# PJM Market Seller Offer Caps
# Segmented Offer Cap Discussion

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Brookfield
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Brookfield Renewable U.S.

Segmented Offer Caps -

- Brookfield proposes that PJM utilize "segmented offer caps" for renewable energy resources (particularly for Hydro but also for wind and solar)

- A "segmented offer cap" methodology divides the resource into segments and calculates a MSOC for each ELCC/UCap MW segment

- Rationale:
  - Renewable energy resources have a unique CPQR / risk profile that is different than other resources.
    - The upper ELCC/UCap MW segments have significantly greater performance penalty risk than the lower ELCC/UCap MW segments
    - The upper ELCC/UCap MW segments have less certainty due to the intermittency of the renewable fuel (Hydro also has site-specific permit/license requirements)
  - Renewable energy resources have a unique distribution of E&AS revenues that is not distributed evenly across the ELCC/UCap MW segments; the segment capacity factor is driven by renewable fuel input (this is exacerbated for Hydro with exigent storage)
    - The lower ELCC/UCap MW segments realize a larger proportion of revenues compared to the upper ELCC/UCap MW segments

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Segmented Offer Caps (continued) -

- Brookfield proposes that "segmented offer caps" be applied to default MSOC calculations for renewable energy resources
- However, due to time constraints with the current MSOC Work Plan, Brookfield proposes that "segmented offer caps" be utilized in the Unit Specific Review process, particularly for Hydro
    - Hydro is already forced to go through the Unit Specific Review process because it currently does not have a default MSOC because of unique site specific and FERC license specific complexity

Other MSOC considerations -

- Renewable energy resources should continue to NOT have a "Must Offer" obligation in the capacity market due to the uncontrollable risk with intermittent renewable fuel and lower ELCC capacity quantities, particularly with increasing renewable penetration
- Capacity Market Sellers should have the option to hold the CPQR risk in their portfolio, i.e., self insure
    - Capacity Market Sellers should not be required to purchase third party insurance in order to determine the "Cost to Mitigate"
    - Third party insurance does not necessarily cover all CPQR; resulting in self insuring risk to some level anyway
    - CPQR should be based on the seller's view of potential risk from taking on the capacity position

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Brookfield Contact

Stephen Kelly

Stephen.Kelly@brookfieldrenewable.com

301.706.7912