
Auction attracts investment in new resources needed to address New England’s resource shortage

Holyoke, MA—February 4, 2015—New England’s annual auction to acquire the power system resources needed to meet future demand concluded Monday with sufficient resources for 2018-2019 in most of the region, but with a shortfall in Southeastern Massachusetts and Rhode Island. The auction, run by ISO New England Inc., concluded with more than 1,400 megawatts of new capacity that will help fill the gap resulting from recent and pending generator retirements.

The Forward Capacity Market (FCM) auction attracted significant competition, and three new power plants—two in Connecticut and one in Southeastern Massachusetts—won the obligation to build 1,060 megawatts (MW) of generation to serve the region’s load. The auction also drew 367 MW of new demand-side resources. Clearing prices were higher than in previous auctions, reflecting the need for new resources to ensure a reliable supply of power in New England during the capacity commitment period running from June 1, 2018, through May 31, 2019. Most resources will receive a price of $9.55 per kilowatt-month (kW-month). The region’s need for new resources emerged in last year’s auction when retirements totaling more than 3,000 MW led to a shortfall in the resources needed to meet demand in 2017-2018.

“The capacity market is working as designed. The price signals from last year’s auction helped spur investment in new resources, including more than 1,000 megawatts of new generating capacity, which will help address the region’s resource shortage and meet peak demand in 2018-2019,” according to Gordon van Welie, president and CEO of ISO New England, the operator of the region’s bulk power system and wholesale electricity markets. “Several significant FCM enhancements went into effect with this auction, including Pay-for-Performance incentives, a sloped demand curve, a seven-year price lock-in for new resources, and the ability to defer a capacity obligation for one year under extraordinary circumstances. These reforms are removing risks from the market and providing investors with the financial stability needed to build new resources in New England, and providing consumers with greater assurance that the region’s power system will have sufficient capacity to keep the lights on, and that those resources will perform when called on.”

For this, the ninth Forward Capacity Market auction, the region was divided into four zones: Connecticut (CT); Northeast Massachusetts/Greater Boston (NEMA/Boston); Rest of Pool (ROP); and a new zone, Southeast Massachusetts/Rhode Island (SEMA/RI). The ROP zone includes western and central Massachusetts, Vermont, New Hampshire, and Maine. The CT, NEMA/Boston and SEMA/RI zones were created based on transmission limitations that restrict the level of power that can be imported into each area, as well as local resource levels and needs.

**Amount of capacity acquired region-wide for 2018-2019**

Preliminary results indicate that the FCM auction concluded with about 34,695 MW of capacity acquired region-wide. The installed capacity requirement (ICR) for 2018-2019 is 34,189 MW; however, with the sloped demand curve now in place, the region can acquire more or less than the ICR, depending on reliability requirements and price. The auction began with 32,101 MW of existing resources, so new resources were needed to meet the 34,189 MW ICR. The auction started with 5,432 MW of new resources qualified to compete. In addition to the regional ICR, a local capacity requirement is set for each of the three import-constrained zones.
For several years, the region’s capacity auctions all started—and concluded—with surplus capacity, resulting in relatively low capacity prices. However, before last year’s auction, a large number of resources announced their intention to retire by June 1, 2017, including the 1,500-MW Brayton Point station in SEMA/RI. In total, nearly 3,400 MW of generation and demand-side resources will be retired by 2017. Altogether, that’s more than 10% of the region’s capacity. The retirements created a resource shortfall that drove up capacity prices in the February 2014 auction, sending the market signal that new resources were needed in New England. The resource shortage continued into this auction, with fewer existing resources available to meet the regional ICR. The price signal from the previous auction attracted a significant quantity of new resources to compete in this auction.

The total level of resources clearing the auction included 30,442 MW of generation, 1,449 MW of imports, and 2,803 MW of demand-side resources, which includes companies that have agreed to reduce their power consumption if needed during times of system stress, and energy-efficiency measures. The total 34,695 MW clearing the auction included 1,427 MW of new resources in New England, including a new 725-MW dual-fuel unit and two 45-MW units in CT, a new 190-MW peaking power plant in SEMA/RI, and 367 MW of new demand-side resources. The higher auction clearing price reflects the cost to build new generation in the region.

**Clearing Prices for Connecticut, NEMA/Boston, Rest-of-Pool zones**

This year’s descending-clock auction opened at a starting price of $17.73/kW-month. The auction concluded system-wide after three rounds of competitive bidding with a clearing price of $9.55/kW-month, at the point on the demand curve where there were still sufficient resources to meet demand. The auction continued for one additional round for New York imports, closing at $7.97/kW-month, and two additional rounds for New Brunswick imports, at a price of $3.94/kW-month.

The $9.55/kW-month clearing price will be paid in 2018-2019 to about 24,447 MW of new and existing capacity resources that cleared this auction in ROP, Connecticut and NEMA/Boston. New York imports totaling 1,028 MW will be paid $7.97/kW-month, and 177 MW of New Brunswick imports will be paid $3.94/kW-month. Another 771 MW of existing resources with multi-year supply obligations will be paid at rates set in previous auctions, while 1,287 MW of self-supply resources will not be paid through the FCM.

**Prices for Southeast Massachusetts/Rhode Island zone**

Even before the auction started, there were not enough new and existing resources, combined, to provide the capacity needed in the SEMA/RI zone in 2018-2019. In all, there were 7,241 MW (6,888 MW of existing and 353 MW of new resources) that qualified to provide the 7,479 MW needed to meet SEMA/RI local sourcing requirement in 2018-2019. Since all the resources that qualified, including the new resources, will be needed to help meet the local resource requirement in SEMA/RI, auction bidding never opened in that zone.

Administrative pricing rules were triggered because of SEMA/RI’s inadequate supply. Under these rules, the 353 MW of new resources in the zone will receive the auction starting price of $17.73/kW-month, while the 6,888 MW of existing resources in the zone will receive $11.08/kW-month, which is based on the net cost to build a new resource. While the SEMA/RI zone is short about 238 MW of the 7,479 MW needed in 2018-2019, such resource shortfalls may be filled through periodic reconfiguration auctions held over the next three years.

The FCM administrative pricing rules balance the interests of consumers paying for capacity by building in price protections under conditions of scarcity, and the interests of resources providing capacity by paying a price that reflects the need to attract new resources and retain existing capacity.

**Total wholesale market impact**

A preliminary estimate of the total cost of the capacity market in New England in 2018–2019 is about $4 billion; by comparison, the previous auction resulted in an estimated total capacity market cost of about $3 billion for 2017-2018. Payments to resources for this auction’s capacity commitment period will begin in 2018.
Major FCM redesign in effect for ninth capacity auction
The ISO has worked for several years with stakeholders to develop major reforms to the FCM design, including Pay-for-Performance; a sloped demand curve; a seven-year clearing price lock-in for new resources; and the ability to defer a capacity supply obligation for one year under extraordinary circumstances.

Resources that obtained a commitment to be available by clearing in this auction will be subject to the new Pay-for-Performance rules in 2018-2019. Under these rules, resources that under-perform during times of system stress will provide payments to resources that over-perform. Pay-for-Performance is designed to address serious challenges to the continued reliability of the New England power grid by providing incentives to resource owners to invest in their resources to ensure they can perform when dispatched.

The new sloped demand curve was applied to the Rest-of-Pool zone, replacing the vertical demand curve contained in the original FCM design resulting from the 2006 FCM regional settlement process. The sloped demand curve addresses the price volatility inherent with the previous auctions’ vertical demand curve. The sloped demand curve will yield smaller swings in capacity prices when the region moves from conditions of excess supply to resource shortages. The new curve allows the region to procure a level of capacity resources within a range, based on price. The ISO is currently working with stakeholders on developing sloped demand curves for capacity zones; for this auction, vertical demand curves were in effect for the import-constrained zones.

New resources clearing in this auction can choose to lock in their capacity price for seven years, up from the previous five. The extension is intended to increase financial stability for new resources to better attract investment when needed.

Finally, a new resource can obtain a one-year deferral of capacity supply obligations and payments if the resource is needed for reliability, but cannot meet its initial operational date due to circumstances beyond the developer’s control.

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 generation or demand-side resources such as load management and energy-efficiency measures. Resources that clear in the auction receive a monthly capacity payment in exchange for their commitment to provide power or curtail demand when called upon by the ISO. The capacity market is separate from the energy market, where resources compete on a daily basis to provide power, and are paid for the electricity they produce.

Next Steps
Finalized auction results will be included in a filing with the Federal Energy Regulatory Commission within the month. This filing will include resource-specific information.

ABOUT ISO NEW ENGLAND
Created in 1997, ISO New England is the independent, not-for-profit corporation responsible for the reliable operation of New England’s electric power generation and transmission system, overseeing and ensuring the fair administration of the region’s wholesale electricity markets, and managing comprehensive regional electric power planning.

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