure "baseload" quantity of capacity

- Sub-annual quantity of capacity procured would be dependent on above options
  - Option 1: Procure capacity between Point B and Point C on the VRR curve
  - Option 2: Procure capacity above "baseload" quantity up to the 3 year forward monthly forecasted peak, plus reserves



#### Common elements to Option 1 and Option 2

- 3 year forward design (unless changed in other RASTF discussions)
- Sum of LOLE across all months ≤ 0.10 Annual LOLE
- Generation can offer:
  - Annual Capacity (would clear first)
  - Any uncleared capacity that has a must offer requirement must participate in the subannual auctions
    - Ensures no withholding
- Annual capacity sets ceiling price for monthly auctions
  - Ensures that 8,760 hourly capacity is no less valuable than monthly



# **Option 1**

- Annual Capacity clears relative to a vertical line based on the VRR curve pegged at IRM + X% (e.g., Point B on VRR curve)
- Monthly capacity procured via declining clock auction
  - Quantity cleared based on quantity between Point B and Point C on VRR curve



## **Option 2**

- Quantity of capacity procured based on remaining requirement between the "baseload" quantity cleared in the BRA and the sub-annual period's peak (either monthly or quarterly) plus reserves
- Sub-annual capacity would clear based on declining clock auction



### **Summary**

- These options would address the concerns offered to the PJM Board of Managers by the National Caucus of Environmental Legislators on Friday, June 16, 2022
  - <u>https://www.pjm.com/-/media/about-pjm/who-we-are/public-disclosures/20220616-state-legislator-letter-to-pjm-on-quadrennial-review.ashx</u>
- Consideration of monthly capacity auctions should also allow for additional changes to the design of RPM
- Allow LSEs to bilaterally contract for resources it desires
  - Least cost
  - Attributes
  - Other



### THANK YOU

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