

Comments on Forward Clean Energy Market Design Proposal

We appreciate the opportunity to submit comments on the Forward Clean Energy Market Design Proposal (“FCEM Proposal”) released in January 2023 by the Massachusetts Department of Energy Resources (“DOER”).¹ We have been extensively involved in the design and operation of the ISO New England (“ISO-NE”) wholesale markets since their inception, with a focus on the ISO-NE capacity markets. We have over 40 years of combined professional experience.

We preface our remarks with an acknowledgment of the importance that the DOER has placed on turning worthy decarbonization goals into tangible action with the FCEM Proposal. The proposal recognizes the crucial role that wholesale power markets will play in the transition to a clean power grid and reflects a significant amount of time and effort in creating a new market that incentivizes low-carbon technologies. The region must make progress on tangible solutions if it is going to achieve its stated clean energy goals. The FCEM Proposal is an important step forward in that direction.

While the question of governance as it pertains to the proposed market is of utmost importance, our comments are focused on market design issues. The FCEM Proposal, as detailed in the January 2023 document, is described as “market rules.” However, the document reflects more of a framework, and we recognize it is a starting point in designing effective market concepts. As such, many design elements require more clarity. To turn this framework into a market design that achieves its stated objectives, numerous details must be discussed and considered such that the market is implementable.

The development of the Forward Capacity Market (“FCM”) in New England provides important lessons that should not be forgotten in future discussions. Those who were involved in the design of the FCM know that it took numerous meetings among dozens of stakeholders with different business interests and objectives over almost two years to arrive at a compromise that eventually became the FCM. Designing markets based on compromise is challenging. The results are typically a collection of accommodated stakeholder requests to achieve “buy-in.”

The danger with this approach is that the market can become overly complicated, may not attract investment as a result, and may fail to meet its stated objectives. The FCM, as a result of negotiation and compromise, became a highly complex market, arguably more complicated than necessary to capture the majority of the benefits that a competitive market structure can offer. The FCEM Proposal appears to be headed down a similar path.

The proposed FCEM conceptual design is unnecessarily complex. The proposed design contemplates numerous types of “clean energy products” for new and existing resources, new resource price lock-in options, long-term demand volume commitments with partial clearing mechanisms, and phase-in

¹ The views expressed in these comments are solely the current views of Danielle Powers and Meredith Stone (“the Authors”) and do not necessarily reflect the views of Concentric Energy Advisors, Inc., its affiliates, subsidiaries, and related companies, and the clients of Concentric Energy Advisors. The Authors’ views are based upon information the Authors consider reliable at the time of publication.



flexibility over a resource's first year of operation. With dozens of permutations in the auction clearing, it is hard to imagine how auction optimization can be achieved.

In addition, hundreds of design details must be addressed, including: i) new versus existing capacity definitions; ii) treatment of capacity increases/decreases prior to the commitment period; iii) mechanisms to shed obligations; iv) default penalties; v) financial assurance requirements, etc. Underneath every design element are numerous design details that should be expected to take years, not months, to discuss and resolve.

Second, determining and verifying eligible capacity and energy to be provided via the clean product attributes is problematic. A forward market is inherently challenging because resources are "qualified" to sell products "x" years before delivery. This means that a new resource must submit a critical path schedule against which they will be monitored to ensure that they are operational in time for delivery at the start of the commitment period.

Monitoring progress against project milestones and determining the ability of a resource to meet its obligation, with genuine financial consequences for the resource owner and the market, has proven to be challenging in the current FCM (e.g., delays in the commercial operation date of Footprint Power) and will be equally challenging in the FCEM.

The interaction between the FCEM and the FCM is not addressed in the FCEM proposal and must be carefully considered. The link between these two markets introduces potentially significant challenges and will most certainly impact the functioning of the FCM as it currently exists. For example, the FCEM Proposal includes a provision that requires any resource that receives a clean capacity certificate to offer into the FCM at a \$0/kW-month price to ensure it also receives an FCM capacity obligation. This will most certainly impact the efficiency of, and outcomes in, the FCM.

Numerous other questions regarding the interaction between the FCM and FCEM must be answered, e.g., will obligations taken on in the FCEM be netted from the Installed Capacity Requirement so that the FCM becomes a residual market? Are revenues from the FCEM netted from FCM revenues, or vice versa, when reviewing offers in the markets? What does Net CONE and Net Clean CONE now mean? How will participants know the FCM's clearing price when formulating their FCEM offers?

One of the biggest questions that must be answered is how to ensure the competitiveness of the FCEM. How will the market design ensure that self-scheduled resources don't suppress prices? How will net going forward costs and risk premiums be calculated across the ISO-administered markets and the FCEM? What mechanisms and price reviews will be put in place to ensure the market is competitive?

The proposed FCEM design, as envisioned, contains all of the most challenging elements of the FCM, with additional elements that may make the market so complicated that competition by developers and clean-energy resource suppliers will likely be substantially limited. The time and resources required to turn the FCEM Proposal into a workably competitive forward market design will require extensive resources, tens of millions of dollars in capital investment, and several years to come to fruition. If the DOER and the region's stakeholders want to pursue a clean energy market, we urge the parties involved to focus their efforts on designing a market that captures a majority of the



benefits of competition without adding so many market design elements that the efficacy of the market is significantly compromised. Keeping the design simple and limiting unnecessary complications will enhance the potential benefits of the proposed FCEM market for the region's consumers.

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