New England’s Forward Capacity Auction Closes With Adequate Power System Resources for 2021-2022

ISO will retain about 1,300 megawatts to ensure local reliability

Holyoke, MA—February 8, 2018—New England’s annual capacity auction for power system resources concluded Tuesday with sufficient resources to meet peak demand in 2021-2022, and preliminary results indicate the clearing price was the lowest in five years due to a surplus of capacity in the region. The auction is run by ISO New England Inc. to procure the resources that will be needed to meet consumer demand for electricity in three years.

The 12th Forward Capacity Market (FCM) auction (FCA #12) closed at a preliminary clearing price of $4.63 per kilowatt-month (kW-month) across New England, compared to $5.30/kW-month in last year’s auction.

Resources totaling 40,612 megawatts (MW), including 35,007 MW of existing capacity and 206 new resources totaling 5,605 MW, qualified to participate in the FCM, while the regional capacity target for 2021-2022 is 33,725 MW.

The auction concluded with commitments from 34,828 MW to be available in 2021-2022, with 1,103 MW of surplus capacity system-wide. The auction rules allow the region to acquire more or less than the capacity target, providing flexibility to acquire additional capacity and enhanced reliability at a cost-effective price.

While the auction secured sufficient capacity to meet demand system-wide for 2021-2022, some existing resources dropped out during the auction. Reliability reviews were conducted on resources totaling about 2,775 MW that submitted bids during the auction to withdraw from the capacity market for one year when the auction price fell below the level they needed to justify the financial risks of a capacity supply obligation (CSO) during 2021-2022. Resources with a CSO can be financially penalized for failing to perform during shortage events. Resources without a capacity obligation can still participate in the daily wholesale electricity markets.

When a resource seeks to delist, or remove itself, from the capacity market, the ISO conducts a reliability review to determine if the power system will maintain system reliability without that resource, without overloading transmission lines. If transmission security could be jeopardized, the ISO can reject a one-year delist bid and retain a resource, with a capacity commitment, until it is no longer needed for reliability.

The reliability reviews of delist bids submitted during FCA #12 show that certain transmission lines could be overloaded if two units totaling about 1,300 MW were not available during stressed system conditions in 2021-2022.

“The forward capacity market is designed to ensure resource adequacy—that there are enough resources in the right places to meet peak demand. This auction procured sufficient resources at a competitive price,” said Robert Ethier, vice president of market operations at ISO New England. “However, our analysis indicates that transmission lines in a particular sub-region could be overloaded in extreme summer weather, jeopardizing reliability, if about 1,300 MW of submitted delist bids were not available. The ISO will address that potential reliability risk by retaining the resources for the 2021-2022 capacity commitment period. All other delist bids, including other bids in that sub-region, were accepted.”

For FCA #12, the region was divided into three zones: Northern New England (NNE), including Vermont, New Hampshire, and Maine; Southeast New England (SENE), including Southeastern Massachusetts, Rhode Island,
Northeastern Massachusetts, and Greater Boston; and Rest of Pool (ROP), including Connecticut and western and central Massachusetts. NNE was modeled as an export-constrained zone, while SENE was modeled as an import-constrained zone.

Preliminary results of FCA #12:

- The auction closed for most resources at $4.63/kW-month after four rounds of competitive bidding. The clearing price will be paid to all resources in all three capacity zones in New England and 524 MW of imports from New York and 57 MW from one interconnection with Québec.
  - Imports over two other interconnections from neighboring regions, Québec and New Brunswick, continued into a fifth round, which closed at $3.70/kW-month for 442 MW from Québec and $3.16/kW-month for 194 MW from New Brunswick.
  - Previous clearing prices (all per kilowatt-month): FCA #7 (2013), $3.15 floor price, except $14.99 for new resources in the former Northeast Massachusetts/Boston zone; FCA #8 (2014), $15 for new and $7.025 for existing resources; FCA #9 (2015), $9.55 system-wide except SEMA/RI: $17.73 new and $11.08 existing; FCA #10 (2016), $7.03; FCA #11, $5.30.
- At $4.63/kW-month, the total value of the capacity market in 2021-2022 will be approximately $2.07 billion (preliminary estimate).
- Capacity clearing the auction totaled 34,828 MW to meet the 33,725 MW net installed capacity target for 2021-2022
  - 30,011 MW of generation, including 174 MW new
    - No large new generators cleared in the auction, but included in the 174 MW of new generation is a new, 58-MW natural gas unit and a total of 87 MW of increased generating capacity at some existing power plants
  - 3,600 MW of energy-efficiency and demand-reduction measures, including 514 MW of new—the equivalent of a large power plant
  - 1,217 MW total imports from New York, and Québec and New Brunswick, Canada
- In all, 132 MW of wind and 86 MW of solar facilities cleared FCA #12 (most photovoltaic resources in New England are on the distribution system and don’t participate in the wholesale markets). Those totals include 1 megawatt of new wind and 21 megawatts of new solar facilities
- In all, 511 MW of resources, including one large generator, the 383-MW Bridgeport Harbor 3 coal-fired unit, submitted retirement bids that were accepted before FCA #12

Forward Capacity Market auction basics

The annual FCM auction is held three years before each capacity commitment period to provide time for new resources to be developed. Capacity resources can include traditional power plants, renewable generation, imports, and demand resources such as load management and energy-efficiency measures. Resources that clear in the auction will receive a monthly capacity payment in that future year in exchange for their commitment to provide power or curtail demand when called upon by the ISO. Resources that fail to meet their capacity commitment during a shortage event forfeit part of their capacity payment; the forfeited money goes to resources that over-performed during the shortage event. The capacity market is separate from the energy market, where resources with and without a capacity commitment compete on a daily basis to provide power and are paid for the electricity they produce.
Next Steps
Finalized auction results, with resource-specific information, will be filed with the Federal Energy Regulatory Commission by the end of this month.