

Potential Resource Retirement Process Changes

NEPOOL Markets Committee
January 11-12, 2022

Proposed Change Summary

Four originally-proposed reforms:

- Remove retirement track obligation – *deferred.*
- Allow offer updates – *unchanged – vote today.*
- Relax IMM review in certain situation – *deferred; more training for FCA-17.*
- Create a meaningful mothball option – *updated; vote in February.*

Need for changes and rationale for each was discussed in prior meetings

Schedule/voting: Vote offer updates today; mothball next month.

Voting – Interaction with MOPR Removal

- Vote retirement bid flexibility immediately after MOPR reform votes
 - File the bid flexibility rules as contingent on FERC elimination of Test Price in either the MOPR elimination or transition package
 - If Test Price stays, then defer filing/implementation of bid flexibility
 - **FCA-17 Implication** - Still make new retirement flexibility rules effective for FCA-17
 - Will be filed prior to March bid submission deadline, and hopefully approved well before the June dates for various elections.
 - We could provide special rules for FCA-17 retirement bids, like FCA-16, to cover possible FERC action after bids are due
- Vote Return from Retirement rules separately.

Offer Updates

Issue Recap

- **Retirement bids are due 11 months prior to the auction and cannot be updated for changes that occur between then and the FCA**
 - This adds significant, unnecessary risk to the process

Proposed Solution:

- Allow bids to be updated prior to the auction – similar to Statics

Details:

- Limit updates to a bandwidth, 25% below the initial (March) submission
- Updates on same schedule as Static Bid Finalization – mid-October
- Modify June elections to address reliability review of bids greater than Auction Starting Price, and move IMM FERC filing from June to November

Offer Updates – Bid Increases

Test Price Interaction

- Without the Test Price, an IMM price $>$ resource's offer is not provided to the resource. Without that visibility, no practical ability to increase offers without risking "fishing."
- ***Proposal only allows reductions below the IMM-approved price.***

Offer Updates – Reliability Reviews

Conditional Election - unchanged

- ISO Planning does early reliability reviews of bids \geq Auction Starting Price (ASP), unconditional and conditional (13.1.2.3.1.5.1)
 - Discussion last month considered moving Conditional Election from June to October to match with bid reduction. Has proven too complicated with impacts to Planning.
- ***No change to current dates or process***

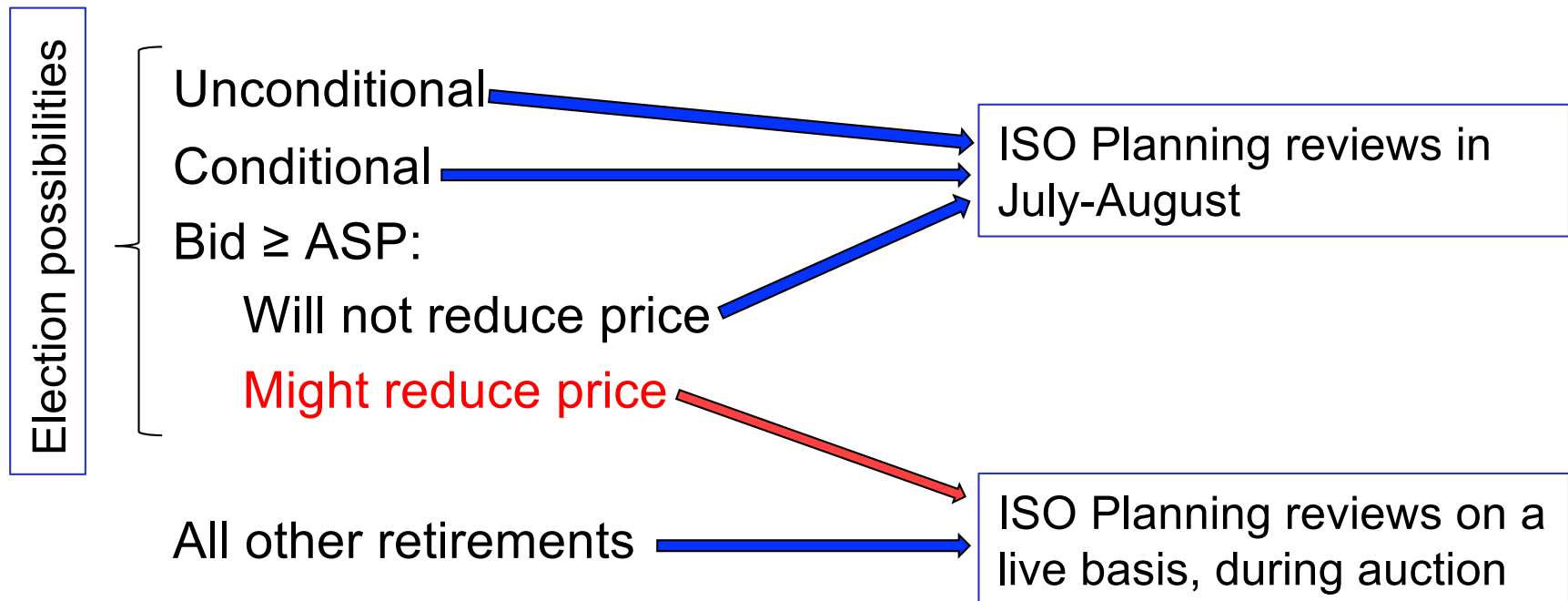
New election for bids \geq ASP

- Bids \geq ASP now need to be segregated into those that may reduce bids later, or stay with bid \geq ASP
 - Create a new election in June, same time as unconditional election. Electing to stay \geq ASP means early reliability review, like today. Not electing means reliability review is done in the auction like all other delists and allows later bid reduction. See next slide.
 - Election prevents situation where resource checks to see if needed for reliability at a higher price before later reducing.

Offer Updates - June Election Process

June Election Status

Reliability Review Process



“Might reduce price” is the only change from today

Bid Reductions - Examples

Examples of how bid modification would work:

Scenario #	1	2	3	4	5	6	7	8
Original Bid	\$ 8.00	\$ 8.00	\$ 8.00	\$ 8.00	\$ 8.00	\$ 8.00	\$ 8.00	\$ 8.00
Less 25%	\$ 6.00	\$ 6.00	\$ 6.00	\$ 6.00	\$ 6.00	\$ 6.00	\$ 6.00	\$ 6.00
IMM Initial Number	\$ 5.00	\$ 6.00	\$ 7.00	\$ 7.50	\$ 8.00	\$ 8.50	\$ 9.00	\$ 10.00
IMM Revised (*)	\$ 5.00	\$ 6.00	\$ 7.00	\$ 8.00	\$ 8.00	\$ 8.00	\$ 8.00	\$ 8.00
Auction high offer	\$ 5.00	\$ 6.00	\$ 7.00	\$ 8.00	\$ 8.00	\$ 8.00	\$ 8.00	\$ 8.00
Auction low	\$ 5.00	\$ 6.00	\$ 6.00	\$ 6.00	\$ 6.00	\$ 6.00	\$ 6.00	\$ 6.00
	These IMM numbers are revealed at QDN (June)							
	These IMM numbers are not revealed to the Resource							
(*)	IMM adopts proponents bid if IMM number is \geq 90% of proponent's original bid							

Offer Updates – Reliability Review Tariff

Modify tariff to continue reliability reviews for bids \geq ASP electing not to modify those bids later:

III.13.1.2.3.1.5.1. Reliability Review of Permanent De-List Bids and Retirement De-List Bids During the Qualification Process.

During the qualification process, the ISO will review the following de-list bids to determine if the resource is needed for reliability: (1) Internal Market Monitor-accepted Permanent De-List Bids and Internal Market Monitor-accepted Retirement De-List Bids that are at or above the Forward Capacity Auction Starting Price and have elected not to modify those bids pursuant Section III.13.1.2.4.1(c); and (2) Permanent De-List Bids and Retirement De-List Bids for which the LeadMarket Participant has opted to have the resource reviewed for reliability as described in Section

III.13.1.2.4.1(a) or Section III.13.1.2.4.1(b). The reliability review will be conducted according to Section III.13.2.5.2.5, except as follows:

Offer Updates – Bid Mechanics Tariff

Changes to 13.1.2.4.1: sets up bid modification:

III.13.1.2.4.1. Participant-Elected Retirement or Conditional Treatment and Allowable Bid Modification.

No later than five Business Days after the issuance by the ISO of the retirement determination notification described in Section III.13.1.2.4(a), a Lead Market Participant that submitted a Permanent De-List Bid or Retirement De-List Bid may make an election pursuant to Section III.13.1.2.4.1(a) or Section III.13.1.2.4.1(b) or Section III.13.1.2.4.1(c). If the Lead Market Participant does not make an election pursuant to Section III.13.1.2.4.1(a), or Section III.13.1.2.4.1(b) or Section III.13.1.2.4.1(c), the prices provided by the Internal Market Monitor in the retirement determination notifications, subject to updates specified in Section III.13.1.2.4.1(d), shall be the finalized prices used in the Forward Capacity Auction as described in Section III.13.2.3.2(b) (unless otherwise directed by the Commission).

Offer Updates – Bid Mechanics Tariff

Add new 13.1.2.4.1(c): for bids \geq ASP, provide election to *not* reduce bid later, to facilitate early reliability review:

(c) Resources with an Internal Market-Monitor-accepted Permanent De-List Bid or Internal Market Monitor-accepted Retirement De-List Bid that is at or above the Forward Capacity Auction Starting Price may elect not to submit bid reductions under Section III.13.1.2.4.1(d). These resources will be subject to reliability reviews described in Section III.13.1.2.3.1.5.1.

Offer Updates – Bid Mechanics Tariff

New 13.1.2.4.1(c): explains bid reductions

(d) A Lead Market Participant that has submitted a Permanent De-list Bid or Retirement Delist Bid, but not elected the unconditional treatment pursuant to Section III.13.1.2.4.1(a), nor elected conditional treatment pursuant to Section III.13.1.2.4.1(b), nor declined the ability to reduce its bid price(s) pursuant to Section III.13.1.2.4.1(c), may update its bid price(s) within the following range:

(i) The bid price(s) originally submitted pursuant to Section III.13.1.2.3.1.5(c) may be decreased by up to 25% below their original bid price(s), but in no case may they be higher than the Market Monitor-accepted Permanent De-List Bid or Internal Market Monitor-accepted Retirement De-List Bid as established pursuant to Section III.13.1.2.3.2.1.1.2.

The Lead Market Participant electing to update its bid(s) pursuant to this Section III.13.1.2.4.1(d) must do so no later than 120 days before the Forward Capacity Auction. If the Lead Market Participant fails to so update its offer pursuant to Section III.13.1.2.4.1(d), then the Internal Market Monitor-accepted Permanent De-List Bid(s) or Modified Internal Market Monitor-accepted Retirement De-List Bid(s) described in Section III.12.1.2.3.2.1.1.2 shall be the finalized prices used in the Forward Capacity Auction as described in Section III.13.2.3.2(b) (unless otherwise directed by the Commission).

IMM FERC Filing

Existing process

- IMM makes 205 filing in June with finalized prices and elections

Proposed change

- Move the filing from June to early November, following bid reduction election
 - No apparent need to file so early (June)
 - Moving avoids need to make 2 filings with retirement prices – one in June and another in November
 - Filing would be no later than 30 days following bid finalization
 - IMM makes a different filing, also in November, with information on static delists and MOPR review. The (rescheduled) retirement filing would be separate from that Info Filing, though both due the same date
 - One IMM filing is 205, one is Informational, so need to stay distinct.
 - Reflect removal of Test Price references from filing language

IMM FERC Filing - Tariff

Modify filing date of retirement offers; note deletion of Test Price references, as that will be moot.

III.13.8.1. Filing of Certain Determinations Made By the ISO Prior to the Forward Capacity Auction and Challenges Thereto.

(a) For each Forward Capacity Auction, no later than ~~20 Business Days after the issuance of retirement determination notifications described in Section III.13.1.2.4(a)~~ 90 days prior to the first day of the auction, the ISO shall make a filing with the Commission pursuant to Section 205 of the Federal Power Act describing the Permanent De-List Bids and Retirement De-List Bids established pursuant to Section III.13.1.2.3.2, ~~and the substitution auction test prices established pursuant to Section III.13.2.8.3.1A~~. The ISO will file the following information confidentially: the determinations made by the Internal Market Monitor with respect to each Permanent De-List Bid, and Retirement De-List Bid, ~~and substitution auction test price~~, and supporting documentation for each such determination. The confidential filing shall indicate those resources that will permanently de-list or retire prior to the Forward Capacity Auction and those Permanent De-List Bids and Retirement De-List Bids for which a Lead Market Participant has made an election pursuant to Section III.13.1.2.4.1.

Offer Updates – Additional Background

This proposal was initially presented at the June 9, 2021 MC meeting, and updated/discussed every month since then. While slides for each of those presentations may provide useful history for where the proposal has landed, the following two may be particularly helpful in listing need, rationale and support:

- July 7-8 2021 MC presentation: https://www.iso-ne.com/static-assets/documents/2021/07/2b_iii_presentation_sigma_retirement_reforms.pdf
- October 13-14, 2021 MC presentation: https://www.iso-ne.com/static-assets/documents/2021/10/a09_mc_2021_10_13_14_sigma_consultants_proposed_retirement_reforms_presentation.pdf

Offer Updates

We appreciate the Committee's time, patience, and input through this process....

..Vote..

Return to Service

Issue Recap

- **We have no meaningful ability to mothball units**
 - The best we have is ability to string together a series of one-year delists; but that has many limitations. Also, once retirement is accepted, no meaningful way to return to service if there are major regional changes,

Proposed Solution

- Remove requirement to invest minimum \$\$ to re-enter markets (the so-called “Repowering rule”)
 - No change to true repowering rules; focus is on resources with an accepted Retirement Bid.
 - Resource loses interconnection rights with retirement under existing rules – do not change
 - To return to market, resource would still need a new IR and presumably new IA.
 - Resource would need to follow all other rules for “New”

Return to Service

Outstanding issues

- **Early ARA and bilateral participation**
 - Much discussion around this at December MC; does allowing a returning resource to sell into earlier ARAs dilute the intent of the waiting period?
 - **Based on that discussion, remove the ability to sell into any early commitment periods**
 - Concern about toggling overshadows benefit (to resource) of gaining some revenues during the waiting period.
- New language to accomplish this is highlighted in the following slide.

Return to Service – Tariff Language

III.13.1.1.1. Definition of New Generating Capacity Resource.

A resource or a portion of a resource that is not a New Import Capacity Resource or Existing Import Capacity Resource (as defined in Section III.13.1.3), or a New Demand Capacity Resource or Existing Demand Capacity Resource (as discussed in Section III.13.1.4) shall be considered a New Generating Capacity Resource for participation in a Forward Capacity Auction if either one of the following apply:

(i) the resource has never previously been counted as a capacity resource as described in Section III.13.1.1.1.1; or (ii) the resource, or a portion thereof, meets one of the criteria in Section III.13.1.1.1.2; or (iii) the resource, or a portion thereof, was previously counted as a capacity resource but was retired from the capacity markets pursuant to Section III.13.2.5.2.5.3, and has not acquired a Capacity Supply Obligation in at least two consecutive Forward Capacity Auctions following and in addition to the one in which it retired. Both during and following this prescribed waiting period, a Resource that qualifies to re-enter the capacity market pursuant to this Section III.13.1.1.1(iii) is prohibited from selling capacity bilaterally or in Annual Reconfiguration Auctions for earlier Capacity Commitment Periods (that is, those Capacity Commitment Periods that fall within the waiting period). A Resource whose retirement request has been rejected for reliability reasons pursuant to Section III.13.2.5.2.5 or III.13.2.5.2.5A, and has elected cost-of-service compensation pursuant to Section III.13.2.5.2.5.1(b)(ii) is not eligible to return to the capacity market under the provisions of this Section III.13.1.1.1(iii).

Shorter vs. Longer Waiting Periods

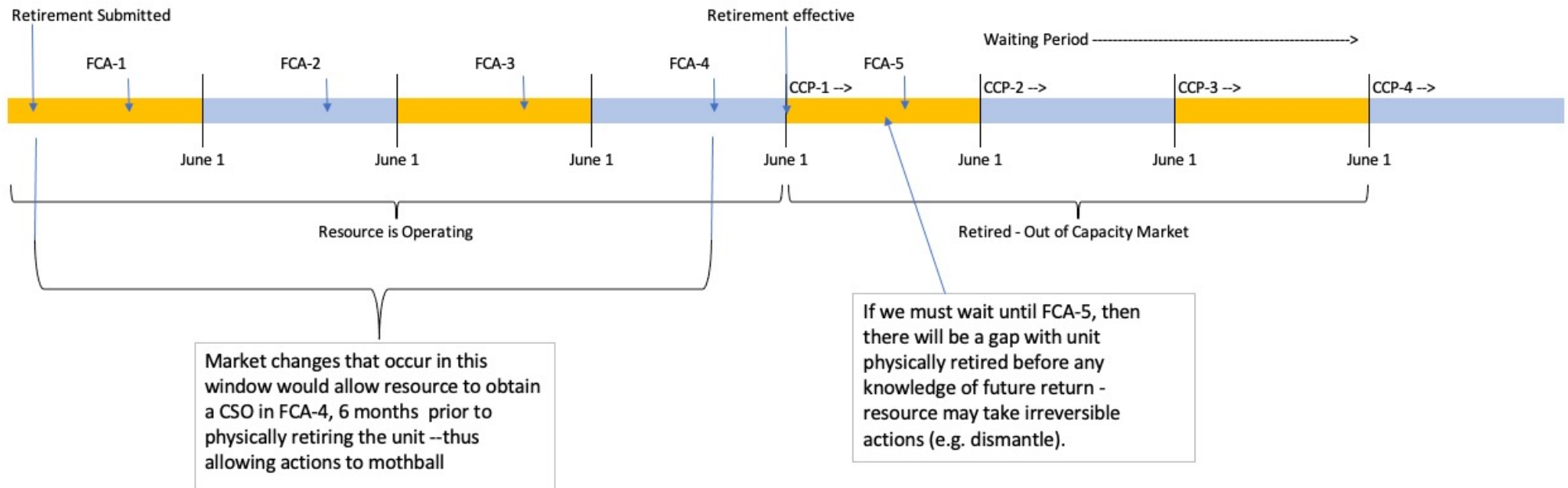
- Balancing two competing needs
 - Dis-incenting toggling implies some waiting period
 - Consumers and resource owners both benefit from flexibility of allowing resources to return whenever they are economic.
- Waiting period too short:
 - Risks retirement offers that are not serious, or fishing for reliability hold
 - Allows toggling if a unit is held for reliability
- Waiting period too long:
 - Eliminates consumer and possibly reliability benefit of allowing more resources into the market when they are economic
 - May become unattractive for resource owner to spend money to keep unit in a mothball state if that period becomes too long
 - Decisions may be made that are impossible to economically unwind
 - Diminishes ability to react to major changes in markets (e.g., decarbonization, FutureGrid, etc.)

Shorter vs. Longer Waiting Times

- Proposal provides mechanism to mothball if expectation is 3 or more years OOS
 - Can use static/dynamic to string together 1-year delists, but those are not designed for many consecutive years of mothballing
 - Costs included in 1-yr offers cannot reflect multiple-year savings
 - Need to go through entire process every year
 - More than 3 consecutive years of statics seems unrealistic
- 3 years is longest waiting period that can allow for changed circumstances before risking permanent actions that may frustrate return – see next slide.
- Shorter (<3 years total) waiting periods increase risk of toggling, fishing for RMR.
- **3-years (retirement year + 2 years of wait) strikes a reasonable balance between competing concerns**

Proposed Timeline

Example timeline, showing effect of waiting period



Why COS Restriction vs. Other Reliability Holds?

- **COS allows CapEx and reimbursements that give advantage**
 - Resource receiving COS could invest ratepayer funds in project, giving that resource an advantage vs. rest of market if it returns.
- **Other reliability holds receive their bid**
 - That bid is reviewed by the IMM and FERC, and is based on GFCs (not ROE or ratebase)
 - While there may be some opportunity for limited CapEx to be included in a retirement offer, we would expect payments > true GFC to be very limited.
- **Striking a balance**
 - If circumstances change, allowing a retired unit to return (whether ever needed for reliability or not), if and when economic, benefits consumers and potentially reliability.
 - 3-year net waiting period, plus loss of interconnection rights, is a powerful disincentive against toggling.
 - Allowing return for units that have received their (IMM and FERC-approved) delist bid, but not COS, strikes this reasonable balance.

Threshold Price Information

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Forward Capacity Market

IN THIS SECTION

- Markets Data and Information
- Day-Ahead and Real-Time Energy Markets
- Forward Capacity Market**
- Financial Transmission Rights
- Forward Reserve Market and Real-Time Reserve Pricing
- Net Commitment-Period Compensation
- Regulation Market
- Voltage Support
- Blackstart Service
- Demand Resources

RELATED LINKS

- Installed Capacity Requirement Documentation
- Historical Nonprice Retirement Requests and Determinations
- Transmission, Markets, and Services Tariff
- Manuals
- Forward Capacity Reconfiguration Auction User Guide (PDF)
- FCM Training Materials

The Forward Capacity Market (FCM) ensures that the New England power system will have sufficient resources to meet the future demand for electricity. Forward Capacity Auctions (FCAs) are held annually, three years in advance of the operating period. Resources compete in the auctions to obtain a commitment to supply capacity in exchange for a market-priced capacity payment. These payments help support the development of new resources. Capacity payments also help retain existing resources. For example, they incentivize investment in technology or practices that help ensure strong performance. They also serve as a stable revenue stream for resources that help meet peak demand but don't run often the rest of the year.

If you're new to or need guidance with FCM processes, follow the [FCM Participation Guide](#).

FCM Participation Guide

- 1
- 2
- 3
- 4
- 5
- 6

Materials

Forms and other FCM-related information are accessible below. Use the Key Topic filter to sort materials by capacity commitment period. Use the Document Type filter to find specific types of materials.

Data

- See the [FCM section in ISO Express](#) for a large selection of current and historical ISO reports, including on the offers, bids, and [results of reconfiguration auctions](#) and capacity supply obligation bilateral periods.
- See the [summary table of Forward Capacity Auction results by year](#) on the [Key Stats—Markets](#) page.
- See [Summary of Historical Installed Capacity Requirements and Related Values Tables](#) [\[PDF\]](#). For details on how the ICR and Related Values are developed, see the [ICR Development presentation](#) [\[PDF\]](#).
- See [Status of Nonprice Retirement Requests, Retirement and Permanent Delist Bids and Substitution Auction Demand Bids](#) [\[PDF\]](#)—a list of future and historical resource retirements including non-price retirement requests, retirement and permanent delist bids, and substitution auction demand bids.
- See [FCM Resource Terminations](#) [\[PDF\]](#), which provides information regarding capacity supply obligation (CSO) terminations that have occurred in the Forward Capacity Market for noncommercial new capacity resources as a result of either a participant's request to withdraw megawatts or the ISO's termination of megawatts from critical path schedule (CPS) monitoring.
- See [Substitution Auction Bid and Offer Summary](#) [\[PDF\]](#) for details on substitution auction elections.
- See [Forward Capacity Auction Capacity Obligations](#) [\[PDF\]](#), which lists capacity supply obligations for each resource by Forward Capacity Auction. Note: Does not include delist bids above the starting price.

FCM Parameters

For your convenience, important parameters for each Forward Capacity Auction, such as qualification thresholds and cost of new entry (CONE) values, are grouped in two ways:

- Quick view of parameters per individual capacity commitment period
- Spreadsheet of all parameters [\[PDF\]](#) and capacity commitment periods

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	CCP 2023–2024	CCP 2024–2025	CCP 2025–2026
Revised date: November 9, 2021			
DDBT Second Preliminary Value (\$/kW-m)			1,958
DDBT Second Preliminary Value Constrained Limit			Minimum
Margin Value (\$/kW-m)			0.650
DDBT Final Value (\$/kW-m)			2,610
FCM Qualification Thresholds			
Re-powering (\$/kW)	317	328	347
Incremental Capacity (\$/kW)	317	328	347
Environmental Compliance (\$/kW)	158	164	174
Cost Threshold Adjustment Parameters			
Handy-Whitman Index of Public Utility Construction Costs			
Benchmark Index Value (July, 2008)	616	616	616

Threshold price for FCA16: \$347/kw

Also see Section III.13.1.1.1.2(b) for more information

Questions?