

Comments of

Advanced Energy Economy, Borrego Solar, Brookfield Renewable, and Enel X

RE: NEPOOL's Pathways to the Future Grid Process Project Report

I. Introduction

Advanced Energy Economy, Borrego Solar, Brookfield Renewable, and Enel X appreciate the opportunity to provide input on Dr. Frank Felder's January 6, 2021 report regarding NEPOOL's Pathways to the Future Grid Process ("Pathways Report").¹ We would also like to express our sincere appreciation for NEPOOL's devotion of time and resources to this important project, and for Dr. Felder's efforts to shepherd stakeholders through a series of complex discussions. The Pathways Report offers a thoughtful and comprehensive framework that will help to make subsequent discussions more focused and productive.

Our companies and organizations are concerned about the rising tension between the ISO-NE administered wholesale markets and the policy imperatives that the New England states have committed to and that we support. This growing disconnect requires immediate attention to avoid exacerbating the inefficient, adverse outcomes that have already begun to emerge in the region. Failure of ISO-NE's markets to support achievement of state goals is unacceptable today, and it will be untenable as the states move toward a future that is 80% decarbonized. We believe it is imperative to resolve this tension while preserving regional competitive wholesale markets, which provide significant benefit to customers while maximizing private investment and innovation. It is our shared view that relying on regional, market-based approaches wherever possible, as compared to individual state approaches, is better for consumers and better for businesses seeking to deploy new resources and maintain existing clean resources. The Pathways effort comes at a critical time when the opportunity to identify and implement solutions is still open, but not for long. We are optimistic that, while certainly an "ambitious and challenging undertaking,"² it is possible to arrive at a solution that will satisfy the states' policy requirements while maintaining and even improving regional market competition.

¹ Dr. Frank A. Felder, *NEPOOL's Pathways to the Future Grid Process: Project Report* (Jan. 6, 2021), available at https://nepool.com/wp-content/uploads/2021/01/NPC_20210107_Felder_Report_on_Pathways_rev1.pdf.

² Pathways Report at 6.

Of the solutions discussed through the Pathways efforts, and based on current information, we think the Integrated Clean Capacity Market (ICCM) holds the greatest potential to meet the needs of states while retaining and improving the efficiency of the ISO-NE administered regional markets, which Dr. Felder describes as the two overarching goals of Pathway effort.³ As advanced energy developers, we think ICCM could be an effective mechanism to facilitate investment in new clean resources and valuation of existing non-emitting resources, although the details of the ICCM design will matter. We look forward to further developing and analyzing ICCM through the next phase of the Pathways effort.

The comments that follow offer our perspective on the criteria for analysis put forward by Dr. Felder and provide our feedback on the pathways themselves, with a particular focus on the ICCM. We conclude with recommendations for the next phase of the Pathways project, including a request that ISO-NE and stakeholders conduct a comprehensive assessment of the ICCM proposal.

II. Criteria for Analysis

Establishing clear, agreed-upon parameters will help to ensure more constructive discussions in the next phase of the Pathways effort, and Dr. Felder helpfully starts the Pathways Report by putting forward criteria against which to evaluate the various pathways.⁴ Especially when considered alongside the Vision Statement released by the New England states, these criteria provide a useful framework for guiding the evaluation of pathways moving forward. Because we think these criteria can and will be helpful during phase two, we offer our perspective on the proposed criteria based on our view of the issues we believe the region must address as it moves toward a decarbonized future.

The first criterion proposed by Dr. Felder is “the achievement of *States’ energy objectives.*” We strongly agree with this criterion. Achievement of state energy objectives is foundational, and any pathway that fails to satisfy this metric is inadequate. In addition to considering states’ specific clean energy policy requirements, it is also important to consider the criteria for wholesale market reform set out by the six New England states in the vision statement released by the New England States Committee on Electricity in October 2020. Specifically, the states expressed a clear and

³ Pathways Report at 1.

⁴ See Pathways Report at 7-8.

unanimous view that any “new, regionally-based market framework,” such as the ones under consideration in the Pathways effort, “must, at a minimum, reflect the following principles:

- (1) Meet States’ decarbonization mandates and maintain resource adequacy at the lowest cost by using market-based mechanisms;
- (2) Establish effective mechanisms that accommodate existing and future long-term contracts for clean energy resources executed pursuant to state law;
- (3) Integrate distribution-level resources effectively and efficiently;
- (4) Allow interested buyers and sellers to participate; and
- (5) Provide for an appropriate level of state involvement in market design and implementation.”⁵

Keeping these guiding principles in mind, the criterion “achievement of States’ energy objectives” does not simply require achieving, on aggregate, the level of carbon reduction mandated by state law, but rather ensuring that states have the ability to achieve their different and evolving policy objectives in keeping with these guiding principles.

The second criterion is “addressing the so-called *double capacity payment* issue.” Again, we agree with this criterion. Our organizations have strongly opposed broad expansion of the minimum offer price rule (MOPR) and agree that any future pathway must ensure that the capacity value that resources needed to meet state policy requirements bring to the system is recognized, and that states are not paying for duplicative capacity due to the exclusion of those resources from the capacity market. The Competitive Auctions with Sponsored Policy Resources (CASPR) mechanism has proven ineffective and is almost certainly insufficient to accomplish this goal; the Pathways effort seems to reflect a broad acknowledgement that CASPR does not present a viable or long-term solution to the double capacity payment issue. Any solutions coming out of the Pathways project must address this pressing challenge.

The third proposed criterion is “ensuring sufficient price integrity in the markets (i.e., addressing *price suppression*).” While we agree that price integrity and transparency is vital to an efficient and fair market, we disagree with the characterization of price suppression in the Pathways Report. In particular, the report argues that state subsidized resources participating in the FCM in the absence of MOPR results in alleged uneconomic price suppression and reliability

⁵ See NESCOE, “New England States’ Vision for a Clean, Affordable, and Reliable 21st Century Regional Electric Grid” (Oct. 16, 2020), available at <http://nescoc.com/resource-center/vision-stmt-oct2020/>.

concerns. To the contrary, markets currently fail to value clean attributes of resources and fail to acknowledge resource decisions by states, which is not economically efficient and leads to inefficient capacity over-procurement that, as the second criterion acknowledges, increases consumer costs. Adding a clean energy constraint or requirement in the markets, as some of the proposed market frameworks would do, would facilitate least-cost, economically efficient achievement of state policy goals while also maintaining reliability.

The fourth and final criterion offered in the Pathways Report is “the increasing need for *balancing resources* in a future state.” We agree that the operational needs of the grid are shifting, and that additional flexibility will be necessary to maintain reliability in the future. However, we caution against directly linking the issue of balancing resources to the evaluation of the Pathways. First, as the report acknowledges, the need for balancing resources is poorly defined: “...the required types, amounts and timing of balancing services needed to accommodate increasing levels of VRER [variable renewable energy resources] has not been defined or articulated.”⁶ Until stakeholders have a better sense of what is meant by “balancing resources” and the need for them, the Pathways effort cannot set out to meet this need.

Second, there are several solutions outside the Pathways discussions that could be implemented alongside most or all of the proposed pathways that could address any identified concerns with respect to the operational reliability of a system with increasing penetration of variable renewable resources. These include relying on Effective Load Carrying Capability to qualify all capacity resources (an effort that ISO-NE is already in the early stages of), incorporation of dynamic Clean Energy Attribute Credits (CEACs) within ICCM, adopting improved scarcity pricing, enhancing ancillary services to better reflect evolving grid needs, or adopting constraints to ensure that a certain amount of capacity on the system can meet flexibility needs.⁷ Furthermore, the Future Grid Reliability Study moving through the Markets and Reliability Committees is setting out to identify future reliability needs, which may include the need for “balancing resources.” The findings of that study could result in development of new ancillary services or other market-based solutions to address identified reliability issues, such as the need for “balancing resources.”

⁶ Pathways Report at 6.

⁷ We are not advocating for any of these solutions, only noting that they could all be studied to assess grid reliability needs in a future system.

Third, ensuring sufficient balancing resources should not be focused solely on the need to “maintain existing resources to provide balancing services.”⁸ While valuing the reliability contribution of existing non-emitting resources will be important to meet both reliability needs and state decarbonization goals, new low- and no-carbon resources like energy storage and flexible load will also be needed at growing levels. Any solution to address the need for balancing services must consider the full suite of available existing and new resources.

Finally, while we emphasize that the pathways need not solve the balancing resources issue, we note that the ICCM does contemplate a potential “flexible capacity” requirement, which our organizations strongly support exploring. Such a requirement would directly address the need for balancing services. The related idea of introducing a “balancing resources constraint” into the FCM is also compatible with ICCM. More broadly, the ICCM as initially presented contemplates the need to reform the FCM alongside integration of a clean energy procurement to ensure that resource adequacy is defined such that it will meet reliability needs, potentially in combination with some of the solutions mentioned above such as improved scarcity pricing and enhanced ancillary services.

III. Comments on Proposed Pathways

A. Forward Clean Energy Market and Integrated Clean Capacity Market

As noted above, our organizations believe the ICCM holds great potential to address the clearly articulated priorities of the New England states while also improving the efficiency of the ISO-NE administered regional markets. The Pathways Report considers the Forward Clean Energy Market (FCEM) and the ICCM together as variants of the same idea. These comments will focus on ICCM rather than FCEM because we view it as the first-best of these closely related proposals. In our evaluation of ICCM, we also emphasize that the proposal discussed to date is simply a framework, with many design elements for the region to consider that will ultimately determine the effectiveness of the ICCM and its suitability to meet states’ needs. We believe ICCM can be designed such that it is both economically efficient, in keeping with the priorities of the states, and

⁸ Pathways Report at 8.

capable of adaptation to address evolving reliability needs, satisfying the criterion identified in Dr. Felder's report.

We view ICCM as a promising solution because it addresses both resource adequacy and clean energy needs through an integrated, co-optimized approach. This reflects a recognition that the most efficient outcomes will result when clean energy deployment takes resource adequacy needs into account, and vice-versa, relying on a market-based approach rather than a centralized resource planning approach to arrive at the optimal solution. Importantly, ICCM leaves in place the concept and structure of the existing Forward Capacity Market (FCM), avoiding the uncertainty and potentially disjointed responsibilities and roles between the states and the ISO that would go along with a transition to an energy-only market or to an alternate resource adequacy construct, all of which could introduce new reliability and cost risks. The ICCM as first introduced also contemplates the need to reform the existing FCM to better reflect the changing resource mix and system needs. ICCM also addresses the timing issue that exists under the FCEM approach, in which the FCM and the clean energy procurement are run separately; there are pros and cons to deciding which procurement should go first, with inefficiency and risk either way. These concerns are avoided by running the procurements simultaneously.

The Pathways Report states that the benefit of the ICCM over the FCEM “depends in part on the extent that resources have both clean energy and capacity attributes.”⁹ Even if overlap is minimal in the short term, it will be significant in the near future as states approach and exceed 80% decarbonization. Given that the Pathways effort aims to establish long-term, durable solutions, the benefits of co-optimization should not be discounted.

With respect to MOPR, the Pathways Report states that its application under FCEM and ICCM is “not clear.”¹⁰ While avoidance of the MOPR cannot be guaranteed because it is ultimately up to FERC, and while FCEM and ICCM are new designs that have not yet been placed before FERC, there is strong reason to believe that MOPR will not be applied based on revenues earned via FCEM, and especially via ICCM. The core design of the ICCM relies on competitive bids by buyers and sellers, with all resources competing based on their eligibility to deliver a defined product that is co-optimized with resource adequacy needs all within the wholesale markets. Revenues earned through ICCM would therefore be “in-market” revenue, rather than the so-called

⁹ Pathways Report at 13.

¹⁰ Pathways Report at 9.

“out of market revenue” derived from state policy programs that FERC asserts requires mitigation through the MOPR. Moreover, the new FERC leadership recently appointed by President Biden has strongly opposed the MOPR and can be expected to narrow its application if not eliminate it altogether. For all of these reasons, MOPR should not hinder the further examination and development of the ICCM.

Relatedly, we do not believe that ICCM raises price suppression concerns. The intent of the ICCM is to ensure the region meets both clean energy and resource adequacy needs through a least-cost resource mix. By design, it would not crowd out resources needed for resource adequacy if those needs are properly defined; ICCM will procure resources needed to meet them.

Furthermore, as noted above, ICCM addresses the reliability needs issues underlying the “balancing services” concept by including the potential for a flexible capacity option as a constraint in the design. Still further, the ICCM proposal includes a series of recommendations to reform FCM to better reflect future regional reliability needs, such as switching to seasonal capacity products, switching from Installed Capacity (ICAP) to Unforced Capacity (UCAP), and reliance on ELCC.¹¹ These elements of the ICCM proposal are not discussed in the Pathways Report, but bear consideration in the next phase of the Pathways effort.

An important benefit of both ICCM and FCEM not discussed in the Pathways Report is the fact that these constructs allow states to set their own demand for clean energy. Whereas some of the other pathways, such as carbon pricing, require states to agree on the pace or acceptable cost of the transition to a cleaner grid, under both FCEM and ICCM the states bid in their own demand, meaning that they pay for whatever amount of clean energy demand they wish to procure at whatever price they are willing to pay. We therefore disagree with the Pathways Report’s statement that “The importance of agreement among New England States is particularly important for... [the FCEM and ICCM] because both depend upon a regional auction of inter-State tradeable clean energy and/or capacity products.” While FCEM and ICCM would—like any of the other pathways—require states to agree on certain changes to the current markets, these pathways would otherwise afford significant flexibility for each individual state with respect to the starting point and glide path of the transition to a cleaner grid. Furthermore, by incorporating “dynamic Clean

¹¹ Kathleen Spees, presentation to NEPOOL, “The Integrated Clean Capacity Market: A Design Option for New England’s Grid Transition” (Oct. 1, 2020), available at https://nepool.com/uploads/FGP_NPC_20201001_Spees_Integrated_Clean_Capacity_Market.pdf, at 5-6.

Energy Attribute Credits” (CEACs) into the design, states can further pursue their decarbonization objectives by giving preference to clean energy during peak periods.

The Pathways Report intentionally steers clear of issues of jurisdiction and governance; these topics were not discussed in the first phase of the Pathways effort, but will be important to explore in depth as the region pursues any of the potential pathways. Our organizations point to the framework established in FERC’s draft policy statement on carbon pricing as being equally applicable to ICCM. This draft policy statement encourages efforts to “incorporate a state-determined carbon price in RTO/ISO markets.”¹² In particular, the Commission explains:

“RTO/ISO market rules that incorporate a state-determined carbon price could... improve the efficiency and transparency of the organized wholesale markets by providing a market-based method to incorporate state efforts to reduce GHG emissions. Because the decision about the carbon price would be determined by the state—which could select a price of zero, should it choose—state authority would be unaffected, further removing any doubt that rules that incorporate such a state-determined carbon price would comply FPA section 201(b).”

The same reasoning can easily be extended to the ICCM, which similarly offers a market-based approach to incorporate states’ GHG emission reduction requirements, and likewise allows states to determine their level of participation. Some of our organizations have urged FERC to finalize a final policy statement that solidifies the application of this reasoning to market designs like the ICCM.¹³

Finally, with respect to the open question raised in the Pathways Report of whether ICCM is possible to implement, we believe that it is achievable, but more information is needed from ISO-NE to conclusively reach this determination; we strongly urge against prematurely discarding ICCM on these grounds without a full exploration of specific barriers and potential solutions. Each of the pathways have their own questions around feasibility; e.g., it is arguably much less feasible to shift the entire region to a residual market structure or energy-only market where states or utilities solely address resource adequacy, a task they have not performed in many decades. The feasibility of implementing ICCM should be explored as part of the next phase of the Pathways effort, with the help of external consultants as needed.

¹² FERC Docket No. AD20-14-000, Noticed of Proposed Policy Statement (Oct. 15, 2020), P7.

¹³ See Advanced Energy Economy, Comments in Docket No. AD20-14-000 (Nov. 16, 2020), at 8, urging the Commission “to broaden the scope of a final Policy Statement to include a recognition that RTO/ISO market rules that accommodate or implement a broader range of state policies (along with local policies and voluntary utility and customer commitments) are within the Commission’s jurisdiction, can be shown to be just and reasonable, and should be encouraged.”

B. Carbon Pricing

Our organizations are not opposed to carbon pricing as one tool to facilitate the transition to a cleaner energy system, but we understand and respect that the New England states have clearly and repeatedly expressed that they do not intend to pursue carbon pricing outside of the Regional Greenhouse Gas Initiative (RGGI). Should the region ultimately pursue carbon pricing, we emphasize that it need not do so in isolation. Carbon pricing is compatible with many if not all of the other pathways contemplated to date. In particular, carbon pricing could complement the ICCM by establishing a greenhouse gas emission price signal in resource dispatch, especially if the final ICCM design does not include a dynamic clean energy credit.

Carbon pricing could be effective in addressing the decarbonization goals of the states, but the price would need to be set much higher than current RGGI prices to achieve the level of decarbonization required by state policies. If pursued in tandem with ICCM, the carbon price could be set lower without undermining the achievement of state goals. Under this combined “carbon price plus ICCM” approach, the ICCM would serve to attract investment and ensure adequacy of clean energy resources to meet state objectives while the carbon price would give dispatch preference to non-emitting resources. The current energy market rules give no higher value to non-emitting resources that provide energy, reserves, and other reliability products. With the need for these products more important in the future, distinguishing and recognizing the reliability contribution that non-emitting resources provide will contribute toward retaining fewer unnecessary emitting resources. In the absence of carbon pricing, we encourage serious consideration of dynamic clean energy credits under the ICCM design.

C. Energy Only Market

Many of the elements that contribute to the success of ERCOT’s energy-only market design are not present in New England. In particular, the strong alignment between state policies, retail rates, and the wholesale markets in ERCOT provides a viable platform to use energy prices as a signal to ensure sufficient resources. Until and unless the New England states express strong interest in exploring an energy-only market, we urge against expending significant resources exploring this pathway. Should states and stakeholders decide to pursue an energy-only market, we urge strong consideration of the potential impact on clean flexible resources that are needed to

maintain reliability *and* meet states’ decarbonization goals that currently rely heavily on capacity market revenue, including energy storage and flexible demand resources.

D. Alternative Resource Adequacy Constructs

Our organizations do not have input on the individual FCM alternative proposals at this time, but we do have strong preference for regional, market-based approaches over more balkanized and less competitive approaches. To the extent that some alternative resource adequacy constructs would move away from regional market-based approaches toward bifurcated and balkanized state-by-state resource adequacy plans, we believe such constructs will make it harder to attract a diverse suite of cost-competitive new advanced energy resources and maintain existing advanced energy resources. Such designs could also increase reliability and cost risks for individual states that may arise from portfolios they construct; regional competitive markets help to mitigate and share those risks. The risks that arise from “going it alone” are counterproductive to the goal of achieving states’ decarbonization goals reliably and cost-effectively.

IV. Recommendations for Next Phase of Pathways Effort

Our organizations look forward to the next phase of the Pathways effort when states, ISO-NE, and stakeholders will have the opportunity to more thoroughly evaluate the most promising pathways with an eye toward implementation. As part of this effort, for all the reasons stated above, we ask for a thorough analysis of ICCM.¹⁴ In particular, we ask that the co-optimization unique to ICCM gets full consideration rather than being treated as an afterthought or add-on to FCEM. It is especially important to give ICCM due consideration to fully unpack and address the concern voiced by ISO-NE in 2017 that a co-optimized approach to resource adequacy and clean energy procurement may be technically infeasible.

As this analysis unfolds, we also urge against assuming a specific ICCM design, and instead encourage stakeholders to use the next phase of the Pathways effort to weigh the pros and

¹⁴ Note that The Brattle Group recently produced a white paper on ICCM in conjunction with the New Jersey Board of Public Utilities, which provides some additional details that may be helpful as New England expands its consideration of ICCM. *See* Integrated Clean Capacity Market: A Competitive Market for Powering the Clean Electricity Future (Jan. 21, 2020), available at <https://www.nj.gov/bpu/pdf/publicnotice/Public%20Notice%20for%20RA%20Work%20Session%20on%20Clean%20Energy%20Markets.pdf>, at 5-19.

cons of key design elements of ICCM. This evaluation should include consideration of FCM reforms to address the resource adequacy side of the co-optimized ICCM procurement.

Finally, we emphasize the importance of ensuring that the pathways analysis and discussions set out to address states' questions and meet states' objectives with respect to both market design and questions of jurisdiction and governance. Failure to do so would undermine the entire purpose of the Pathways effort and give states no option but to pursue their own process and solutions. NEPOOL should also work to incorporate takeaways from the New England Energy Vision technical forums being organized simultaneously by the six New England states.

V. Conclusion & Contact

Our organizations appreciate the opportunity to provide input on the Pathways process, both throughout the discussions to date and in response to Dr. Felder's final Pathways Report, and we look forward to the more detailed study and consideration to come. We ask that the next phase of the Pathways effort undertakes a comprehensive consideration of the ICCM, including exploration of the pros and cons of various design decisions.

For any questions, please contact:

- Caitlin Marquis, Director, Advanced Energy Economy (cmarquis@aec.net)
- Liz Delaney, Director, Wholesale Market Development, Borrego Solar (edelaney@borregosolar.com)
- Aleksander Mitreski, Senior Director, Regulatory Affairs East, Brookfield Renewable (aleksandar.mitreski@brookfieldrenewable.com)
- Michael Macrae, Senior Manager Regulatory Affairs, Enel X North America (michael.macrae@enel.com)