

### **ISO New England Update**

#### Consumer Liaison Group Meeting

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#### **Eric Johnson**

DIRECTOR, EXTERNAL AFFAIRS



#### **TODAY'S UPDATES**

- Recent Federal Energy Regulatory Commission orders
- Transition to the Future Grid Update
- Winter 2020/2021 Outlook
- ISO's Preparations for the Next Forward Capacity Auction (FCA #15)

- Projected Wholesale Market Costs for 2020
- Appendix: Wholesale Electricity Cost Information

# **RECENT ORDERS FROM THE FEDERAL ENERGY REGULATORY COMMISSION (FERC)**



# FERC Order No. 2222 Establishes New Rules for Distributed-Resource Participation in ISOs/RTOs



- Issued on September 17, the new order requires ISOs/RTOs to:
  - Allow Distributed Energy Resource Aggregations (DERAs) as market participants
  - Design participation models for Distributed Energy Resources (DERs), addressing details such as:
    - $\circ$  Location
    - $\circ$  Size
    - $\circ~$  Metering and telemetry requirements
    - Coordination among ISOs/RTOs DERA, distribution utilities, and Relevant Electric Retail Regulatory Authorities.
- The ISO will begin discussion of Order 2222 and the proposed stakeholder process at the next <u>Markets Committee</u> meeting
- The compliance filing deadline is July 19, 2021

#### **FERC Rejects Energy Security Improvements Filing**

- FERC issued the order on October 30
- The order:
  - Denied the tariff changes the ISO filed as its long-term Energy Security Improvements (ESI) proposal
  - Rejected the NEPOOL alternative proposal that was filed alongside ESI



- Next steps:
  - On November 13, the ISO <u>filed</u> a request for clarification
  - In its request, the ISO asked FERC to clarify the ISO's obligations under the Federal Power Act Section 206 proceeding initiated by FERC's 2018 <u>order</u> requiring the ISO to file a long-term solution to New England's fuel security concerns
  - The ISO also requested that it be allowed to engage in communication with FERC about ESI and future market design, provided there are no requests for rehearing and, therefore, *ex parte* issues

#### **TRANSITION TO THE FUTURE GRID UPDATE**



#### **Transition to the Future Grid Efforts Continue**

- Stakeholder meetings launched in 2020 follow two tracks:
  - Future Grid Reliability Study: Stakeholder-led assessment of the future state of New England's power system
  - Pathways to the Future Grid: Regional identification, exploration, and evaluation of potential market frameworks that may help support the evolution of its power grid
- In mid-October, the New England states released a pair of statements outlining their <u>Vision</u> for a clean, affordable, and reliable 21<sup>st</sup> century regional electric grid

- The statements cover three main areas:
  - Market design
  - Transmission planning
  - ISO governance



#### **Transmission Planning for the Clean Energy Transition**

- The <u>Planning Advisory Committee</u> (PAC) has been discussing potential challenges to transmission planning which will arise with increased distributed energy resources (DERs), offshore wind, HVDC transmission, and battery storage
- Those resource trends will require new transmission planning study approaches to address issues such as:
  - Decreasing net load
  - DERs tripping due to transmission faults
  - Stability performance
  - Generation variability
  - Low-inertia conditions
- The ISO proposed conducting a "pilot" study in order to get a high-level view of the entire New England system under various load and renewable energy production scenarios to determine resulting trends in system behavior and reliability





# WINTER 2020/2021 OUTLOOK

ISO New England expects the region to have the necessary resources this winter to meet consumer demand under both normal and extreme temperatures.

ISO's Winter Outlook Press Release Will Be Posted Soon <u>https://www.iso-ne.com/about/news-media/press-releases/</u>



#### Winter Peak Demand

And Corresponding Temperatures\*



Sources: <u>ISO-NE Seasonal Peaks Since 1980</u>, <u>COO NEPOOL Participants Committee Report</u> (November 2020), <u>2020 CELT Forecast</u> \*Temperature is dry-bulb temperature in degrees Fahrenheit based on weighted average of eight New England weather stations.

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#### The ISO Has Procedures in Place to Help Maintain Reliability on the Coldest Winter Days



Changes were made to OP-21 in 2018 to improve **situational awareness** and encourage **proactive measures** to avoid forecasted energy deficiencies

## Digital and Social Media Communications Are Used to Provide System Updates

- Log on to ISO Express
  - <u>ISO Express</u> provides real-time data and notifications regarding power system conditions
- Follow the ISO on Twitter
  - <u>@isonewengland</u>
- Download the ISO to Go
  App for free
  - <u>ISO to Go</u> is a free mobile application that puts real-time wholesale electricity pricing and power grid information in the palm of your hand







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#### **FORWARD CAPACITY AUCTION #15**

June 1, 2024 – May 31, 2025 Capacity Commitment Period



### Forward Capacity Auction #15 Is Scheduled to Take Place in February 2021

- FCA #15 will procure the resources needed to meet the demand for electricity, plus reserve requirements, during the June 1, 2024 to May 31, 2025 capacity commitment period
- In November, the ISO submitted a pre-FCA informational filing with the Federal Energy Regulatory Commission (FERC) for review. The filing includes:
  - Capacity zones to be modeled in the auction
  - Resources qualified to participate in the auction
- All other FCA-related calculations and determinations were included in a separate filing for FERC review



## Four Capacity Zones Will Be Modeled in FCA #15

Maine will be modeled as a "nested" capacity zone within Northern New England

- ISO New England has a process for determining the appropriate • **number** and **boundaries** of capacity zones over time as conditions change in the region
  - The ISO studied **constraints** on the transmission system to determine which capacity zones would be modeled in FCA #15

Zone

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- The ISO will model **four** capacity zones in FCA #15
  - Northern New England Capacity Zone
    - Export-Constrained ٠
  - Maine "Nested" Capacity Zone
    - **Export-Constrained**
  - Southeast New England Capacity Zone
    - Import-Constrained
  - Rest-of-Pool Capacity Zone



#### FCA #15: Other Important Auction Inputs

- The ISO qualified a total of **33,662 MW** of existing capacity resources to participate in the auction, including:
  - 29,800 MW from existing generating resources (intermittent and non-intermittent)
  - 82 MW from existing import resources, and
  - 3,780 MW from existing demand resources
- The ISO qualified 219 new capacity resources totaling 7,030 MW, to participate in the auction



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- The net Installed Capacity Requirement is **33,270 MW**
- The ISO qualified 13 demand bids, totaling **196 MW**, and 116 supply offers, totaling **463 MW**, to participate in the substitution auction under the Competitive Auctions with Sponsored Policy Resources (CASPR) framework

#### **PROJECTED WHOLESALE MARKET COSTS**

Projected wholesale market costs for 2020



#### Energy Market Values Vary with Fuel Prices, While Capacity Market Values Vary with Changes in Supply



#### Source: 2019 Report of the Consumer Liaison Group; 2020 data are subject to adjustment

Note: Forward Capacity Market values shown are based on auctions held roughly three years prior to each calendar year. The 2020 projection is the sum of preliminary 2020 January-October actuals and November-December projected values. The November-December projected values were derived as follows: on average, over the last two years (2018-2019), the value of the Energy Market accrued over the first ten months of the year was approximately 80.90% of the annual total. This percentage was applied to the total from the first ten months of 2020 to produce the November-December Energy Market projections. An analysis of the historical relationship between the Energy Market totals and the Ancillary Services Market totals suggests that the total for the Ancillary Services Market is approximately 2.23% of the Energy Market total. The November-December projections for the Ancillary Services Market represent the value needed to bring the 2020 ten month total to the expected annual total. The Forward Capacity Market values reflect the October 2020 value held constant for the remainder of the year. Please note that this projection is for illustrative purposes only. Data are preliminary and subject to reconciliation.

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# Questions

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#### **APPENDIX**

#### New England Wholesale Electricity Costs



#### **New England Wholesale Electricity Costs**

Annual wholesale electricity costs have ranged from \$7.7 billion to \$15 billion



#### New England Wholesale Electricity Costs<sup>(a)</sup>

|  | 2015    |       | 2016    |       | 2017             |       | 2018     |       | 2019    |       |
|--|---------|-------|---------|-------|------------------|-------|----------|-------|---------|-------|
|  | \$ Mil. | ¢/kWh | \$ Mil. | ¢/kWh | \$ Mil.          | ¢/kWh | \$ Mil.  | ¢/kWh | \$ Mil. | ¢/kWh |
| Wholesale<br>Market Costs              |         |       |         |       |                  |       |          |       |         |       |
| Energy (LMPs) <sup>(b)</sup>           | \$5,910 | 4.5   | \$4,130 | 3.2   | \$4 <i>,</i> 498 | 3.5   | \$6,041  | 4.7   | \$4,105 | 3.3   |
| Ancillaries <sup>(c)</sup>             | \$210   | 0.2   | \$146   | 0.1   | \$132            | 0.1   | \$147    | 0.1   | \$83    | 0.1   |
| Capacity <sup>(d)</sup>                | \$1,110 | 0.8   | \$1,160 | 0.9   | \$2,245          | 1.8   | \$3,606  | 2.8   | \$3,401 | 2.7   |
| Subtotal                               | \$7,229 | 5.5   | \$5,437 | 4.2   | \$6,875          | 5.4   | \$9,794  | 7.6   | \$7,589 | 6.0   |
| Transmission<br>charges <sup>(e)</sup> | \$1,964 | 1.5   | \$2,081 | 1.6   | \$2,199          | 1.7   | \$2,250  | 1.7   | \$2,146 | 1.7   |
| RTO costs <sup>(f)</sup>               | \$165   | 0.1   | \$180   | 0.1   | \$193            | 0.2   | \$196    | 0.2   | \$184   | 0.1   |
| Total                                  | \$9,358 | 7.1   | \$7,698 | 5.9   | \$9,267          | 7.3   | \$12,240 | 9.4   | \$9,918 | 7.9   |

(a) Average annual costs are based on the 12 months beginning January 1 and ending December 31. Costs in millions = the dollar value of the costs to New England wholesale market load servers for ISO-administered services. Cents/kWh = the value derived by dividing the dollar value (indicated above) by the real-time load obligation. These values are presented for illustrative purposes only and do not reflect actual charge methodologies.

(b) Energy values are derived from wholesale market pricing and represent the results of the Day-Ahead Energy Market plus deviations from the Day-Ahead Energy Market reflected in the Real-Time Energy Market.

(c) Ancillaries include first- and second-contingency Net Commitment-Period Compensation (NCPC), forward reserves, real-time reserves, regulation service, and a reduction for the Marginal Loss Revenue Fund.

(d) Capacity charges are those associated with the Forward Capacity Market (FCM).

(e) Transmission charges reflect the collection of transmission owners' revenue requirements and tariff-based reliability services, including black-start capability, voltage support, and FCM reliability. In 2019, the cost of payments made to these generators for reliability services under the ISO's tariff was \$42.2 million. Transmission charge totals reflect the refund of Schedule 1 TOUT charges to regional network load.

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(f) RTO costs are the costs to run and operate ISO New England and are based on actual collections, as determined under Section IV of the ISO New England Inc. Transmission, Markets, and Services Tariff.

#### **Capacity Market Costs Reflect Changing Supply Outlook**

As a "forward" market, consumers can anticipate future changes in capacity costs

#### **Total Capacity Market Costs**

