

Capacity Auction Reforms (CAR)

Discussion of Forward Bilateral Auctions and Monthly **Demand Curves**

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Capacity Auction Reforms (CAR)

WMPP ID: 184

Earliest Target Effective Date: Q2-Q3 2026

- The CAR project includes a change in auction timing, where a prompt auction held shortly before the start of the Capacity Commitment Period (CCP) would replace the Forward Capacity Auction that has been used to date
- This discussion focuses on opportunities to trade capacity positions under these reforms



Background

- As discussed in the scoping discussions in Q3/Q4 of 2024, ISO's focus under CAR is completion of core changes: move to a prompt auction, introduction of seasonal commitment periods, and accreditation reforms
- The ISO is not proposing to introduce ISO-administered bilateral markets ahead of the prompt auction or include changes to the monthly reconfiguration auctions as part of the CAR efforts, as each would be a new and considerable body of work that would jeopardize the ability to deliver the core changes for CCP 19
- Proposed changes will include several elements that may enhance stakeholders' ability to buy/sell/trade CSO positions, including:
 - Move from annual to seasonal auctions
 - Running all auctions (seasonal/monthly) closer to commitment period
- The ISO understands stakeholder interest in these topics, has done an initial review of what this might require, and can assess further after CAR is complete

FORWARD BILATERAL MARKETS

Forward Bilateral Markets

- Stakeholders have asked whether the ISO could design and administer voluntary forward markets to help facilitate forward buying/selling of capacity positions
- Assessment of ISO-administered voluntary forward markets would constitute significant effort, requiring consideration of many design and implementation elements
- Next: Partial list of such elements

Key Design Elements for a Forward Bilateral Market

- Participation rules, including the development of new Financial Assurance measures, including for forward buyers
- Creation of new settlement rules and processes, including how positions in the forward market net against Capacity Supply Obligations (CSO) and Capacity Load Obligation (CLO) positions
- A 'true up' process by which buyers/sellers update their forward positions to reflect final accreditation values, load positions, etc.
- Rules governing treatment of capacity across zones and the winter gas constraint
- Market clearing and pricing rules
- Various timing issues and challenges (e.g., forward market for CCP 19 would occur before CAR-SA is completed, capacity zones may not be known at the time the forward market is run)

There May Be Other Opportunities to Buy/Sell Positions Ahead of the Prompt Auction

- We expect the move to a prompt and seasonal markets will introduce new commercial opportunities and products to allow participants to manage their capacity market positions, including:
 - Bilateral transactions between capacity buyers and sellers
 - The development of new financial products administered by exchanges, etc.
- Stakeholders use such tools to manage capacity positions in other prompt capacity markets
- Further assessment of ISO-administered voluntary markets could be considered after CAR is completed

Auction Will Continue to Allow Participants to Designate Self-Supply

- Self-supply may help participants reflect eligible bilateral transactions made ahead of the prompt capacity auction
- Like in the FCM, the election must occur ahead of the auction and the participants will receive neither a payment for the CSO or a charge for the CLO for the self-supplied quantity
 - In prompt, the submission process will change so that the capacity buyer will submit the self-supply designation and the seller will confirm
- For more information on self-supply, see the following:
 - ISO-TEN training
 - FCM participation guide, step 12

MONTHLY DEMAND CURVES

Monthly Reconfiguration Auctions: Background

- The ISO holds monthly reconfiguration auctions (MRAs) that allow participants to buy/sell capacity for a single month of the commitment period
- Unlike the annual auctions, the MRAs do not include a sloped administrative demand curve
- Rather, they require that the total quantity of CSO awards is unchanged (meaning the incremental capacity bought and sold are equal)

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Stakeholder Feedback on MRAs

- At the June Markets Committee, some stakeholders asked about the potential to introduce sloped administrative demand curves to the monthly auctions, which could allow for more/less capacity to be sold in a given month
- Stakeholders noted that this could increase participants' ability to update their capacity positions on a monthly basis

The ISO is Not Proposing to Introduce Monthly Demand Curves Under CAR

- While the ISO appreciated the feedback, as it has noted in previous discussions, the introduction of sloped monthly demand curves is outside the scope of CAR
- The ISO plans to continue with the current MRA structure, where multiple enhancements may better allow participants to update their capacity positions, including:
 - Shorter commitment periods with the move to seasonal auctions
 - Allowing new resources that become commercial after the annual auction to sell capacity in the MRAs
 - Running the MRAs closer to the delivery month
- Next: Concerns with introducing monthly demand curves in CAR

Concerns with a Constant Monthly Demand Curve

- As stakeholders have noted, one (comparatively) simple approach for monthly sloped demand curves would be to use the same annual (seasonal) demand curve for each month of the season
- With this constant monthly demand curve approach, the MRAs would specify the same willingness to pay for capacity in July as in October
- However, this approach fails to reflect the fact that capacity's reliability value is not the same across all months
 - The 25,000th MW of capacity provides more reliability value in July than in October
- This disconnect between monthly capacity demand and its reliability value creates a host of concerns related to the costeffectiveness of outcomes and resource incentives in the MRAs

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Constant Monthly Demand Curves are Not Cost Effective

- Because the monthly demand curves do not correspond with capacity's marginal reliability impact for that month, they will not support cost-effective outcomes between months
- For example, the constant demand curve may specify a significant price for the 30,000th MW of capacity in October even though this capacity provides very little incremental reliability value in the month
- Implication: Constant monthly demand curves could lead the region to incur significant costs to procure incremental capacity in months where this capacity provides little reliability value

Constant Monthly Demand Curves Create Adverse Incentives for Capacity Sellers

- Under Pay for Performance, the opportunity cost associated with having a CSO increases with the expected number of capacity scarcity conditions
- Resources should therefore require a higher price to sell capacity during periods where the system is more likely to be stressed
- This would naturally lead resources to require a higher price to hold a CSO in July than in August

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Constant Monthly Demand Curves Create Adverse Incentives for Capacity Sellers (con't)

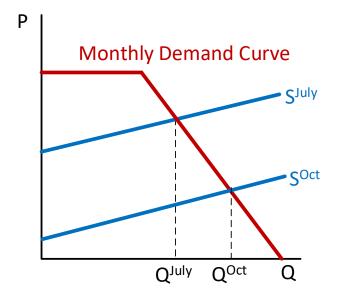
What are the implications for market and reliability outcomes?

- Resources would shed obligations in July, when they are most costly to the resource, but also provide the most reliability value to the system
- Resources would acquire obligations in October, when they are least costly to the resource, but also provide the least reliability value to the system
- Next: Figure showing this result

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Constant Monthly Demand Curves Create Adverse Incentives for Capacity Sellers (con't)

- This is shown in the figure to the right, where the costs to supplying CSO are higher in July (S^{July}) than October (S^{Oct})
- This results in more capacity being procured in October (Q^{Oct}) than July (Q^{July})
- This outcome is not cost effective because the constant demand curve fails to reflect that capacity's reliability value is also greater in July than October



Could the ISO Develop Monthly Curves that Address these Concerns?

- Potentially, but to answer definitively would require a much more comprehensive assessment
- To do so would likely require the development of monthly demand curves that are consistent with the annual (seasonal) demand curves and also reflect the reliability value of incremental capacity for the given month
- To our knowledge, no region derives monthly demand curves based on capacity's monthly reliability value
- This concept would introduce a host of challenging design questions related to the derivation of the demand curves and the accreditation of capacity
- Such an assessment is not in the scope of CAR, but could be considered after the CAR reforms are completed

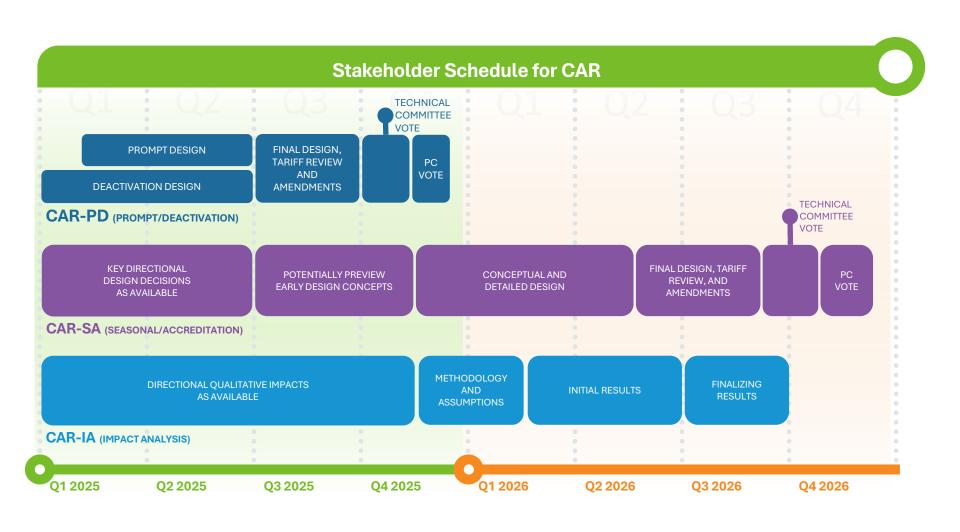
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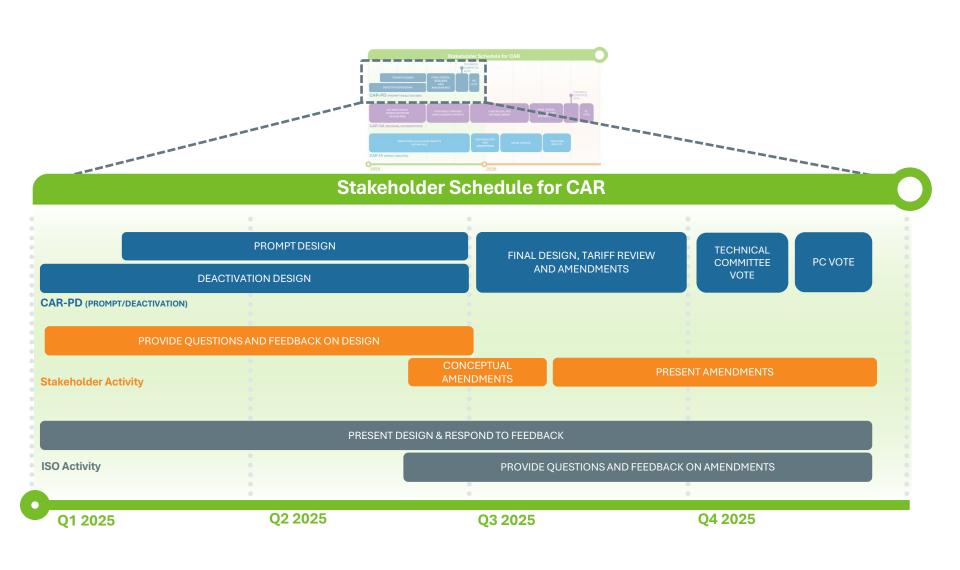
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Questions



STAKEHOLDER SCHEDULE





CAR-PD Schedule Projection

July

 Budget and Finance Subcommittee: July 18th introduction to Financial Assurance Policy conforming changes

August

 MC/RC/TC Joint Meeting: A summary of the CAR-PD design will be provided, review detailed design refinements and review core Prompt Tariff revisions. Stakeholders proposing conceptual amendments should contact the MC Secretary for time on the agenda by July 21, 2025

September

- MC: Review design refinements and continue review of Tariff revisions. Stakeholders proposing amendments should contact the MC Secretary for time on the agenda by August 27, 2025
- RC: Review design refinements and continue review of Tariff revisions. Stakeholders proposing amendments should contact the RC Secretary for time on the agenda by September 3, 2025
- TC: Review design refinements and continue review of Tariff revisions. Stakeholders proposing amendments should contact the TC Secretary for time on the agenda by September 11, 2025
- October Technical Committee Votes
- November Participants Committee (PC) Vote

All NEPOOL members are invited to attend meetings where CAR topics are discussed

APPENDIX

First introduced at the October 2024 MC. Bold items reflect additions since last addressed at the November 2024 MC

Anticipated Areas for Future Assessment

After CAR is completed, the ISO will assess the feasibility and potential benefits associated with various design additions, including:

- Development of simultaneous clearing of seasonal auctions
- Correlated outages for various resource types (beyond the gas constraint)
- Modeling of resource operational characteristics such as start-up time
- Full Cost of New Entry (CONE) Recalculation
- Conforming changes for transmission security retentions
- Treatment of resources retained for Energy Security, as needed
- Further ambient temperature adjustments
- Additional capacity trading opportunities

Potential Post-CAR Roadmap

