



Capacity Auction Reforms

Kick-Off Discussion of Project Scope

Chris Geissler

DIRECTOR

CGEISSLER@ISO-NE.COM



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- The ISO is proposing Capacity Auction Reforms (CAR) that will transition the forward, annual capacity market to a prompt and seasonal market with accreditation reforms
- Today's discussion kicks off consideration of the CAR scope, with a focus on the objectives that will guide these scope discussions, and a number of items that have been identified as being of interest to the ISO and/or stakeholders

Addendum to RCA Impact Analysis

- The ISO posted an [addendum](#) to its slide deck on the RCA Impact Analysis (IA) market clearing results
 - Provides final discussion of the RCA IA results and responds to some stakeholder questions raised in May
- With the FERC approval of the further delay filing, we will turn our attention to working with stakeholders on CAR, and will not continue to study accreditation in a forward, annual framework

Background: How we got here

- The ISO led discussions with stakeholders in summer/fall of 2023 considering a move to a prompt and/or seasonal capacity market with accreditation reforms
- Analysis Group drafted a report studying this topic, and recommended such changes
 - [Final report](#) presented to stakeholders in January 2024
- The ISO proposed a further delay to FCA 19 to allow for time to develop a prompt and seasonal design with accreditation reforms
- NEPOOL supported the proposal, and [the filing](#) was [accepted by FERC](#)

The ISO will develop a prompt and seasonal capacity market with accreditation reforms

- CAR must be in place for Capacity Commitment Period (CCP) 19, scheduled to start on June 1, 2028
- Accreditation reforms will leverage the ISO's work during the RCA project, including the framework to link capacity accreditation values to a resource's marginal reliability impact
- However, CAR will also provide opportunities to reassess some design elements that could not be considered in RCA
 - See, for example, the discussion of modeling a gas constraint discussed in the [ISO's January 2024 memorandum](#)

Key considerations as we kick off the CAR project

- The ISO understands stakeholder interest in design details, but requests patience in these early stages as we work through the project scope and schedule first
- The ISO is assessing potential filing strategies, including potentially pursuing CAR over a series of filings
 - For example, one possibility would be to file a prompt auction with retirement reforms first (late 2025/early 2026), with a seasonal market with accreditation reforms filing following in late 2026/early 2027
- The ISO will provide more information on this approach, and the stakeholder schedule, as it becomes available
- Expect that there will be later phases to capacity reform efforts, meaning items not in scope for CAR may be considered in future projects

DEVELOPING A SCOPE FOR CAR

Plan for developing scope

- **July:** MC kick off discussions, the ISO outlines project objectives and highlights some key areas of consideration for project scope; stakeholders provide feedback
- **August:** The ISO shares 'straw scope' for stakeholder feedback at MC
- **September:** The ISO responds to feedback and potential refinement of scope
- **October:** Review final scope and design objectives
- **October/November:** Target project schedule

Use objectives to guide scope decisions

- Given the need to carefully consider the scope, and assess trade offs between potential items, the ISO felt it valuable to develop scope objectives
- Each potential scope item can therefore be evaluated in the context of how it performs with regards to the objectives
- This will help frame the ISO's consideration of what items can be included in scope while facilitating constructive stakeholder feedback on key trade offs

Project scope objectives

- **Objective 1:** Complete the work in time for CCP 19 to facilitate benefits of CAR to region and confidence to marketplace
- **Objective 2:** Prioritize design work that provides the most value to the region in the shortest time
- **Objective 3:** Avoid project scope expansion or changes that risk Objectives 1 and 2
- *Next:* Further discussion on each of these objectives

Objective 1: Complete work in time for CCP 19

- CCP 19 begins on June 1, 2028
- Establishing, and then maintaining, feasible filing and effective completion dates for CCP 19 will depend on various factors that are not yet determined, including:
 - Timing of auction relative to the CCP
 - Duration of the pre-auction activity schedule
- *Implication:* Design likely needs to be completed, filed, and approved, well in advance of CCP 19, though how far in advance will depend on design details that have not yet been determined

Objective 1: Complete work in time for CCP 19 (*con't*)

- Expect that this will require hard decisions because even the most narrow project scope that achieves a prompt and seasonal market with accreditation reforms requires enormous design and implementation efforts
- It is therefore not feasible to include every assessment area and design element in scope that ISO or stakeholders would prefer
- *Implication:* Topic areas that are a priority for some may not be in scope for CCP 19

Objective 1: Complete work in time for CCP 19 (*con't*)

- Much like the ongoing evolution of the Forward Capacity Market, the ISO anticipates working closely with stakeholders to make further improvements for subsequent auctions
- These ongoing enhancements will be informed by:
 - Assessment when designing CAR
 - Experience procuring capacity under CAR

Objective 2: Prioritize design work that provides most value

- Given that CAR will not be able to include every potential design area, scope should be developed to focus on areas that provide the most opportunity to create cost effective outcomes to meet the region's resource adequacy needs
- Requires consideration of three distinct elements associated with each potential scope area
 - The potential regional benefits
 - The time and effort required to do the assessment, design, and implementation work
 - The importance of including this area now, rather than in a subsequent phase or filing

Objective 2: Prioritize design work that provides most value (*con't*)

- Recognize that there will be a range of opinions on what areas provide most value to region
- The ISO welcomes stakeholder feedback on which potential scope areas provide more (or less) value to the region as a whole
 - A non-exhaustive list of potential scope areas are discussed in next sections
- Feedback is welcome during the Markets Committee discussion, and/or as written comments submitted to the MC Secretary, as described further on slide 37

Objective 3: Avoid project scope expansion or changes that risk Objectives 1 and 2

- To complete the CAR design in time for CCP 19, it is critical that the scope does not expand materially
- This requires identification of the core items that will be in scope early in the project
 - Consistent with the ISO's plan to develop a project scope with stakeholder input over the next several months
- If new areas emerge that need to be in scope (say, because the proposal otherwise would not work), this may require other planned scope items to be pushed back to a later stage/filing

Objectives: Key takeaways and discussion

- These objectives will help determine what items are in scope for CAR, and those which cannot be included in the first set of filings
- Just because an item is determined to be out of scope for the initial filings does not mean it cannot be considered in a later phase
 - The value proposition for scoping such items will also need assessment in the future as they could affect other projects
- The ISO welcomes stakeholder feedback with regards to these objectives and whether there are key considerations the ISO may have overlooked

CAR'S CORE SCOPE AREAS

Scope discussion can be broken into two areas

1. Core scope items that must be included to design and implement a functional prompt and seasonal capacity market with accreditation reforms
 2. Additional areas that could be in scope, but are not essential to developing a prompt and seasonal capacity market with accreditation reforms
- *Next:* Further discussion of core scope items

Welcome feedback on all scope areas

- While today's discussion focuses on the additional areas, as it is not yet clear which will be in scope, welcome stakeholder feedback on all scope areas
- This may include preliminary thoughts or key questions on core scope items
- However, we are just beginning assessment, and design decisions will require careful consideration of various factors including how it impacts other aspects of the design

Core scope items will require significant design and implementation effort

- Core scope requires development of new capacity framework that includes three foundational changes – (i) prompt, (ii) seasonal, and (iii) accreditation reforms
- Each of these efforts would be a significant undertaking in and of itself, so the workload associated with pursuing all three together should not be underestimated
- *Next:* Non-exhaustive list of core scope items

Core scope items: Prompt

- Establishing what timeframe is prompt
- Developing a new methodology for resources that have not previously sold capacity to participate in auction
 - What criteria must be satisfied, and by what deadlines?
- Modifications to the timing and design of the retirement notifications process so that it occurs in advance of capacity auction
 - Includes how far in advance resources intending to retire must notify the ISO, and the process that follows such notifications
- Creating a new pre- and post-auction activity schedule to align with auction timing
 - Includes elimination of ARAs

Core scope items: Seasonal

- Determining what months comprise each season
- Conforming prompt auction to seasonal structure
 - When is each seasonal auction conducted?
 - How does this further impact the pre- and post-auction activity schedules, and does it compress timelines for key activities?
- The development of seasonal demand curves that satisfy the annual 1-in-10 resource adequacy standard in a cost effective manner
- Assessment of ‘annual’ capacity market features such as:
 - Cost allocation
 - DDBT (or equivalent going forward)
 - Annual PFP stop loss

Core scope items: Accreditation

- Developing the accreditation framework and applying this framework to determine values for each capacity resource
 - Includes many different types of capacity resources with distinct features with regards to performance, available historic data, etc.
- Further changes to capacity demand curve methodology
- While significant progress has been made in this area during RCA, outstanding areas remain and further changes are necessary with a prompt and seasonal capacity market

Core scope items: Key takeaways

- The core scope work necessary to complete any of the three distinct components is a major effort
- Completing the core scope work for all three in time for CCP 19 will therefore be a significant undertaking
- This means that the ISO's ability to expand the project scope to include additional areas will be limited for CCP 19
- However, this does not prohibit the ISO from exploring improvements and enhancements for later commitment periods, after CAR has gone into effect

PRELIMINARY THOUGHTS ON ADDITIONAL CAR SCOPE AREAS

Narrow Net CONE update in project scope

- CAR will not include a complete Net CONE restudy, as this is an extensive project on its own that is scheduled for CCP 21
- However, we will need to update the existing Net CONE value to reflect that accreditation reforms and modeling changes would impact this value, which is used to derive the capacity demand curves
 - E.g., if the representative Net CONE resource sells less capacity (in kW-m) with the accreditation reforms, this would support a higher Net CONE value
- Plan to assess scope of inputs and parameters that may be updated

Development of a market constraint to reflect limited gas availability also in project scope

- This additional area is a novel design element, and we therefore expect it to be a significant effort to develop
- Numerous stakeholders requested its inclusion in the design, and the ISO agrees that it can provide significant value, given the region's gas infrastructure limitations in the winter
- As explained in the ISO's January 2024 memo, a prompt and seasonal market will help facilitate the development of a market constraint that represents the region's gas infrastructure for the winter months
 - Helps to produce cost effective clearing awards and price signals

Impact Analysis

- Plan to conduct an Impact Analysis (IA) for CAR
- IA tends to occur later in process because it requires a complete (or near-complete) design to simulate
- If ISO ultimately breaks CAR into a series of filings (rather than a single filing), will need to determine whether to develop an IA for each filing (and if so, what each would include), or instead to conduct a single IA for the complete design

Other items could be in or out of scope, depending on how they align with objectives

- The next portion of this section walks through a non-exhaustive list of potentially related design areas identified by the ISO and/or stakeholders as areas of interest
- Preliminary observations on some items may help inform discussions about how they align with the objectives, and Objective 2 in particular
- The ISO welcomes stakeholder feedback

Offer price formation and what costs can be included

- During the prompt and seasonal discussions, stakeholders raised questions about what costs can and should be included in capacity seller offers, and how those may differ from the current annual forward market
 - Stakeholders were also interested in understanding how changes to offers based on short forward timing of the auction may be expected to impact capacity clearing prices
- This was briefly discussed in both [the ISO](#) and [Analysis Group materials](#), but some stakeholders have expressed interest in assessing these topics further in CAR

Treatment of retained resources in capacity market

- Do not anticipate that CAR would impact the conditions for which a resource can be retained
 - Current Tariff only allows retentions for local transmission security
- Analysis Group report and ISO filing explain why we do not expect CAR to significantly impact likelihood of retentions
- The ISO understands stakeholder interest in this topic, including the views on the current pricing approach which treats such resources as price takers in the auction
- The ISO is assessing the extent to which this item, and capacity market pricing treatment in particular, fits into broader design that must be completed for CCP 19

Auction format

- Changes to auction timing, seasonality, and accreditation naturally raise questions about the auction structure, and whether to move from the descending clock auction (DCA) to a sealed bid format
- A primary benefit of a DCA is the information it provides potential new entrants during the auction that inform their offers and potential build decisions
- This benefit is likely to be reduced under a prompt auction, where resources do not make build decisions based on auction outcomes
- Some stakeholders have requested that the ISO consider such a change even under the current forward annual construct

Simultaneous clearing across seasons

- Some stakeholders expressed interest in assessing an auction framework that simultaneously determines capacity awards and prices across all seasons in a single optimization
- Simultaneous may reduce risk of clearing for part of year and not fully recovering annual costs
 - Further assessment would be necessary to better understand this risk, and how it may be affected by the broader design
- Likely more complex to design and administer than serial clearing, though the ISO has not assessed its feasibility
 - Requires more offer/bid parameters
 - Clearing engine likely requires new constraints and logic
 - Not aware of it being used in other regions with seasonal capacity auctions

Modeling of long lead time resources

- Some stakeholders have asked that accreditation account for the lead time of resources
- As discussed during RCA, the resource adequacy framework and software (GE MARS) used to procure capacity is based around procuring enough resources to meet load during periods of high energy demand
- It is not likely to be feasible in the near term to modify this framework or software to consider shorter-term operational attributes, such as start times, in an economically sensible manner
- In any case, other markets (e.g., energy and ancillary services) may be better suited to ensure that the region develops a next day operating plan to account for uncertainty and contingencies that may arise in the short term

ISO is also assessing other modeling considerations and enhancements

These include, but are not limited to:

- Revising the existing load model
- Modeling frameworks for various resource types (e.g., DERAs, co-located resources, limited energy resources)
- Ambient temperature adjustments for thermal resources and correlated thermal generator outages

Conclusion and Next Steps

- Determining a fitting scope that ensures project viability and provides certainty to market participants for CCP 19 will require incisive prioritization
- If you have additional thoughts to share after this meeting, please reach out to MC Secretary, James Woods (jwoods@iso-ne.com), by July 22 to share feedback regarding this preliminary and non-exhaustive list of items, or to highlight items that you believe should be in consideration
- The ISO will provide a 'straw scope' at the August MC meeting for additional stakeholder feedback and consideration

Questions

