FCA 16 - 18
Dynamic Delist Bid Threshold Changes

Sponsored by Dynegy and Calpine

NEPOOL Markets Committee

October 6-8, 2020

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Overview

- Recap the amendment need
- Revised proposal
- Response to concerns
- Tariff language
- Appendix – September MC presentation

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Principal Concern

The IMM's proposal effectively eliminates the usefulness and original purpose of the DDBT.

- All resources that have any desire to delist or retire above the expected clear MUST now submit a workbook and are bound to prices established therein months before the FCA
  - No matter how low the expected clear, how flat the supply curve, or whether any potential to exercise market power exists
- The cost of this process disadvantages many resources, introducing an inefficient bias in offers and clears
- At a time when our surplus is interfering with proper functioning of markets, *it erects a new and unnecessary barrier to exit*.

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Static Delist Process

Developing and implementing Static Delists is costly

- Significant monetary and manpower effort to work through the process (see Appendix)

- Significant risk in identifying max prices 8 months before auction, locking in bids 4 months before auction

- Other market participants do not face these same costs and risks; that difference will force static users to impute this extra cost/risk into their early offers

  - Inefficient because cost/risk cannot be properly captured in auction dynamics if desired price is close to expected clear

  - Discriminatory because resources wishing to exit face significant burden not faced by other bidders

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Solution

Set the DDBT at ISO estimate of Clearing Price + "x"

- At Sept MC, suggested value of x ranged from $0.50 to $1.00
- Concern is focused at low clearing prices with flat supply curves, and where cost/risk of static is large component of expected offer
- Revised proposal: margin varies with level of expected clear, declining to 0 at NetCONE.
- Margin is added to ISO's expected clearing price

$$Margin = \frac{NetCONE - (Expected\ Clear)}{Net\ CONE}$$

How it Works

Margin varies with IMM's expected clear:

Table shows the margin under various expected clearing prices (uses $7.50 as example Net CONE):

Estimated Clear		NetCONE		Margin		DDBT	
$	2.00	$	7.50	$	0.73	$	2.73
$	3.00	$	7.50	$	0.60	$	3.60
$	4.00	$	7.50	$	0.47	$	4.47
$	5.00	$	7.50	$	0.33	$	5.33
$	6.00	$	7.50	$	0.20	$	6.20
$	7.00	$	7.50	$	0.07	$	7.07
$	8.00	$	7.50	$	-	$	7.50
$	9.00	$	7.50	$	-	$	7.50

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How it Works

Example for last 6 FCAs

Table starts with ISO's example from Sept MC (Slide 8). Purple columns are ISO example; green is new proposal. Last column is difference between this amendment and ISO's proposal.

	FCA clearing price	Delta FCA clearing price from last FCA	Net CONE	Delta Net CONE from last FCA	Delta NICR from last FCA	Demand price at last FCA CSO ("P_t")	DDBT* [(FCA$_{t-1}$ clearing price + P_t)/2]	Lower bound (75% FCA$_{t-1}$ clearing price)	ISO Recal. DDBT (S)	Proposed Margin	Proposed DDBT	Difference (ISO vs Amend-ment)
FCA9	$9.55	-36%	$11.08		334	$15.09	$15.04	$11.25	$11.08	0	$11.08	0
FCA10	$7.03	-26%	$10.81	-2%	-38	$10.25	$9.90	$7.16	$9.90	$0.08	$9.98	$0.08
FCA11	$5.30	-25%	$11.64	8%	-76	$6.46	$6.74	$5.27	$6.74	$0.42	$7.16	$0.42
FCA12	$4.63	-13%	$8.04	-31%	-350	$0.25	$2.78	$3.98	$3.98	$0.50	$4.48	$0.50
FCA13	$3.80	-18%	$8.16	1%	25	$3.92	$4.27	$3.47	$4.27	$0.48	$4.75	$0.48
FCA14	$2.00	-47%	$8.19	0%	-1,260	$0.64	$2.22	$2.85	$2.85	$0.65	$3.50	$0.65

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Advantages of Amendment

- Allows a small cushion to let market work in accordance with initial FCM design

- Addresses pricing bias associated with different costs and risks for those offering slightly above the expected clear (statics) and those below (dynamics)

- May reduce (or not exacerbate) other pricing biases – reliability rejections, DERs outside the market.

- Allows resources small room to adjust to supply and market shocks (e.g. that may influence PFP risk) following workbook submission.

- Dovetails with potential market power risk – modest margin at low prices (and flat supply curve); margin eliminated as prices climb (steeper supply curve)

- Avoids new need for a "protective" static just to be withdrawn later

- Facilitates market exit during oversupply

IMM Concerns

The IMM raised several concerns in a memo posted 9/23/20

- **Concern:** "Increasing this threshold may allow resources to bid at a price above their Going Forward Cost and the "missing money," unlike with Static Delist Bids — where a resource must demonstrate to the IMM the true cost at which the resource wishes to exit the auction"

- **Response:** We do not see how this proposal is "increasing the threshold." In fact, even with the proposed amendment *the proposed DDBT is largely below* what it would be under current rules – particularly when prices are very low (which is the concern). Instead, the amendment largely reduces the DDBT from today's rules, *just not as as much* as the IMM is proposing – particularly at low prices. The IMM has certified all recent auctions with current DDBT as competitive; their proposal to dramatically reduce the DDBT will exacerbate existing problems, and create new ones, without showing the existing mechanism is not working. The amendment mitigates some of these potential problems.

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IMM Concerns

- **Concern:** "The proposal would effectively re-weight the stated design objective to put more emphasis toward limiting the administrative burden of submitting Static Delist Bids, with less emphasis on reviewing bids that may be attempting to exercise Market Power."

- **Response:** While the proposal would indeed reduce administrative burden, it also addresses other issues that the ISO proposal does not, including efficient pricing, treating resources comparably, facilitating exit during surplus, and honoring the original FCM design. As on the prior slide, even with the amendment, *the DDBT will still largely be less than what it would be under current rules* – particularly when prices are very low. At those low prices, where the amendment it targeted, the supply curve is typically flat so the concern about market power should be small. The IMM will still be reviewing more delists than it does today; but some of the adverse market consequences of doing so are at least mitigated.

IMM Concerns

- **Concern:** "Nor would increasing the DDBT by a plus factor solve the problem described. Instead it would shift the problem from one set of resources to another."

- **Response:** See full response provided to this question at the September MC (Appendix, Slide 26). In essence:
  - One could apply this same argument to any bandwidth or margin rule, yet we have many, many of them throughout our Tariff (including, for example, numerous mitigation thresholds in Appendix A); yet we use them routinely when appropriate.
  - In this case the need for a margin is particularly acute at desired delists close to the expected clearing price. As we get to higher prices (where "another set" of resources would be affected), the problem is less pernicious, and market impact of less consequence. So we believe that this situation is ideally suited to use of a small margin.

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IMM Concerns

- **Concern:** "The proposal overstates the concern through the example of a resource wishing to exit the capacity auction just above the DDBT running the risk of clearing…. Moreover if that ever became an issue, a resource that elected to face this purported risk could seek to shed an unwanted CSO in a later reconfiguration auction."

- **Response:** The concern we have expressed is real, and is based on extensive experience with the static delist process. The example was chosen to highlight concerns for those that have not used the static delist process before. And yes, one could seek to shed an unwanted CSO in a reconfig; but that carries its own risk, as there is no guarantee of clearing an ARA at an acceptable price. A resource could still be stuck with a CSO paying less than its desired and competitive price.

III.13.1.2.3.1.A → **Dynamic De-List Bid Threshold.**

For the fifteenth Forward Capacity Auction (for the Capacity Commitment Period beginning June 1, 2024), the Dynamic De-List Bid Threshold is $4.30/kW-month. For each Forward Capacity Auction thereafter, the Dynamic De-List Bid Threshold shall be calculated as described below in this Section III.13.1.2.3.1.A, and shall be published to the ISO's website no later than 5 Business Days before the Existing Capacity Retirement Deadline.

(a) → The preliminary Dynamic De-List Bid Threshold shall be calculated as the average of: (i) the Capacity Clearing Price for the Rest-of-Pool Capacity Zone from the immediately preceding Forward Capacity Auction (provided, however, that if there is a second run of the primary auction-clearing process pursuant to Section III.13.2.5.2.1(d), the resulting Rest-of-Pool Capacity Zone clearing price from that run shall be used instead); and (ii) the price at which the total amount of capacity clearing in the immediately preceding Forward Capacity Auction intersects the estimated System-Wide Capacity Demand Curve for the upcoming Forward Capacity Auction. For this purpose, the estimated System-Wide Capacity Demand Curve shall be constructed, in the same manner as described in Section III.13.2.2.1, using the system-wide Marginal Reliability Impact values from the immediately preceding Forward Capacity Auction, the most recent estimate of the Installed Capacity Requirement (net of HQICCs) for the upcoming Forward Capacity Auction, and the Net CONE and Forward Capacity Auction Starting Price for the upcoming Forward Capacity Auction. The preliminary Dynamic De-List Bid Threshold shall not be lower than 75 percent of the clearing price applicable pursuant to (a)(i) of this Section III.13.1.2.3.1.A (except where the Net CONE value for the upcoming Forward Capacity auction is lower than 75 percent of the clearing price applicable pursuant to (a)(i) of this Section III.13.1.2.3.1.A).

This is ISO's language, just moved.

(b) → The final Dynamic De-List Bid Threshold that will be used in the upcoming Forward Capacity Auction shall include a margin adder that will be added to the preliminary Dynamic De-List Bid Threshold. The margin adder to be included in the final Dynamic De-List Bid Threshold shall be calculated by the following formula:

$$Margin\ adder = \frac{NetCONE - (DDBT_{prelim})}{Net\ CONE}$$

Where:

$NetCONE$ = the Net CONE value for the upcoming Forward Capacity Auction

$DDBT_{prelim}$ = the preliminary Dynamic De-list Bid Threshold value calculated pursuant to Section III.13.1.2.3.1.A(a);

In no event shall the final Dynamic De-List Bid Threshold be higher than the Net CONE value for the upcoming Forward Capacity Auction. The ISO shall include its calculations of these values in its publication of the Dynamic De-List Bid Threshold to the ISO's website.

III.13.1.2.3.1.1. → **Static De-List Bids.**

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Author Deleted: and shall not be lower than 75 percent of the clearing price applicable pursuant to (a)(i) of this Section III.13.1.2.3.1.A. If the Dynamic De-List Bid Threshold is constrained by either of the limitations described in this subsection (b), t

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Alternative: Convert Static Finalization to Cap Price

Proposal: Remove obligation to commit to bid price in October; instead make the October Static Delist Finalization requirement a cap on prices in the auction.

- Alternative or supplement to the margin adder that solves part of the problem – the risk of the lock-in timing. Other "stickiness" concerns discussed earlier would remain. But the timing is a big part of the problem, so it would still be very helpful.

- The IMM has confirmed (through its Qualification determination) that October pricing is consistent with competitive behavior; there should be no concern with exercise of MP at prices below that level.

Tariff Language – Cap Amendment

Changes are independent from, and do not overlap with margin amendment. Changes are marked against existing Tariff.

III.13.1.2.3.1.1.   Static De-list Bids

A Lead Market Participant that submitted a Static De-List Bid may de-list any portion of its Qualified Capacity during the Forward Capacity Auction at any price level up to and including the price identified by the ISO in the qualification determination notification described in Section III.13.1.2.4(b).

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III.13.1.2.3.1.2.   →   [Reserved.] ¶

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III.13.1.2.3.1.3.   →   **Export Bids.** ¶

An Existing Generating Capacity Resource within the New England Control Area, other than an

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Appendix:
Slides from September 8-10 MC

FCA 16 - 18
Dynamic Delist Bid Threshold Changes

NEPOOL Markets Committee

September 8-10, 2020

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Principal Concern

The IMM is proposing that the DDBT be set at exactly its expectation of the next auction clearing price. All delist requests above this level must become statics.

- Preparing, submitting and locking in prices for statics is much more expensive and risky than dynamics.

- This "stickiness" for statics is a disincentive to offer at prices marginally above the DDBT. Failing to recognize this will bias offers and may lead to clearing prices below competitive levels.

- *Solution: Set the DDBT at a reasonable margin above the expected clearing price.*

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Costs Associated with Statics

The static delist process includes many costs and risks not faced by dynamics, including:

1. **Initial decision to to submit static**
   - Includes time and cost to educate management and staff on process, cost and risk (start ~ 10 mos before FCA)

2. **Develop initial estimate of desired delist price**
   - Based on owner's market assessments, philosophy, risk perspectives, hedging, internal processes, etc. Resource owners do NOT typically fill out a workbook to find out the price at which they want to exit the market.
     - If they are lucky, then the owner's initial price will be similar to the ultimate workbook price; if not: much more work ahead.

Costs Associated with Statics (2)

3. **Develop workbook**
   - Trainings, and then completing, checking workbook entries
   - Convert internal philosophy and pricing into something that fits in the workbook paradigm
   - Consult with the IMM

4. **Finalize and submit workbook**
   - Develop backup for estimates in workbook – proformas, contracts, etc.
   - Get corporate officer to review and certify pricing and workbook entries
   - After submission, answer IMM questions, provide additional backup as requested

5. **QDN response**
   - Review IMM results
   - Decision-making process
     - Review latest market fundamentals, forecasts, regulatory issues and risk of early price lock
   - Determine and lock in price ~ October 9

Lock-in Risk

The October lock-in carries significant risks

- Inability to account for market and regulatory information that may come between October and February:

    - Key FCM data, including ICR/LSR values, ISO Qualification filings, Waiver Requests, FERC action on pending FCM questions, ISO proposals for other markets, stete & federal regulatory actions.

    - Political changes – elections and possible market impacts

    - Market changes – forwards, interest rates, public announcements, financial changes to owner

    - Physical changes to units or portfolio

- Inability to react dynamically in the FCA (remember, the whole point of the Descending Clock was to allow the resources to react in real-time)

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Dynamics vs. Statics

The static delist must bear all the costs, effort and risks discussed on the past several slides. Dynamics do not.

RESULT 1: STATIC DELISTS WILL RATIONALLY IMPUTE THESE COSTS AND RISKS INTO BIDS.

- **The sum of these risks and costs is $xx/kW-mo in the offer price**
- **If the resource's true, desired (and competitive) price is > DDBT but less than (DDBT + "x"), the rational action is to not bid the competitive price, and instead bid the (DDBT – 1¢)**
  - **Resource owner has to hope that his offer to exit at DDBT-1¢ clears.** *If it doesn't, the resource is stuck with a CSO at a price it didn't want.*

RESULT 2: THE IMM AND THE MARKET NEVER SEE THE TRUE COMPETITIVE OFFER, THE RESOUCE MAY TAKE ON A CSO IT DOESN'T WANT, AND THE FCM MAY CLEAR AT AN UNCOMPETITIVE LEVEL.

Solution

Set the DDBT at IMM estimate of Clearing Price + "x"

What is the right value of "x?"

- $0.50 to $1.00 seems reasonable given past experience.
- ISO analysis of new DDBT method's accuracy (August MC, Slide 12), indicated that it misses the actual (historic) clearing price by 25%. *With a $2 clear, that 25% margin is 50 cents; with a $4 clear, it is $1.00.* A margin of this size would help address this inaccuracy.
- The last four FCAs, all of which were certified as competitive, had an average clearing price of $0.98 below the DDBT.
- Alternately the IMM could review all static delists submitted since FCA-1, compare them to the DDBT in place at the time, and pick a reasonable confidence interval – say 90% of all statics were > "DDBT + x" and solve for "x."
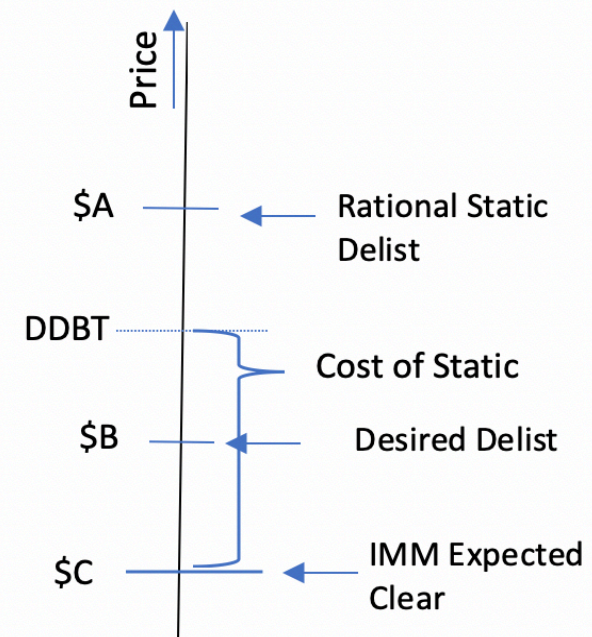
Graphic Example

ISO Original Proposal
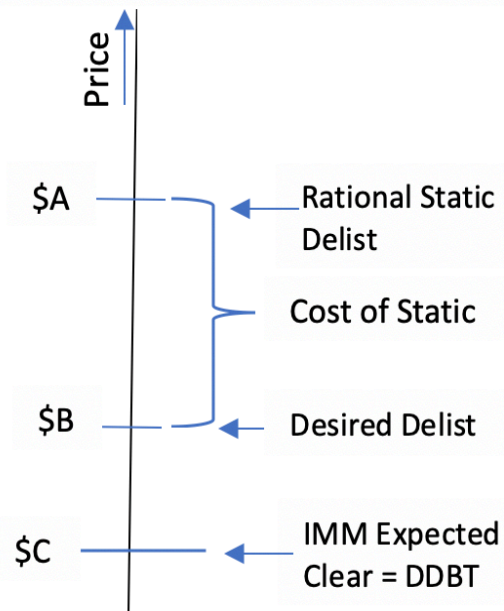
Result: Resource either
- **Statically delists at $A or**
- **Dynamically delists at $C and *hopes* it doesn't get a CSO**

Proposed Modification

Result: Resource delists at its cost ($B)

Issues Raised at Prior MC

Doesn't a bandwidth just move the problem to a different price?

- **If the IMM expected clear is $2, and bandwidth is $0.75, what about the resource that wants to offer $2.80?**

A: We have the same issue with use of any bandwidth, yet that doesn't mean we don't use them:

- **Mitigation, DDP, NCPC, compliance, etc.**

- *In this case, it's even less of a concern*:

  - Point is we want an efficient, competitive price

  - Assuming IMM's new model is an accurate predictor of clearing, it is much more likely that a competitive clear is close to this value (say $2 to $2.75) than it is further away (> $2.75).

  - So while the $2.75 resource may be annoyed to have to submit a static, the "stickiness" of its static delist bid is less likely to bias overall market outcomes.

Does a bandwidth offer other advantages?

Yes it does. Consider:

- Reliability rejections. Any delist rejected for reliability suppresses prices (considered price-taker)
  - This is, unfortunately, very common – 8 of 14 FCAs
- BTM solar and other DG resources are reducing NICR, but from outside the market (therefore without the same obligations and penalties for failing to perform as resources inside the market, with a CSO)

These items are potentially biasing clearing prices below competitive levels. Adding a DDBT bandwidth may help reduce, or at least not exacerbate, these concerns.

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Other Solutions

Convert the October "lock-in" from a price-certain to an offer cap.

- Resource owner could delist, *in the auction*, at any price up to the approved price that comes out of the workbook process.

- May have some auction software complications; needs input from ISO.

- Only solves part of the problem – the risk of the lock-in timing. Other "stickiness" concerns discussed earlier would remain. But the timing is a big part of the problem, so it would still be very helpful.