

# Assessing FCM Commitment Horizons

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## *Overview of Analysis Group's Scope of Work*



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# Analysis Group's Report Will Build on ISO's Assessment of Prompt and/or Seasonal

- ISO discussed considerations and tradeoffs associated with a move to a prompt and/or seasonal capacity market with stakeholders
  - [July presentation](#), [August presentation](#), [September presentation](#)
- ISO is contracting with Analysis Group (AGI) to develop a report that extends the ISO's assessment of tradeoffs associated with alternative FCM commitment horizons to help inform the ISO's determination of whether to proceed with developing a prompt auction proposal
  - Leverage AGI's expertise in the region's wholesale electricity markets, approaches taken in other RTOs, and quantitative modeling
  - In November, AGI will outline the analysis methodology, gather preliminary stakeholder feedback, and present any initial findings
  - Report will be shared with stakeholders in December

# Key Takeaways: Prompt Auction

- **Information:** Uses more up-to-date information to determine auction demand parameters, accreditation values, etc.
- **New entry:** Auction outcomes are less likely to facilitate entry decisions
  - May be less important now than when FCM was developed
  - Reduces both revenue certainty and development timing risk for entrants
- **Phantom entry:** Helps address concerns about phantom or late resources
- **Retirement/interconnection processes:** Changes may be needed so that these are completed in advance of capacity auction
- Appendix includes key takeaways discussion slides from September

# Key Takeaways: Seasonal Auction

- **Seasonal supply/demand parameters:** Procurements better reflect resource capabilities and demand by season
  - Helps position region for future where risk is spread across summer and winter
- **Supplier costs:** Capacity sellers can reflect their costs of providing capacity by season
  - May improve market efficiency by procuring capacity more cost effectively between seasons
- Appendix includes key takeaways discussion slides from September

# Thinking About How to Assess These Tradeoffs

- Some stakeholders asked the ISO to define or explain the problem with the current auction framework
- This assessment is less about solving a specific problem, and instead will focus on sharpening our understanding of the tradeoffs associated with alternative FCM commitment horizons
- In this case, there are pros and cons to both a forward and a prompt, an annual, and a seasonal capacity market
- With an understanding of these tradeoffs, the ISO will then make a recommendation regarding whether to proceed with developing a prompt auction proposal

# OVERVIEW OF ANALYSIS GROUP'S SCOPE OF WORK FOR ASSESSING FCM COMMITMENT HORIZONS

# Objectives of AGI Report

- Assess the pros, cons, and key considerations associated with moving to a prompt and/or seasonal capacity market
- Report will provide valuable information to the region regarding these tradeoffs, and help inform the ISO's recommendation about whether to pursue a prompt and/or seasonal capacity market
  - Discussion ahead of any recommendation will continue after report is completed in December

# AGI Report Will Assess Move to Prompt and/or Seasonal Capacity Market

- Report will separately consider the impacts and tradeoffs of moving from the status quo (forward-annual) to a (i) prompt-annual and (ii) prompt-seasonal capacity market
  - Will also assess forward-seasonal; while this option is not in consideration for CCP 19, it may provide useful context
- Consistent with ISO's intent to introduce capacity accreditation reforms for CCP 19, analysis will assume such enhancements are in place
- Report will include quantitative and qualitative analysis, and discussion of key design considerations and tradeoffs that the ISO should consider in evaluating a move to prompt and/or seasonal capacity market



# Key Design Elements Assessed

As part of the report, AGI will assess the role of the auction structure on:

- Market efficiency
- Entry/exit decisions
- Price volatility
- Capacity accreditation
- Supplier offers and risk
- Mitigation

# Quantitative Analysis Will Assess Change in Market Outcomes

- Analysis will use a capacity market simulation model to simulate market outcomes under both status quo (forward/annual) and prompt and/or seasonal market under a range of scenarios (*discussed next*)
- Impacts determined by difference in outcomes between status quo and prompt/seasonal simulations
  - Key market outcomes considered include capacity clearing prices and quantities, and costs
- Leverages earlier modeling work AGI has done in New England and other RTOs

# Quantitative Analysis: Scenarios Considered

- AGI is assessing what scenarios it will include as part of its quantitative analysis
- Expect scenarios to consider the following:
  - Alternative assumed resource mixes and forecast Net ICR
  - The role of information in auction inputs (e.g., capacity demand, accreditation values) involving forward and prompt, annual and seasonal
  - The differences in risks with selling capacity between auction approaches

# Qualitative Analysis and Key Design Considerations

- While assessment will endeavor to quantify potential impacts where feasible, some considerations cannot be quantified due to data limitations, modeling challenges, etc.
  - These elements will be assessed qualitatively
- Report will also evaluate key design elements associated with a prompt and/or seasonal market for which, if the ISO were to pursue a change:
  - AGI has a recommended approach,
  - AGI does not have a recommended approach, but has identified key considerations or tradeoffs, and
  - Further assessment would be merited

# Continued Discussion and Stakeholder Feedback

- This analysis will inform further considerations on the tradeoffs associated with alternative FCM commitment horizons and help the ISO with determining whether to proceed with developing a prompt proposal
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- AGI will work to make the report as responsive to stakeholder feedback and requests as possible
  - Stakeholder comments offered in September were noted and appreciated
- Where possible, will provide quantitative analysis or qualitative discussion of key areas of stakeholder interest
  - Due to the limited time to complete the assessment, AGI may not be able to complete analysis that addresses every stakeholder request
  - Discussion of move to prompt and/or seasonal will continue after the report is complete

# NEXT STEPS

# Projected Stakeholder Schedule

Stakeholder Committee and Date	Scheduled Project Milestone
Markets Committee, <a href="#">July 11, 2023</a>	ISO reviews alternative FCM commitment period horizon key considerations
Markets Committee, <a href="#">Aug 8-10, 2023</a>	
Markets Committee, <a href="#">Sept 12-13, 2023</a>	
Markets Committee, Oct 11-12, 2023	ISO overview of scope of AGI's work
Markets Committee, Nov 7-8, 2023	AGI outlines methodology, gathers stakeholder feedback, and presents any preliminary findings
Markets Committee, Dec 12-13, 2023	AGI publishes final report and presents key findings
Markets Committee, Q1 2024	ISO recommendation on whether to develop prompt proposal

# Parallel Stakeholder Processes

- While the ISO continues to evaluate plans of moving to prompt and/or seasonal auctions for CCP 19 and beyond, it is preparing to implement RCA for CCP 19 with the auction delayed to 2026
- Below are the parallel stakeholder processes associated with these FCA 19-related efforts

		2023			2024											
		Q4			Q1			Q2			Q3			Q4		
		O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
RCA Forward, Annual (for FCA 19 if delayed)	Refresher	Conceptual and Detail Design					Final Design, Review Tariff, and Amendments			MC/RC Vote	PC Vote File				Eff. Date	
FCA 19 One-Year Delay	Review Tariff	MC Vote	PC Vote	File	Eff. Date											
Alternative FCM Commitment Horizons	Analysis - Scope, Methodology, and Findings	ISO recommendation on whether to develop prompt proposal														



# Questions



# APPENDIX 1: KEY CONSIDERATIONS: PROMPT CAPACITY MARKET

# Prompt Market: Up-to-Date Information

**Summary:** Allows the auction to include more up-to-date parameters relating to supply (expected resource mix, capacity accreditation) and demand

- Up-to-date information will improve the ISO's ability to estimate Net ICR, leading capacity prices to more accurately reflect its marginal reliability impact
- Having a clearer sense of the resource mix will allow for more accurate estimates of capacity accreditation values
  - When the auction is run forward, ISO has to forecast the resource mix and if this forecast differs from the actual resource mix, resources may receive accreditation values that are less aligned with their reliability contribution
  - This may lead to less efficient outcomes

# Prompt Market: Retirement Process

**Summary:** Changes may be needed so that these are completed in advance of auction

- With a prompt framework, the retirement process may need to be moved out of the capacity market
  - Other RTOs already have retirement processes that occur outside of the capacity market
  - How such a design would work has not been fully assessed
  - May allow less time for region to react to retirement decisions
  - Moving deadline closer to delivery period may decrease risk to generators considering retirement because they have more time to make such decisions

# Prompt Market: Interconnection Process

**Summary:** Changes may be needed so that these are completed in advance of auction

- To address FERC Order 2023, the ISO will be required to migrate to a single annual cluster process, with equal queue positions and shared upgrade cost allocation within the cluster, for studying new interconnections
  - Such a change may necessitate moving the capacity interconnection process outside the capacity market qualification framework, regardless of a change to a prompt market design
  - This re-alignment would be supportive of a move to a prompt construct

# Prompt Market: Changes Market's Role in Entry Decisions

**Summary:** Capacity price not known before go/no go decision

- This change may affect some developers, but this concern does not seem as material as when the FCM was developed
  - Introduction of sloped demand curves reduces price volatility
  - Elimination of the price lock means new resource only receives the Capacity Clearing Price associated with the auction when it first sells capacity for one year, rather than for seven years
  - For many new projects, the current three-year forward may not align with their development time horizon

# Prompt Market: Changes Market's Role in Entry Decisions (con't)

**Summary:** Reduces concerns about uncertain commercial date

- For projects that face uncertain development timelines, a three year forward may create risks because their auction participation is based on their expectations of when they'll become commercial
- Under the current forward construct, resources may account for the risks associated with this uncertain commercial date in their offer price
  - Concern is noted in [Potomac Economics' 2022 Assessment of the New England Electricity Markets](#) (p. 66-67)

# Prompt Market: Phantom Entry

**Summary:** Can help address concerns about phantom resource entry because all participating capacity is (potentially) existing

- Resources participating in the auction have already demonstrated an ability to provide energy during the CCP
- Helps address concerns about new resources selling capacity and then not being commercial when the delivery period comes
- Therefore, improves capacity market signals because they are based on actual capacity supply
- As stakeholders noted, further assessment may be necessary to develop rules governing auction participation in a prompt setting



# Prompt Market: Pricing Outcomes

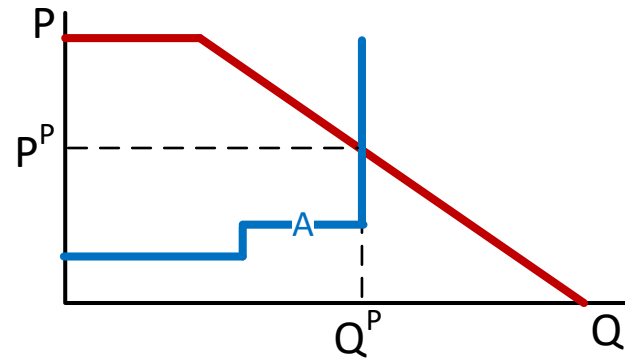
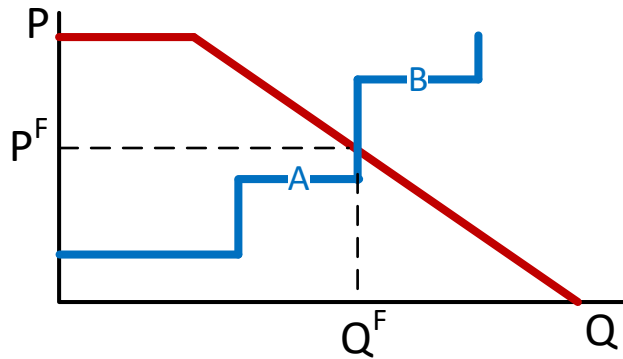
**Summary:** Under many cases, do not expect a move to prompt would materially impact expected clearing prices

- Logic: Under a prompt framework, developers build resources when they expect the Capacity Clearing Price to exceed the capacity payment they would have required to enter if the auction had been forward
- When developers have accurate expectations, results in similar capacity prices
- *Next:* Figure illustrating this equivalency



# Prompt Market: Pricing Outcomes (con't)

- Consider two potential entrants, low cost A and high(er) cost B
  - A expects to recover its costs under a prompt setting (and therefore is developed), whereas B does not
  - Supply curve changes between forward (left) and prompt (right)
  - But clearing quantity and price are not changed ( $P^F = P^P$ )



# APPENDIX 2: KEY CONSIDERATIONS: SEASONAL CAPACITY MARKET

# Seasonal Market: Accounts for Seasonal Differences

**Summary:** Allows procurement to better reflect capabilities and needs for each season

- Demand for each season would be consistent with region's resource adequacy needs
- Suppliers' offer quantities correspond with their capabilities during that season
  - May no longer need to have annual obligations that do not align with seasonal capabilities or decompose annual awards into seasonal obligations
  - Addresses concerns regarding resources, such as certain active demand resources, that may only (primarily) perform in one season
- Helps position region for future where risk is spread across summer and winter seasons

## Seasonal Market: Accounts for Seasonal Differences (con't)

**Summary:** Allows sellers to account for costs and risks (PFP) at seasonal level

- Sellers can reflect resource-specific costs associated with providing capacity in each season in their offers
- Relative costs/prices across seasons determined by market, as informed by stakeholder offer quantities and prices by season
- Will help to produce more efficient clearing outcomes as auctions award Capacity Supply Obligations to the lowest cost set of resources

# APPENDIX 3: KEY CONSIDERATIONS: PROMPT AND SEASONAL CAPACITY MARKET

# Prompt and Seasonal Market: Significant Effort

**Summary:** If the region pursues a prompt and/or seasonal market, the timing of the workload may impact the ISO's ability to work on other priority items for a period of time

- Each of these three potential changes (RCA, prompt, seasonal) is a significant effort on its own, and pursuing all three simultaneously would be a major undertaking
- That being said, pursuing these changes in parallel may also require significantly less total work than pursuing them in a sequential manner (that is, over a series of Capacity Commitment Periods)