February 23, 2021

NESCOE Wholesale Market Design Technical Forum

Comments of Marc D. Montalvo, President, Daymark Energy Advisors[1]

Thank you for the opportunity to submit these comments. The following comments reflect my views and opinions alone, and do not necessarily reflect the position of any client of Daymark Energy Advisors.

Introductory remarks

The New England states have moved aggressively to accelerate the transition of the power system away from fossil fuels and toward renewable resources. This transition will require major changes to the region's portfolio of supply resources and the power delivery infrastructure and may require substantial regulatory, market, and business model reforms to ensure an efficient transition. It is in this context that NESCOE issued the vision statement and held this technical forum to address the interactions between the states' power-sector policy objectives and the wholesale market mechanisms that the region relies on to bring affordable and reliable electricity service to customers.

As a matter of general principle, the states' energy resource policies and mandates are not incompatible with centrally administered markets. Moreover, while not always without controversy and friction, ISO New England's (ISO-NE) markets have maintained reliability and brought economic benefits to consumers and suppliers in New England. Thus, the region should continue to leverage ISO-NE's capabilities and resources to the greatest extent practical, making necessary market reforms, while maximizing return on the substantial investment in ISO-NE's market systems and associated infrastructure that the region has already built and paid for.

The remarks that follow focus on the region's **capacity market construct**.

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[1] Marc D. Montalvo is President of Daymark Energy Advisors. He works with industry and policymakers to build regulatory and market structures that enable the efficient development and deployment of clean energy infrastructure. His principal practice areas are competitive power markets, strategic planning, risk management, and capital budgeting and investment analysis. He advises investors, developers, utilities, and government agencies and has appeared as an expert before FERC, Canadian provincial regulators, and state regulatory agencies. He currently advises several developers and investors considering opportunities in utility-scale battery storage, utility-scale solar, offshore wind, and HVDC transmission projects in New England, New York, PJM, and MISO. Prior to joining Daymark, he worked for ten years at ISO New England where he held the positions of Director of Market Development, Director of Internal Market Monitoring, and Director of Enterprise Risk Management. Prior to ISO New England, he was a managing consultant with La Capra Associates. He began his career at New England Power.

Comments

State policy provides the context within which the resource procurement problem needs to be solved. The chosen market structure should align price incentives with the policy objectives so that investors maximize returns by allocating capital towards the types of resources preferred by policy.

The fundamental problem with ISO-NE's capacity market is that it was not designed (nor was it intended as originally conceived, the shortcomings of CASPR notwithstanding) to procure what state policies demand. Several New England states have adopted policies that require the development and deployment of a portfolio of supply resources that satisfy a set of objectives: cost, resource adequacy, CO_2 and other air emissions, water quality, other economic development benefits, and environmental and health impacts. ICAP is an appropriate and sufficient mechanism for pricing a single attribute, such as resource adequacy, in the capacity market. If, however, the goal of the capacity market (or the power markets more broadly) is expanded to providing sustainable unbiased investment signals for resources that satisfy the full set of the states' portfolio preferences, ISO-NE's ICAP is not a sufficiently comprehensive product. Under the current structure, none of ISO-NE's markets actively procure resources that meet all these preferences.

The ICAP product is defined in terms of only two dimensions - capacity (i.e., contribution to resource adequacy) and price. Consequently, the ICAP market does not weigh any other attribute, such as the environmental, health, or economic development benefits that the states are seeking. In the absence of prices that fully value avoided CO_2 emissions and other environmental and health benefits, for example, the current capacity market is unlikely (it would be a coincidence not a selected-for outcome) to select a portfolio of resource investments that align with the preferences of the states. While ISO-NE markets are not mandated by FERC to procure policy-aligned resources, the states are not so limited. Consequently, the states have run, and will continue to run, solicitations to procure the resources that meet their policy and statutory needs. Over the long run, given the allocation of risk and other information asymmetries, continued reliance on largely uncoordinated individual state-run solicitations will likely not produce an optimal portfolio of resources for the region.

While a complex undertaking, it is possible to structure an organized market to satisfy the states' several preferences. Importantly, any workable approach likely does not involve a more complex multi-dimensioned version of the ICAP product. Rather, the better approach is to clearly define the desired attributes and to structure a procurement mechanism that acquires a portfolio that, in aggregate, meets the demand for those attributes; no single resource need meet all attributes. The salient components of such an approach include:

- The market administrator would establish demand curves for each desired attribute.
- Ideally the market design would not specify resource types.
- Qualified suppliers would offer portfolios of resources that provide some or all the attributes.

- The process could be structured as a multi-round combinatorial (a.k.a. "package") auction or as a competitive procurement.
- The administrator would select the lowest cost set of portfolios that in aggregate simultaneously meet all attribute demands.

The preferred mechanism for procuring resources to meet policy and regional adequacy is the one that most efficiently and simultaneously meets the set of goals: adequacy, resource performance, emissions characteristics, etc.

ISO-NE's capacity market (CASPR) and associated price mitigation (ORTP) rules are viewed by many as a barrier to efficient market entry for policy-preferred clean energy resources. Even while recognizing that FERC may have to change its policy to allow the region to address fully the misalignment between ISO-NE markets and state policies, there are alternative approaches that the region should explore. Remember that capacity markets are essentially a set of choices, informed by economics, made to achieve what is essentially a set of policy objectives, from the "right" level of reliability, to the kinds of fuel, to the environmental impacts. If these preferences can be priced, then the problem is simple. If not, it does not eliminate or lessen the importance of the preference; but for a resource allocation to be efficient, administrative correction through subsidy or other mechanism may be required – this too is a lesson from economics. The market design problem, then, resolves to one of understanding and assessing tradeoffs in pursuit of the policy objectives.

In the forum, the Forward Clean Energy Market (FCEM) and Incremental Clean Capacity Auction (ICCA) were offered as options. My experience with capacity markets in the U.S. suggests that simpler is most often better. Many changes have been made to New England's capacity market over the past fifteen years in the name of increasing its efficiency and performance, only to add complication, increase administrative burden, and create frustration amongst market participants. The adoption of FCEM, ICCA, or an alternative market design should be evaluated with simple tests – Does it achieve what policy makers want? Does it facilitate commerce? Is it competitive? Additionally, the efficacy of any design must be compared to the continued use of state-run competitive solicitations, where a key consideration of the states is the benefit-cost tradeoffs of procuring and contracting for a portfolio that may, in retrospect, be suboptimal in some economic sense, versus not fully meeting their deep decarbonization goals. As the drive to decarbonization is a decades long journey, policy makers can certainly tailor future solicitations to address any perceived shortfalls in their procurement objectives and take advantage of technological advances that will certainly continue to unfold in the years ahead. So, any approach must be demonstrably superior to the current process of competitive solicitations.