

Competitive Auctions with Subsidized Policy Resources, and Fuel Security Study



*NECPUC Symposium: Plenary Session –
“Will New England Find Harmony?
State Laws & Regional Electric Markets”*

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States Are Subsidizing Clean Energy Development to Meet Their Legislative Mandates

- Growing provision of out-of-market revenues through long-term contracts
- Legislative initiatives vary by state

State(s)	Recent State Resource Procurement Initiatives	Expected Resources	Target MW (nameplate*)
MA, CT, RI	2016 Multi-State Clean Energy RFP	Solar, wind	460
MA	2016 Energy Diversity Act	Clean energy, incl. hydro import	Approx. 1200
MA	2016 Energy Diversity Act	Off-Shore Wind	Up to 1600

*Note: Nameplate MW may be higher than qualified FCM capacity MW





Concerns over Subsidized Resources

- **Status quo.** With a Minimum Offer Price Rule (MOPR), resources built to meet state policies may cost too much for the capacity market
 - Limited MOPR exemption for some renewables
- **Likely Results are Inefficient.** Region may end up overbuilt for resource adequacy
- **States are concerned** that consumers would bear unnecessarily high costs if state policy resources do not participate in the FCM:

1

FCM Costs

+

2

**Additional retail charges
to fund state subsidies**

Competitively-Based Capacity Pricing Remains Essential

- Subsidized renewables can profitably sell in the capacity market for artificially low prices
- MOPR prevents capacity price suppression, helping to ensure competitive capacity prices
- Even if unintentional, subsidized entry has a similar effect to buyer-side market power
- Competitive capacity pricing is essential to attract investment in non-subsidized new entry cost-effectively when needed



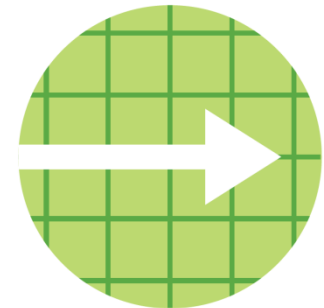
ISO New England's Proposed Path Forward

- The ISO is developing capacity market enhancements to:
 - Accommodate subsidized resources into the Forward Capacity Market (FCM) over time, and
 - Preserve competitive capacity price signals for unsubsidized resources
- **Key idea:** Coordinate, through a *new* auction, the **entry** of subsidized capacity resources **and exit** of unsubsidized ones
- States' subsidies enable high-cost, existing resources to receive a **net payment to retire**, and be replaced by states' preferred new (e.g., higher-cost clean energy) resources



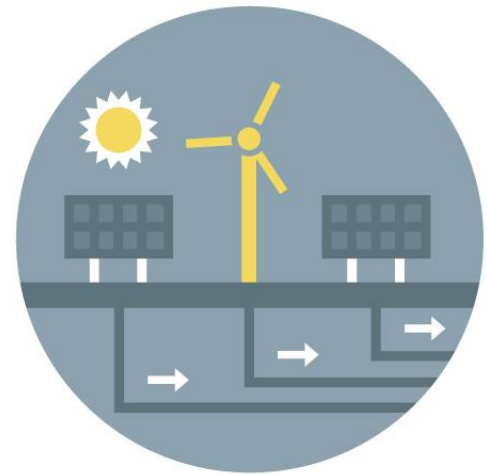
Solution Approach: A Substitution Auction

- After the FCA: Existing or new resources awarded capacity supply obligations (CSOs) may **transfer their obligations** to new, *subsidized* resources that do not have CSOs
- This is arranged using a two-settlement process known as a ***substitution auction***
 - Existing resources “buy out” and must then **permanently retire** (they have no CSOs)
 - New subsidized entrants may also **substitute for** unsubsidized new resources (which would then not enter)
- Uses the standard, two-settlement market design familiar in other wholesale markets (e.g., ISO New England’s Day-Ahead and Real-Time energy markets)



A Substitution Auction Has Many Notable Features

- The substitution auction generally does not affect payments to existing (non-retiring) resources awarded CSOs, or to load
 - It **preserves competitive pricing** (with MOPR) in the *primary* auction
- The substitution auction is **technology neutral**
- It is likely to help New England states **achieve their GHG policy goals** (as older, high-emitting units are likely to retire sooner)
- FCA's **competitive price signals** continue to guide entry and exit when no subsidized supply is available



Why Is a Near-term Solution So Important?

- New England relies on wholesale electricity markets to attract private investment, but **investor confidence** in the market structure may be weakened if we don't take some action
 - **Litigation uncertainty** will likely result from the application of the current rules, and
 - **Price suppression** will result if subsidized resources enter the market without application of the MOPR; this could result in rates that are not 'just and reasonable'
- The CASPR proposal will:
 - Maintain **price formation** in the capacity market
 - Allow **state-sponsored resources** to be counted toward resource adequacy over time, and
 - Allow us to create **certainty for the market** and attract investment when resources are needed (i.e., as further resources retire)
- **State RFPs** are very likely to attract resources that seek to participate in the ISO's February 2019 auction for capacity needed in 2022 (FCA #13)
 - *FERC approval will be needed in early 2018 to accommodate these resources*



ISO New England Is Conducting a Study of Fuel Security Challenges



- ISO New England is conducting a study of fuel security challenges to the continued **reliability** of New England's power system
- In this context, fuel security refers to the ability of power plants to have or obtain the fuel required to generate electricity, especially during the winter peak season
- The study is examining more than a dozen cases of generating resource and fuel-mix combinations and will quantify each case's **fuel security risk**
 - Fuel security risk is the number and duration of energy shortfalls that could occur during the entire winter period in **2025** and that would require implementation of emergency procedures to maintain reliability



ISO New England Is Conducting a Study of Fuel Security Challenges, *continued*



- The study is **not** focused on the effects of expanded access to natural gas and will not identify needs for new or expanded pipeline capacity or natural gas infrastructure
- The study is **still underway**, with completion expected by the end of October 2017
- The results will be presented to regional stakeholders for discussion and input
- The ISO will work with stakeholders to determine whether further **operational** or **market design measures** will be needed to address the fuel security risk