



# **Consolidated Presentation on Forward Clean Energy Market**

NEPOOL IMAPP Process

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# Why a Forward Clean Energy Market?

From “***Policy and Markets: Goal Posts***” (June 2016), available at [http://www.nepool.com/uploads/IMAP\\_20160621\\_Goal\\_Posts\\_States.pdf](http://www.nepool.com/uploads/IMAP_20160621_Goal_Posts_States.pdf):

“...The high-level market design objective associated with potential competitive markets-based solutions is to (i) ensure a sufficient revenue stream to incent the construction and operation of new resources that are able to satisfy some states’ current and future policy requirements as reflected in state laws, and (ii) provide support if and to the extent needed to existing non-carbon emitting resources to enable their continued viability if one or more states conclude their customers should provide support to such existing resources in furtherance of their state(s)’ policy objectives. ...”

**Forward Clean Energy Market intended to procure clean energy delivery commitments to efficiently achieve desired carbon emission goals.**

# Forward Clean Energy Market (FCEM)

## Overview of Potential Construct:

- Similar to the existing Forward Capacity Market (FCM) construct, FCEM proposes the forward procurement of clean energy commitments through a competitive auction-based central procurement administered by ISO New England.
  - Requirements would be set by state policy
  - Would allow new clean resources to compete with existing clean resources
  - Market, payments and obligations would be governed and assured under a FERC-approved tariff

# FCEM Details/Issues to Consider

## 1. What would be purchased?

- Clean, renewable, and/or other?
- Any-hour product v. time-differentiated product
  - E.g., off-peak, mid-day peak, and peak products; monthly, seasonal product?

## 2. How would procurement requirements be set?

- Dictated by the states based on public policies
- Locational, technology or vintage requirements/clearing constraints? (e.g., x MW of wind in NNE, y MW of off-shore wind in SNE)
- Need for/desirability of sloped demand curves?

# FCEM Details/Issues to Consider (cont.)

## 3. Under what terms?

- How far forward? In advance of annual Forward Capacity Auction?
- Physical (like FCM) v. portfolio bidding (like LFRM)?
- One-year commitment; up to 7 years; 10+ years?
- FCEM Clearing Price = \$/MWh? Other (i.e., guarantee of fixed cost recovery)?
- Payment per MW per year or per MWh with a fixed annual MWh quantity or other?
- Would there be a MOPR in the FCEM auction?

# FCEM Details/Issues to Consider (cont.)

## 4. How would payments be determined?

- Upon delivery w/penalty for failure to deliver; payment separate from Real-Time energy settlement?
- Upon delivery; higher of FCEM auction clearing price or Day-Ahead or Real-Time LMP?
- Upon delivery; payment in form of adder to the Real-Time LMP?
- A fixed or floor component with a portion of Real-Time energy settlement as a production incentive?
- Other options?

# FCEM Details/Issues to Consider (cont.)

## 5. What would be included in FCEM Offer Price Components?

- Should transmission costs be included as cost input?
- Cost of production and revenue requirement(s)
- Other inputs?

## 6. How would FCEM relate to FCM?

- Obligated to participate in FCM? Voluntary participation? Prohibited from FCM?
- FCEM payments treated as “in market” or “out-of-market” (OOM) for MOPR purposes?

# FCEM Details/Issues to Consider (cont.)

**7. How would FCEM interact with existing state-sponsored mechanisms (i.e., long-term PPAs)?**

**8. How would FCEM costs be allocated?**

- Allocate FCEM charges to LSEs in states in accordance with individual state requirements?
- Allocate incremental cost difference between FCEM auction clearing price and applicable Day-Ahead or Real-Time LMP to LSEs in states in accordance with requirements?
- Other options?



# FCEM Details/Issues to Consider (cont.)

## 9. Other Details, Issues or Questions to Consider??