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October 24-26, 2023
Northampton, MA

Qualification: How to Participate in Forward Capacity Auction

Lesson 3C: Delisting

Forward Capacity Market (FCM 101)



This presentation is based on the current information available for the rules as they are today. The information in this presentation may change based on upcoming decisions made regarding the future of FCA 19 and will be covered in future training.

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Some slides or portions of slides may be intentionally hidden in the printed and posted versions of this presentation.

Objectives

- Recall how to remove capacity from Forward Capacity Auction (FCA) through delisting
- Recognize various types of delist bids available
- State submittal requirements for various delist bid types
- Identify cost and reliability review requirements for delist bids



Common Acronyms

In Order of Appearance

FCA	Forward Capacity Auction
IMM	internal market monitor
CCP	capacity commitment period
CSO	capacity supply obligation
DDBT	dynamic delist bid threshold
RDN	retirement determination notification
QDN	qualification determination notification
FERC	Federal Energy Regulatory Commission

Overview of Delist Bids



What is a Delist Bid?

Existing capacity that wants to leave or not participate in Forward Capacity Auction

- May leave only for the capacity commitment period (CCP) or permanently
- All existing resources automatically enter FCA unless they submit one of the following:
 - **Static** delist bid (leave only for CCP)
 - **Permanent** or **retirement** delist bid (leave permanently)
 - **Export** or **administrative export** delist bid

Delist Bids Submitted at Qualification

Due by Existing Capacity Retirement Deadline (March)

Permanent	Retirement
Option to remove capacity from capacity market permanently <i>(Cost justification required)</i>	Option to remove capacity from all markets permanently <i>(Cost justification required)</i>

Priced retirement model for FCA 18 was published to ISO New England website in 2023; to access:



1. Go to [Markets and Operations > Markets Data and Information > Forward Capacity Market](#)
2. Under **FILTERS**, use **FILE TYPE** to sort on **ZIP**
3. Under **DOCUMENTS**, the recently published models will be located in the [FCA 18 De-List and Test Price Models \(Revised Starting Price and PPR Static Models\)](#) zip file

Delist Bids Submitted at Qualification

Due by Existing Capacity Qualification Deadline (June)

Static (General)	Static (Ambient Air)
Option to remove capacity from the market at or above the dynamic delist bid threshold price during a single capacity commitment period <i>(Cost justification required)</i>	Option to remove capacity from the market for up to the megawatt amount that may not be physically available due to the difference between summer qualified capacity at 90 degrees and expected rating of resource at 100 degrees
Export	Administrative Export
Option to remove capacity from the market by exporting capacity for entire capacity commitment period <i>(Cost justification required)</i>	Option to remove capacity from the market if an export delist bid has been entered and has cleared in a prior Forward Capacity Auction

Cost Workbook for FCA 18 was published to ISO New England website in 2023; to access:



- 1. Go to [Markets and Operations > Markets Data and Information > Forward Capacity Market](#)
- 2. Under **FILTERS**, use **FILE TYPE** to sort on **ZIP**
- 3. Under **DOCUMENTS**, the recently published models will be located in the [FCA 18 De-List and Test Price Models \(Revised Starting Price and PPR Static Models\)](#) zip file

Delist Bid Submitted During Auction

Dynamic Delist Bid

Option to remove capacity from capacity market at prices below dynamic delist bid threshold during a single capacity commitment period (CCP)



Delist Bids Submittal Characteristics

Time and Price Thresholds

Delist Bid Category	Internal Market Monitor (IMM) Approval Price Threshold	Time of Submission
Permanent and Retirement	Bids at or above \$3.84 per kW-month and greater than 20 MW (on a portfolio basis)	At existing capacity retirement deadline
Static	Bids at or above \$3.84 per kW-month	At existing capacity qualification deadline
Export (including Administrative)	Bids at or above \$3.84* per kW-month	At existing capacity qualification deadline
Dynamic	No market monitor review required	During auction cycle

**Price threshold associated with 2027-2028 Capacity Commitment Period*



All delist bids are subject to a reliability review in accordance with Market Rule 1, Section III.13.2.5.2.5 and Planning Procedure 10 (PP-10) – Section 7

Delist System Planning Reliability Reviews

- IMM-approved retirement and permanent delist bids at or above the starting price, or those that opt to unconditionally or conditionally retire but opted-in to be reviewed for reliability, are reviewed in the summer by System Planning
 - What is impact to the system if the resource is needed and is unavailable?
- Delist bids may be rejected because it is needed for reliability
- Conditional or unconditional delists may decline to be retained for reliability
- New for FCA 19*
 - IMM-approved $\$*0.75 \geq$ FCA Starting Price: Summer Review
 - IMM-approved $\$*0.75 <$ FCA Starting Price : Fall Review



**UNDER
REVIEW**

**Pending FERC Filing*



Details of how reliability reviews are performed can be found in Planning Procedure No. 10 (PP-10), Section 7:
[Participate > Rules & Procedures > Planning Procedures](#)

M.R. 1 Section III.13.2.5.2.5

Delist System Planning Reliability Reviews, *continued*

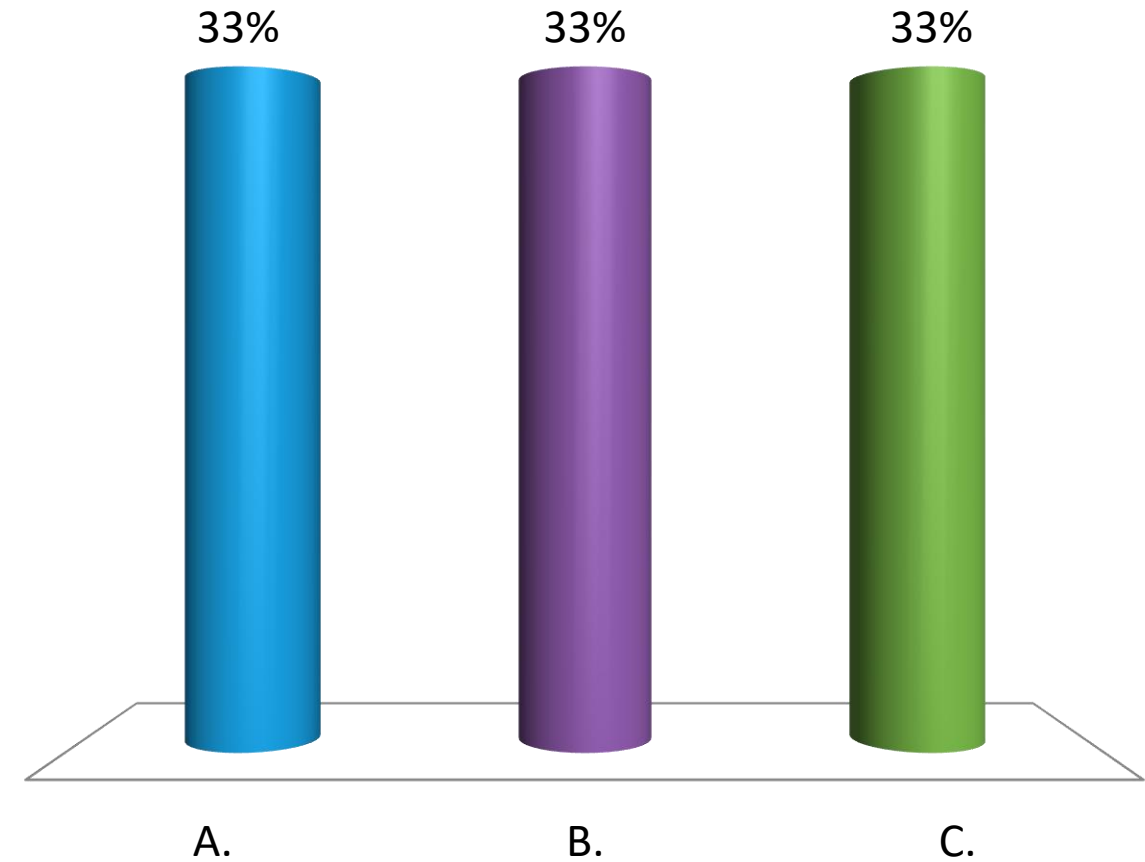
For all denied delist bids:

- Resource that has a delist bid rejected for reliability reasons shall be compensated and given a capacity supply obligation for the relevant capacity commitment period
- If reliability need is met through a reconfiguration auction or other means, resource will be delisted or retired as of first day of subsequent capacity commitment period



A static delist bid (general) provides the option to remove capacity from the capacity market...

- ✓ A. at prices at or above the dynamic delist bid threshold for a single capacity commitment period (CCP)
Cost justification required
- B. for up to the MW amount that may not be physically available due to difference between summer qualified capacity at 90 degrees and expected rating of the resource at 100 degrees
- C. at prices below the dynamic delist bid threshold during a single CCP
Cost justification required



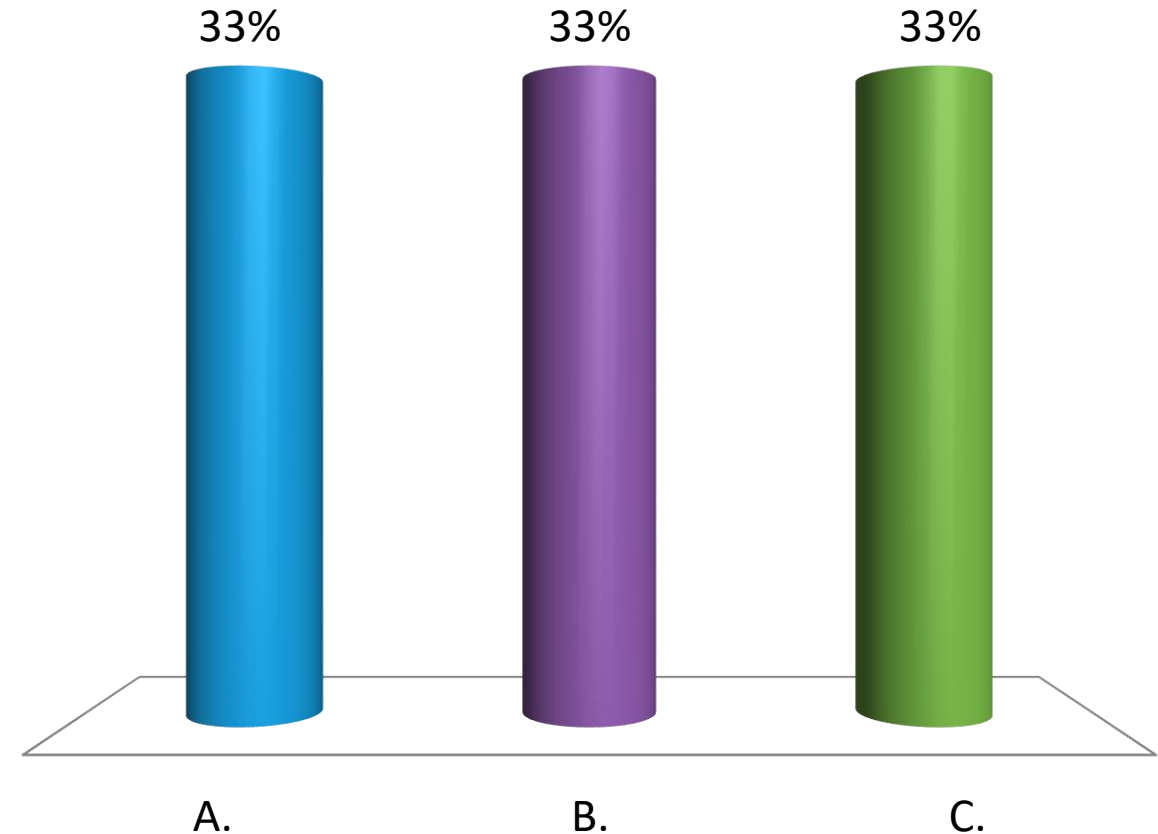
Q1 of 3

CCP = capacity commitment period

Select the correct definition for a permanent delist bid

- A. To remove capacity from the capacity market if an export delist bid has been entered and cleared in a prior FCA
- B. To remove capacity from the capacity market to export capacity during the CCP
Cost justification required
- ✓ C. To permanently remove capacity from the capacity market at the start of CCP
Cost justification required

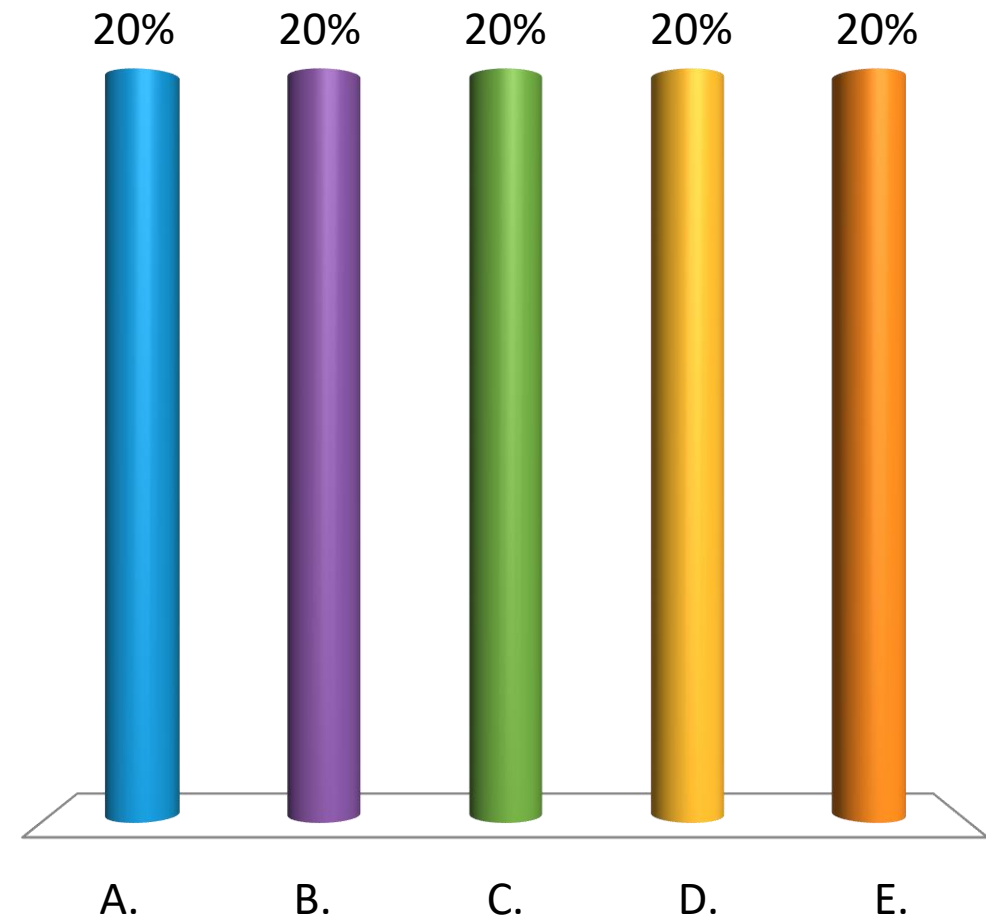
CCP = capacity commitment period



Q2 of 3

From the list below, which could result from reliability reviews?

- A. A retirement delist bid could be rejected
- B. A resource with a rejected delist bid will be compensated and given a capacity supply obligation (CSO)
- C. If the reliability need is subsequently met, the resource keeps its CSO through end of CCP
- D. A resource needed for reliability can opt to retire instead
- ✓ E. All of the above



Q3 of 3



Questions

Internal Market Monitor (IMM) Cost Review

Delist Internal Market Monitor Cost Review

- Internal market monitor (IMM) mission is to implement mitigation functions to limit the exercise of market power in the Forward Capacity Market (FCM)
 - Assure competitive market outcomes
 - FCM is sending appropriate investment signals
- For existing resources looking to exit the FCM, IMM performs a cost review to protect market from seller-side market power
- At end of process, IMM will come to a determination on bid price
 - Accepting original submitted price
 - Denying bid price to an IMM determined price (mitigation)



Purpose of Internal Market Monitor Cost Review



Seller-Side Market Power

Sellers of capacity may have ability and incentive to increase prices above competitive levels through economic withholding

IMM goal is to restrict resources from leaving market at a cost higher than their going-forward costs

Seller-Side Market Power

How a Participant Can Benefit from Economic Withholding

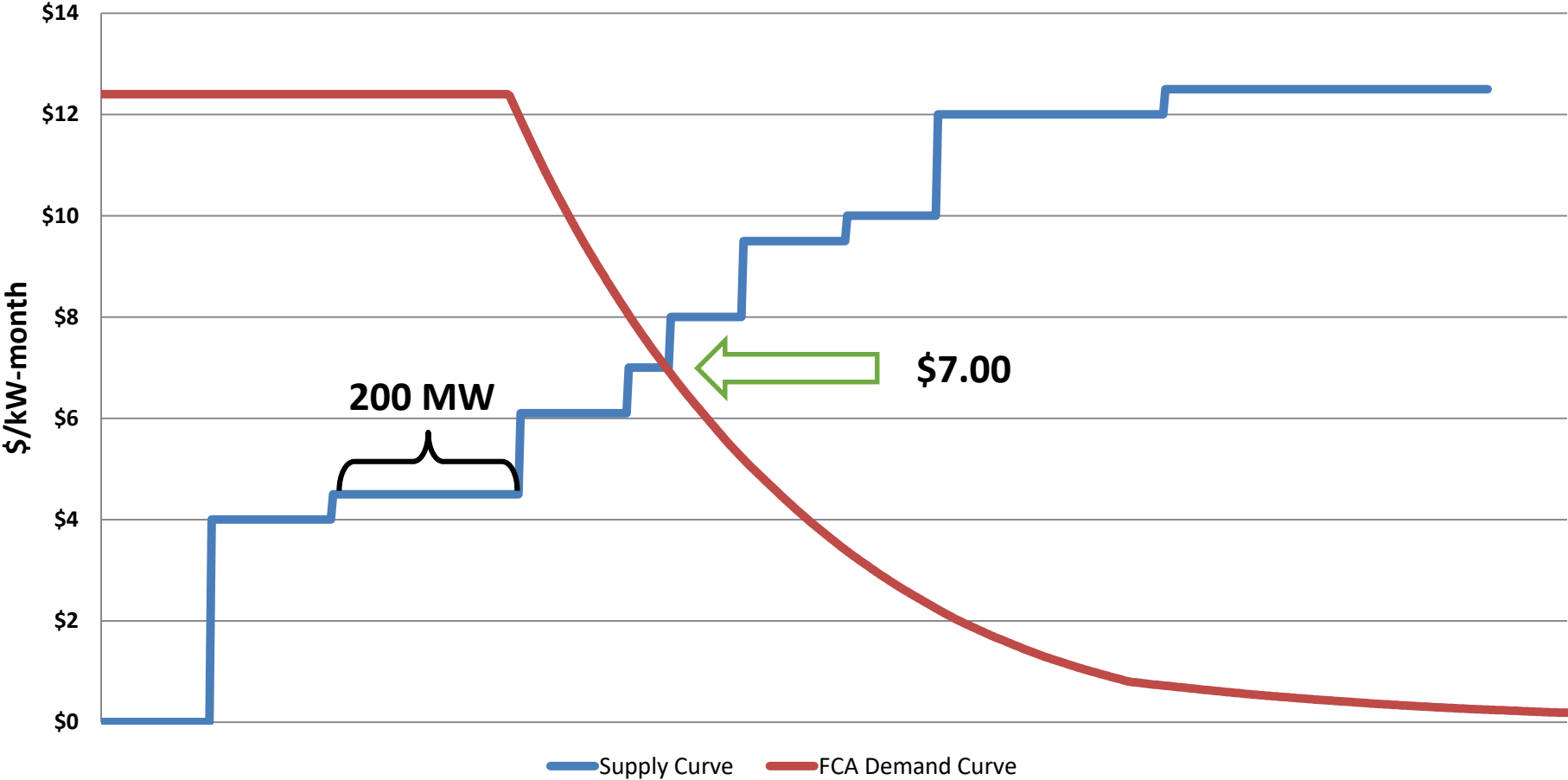
Participant Portfolio

Turbine-A	300	MW
Hydro-B	200	MW
Nuclear-C	1,700	MW
Total MW	2,200	MW



Seller-Side Market Power

Supply and Demand Curves – Forward Capacity Auction
Hydro-B Cost of Taking on CSO is \$4.50 per kW-month



Seller-Side Market Power

FCA outcome:

Hydro-B will obtain a capacity supply obligation (CSO) for 200 MW

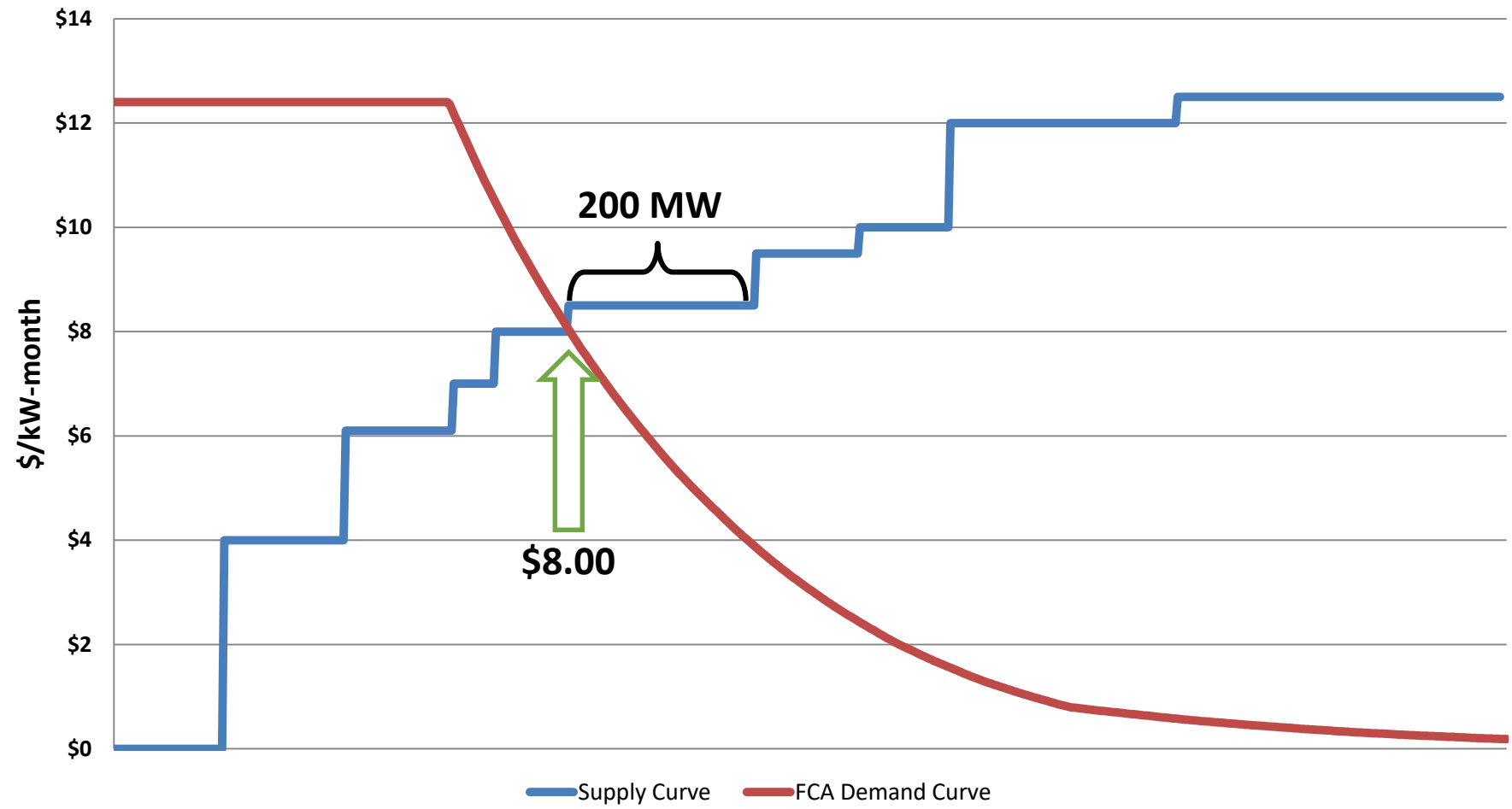
Participants total portfolio will be 2,200 MW

Turbine-A	300	MW	
Hydro-B	200	MW	←
Nuclear-C	1,700	MW	
Total MW	2,200	MW	←

FCA clearing price \$7kW-month
2,200 MW x \$7kW-month = **\$185,000,000**

Seller-Side Market Power

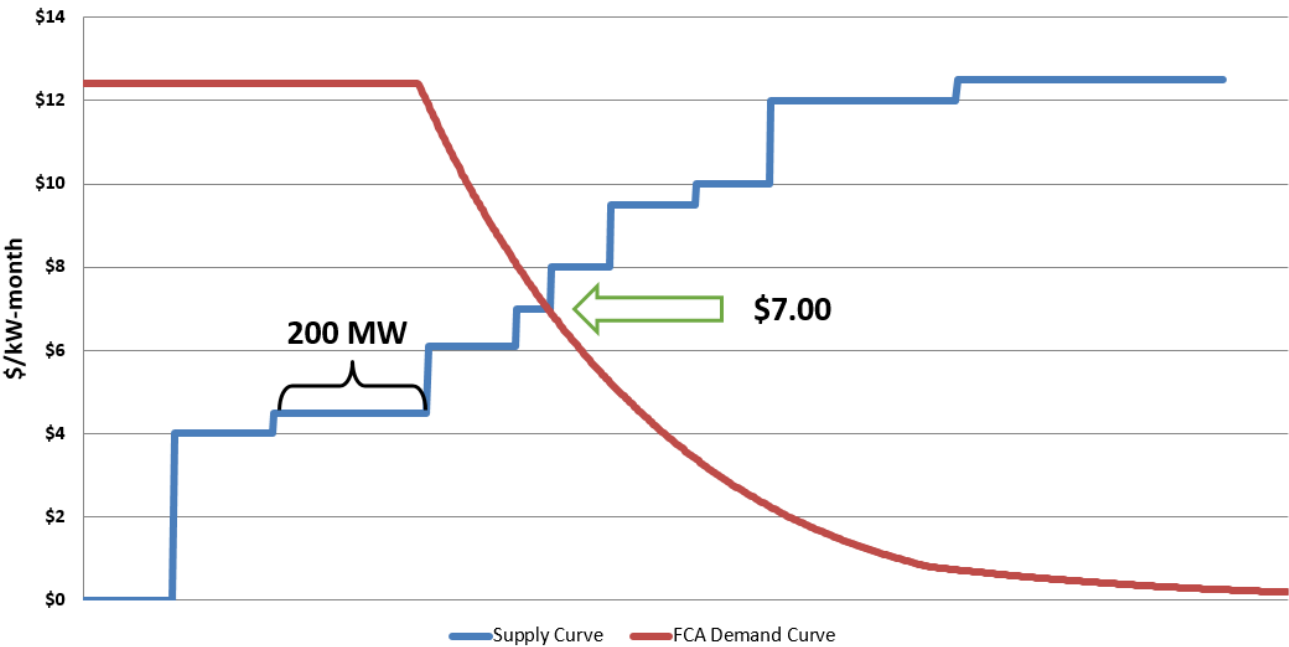
Supply and Demand Curves – Forward Capacity Auction
Hydro-B Cost of Taking on CSO is \$8.50 per kW-month



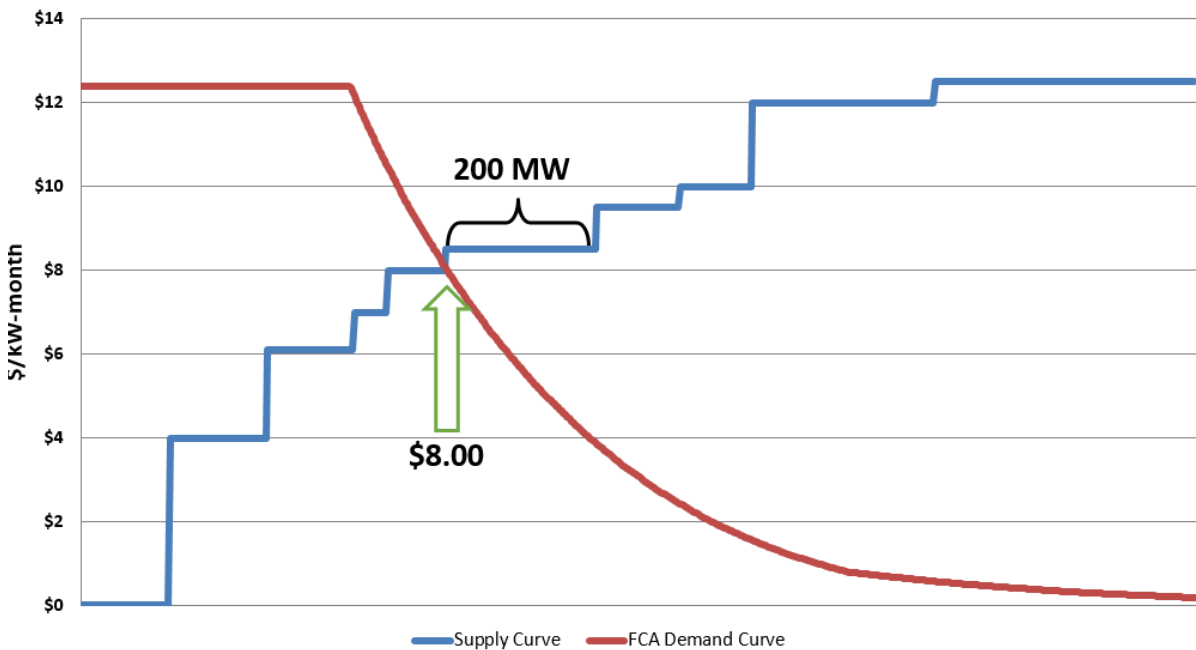
Seller-Side Market Power

Hydro-B Cost of Taking on Capacity Supply Obligation is \$4.50 per kW-month vs. \$8.50 per kW-month

Supply and Demand Curves – Forward Capacity Auction
Hydro-B Cost of Taking on CSO is \$4.50 per kW-month



Supply and Demand Curves – Forward Capacity Auction
Hydro-B Cost of Taking on CSO is \$8.50 per kW-month



Seller-Side Market Power

FCA outcome:

Hydro-B will not obtain a capacity supply obligation (CSO)

Participant's total portfolio will be 2,000 MW

Turbine-A	300	MW	
Hydro-B	0	MW	←
Nuclear-C	1,700	MW	
Total MW	2,000	MW	←

FCA clearing price \$8kW-month
2,000 MW x \$8kW-month = **\$192,000,000**

Seller-Side Market Power



Market Power Concern

Participant can financially benefit from economic withholding by misrepresenting their true costs for taking on a capacity supply obligation (CSO)

$2,200 \text{ MW} \times \$7\text{kW-month} = \text{\$185,000,000}$

vs.

$2,000 \text{ MW} \times \$8\text{kW-month} = \text{\$192,000,000}$

Internal Market Monitor Cost Review Process

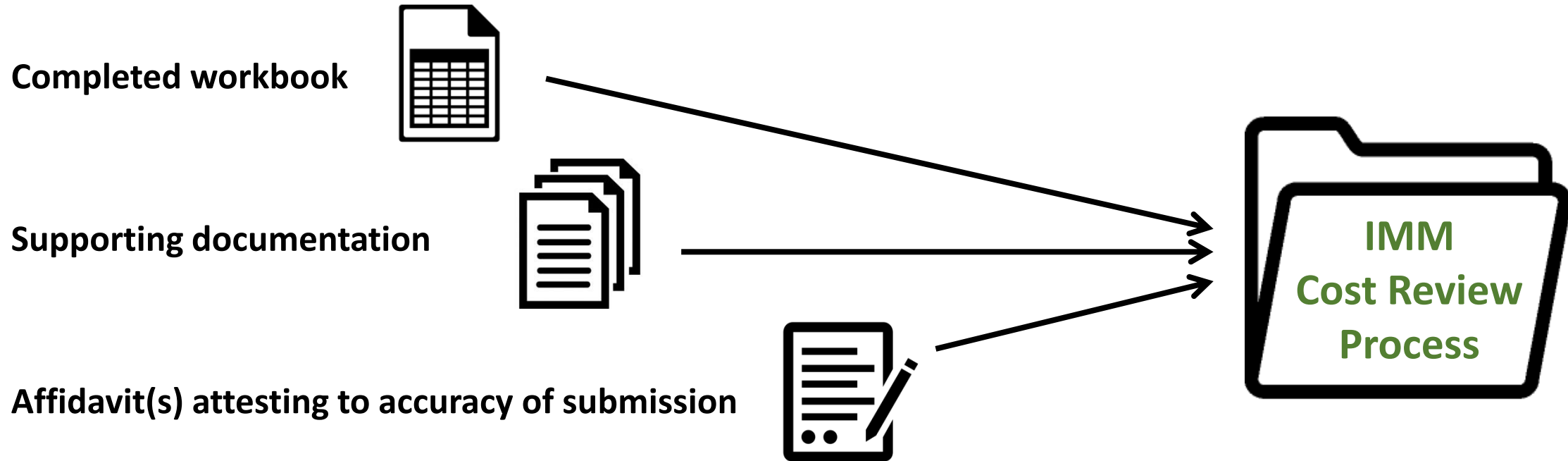
IMM only reviews delist bids above a certain threshold

- Static and export bids reviewed if above dynamic delist bid threshold (DDBT)
 - FCA 18 DDBT is \$3.84 per kW-month
- Permanent and retirement bids reviewed if above DDBT and portfolio greater than 20 MW



What Needs to be Submitted During Internal Market Monitor Cost Review Process?

Submission at existing capacity qualification deadline requires:

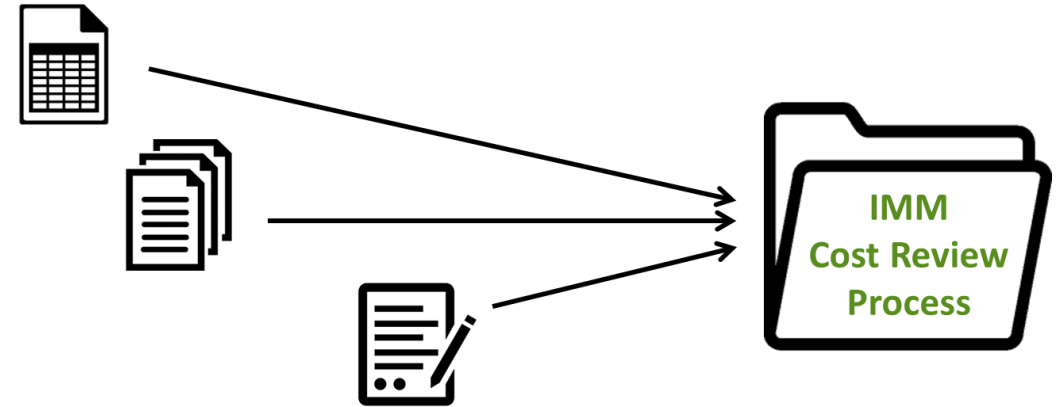


Sufficient documentation and information must be included with the delist bid to allow the internal market monitor to make a determination; contact IMM at intmmufcm@iso-ne.com

Internal Market Monitor Cost Review Process

Internal market monitor (IMM) goal is to restrict resources from leaving market at a cost higher than their going-forward costs

- During IMM cost review process, IMM will:
 - Consult with participants to understand their assumptions and methodologies
 - Email any follow-up clarifying questions to participant
 - Provide an open invitation for participant to meet with IMM staff to present and discuss delist submission
- IMM reviews delist bids to verify:
 - Consistent with resource going forward and opportunity costs
 - Capacity commitment period and risk calculations are sound methodologies and reasonable
- Internal market monitor reviews the incremental costs to taking on a capacity supply obligation

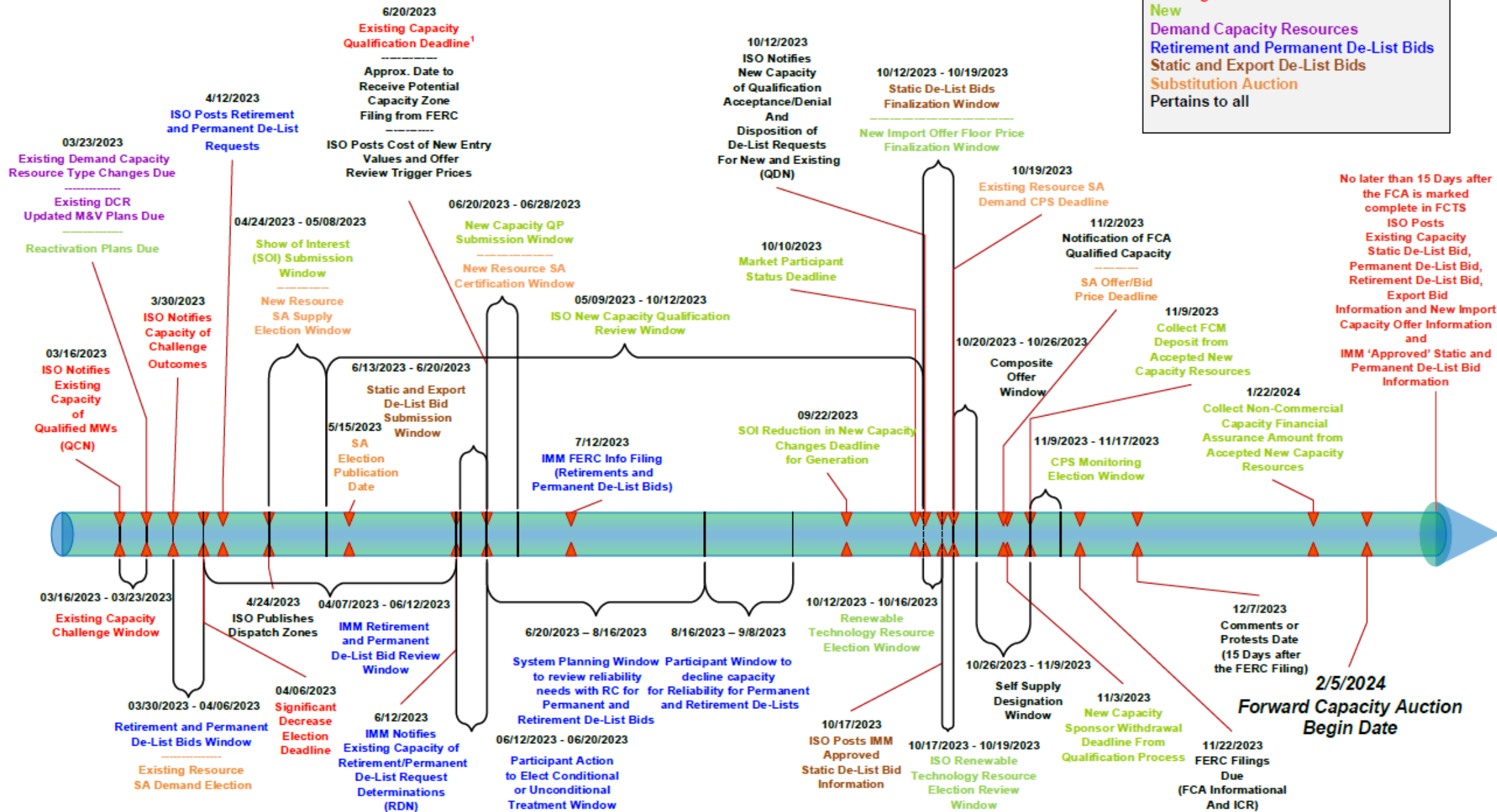


Forward Capacity Auction 18 Schedule

Capacity Commitment Period: 2027-2028

Key:

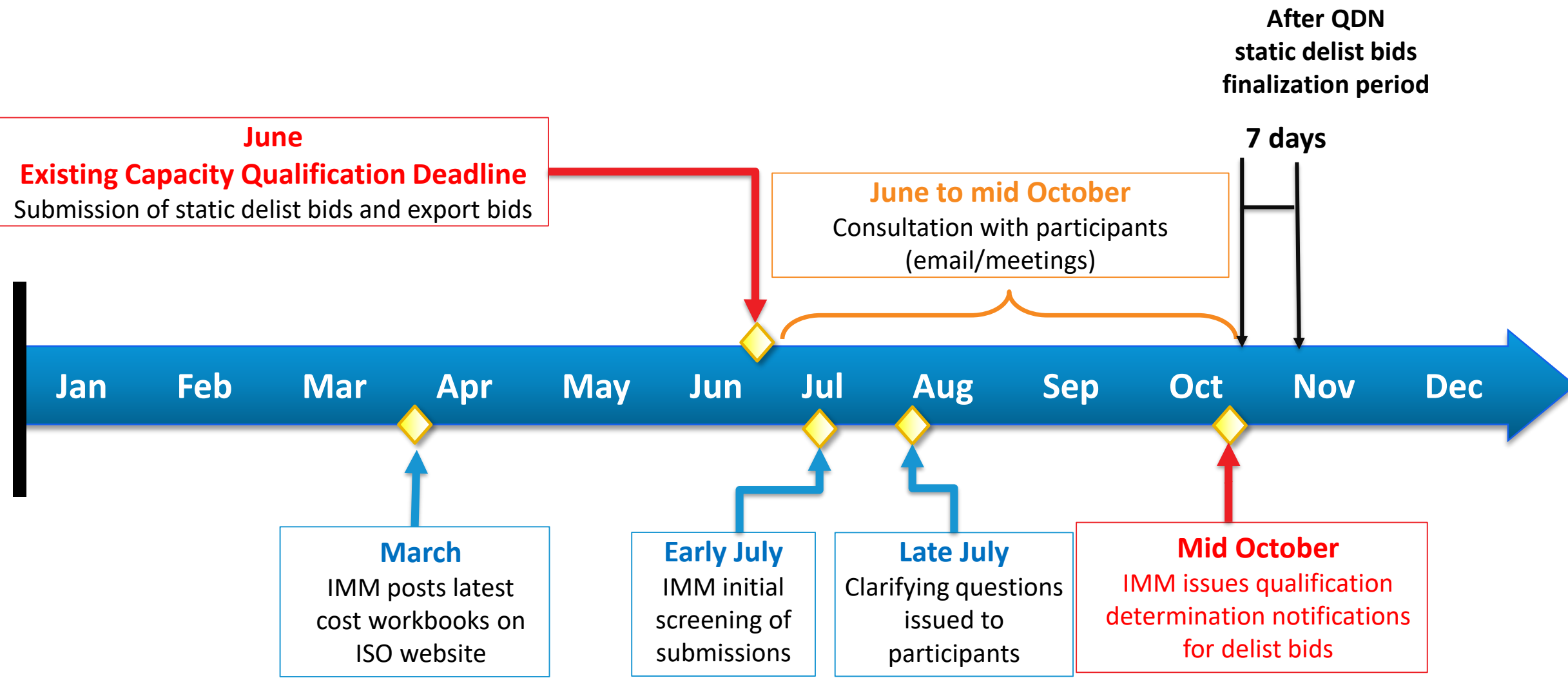
- Existing
- New
- Demand Capacity Resources
- Retirement and Permanent De-List Bids
- Static and Export De-List Bids
- Substitution Auction
- Pertains to all



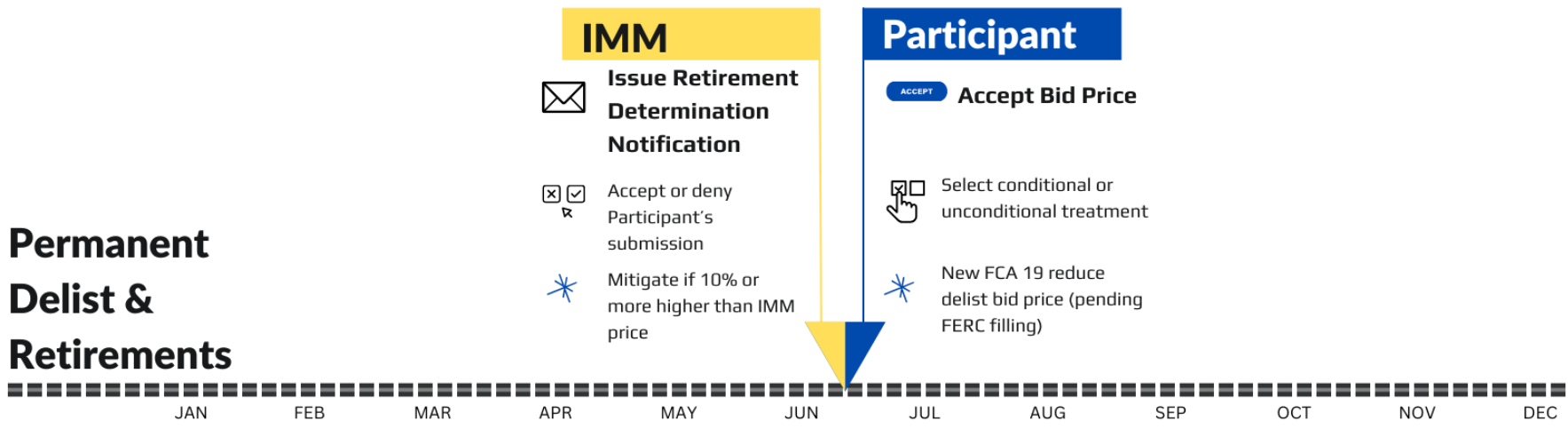
Revision Date: 01/04/2023

¹ Measures associated with a new On-Peak or Seasonal Demand Resource must have not been in service prior to June 5, 2023.

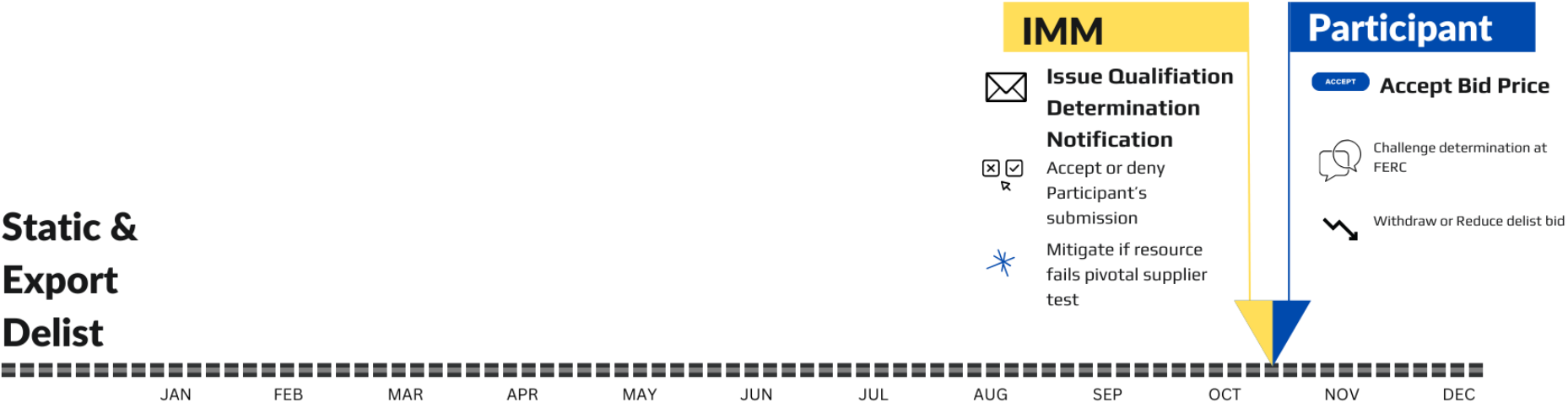
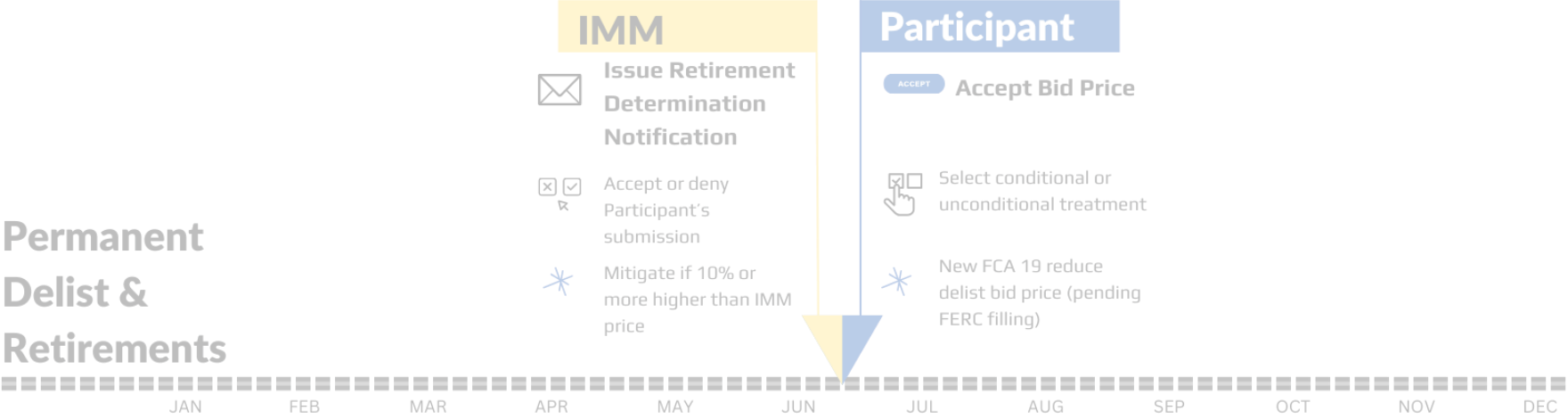
Static Delist Cost Review Timeline for FCA 18



Internal Market Monitor Cost Review Process



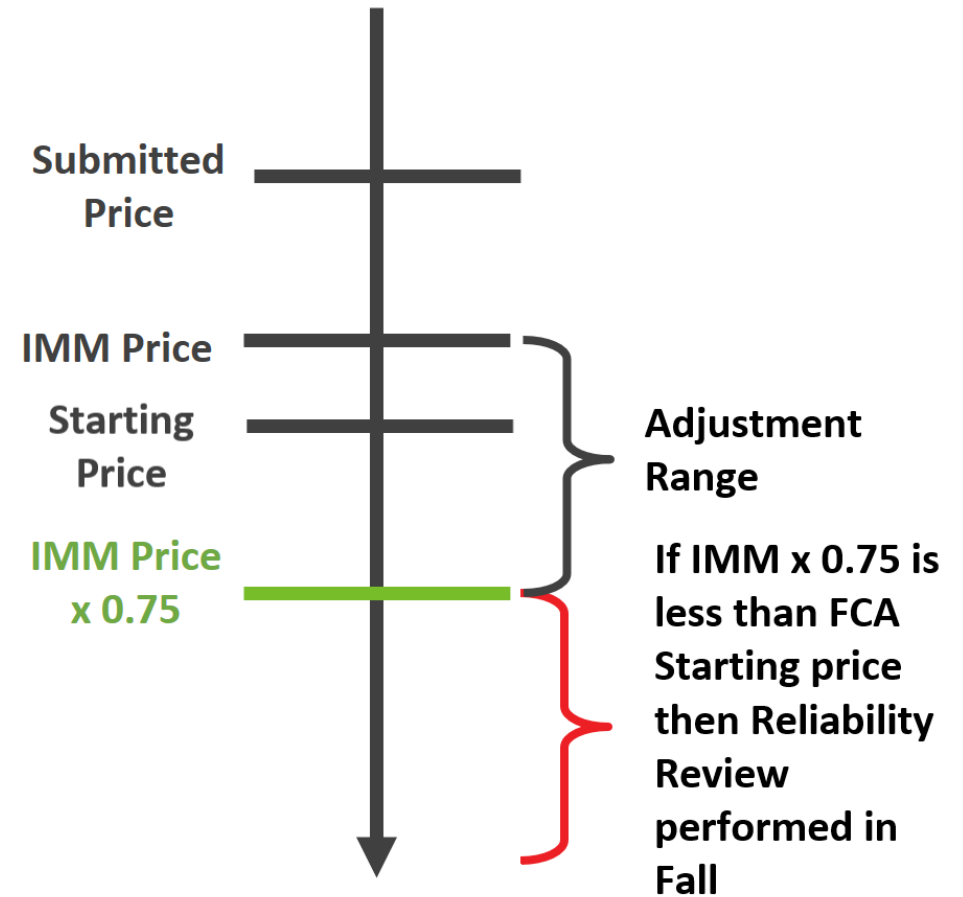
Post-Cost Review Options for Mitigated Delist Bids



Retirement/Permanent Delist Adjustment for FCA 19

Participant Actions

- Price adjustment will take place during the Static De-list Bid finalization window
- Prices can be adjusted down to 75% of the IMM-approved price
 - E.g., IMM-approved price of \$10 can be adjusted between \$7.50 and \$10.00
- IMM-approved bids, after accounting for a full downward adjustment, that are **below** the auction starting price and **have not** elected conditional or unconditional retirement treatments are eligible for the bid price adjustment



**Pending FERC Filing*

Summary

In this lesson, you learned about:

- How to remove capacity from the Forward Capacity Auction through delisting
- Various types of delist bids available
- Submittal requirements for the various delist bid types
- Cost and reliability review requirements for delist bids





Questions