

ISO New England Overview and Regional Update



*Vermont System Planning Committee
January 2018 Quarterly Meeting*

Molly Connors

EXTERNAL AFFAIRS REPRESENTATIVE



ISO REPORTS AND UPCOMING ACTIVITIES



ISO-NE Reports and Activities

Coming Soon:

Consumer Liaison Group

- **March 1, June 14, September 20, and December 6**
- Meeting agendas, presentations, and summaries will be posted on the [CLG webpage](#)

Environmental Advisory Group

- **Tuesday, January 30** from 1 p.m. to 3 p.m.

Distributed Generation Forecast Working Group

- **Tuesday, February 12** from 9:30 a.m. to 3 p.m.

2018 Training Schedule

- **Introduction to Wholesale Electricity Markets (WEM 101)**
 - *March 19-23; September 24-28*
- **Forward Capacity Market (FCM 101)**
 - *October 22-25, 2018*



OPERATIONAL FUEL-SECURITY ANALYSIS



ISO New England Publishes Operational Fuel-Security Analysis

- The goal of the [study](#) is to understand future effects of trends **already affecting** power system operations
- The analysis examines more than 20 cases of generating resource and fuel-mix combinations during the 2024-2025 winter, and quantifies each case's **fuel security risk**
 - *i.e.*, the number and duration of energy shortfalls that could occur and that would require implementation of emergency procedures to maintain reliability
- The study assumed **no additional natural gas pipeline capacity** to serve generators would be added during the timeframe of the study



FORWARD CAPACITY MARKET



The Forward Capacity Market Is Attracting New Resources Amid Retirements



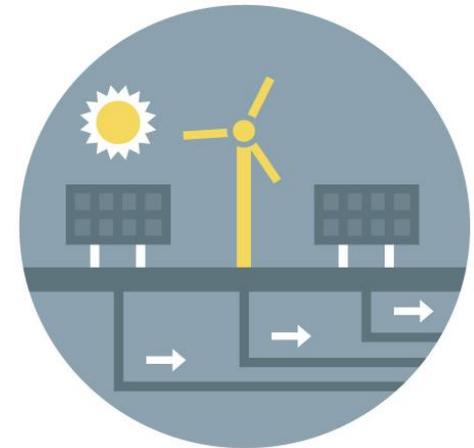
Demand Resources

energy-efficiency and active demand response resources



Natural Gas Resources

efficient and fast-starting gas resources, many with dual-fuel capability



Renewable Resources

onshore and offshore wind, solar photovoltaics, and fuel cells



Forward Capacity Market Overview

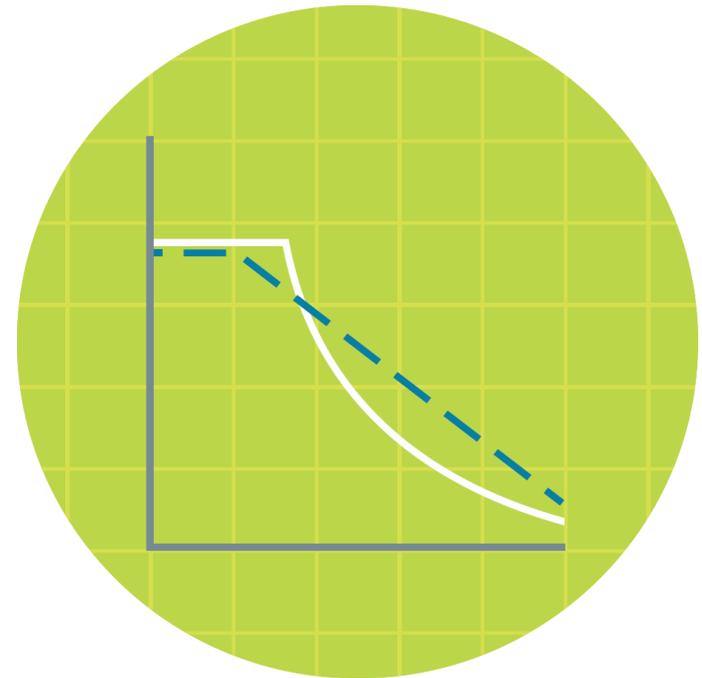


- Procures resources to meet New England's forecasted **capacity** needs three years in the future
- Selects a portfolio of **supply** and **demand** resources through a competitive Forward Capacity Auction (FCA) process
 - Resources must be pre-qualified to participate in the auction
 - Resources must participate and clear in the auction to be paid for capacity during the capacity commitment period
- Provides a long-term (up to 7-year) commitment to new supply and demand resources to encourage **investment**



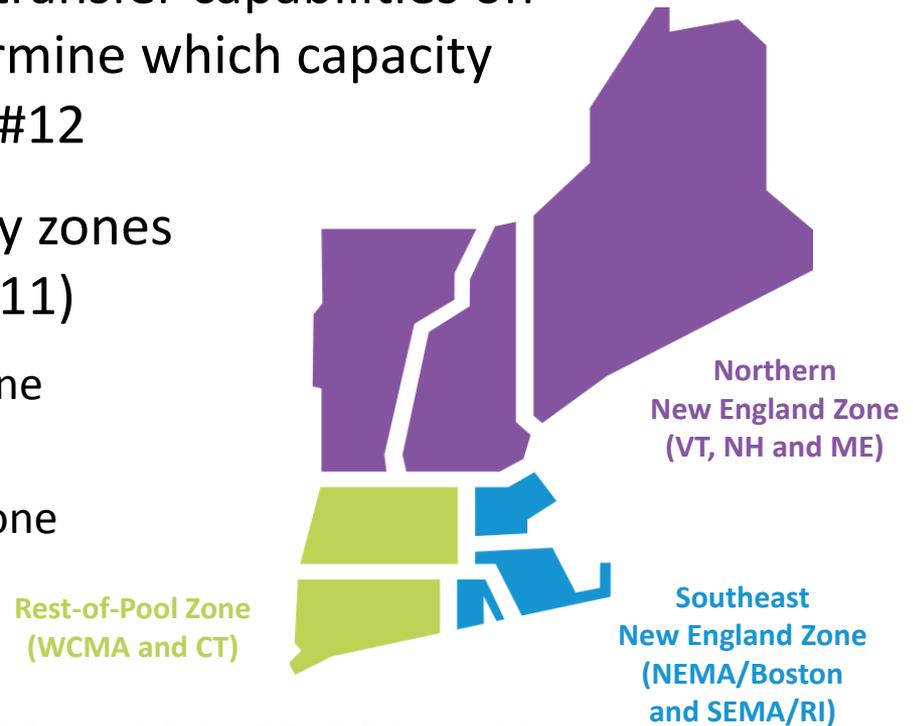
Forward Capacity Auction #12 Is Scheduled to Take Place in February 2018

- **FCA #12** will procure the resources needed to meet the demand for electricity, plus reserve requirements, during the June 1, 2021 to May 31, 2022 capacity commitment period
- In **November**, the ISO submitted a pre-FCA informational filing with FERC for review, which included all FCA-related calculations and determinations
- Auction begins on **February 5, 2018**



Three Capacity Zones Will Be Modeled in FCA #12

- The ISO studied constraints and transfer capabilities on the transmission system to determine which capacity zones would be modeled in FCA #12
- The ISO will model **three** capacity zones in FCA #12 (same zones as FCA #11)
 - Northern New England Capacity Zone
 - Export-Constrained
 - Southeast New England Capacity Zone
 - Import-Constrained
 - Rest-of-Pool Capacity Zone
- The installed capacity target for FCA #12 is **33,725 MW**
- Overall, **35,007 MW** of existing and **5,605 MW** of new resources have qualified to participate in FCA #12



COMPETITIVE AUCTIONS WITH SPONSORED POLICY RESOURCES



The ISO Has Begun to Take Steps to Accommodate State Policies in Wholesale Markets in the Near Term

- Last year, NEPOOL launched a formal stakeholder process to discuss potential market rule changes to **integrate** the region's wholesale electricity markets with the public policy goals of the New England states (called IMAPP)
 - Currently, the states' renewable energy and environmental goals are beyond the objectives of the region's wholesale electricity markets, which are designed to maintain **reliability** through the selection of the most economically efficient set of resources
- ISO New England has developed a **proposal** that could be implemented in the near term, involving enhancements to the Forward Capacity Market
 - *Competitive Auctions with Sponsored Policy Resources*



ISO New England's Proposed Path Forward

- The ISO's capacity market design approach:
 - **Accommodates** sponsored policy resources into the Forward Capacity Market over time, and
 - **Preserves** competitively based capacity pricing for other resources
- It builds upon—but does not replace—the capacity market framework in New England
- **Key idea:** Coordinate the entry of new state-sponsored (i.e., clean energy) resources with the exit of existing capacity resources through a new ***substitution auction***
 - Utilizes the standard, two-settlement market design familiar in other wholesale markets (e.g., ISO's day-ahead and real-time energy markets)



The ISO Anticipates Changes to Take Effect for FCA #13

- Following an extensive **stakeholder process**, the ISO filed proposed tariff [changes](#) on January 8, in time for FCA #13, which runs from June 1, 2022 to May 31, 2023
- State procurement efforts for **clean energy** may attract resources that seek to participate in the ISO's February 2019 Forward Capacity Auction (FCA #13) with plans for commercial operation in the 2022 timeframe
- FERC approval will be needed in **early 2018** to accommodate these resources



DISTRIBUTED GENERATION FORECAST WORKING GROUP

Updates from December 15, 2017 meeting

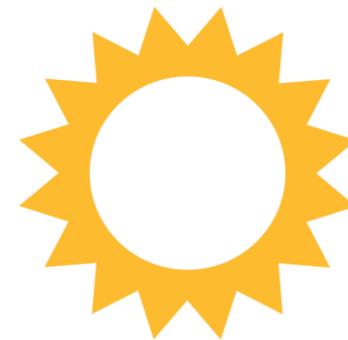
- Representatives from each New England state presented:
 - State renewable **policies**
 - Future **expectations** for solar PV growth
- ISO-NE reviewed the results of its **latest survey** of distribution companies (through August 31, 2017)

State	Installed Capacity (MW _{AC})	No. of Installations
Massachusetts	1,458.48*	72,170*
Connecticut	332.44	27,691
Vermont	226.86*	9,019*
New Hampshire	63.41	6,736
Rhode Island	46.80	3,285
Maine	29.70	3,199
New England	2,157.69	122,100

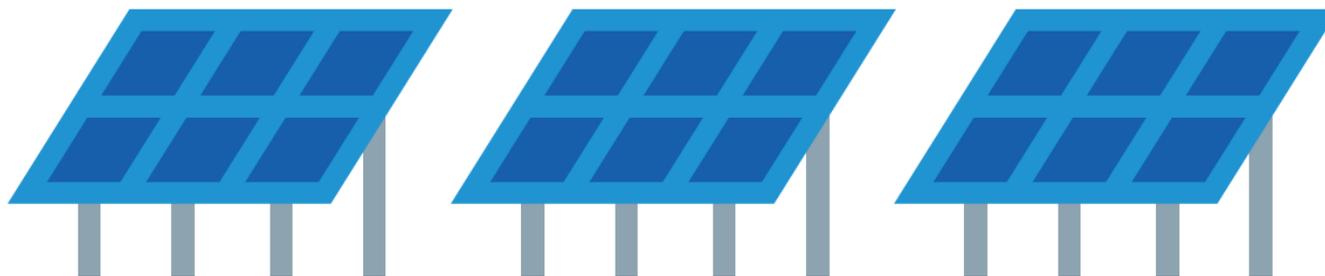
*Includes values based on MA SREC data and VT SPEED data

Source: <https://www.iso-ne.com/committees/planning/distributed-generation>

DGFWG Next Steps



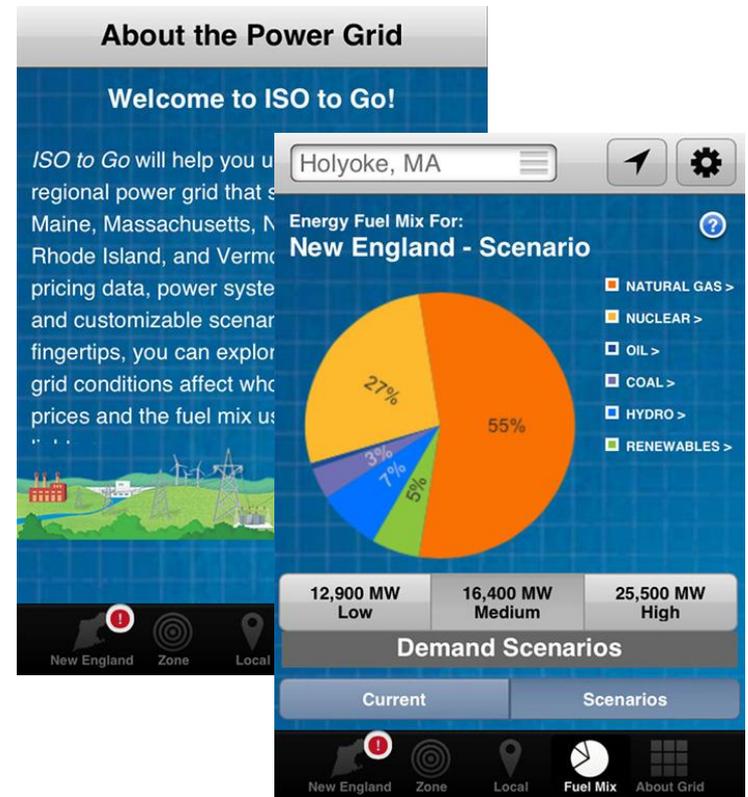
- **February 12, 2018**
 - Agenda will include a discussion of the draft 2017 PV forecast
- **March 19, 2018**
 - Issue and discuss final draft PV forecast
- **May 2018**
 - Post PV forecast as part of the annual Capacity, Energy, Load, and Transmission (CELT) report



For More Information...



- Subscribe to the **ISO Newswire**
 - [ISO Newswire](#) is your source for regular news about ISO New England and the wholesale electricity industry within the six-state region
- Log on to **ISO Express**
 - [ISO Express](#) provides real-time data on New England's wholesale electricity markets and power system operations
- Follow the ISO on **Twitter**
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 - [ISO to Go](#) is a free mobile application that puts real-time wholesale electricity pricing and power grid information in the palm of your hand



Questions

