



Meeting the Region's Carbon Goals: IMAPP Presentation

August 11, 2016

Any reforms to the ISO-NE markets and/or tariff to accommodate state public policy goals should meet three guiding principles

Three Guiding Principles

(1) IMAPP Process must be outcome-driven to actually work

- **Clear definition of state public policy goals is key**
- **Requires input of the finance and development communities to confirm workability**
- **Independent expert review of final proposals should be considered**

(2) Competitive markets must be preserved with as minimal disruption as possible

- **Preserve value of the existing investments in the market**
- **Create a smooth transition to a cleaner region**

(3) Non-discriminatory

ISO-NE markets may provide a valuable platform for the region to meet its carbon goals, provided it is done correctly

NEER assumes that states will continue to contract, at least for the foreseeable future, for zero emission resources

Overview of NEER's Draft Proposal

- **New Forward Clean Energy Market (“FCEM”) distinct from the energy, capacity and ancillary markets**
 - Development of an ISO-NE market platform to help the region manage its state public policies
 - Will likely not replace contracts, at least at first, but over time could possibly incent merchant investment
- **Revisions to FCM MOPR mitigation to permit resources with public policy contracts to clear the FCM, while still preserving price signals for all other resources**
 - Two-tiered “APR” pricing mechanism
- **No changes to the existing energy markets at this time as revisions are not needed with under NEER's proposal**

States will not give up contract rights, as new projects likely need contracts to be financeable in today's market

Eligibility for the FCEM is non-discriminatory and open to all qualifying resources, with and without bilateral contracts

Forward Clean Energy Market

- **Qualifying resources include zero emission resources**
- **Purchase quantities set forth in ISO-NE Tariff to achieve state carbon reduction goals**
- **Payment rate for MWh production set through an auction clearing process similar to FCM**
- **Monthly payments tied to MWh performance**
 - Open discussion on whether to include a fixed or floor component
- **Develop mechanisms to measure performance**
- **Initially, NEER intent is for a one-year term, with further discussions in the IMAPP process on the pros and cons of rate locks of varying amounts**

Tying performance to payments in the FCEM helps ensure that what is being purchased will contribute to carbon reductions

FCEM structured to fit within ISO-NE's existing markets without disruptive effects

Forward Clean Energy Market

- **Annual market**
 - Similar to FCM, can look at composite offers to appropriately value the seasonal attributes of renewable resources
- **Auction run each year prior to the FCM such that the FCEM clearing prices can be factored into the offering and mitigation of resource bids in the FCM**
- **IMM review of offers to determine reasonableness; offers should include costs of transmission**
- **No tariff obligation for a new FCEM-cleared resource to offer in the FCM (although likely expected in a contract)**
 - Could change this in later versions of this market upon improvements to FCM queue process that impact renewables

The FCEM can build upon the knowledge gained in FCM

Adjustments in FCM Mitigation are required to enable a smooth transition to a Forward Clean Energy Market

FCM Mitigation

- **Retention of the existing MOPR review process**
 - Renewable exemption would no longer be needed
- **Contracted resources with a FCEM must offer obligation that have cleared the FCEM and wish to offer in the FCM are defined in the FCM rules as “Clean Energy Agreement Resources” or “CEARs”**
- **CEAR contracts are not considered out-of-market subsidies under ISO-NE’s ORTP review**
 - Still mitigated otherwise, including offsetting FCEM revenues
- **FCA is run with two clearing prices, one with all the CEARs and one without the CEARs and non-CEARs are paid the price without**
 - “Two-tiered APR type mechanism” to adjust the pricing

Existing resources remain protected in the capacity market