



ICF QUICK TAKE

ISO-NE FCA Outlook: Uplift Likely to Persist

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Since the results of the ISO-New England (NE) Forward Capacity Market (FCM) auction 9 (FCA9) were announced February 4, 2015, several developments have occurred. Most indicate a more positive outlook for upcoming forward capacity auctions (FCAs) than initially estimated. If no other changes in supply and demand balance follow, pricing in FCA10 could be very similar to pricing in FCA9 (~\$9.5/kW-month for Rest of Pool [ROP]). With the suggested changes in the dynamic delist prices recommended by the independent market monitor, the proposed 40 percent increase to \$5.5/kW-month provides an effective floor and substantial support for upcoming auctions even under the most pessimistic scenarios.

Detailed FCA9 Auction Results

On February 27, 2015, ISO-NE filed detailed auction information with the Federal Energy Regulatory Commission (FERC) (ER15-1137-000). A close review of the filing and the associated testimonies indicates the following:

- **Only a small amount of excess capacity cleared the auction:** Based on the limited information that was released on February 4, ICF International initially estimated the amount of new resources that cleared the auction was about 300 MW in excess of ISO-NE targets. Based on this preliminary estimate, ICF calculated a potential price decrease of approximately \$2/kw-month in FCA10, all else equal.
- As discussed in the testimony of Robert Ethier¹, the amount of excess capacity was actually significantly lower at 3.6 MW. As such, ICF's preliminary assessment of a negative impact on upcoming auction prices does not hold. Assuming no other changes in supply and demand, pricing in FCA10 could be very similar to pricing in FCA9.
- **One of the smaller peakers set the capacity price:** As indicated in the testimony of Robert Ethier describing the mechanics of the clearing engine in FCA9, the auction clearing price was higher than the marginal offer. The marginal offer was associated with a relatively large nonrational supply, the selection of which could have resulted in significant excess capacity. The auction clearing algorithm, seeking to maximize social welfare, therefore "selected smaller new capacity offers at \$9.55/kw-month." This new information implies two major points: (1) from the three new power plants that cleared the auction either LS Power's Wallingford (90 MW) project in Connecticut or Exelon's Midway peaker (195 MW) project in Southeastern Massachusetts (SEMA) and not CPV's Towantic Energy Center (725 MW) set the auction price and (2) the auction clearing algorithm does not favor large nonrational amounts from new merchant resources, indirectly protecting the capacity market from excess capacity.
- **Higher prices in reconfiguration auctions (ARAs):** Historically, with excess capacity in the system, capacity prices in ARAs traded at a discount to the corresponding FCA price (Exhibit 1). Starting with the third ARA of FCA6 in March 2015, the pattern changed. Although FCA6 had excess capacity and the capacity price cleared at \$3.13/kW-month because of active Demand Response (DR) resources buying out their capacity supply obligations, the decision of Vermont Yankee to retire and other factors resulted in the third reconfiguration auction price of \$11.45/kW-month, i.e., approximately four times higher than the FCA price.

¹ ER15-1137-000; Attachment C - Testimony of Robert G. Ethier on Behalf of ISO New England Inc.; page 9 of 16 of the Attachment C. http://elibrary.ferc.gov/idmws/file_list.asp?document_id=14307194





Going forward, ICF expects that prices in ISO-NE reconfiguration auctions will stay high, specifically in the reconfiguration auction for the 2017–2018 capability period when ISO-NE is short of capacity. This pricing level creates an opportunity for existing assets that can commit more capacity above their capacity supply obligation in the reconfiguration auction.

Starting with the 2018–2019 capability period, ISO-NE plans to implement a new structure for how demand curves are used for reconfiguration auctions. ICF believes that with this new structure, prices in the FCA and the corresponding reconfiguration auctions will equilibrate.

Exhibit 1: Historical and Projected Reconfiguration Auction Prices (Nom\$)

Capacity Period	Capacity price \$/kW-month	Excess Capacity in FCA
FCA 1 (2010–2011)	4.25	1,763
2010 2nd ARA	1.50	
2010 3rd ARA	1.43	
FCA 2 (2011–2012)	3.12	4,755
2011 2nd ARA	1.00	
2011 3rd ARA	0.93	
FCA 3 (2012–2013)	2.54	5,030
2012 2nd ARA	0.95	
2012 3rd ARA	0.55	
FCA 4 (2013–2014)	2.52	5,374
2013 2nd ARA	0.50	
2013 3rd ARA	0.59	
FCA 5 (2014–2015)	2.86	3,718
2014 2nd ARA	1.75	
2014 3rd ARA	1.93	
FCA 6 (2015–2016)	3.13	2,853
2015 1st ARA	1.31	
2015 2nd ARA	2.75	
2015 3rd ARA	11.45	
FCA 7 (2016–2017)	2.74	3,251
2016 1st ARA	3.15	
2016 2nd ARA		
2016 3rd ARA		



FCA Price Support from Higher Dynamic Delist Prices and Less Flexibility for Static Delists

The dynamic delist prices reflect a price threshold below which existing resources that have chosen to be price takers can opt to leave the auction. ISO-NE believes that these prices are too low. Established as a part of the ISO-NE Pay-for-Performance Initiative, dynamic delist prices include the expected net going forward cost and the expected capacity performance charges. Performance payment rates increase from \$2,000/MWh for the 2018–2019 and 2020–2021 periods, to \$3,500 for the 2021–2022 through 2023–2024 periods, and to \$5,455/MWh thereafter. At an expected net going forward cost of \$2.75/kW-month, the dynamic delist prices for the corresponding periods are set at \$3.94/kW-month, \$4.83/month, and \$6.96/kW-month, respectively. Based on a review of delist bids submitted from 31 oil and dual-fuel units, the ISO-NE internal market monitor (IMM) concluded that the established delist bids are too low. They underestimate the net going forward costs that are closer to \$3.70/kW-month, and they do not explicitly account for risk premiums. As such, the ISO-NE IMM recommends increasing the effective dynamic delist price from \$3.94/kW-month to \$5.50/kW-month for the 2018–2019 to 2020–2021 periods. This recommendation was filed with FERC on May 1, 2015 (ER15-1650-000).

The dynamic delist prices offer an effective price floor for the FCM market. The recommended 40 percent increase provides substantial support for upcoming auctions even under the most pessimistic scenarios.

Along with the increase in the dynamic delist bids, ISO-NE proposed a modification of static delist bids that market participants can withdraw from the auction at a specified price. For the FCA8 and FCA9 auctions more than 60 percent of static delist bids were either reduced or were withdrawn (i.e., converted to non-price retirement) after the qualification period. Concerned with price manipulation from exploratory bids, ISO-NE recommends limiting the flexibility of static delist bids in the future. Market participants henceforth will not be allowed to withdraw static delist bids. Rather, these bids will be allowed to be lowered within a defined range, and mitigated static delist bids will be allowed to be converted to non-price retirements. If these proposals go forward, market participants expect the units associated with dynamic delist bids that previously made use of the flexibility under the old rules now are most likely to retire, thereby providing support to upcoming auction prices.

Limited Major New Merchant Generators Expected

On February 26, 2015, Public Service Electric and Gas announced plans to shelve its 450 MW brownfield Bridgeport Harbor project that participated but did not clear the auction. Although capacity prices are relatively high and despite the beneficial seven-year lock-in provision for new projects, new merchant generators are less likely to participate and clear the FCA market in large amounts (as observed in PJM ISO).

New Expanded Boundaries for Local Capacity Zones Could Decrease Capacity Price Volatility

ISO-NE recently has identified two potential new boundaries for capacity zones for the tenth FCA. One combines the Northeastern Massachusetts/Boston (“NEMA/Boston”) capacity zone and the Southeastern Massachusetts/Rhode Island (“SEMA/RI”) capacity zone (collectively, the “Southeastern New England” or “SENE” capacity zone). The other combines the existing Maine, New Hampshire, and Vermont load zones (referred to as the “Northern New England” or “NNE” capacity zone). No changes are proposed to the boundaries associated with the West/Central Massachusetts or Connecticut portions of the system. The potential SENE capacity zone is proposed to be an import-constrained



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capacity zone, while the proposed NNE capacity zone is proposed to be an export-constrained capacity zone.

In light of these new expanded boundaries for local capacity zones, ISO delayed and abandoned its plan to incorporate demand curves in the upcoming capacity auction (FCA10). The ISO has not yet published specific details on local sourcing requirements and maximum capacity limits (MCLs). Without these details, assessing the impact of the new zones on capacity prices is difficult. On May 18, 2015, however, the ISO included the Greater Boston Reliability project in the list of projects that will be included in FCA10. This addition will result in higher MCLs, thereby increasing the likelihood that capacity prices in the new zones will converge with those of the rest of pool. In general, broader capacity zones decrease price volatility in the long term.

RFP for Renewable Resources and Transmission Resources

On February 25, 2015, the states of Connecticut, Massachusetts and Rhode Island announced that they plan to issue a request for proposals for bids on new Class I renewable energy projects, including wind, solar, small hydro, biomass, and fuel cells of at least 20 MW as well as large-scale hydropower projects. These states will consider projects for the delivery of clean energy through traditional power purchase agreements (PPAs) that do not require transmission upgrades, PPAs that require transmission, and transmission projects containing clean energy delivery commitments but without any associated PPAs.

This RFP can be considered as an action by these ISO-NE states to take advantage of existing market rules that allow up to 200 MW per year (with a 600 MW carry forward limit) of unmitigated renewable supply to enter the market and depress capacity prices. The 200 MW amount was selected previously to reflect the average annual peak demand growth rate plus reserve requirements for ISO-NE.

In addition, in the most recent 2015 Capacity, Energy, Loads, and Transmission (CELT) forecast report, ISO-NE reported for the first time potential behind-the-meter new solar generation averaging around 353 MW in the 2015–2024 period. This incremental potential new solar generation will count toward unmitigated renewable supply.

Existing generation owners (e.g., New England Power Generators Association) are adjusting the levels of unmitigated renewable generation to account for (state-sponsored) distributed solar generation and its effect on demand growth. If the levels remain unchanged, the amount of unmitigated renewable supply may put downward pressure on capacity prices in the future.

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