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#### New England Electricity Market Overview

#### **IPPNY Spring Conference New England Power Generators Association**

May 8, 2018

## New England wholesale electricity prices have declined by 49% between 2007 and 2017





## New England transmission rates have increased more than 400% since 2007





#### Breakdown of a Connecticut Electricity Bill

Monthly Bill for Residential Eversource CT Customer Using 600 kWh/mo



Renewable Energy, RGGI, & Efficiency Program Charges Wholesale Power Market Transmission & Distribution Charges

#### Customer Bills Up 6% in 9 Years with Energy Costs Down 35%

Wholesale Power Market costs went from making up 61% of an average residential customer's bill down to 37%.

# New generation representing nearly 15% of peak demand is scheduled to come online by mid-2020

![](_page_4_Figure_1.jpeg)

Over 4,000 MW of new generation is being developed without consumer subsidies or state-backed contracts

![](_page_4_Picture_3.jpeg)

# Administrative changes to demand curve introduces market uncertainty

![](_page_5_Figure_1.jpeg)

#### Illustrative Capacity Market Revenue Impact

|              |                                               | Capacity<br>Price<br>\$/kW-mth | Capacity<br>Revenue<br>Mil.\$ |
|--------------|-----------------------------------------------|--------------------------------|-------------------------------|
| 2014         | Original Demand<br>Curve                      | \$14.00                        | \$101                         |
| 2016         | Marginal Reliability<br>Impact                | \$12.50                        | \$90                          |
| 2017         | Marginal Reliability<br>Impact + Net CONE     | \$8.55                         | \$62                          |
| 2018         | MRI + Net CONE +<br>New BTM Solar<br>Modeling | \$6.40                         | \$46                          |
| 2018<br>% Ch | vs. 2014<br>g.                                |                                | (\$55)<br>-54%                |

Note: Assumes 600 MW electric generation unit and the market clears at 34,000 MW

![](_page_5_Picture_5.jpeg)

# Fuel security concerns from ISO-NE are driving major market actions

- ISO-NE released fuel security analysis stated that load shedding would occur in 19 of 23 fuel mix scenarios in Winter 2023/2024
- Mystic Generating Station 2,000 MW outside of Boston Exelon announced retirement by May 31, 2022 as well as purchase of adjacent LNG terminal (Distrigas)
- ISO-NE counters by stating intent to hold Mystic 8 & 9 (1,400 MW) due to "fuel security risk"

Fueled by LNG and largest Distrigas customer

• ISO-NE has filed a Tariff waiver with FERC seeking ability to hold for reliability

Exelon will now file two-year cost of service contract bringing Mystic 8 & 9 to mid-2024

![](_page_6_Picture_7.jpeg)

# New England state electricity procurements cut to the core of the competitive market

• Massachusetts is reviewing a 20-year contract with Hydro Quebec for *9.45 TWh* over the New England Clean Energy Connect transmission line in Maine

RFP also out for offshore wind with requirement to get to 1,600 MW in the next several years

- Connecticut issued an RFP for 12.45 TWh from Class I RPS, largescale hydro and nuclear
- These RFPs, coupled with existing RPS requirements, mean:
  Nearly 60% of electricity demand in New England could be carved out of competitive wholesale markets

![](_page_7_Picture_5.jpeg)

## New England transportation & power plant CO2 emissions from 1990 to 2015

![](_page_8_Figure_1.jpeg)

Source: http://www.eia.gov/environment/emissions/state/, released October 24, 2017

![](_page_8_Picture_3.jpeg)

![](_page_9_Picture_0.jpeg)

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#### **Questions?**

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