

Capacity Auction Reforms (CAR) Project - Public Power Input

High-Level Project Considerations

- The CAR project scope objectives should incorporate basic design principles that will be applied to the final CAR framework.
- While completing work in time for the 2028/2029 Capacity Commitment Period (CCP #19) is mandatory, it is also important that at least some material aspects of all three major elements of CAR (prompt capacity market design, seasonal capacity market design, and accreditation reforms) be part of the initial implementation for CCP #19.
- To help define the sequencing of major project activities, it would be prudent to contemporaneously define key factors and elements of both the prompt market design as well as the seasonal market design that are reasonably likely to have implications for other respective design elements as early in the process as possible. With this in mind, a staged FERC filing approach, first involving the delineation of these key prompt and seasonal market elements, including retirement reform notification deadlines, in the late 2025/early 2026 timeframe, makes the most sense. The second filing, in the late 2026/early 2027 timeframe, would then fill in the gaps for the prompt/seasonal market design, along with the capacity accreditation provisions.
 - A number of significant elements of the prompt market design have implications for the potential outcomes for the seasonal market design and vice versa. As an example, if we decide to hold the prompt auction 6 months prior to the start of the capacity commitment period (December of the prior year), and we also decide to hold the seasonal auctions simultaneously, then resource commitments would be made one year prior to the start of “deep winter” seasonal period. This may reduce some of the advantages of holding separate seasonal auctions. (Another possible way of addressing this particular concern would be to move the start of the Power Year from June 1 to December 1). Inevitably, market design decisions involve trade-offs, and we believe that considering these trade-offs early in the process and at the same time for the prompt and seasonal market designs provides the best chance of developing a robust and beneficial overall design.
 - For the prompt market design, the initial filing should include the auction timing, pre- and post-auction activities and milestones, and retirement notification (including whether permanent retirements need to be reflected somehow in the Order 2023 Cluster Study process.) For the seasonal market design, the initial filing should include the definition of seasons, serial versus simultaneous seasonal auctions, and (possibly) the start of the power year.

- That said, longer lead time items for the accreditation reforms should be started in parallel with the development of the prompt market design/retirement reforms to the greatest extent possible. For example, incorporating a gas market constraint into the accreditation design is a significant and complicated project. The commencement of this effort should not be delayed until after the initial FERC filing for the prompt/seasonal market and retirement notification/reforms.
- Based on discussions during the July 9-10, 2024 Markets Committee meeting, it is evident that virtually every issue in the ISO presentation is a core issue for at least one stakeholder or subset of stakeholders. It may make sense to initially filter out those options that are feasible for implementation by CCP #19, those that are only feasible by compromising on other key elements of the overall CAR design, and those that can feasibly be developed on a stand-alone basis. At a minimum, continued emphasis on the third project objective (avoiding scope creep) will remain a significant consideration going forward, especially once we “lock in” on the elements for the initial FERC filing. In other words, it is better to get 80% of the possible benefits from all three of CAR’s design elements for CCP #19 than to have to delay one or more elements to try to achieve the “perfect” design.

Core Scope Items - Prompt Market Design

- One of the advantages of the prompt auction design is that it reduces uncertainty about load requirements, resource and supply availability, fuel prices, and fuel availability, which should translate into lower risk premiums that have to be built into supply offer prices.
 - Holding the auction too far before the start of the capacity commitment period will tend to increase this uncertainty and put upward pressure on risk premiums.
 - Holding the auction too close to the start of the capacity commitment period makes it more challenging for resources to take action based on known market outcomes.
 - It probably makes sense to reach out to natural gas, LNG, and oil suppliers to gain a better understanding of the time horizons that will maximize the likelihood that resources can procure the needed fuel and at the lowest reasonable cost.
 - At this point, we consider that holding the auction 6 months prior to the start of the capacity commitment period strikes the right balance.
- It seems likely that retirement notifications will need to be made in advance of the auction date. Key questions with respect to evaluating this timeline include:
 - Should 1 year delists be treated differently than permanent retirements? What about resources that will remain in the Energy & Ancillary Services markets versus resources seeking to exit all markets?
 - Do potential retirements need to be considered in conjunction with the Order 2003 Cluster Study process before they are allowed to exit the capacity market (at least for

resources seeking to permanently exit all markets)? Do priced and permanent retirement determinations for a Capacity Auction need to be settled prior to the finalization of an Order 2023 Cluster Study Base Case associated with that same Capacity Auction CCP?

Core Scope Items - Seasonal Market Design

- Initially, it makes sense to define a stand-alone “deep winter” season encompassing December - February. This will help directly address ongoing concerns about “winter reliability” associated with a concentration of measurable LOLE risk during these months. This may also facilitate the development of the accreditation reforms.
- Whether we split the rest of the year into multiple seasons or combine them into a single 9 month season is a different question.
 - Initially, it appears that the balance of annual LOLE risks is concentrated in the “deep summer” months (June - September). As long as this remains valid, it may make sense to go with a 3 month “winter” season and a 9 month “summer” season. If substantial LOLE risk shows up in the spring and summer periods, then it may make sense to add additional seasons.
- At this point, we believe that for CCP #19, there should be 2 seasons - a 3 month winter season and a 9 month “summer” season. We believe that this simplifies the design considerations and may facilitate continued progress for the accreditation activities.

Core Scope Items - Accreditation

- While significant progress was made during the RCA process, one of the critical “deal-breaker” items remaining for many public power systems was how to reflect replenishment strategies for quick-start peaking resources. Incorporating replenishment into the Energy Capacity calculations needs to be included in the detailed design plan for the accreditation element of CAR.
- Several stakeholders have questioned whether the resource adequacy value of Tie Benefits calculated by GE MARS should be looked at as equivalent to “perfect capacity,” which is used to quantify the MRI Capacity (MRIC) values for market-based capacity resources. Even “perfect capacity” does not have an MRI value equal to 1.00 and, as ISO made clear during the July 16, 2024 Reliability Committee meeting, the methodology used for calculating Tie Benefits is virtually identical to the methodology for calculating the MRI for perfect capacity. As a result, we expect the rMRI values applied under the RCA would result in an equivalent calculation of the reliability value of the Tie Benefits. We agree with ISO that it is appropriate to evaluate (for consistency) the modeling assumptions in each of the 4 control areas in the multi-area analysis; however, there is no need for any fundamental changes to the Tie Benefit methodology.

Feedback on Impact Analysis

- As we stated at the Markets Committee meeting (and previously), the RCA impacts were driven by two basic factors: changes in the RAA model and implementation of the RCA accreditation design. Separating the impacts of the RAA modeling changes from the other CAR impacts will continue to be an important element, at least in terms of any subsequent Impact Analysis results for CAR.
 - We believe that in general the RAA modeling changes are important and necessary enhancements to the region's resource adequacy process, as exhibited by the work on the Future Grid Reliability Study Phase 1. Separating the cost impacts of these model enhancements from the impact of the underlying market design changes provides the opportunity for a more balanced assessment of the implications of the market changes.
- The benefits of the prompt and/or seasonal capacity market design result primarily from reducing uncertainty, which should lead to lower risk premiums in capacity market supply offers and a shift in the supply offer curve. While the Analysis Group report attempted to evaluate the economic impacts of this risk reduction, we also believe that it will be a challenge to fully quantify these impacts directly into the traditional Impact Analysis framework. More of a scenario-based approach may be necessary to try and "bracket" the range of any possible outcomes.

Feedback on Offer Price Formation/Supply Offer Components

- Most stakeholders on the supply side of the market have identified price formation as a core design item. In large part, we believe that these concerns stem from uncertainty about the nature and extent of mitigation in the CAR design. We generally agree with ISO's assessment that moving to a prompt/seasonal capacity market design should not materially impact capacity market prices over the long term. Defining (or redefining) basic mitigation principles as early as possible in the process may help address some of these concerns.
 - One of these key principles should be that if a resource is not found to be "pivotal," it can be offered into the market at whatever price they see fit.
 - For pivotal resources, consideration of allowing some limited portion of demonstrable fixed or capital costs into a supply offer price may be warranted, subject to review and approval by the IMM.

Feedback on Treatment of Retained Resources

- We generally agree with ISO that, on a long-term basis, the resource retention risk for transmission security reasons should be fairly low and not materially different under a prompt/seasonal capacity market design than it has been under the current annualized,

forward capacity market design. With that said, we remain concerned about the potential loss of needed balancing resources on the system.

- A key question remains whether (and how) transmission security risks will be identified in the process of evaluating resource retirement requests. Including such requests in the Order 2023 Cluster Study process most likely provides the most reasonable basis for evaluating these issues.
- With balancing resource concerns in mind, to the extent resource retention remains a key consideration in the CAR design, consideration of eliminating the “price-taker” requirement for retained resources in the capacity auction may be warranted.
 - One approach to address this may be to adopt a “proxy resource” framework with the price of the proxy resource equal to the relevant clearing price from the most recent competitive auction for market settlement purposes. At a minimum, such an approach would help mitigate potential price suppression impacts of the retained resource, which we have seen in previous auctions.