Comments on NYISO's Grid in Transition Whitepaper Outline

Natural Resources Defense Council, Alliance for Clean Energy New York, American Wind Energy Association, Association for Energy Affordability, New York Battery and Energy Storage Technology Consortium, and the Solar Energy Industries Association

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We commend NYISO on developing a roadmap to address its "grid in transition." In his 2019 State of the State address, Governor Cuomo committed New York to achieve 70 percent renewable energy supply by 2030, and 100 percent emissions free energy supply by 2040, while achieving sub-targets of 9000 megawatts of offshore wind by 2035, 6,000 megawatts of distributed solar by 2025, and 3,000 megawatts of energy storage by 2030.[1] The need to implement market rules that most efficiently serve customers given these state policies, and also ambitious local policies such as New York City's recently passed Climate Mobilization Act, should serve as NYISO's guiding principle in establishing its vision for the future.

In these comments, we first suggest additional topics for NYISO to pursue in its whitepaper. There are several issues integral to ensuring the efficient functioning of New York's future market that appear not to be included or are underexplored in the Grid in Transition outline. Next, we offer some general suggestions to clarify certain portions of the whitepaper.

We suggest including the following additional topics:

- Assess whether NYISO's existing **resource adequacy and mitigation framework** will yield efficient outcomes considering the state's 70 x 30 and 100 x 40 goals. Imposing a mitigation regime on new renewable and energy storage resources that do

[1] *See* State of the State 2019, available at https://www.governor.ny.gov/sites/governor.ny.gov/files/atoms/files/2019StateoftheStateBook.pdf.

not have 'market power' and are incented for their emissions benefits rather than to 'crash the market price' will adversely affect these resources, thus frustrating the climate change goals of the State. As a consequence of imposing mitigation on new resources that then may not be counted as capacity resources, customer costs would increase both because they may have to pay for extra capacity, and because market uncertainty and potentially no capacity revenue would increase financing costs for state-supported resources. The NYISO should examine how the mitigation framework or other capacity market rules might be revised to eliminate the risk that customers will pay for more capacity than necessary, and to send *appropriate* price signals to non-state supported resources that account for how much capacity will be needed given the state's policies. While NYISO does nod to the need to craft a "mitigation regime for aggressive public policy implementation environment", the current framing of the question does not examine the risks of creating barriers to new entry and customer overpayments, critically important topics. As the state works toward its 100 x 40 goal, the need for firm, clean capacity will likely require support beyond a carbon price for new technologies such as synfuels or firm storage to support reliability needs without creating emissions. NYISO's framework should allow these innovation goals to be achieved without forcing customers to buy duplicate capacity from other resources.

- Examine the need for new market mechanisms or new market products: The NYISO should explore the long-term scenario where the significant majority of resources are renewable resources with zero running cost. How would a competitive market look in such a scenario? Are there other electric industry jurisdictions in the world that provide examples of such a scenario and provide data regarding the most efficient market structure under such a scenario? If not in the electric industry, are there examples from products in other industries in the economy to learn from?
- Examine NYISO's **governance process**: In contrast to even some multi-state RTO regions (SPP and MISO), New York State has no formal governance role in NYISO's resource adequacy process. Given the centrality of the state's aggressive clean energy policies to the future system, isn't it appropriate to amend the governance structure to increase the State's role?

- Examine and consider revising the **RMR process**: NYISO frames its central objective as the need "to create incentives through markets rather than having to rely on contracts (RMRs)". Given NYISO's central goal of avoiding inefficient contracts, NYISO should examine whether its RMR process can be revised to more quickly identify and competitively procure alternatives to RMRs. To the extent that many capacity needs are local, such a process could be a more efficient way of procuring solutions targeted at the system's need than the capacity market, which may not address local reliability issues.
- Include a section focused on **DER**: NYISO has devoted significant resources to developing a market participation model for distributed energy resources. Building on that work and looking into the future system, the paper should examine further enhancements to the DER market to better leverage potential system contributions from electric vehicles, electric heating & cooling systems, hot water heaters, and other potentially responsive load that has different characteristics from NYISO's existing DR fleet. Given recent state policies to aggressively ramp up efficient electric heating and cooling technologies, NYISO should seek to facilitate market opportunities that encourage this load to be flexible. The same goes for electric vehicles, which stand to play a large role in the future system. Further revisions beyond NYISO's existing DER market proposal, such as multi-day ahead markets, offer the potential to better leverage these resources. Overall, the outline should place more emphasis on distributed energy resources, which are mentioned in the current draft only in the context of system forecasting.
- Plan a **Market Participation Gap Analysis** to facilitate market participation by all types of resources: An efficient transition of New York's grid will leverage the contributions of all different types of resources, including resources that do not currently participate in NYISO's market. Given the increasing importance of ancillary services markets, it will become imperative in the future to avoid inhibiting any resources technically capable of providing a service with administrative participation requirements that effectively bar certain resource types. In addition, products should be defined in a manner that allows all resources to contribute their services. For example, as NYISO's 2018 Master Plan identifies, splitting the

frequency regulation market to allow for up-regulation and down-regulation to be sold separately will better leverage wind and solar resources, which face a greater opportunity cost for providing up-regulation than down regulation.[2] NYISO should conduct a market participation gap analysis to assess each of its market products to determine whether the administrative requirements for that product inhibit any resources from contributing to the market, and explore similar opportunities to transition to non-discriminatory structures that better foster competition. NYISO should also consider establishing a Universal Market Participation Model, to facilitate market participation by all resource types.[3]

- Include a section focused on **transmission**: NYISO has done good work facilitating the approval of multiple public policy transmission projects. The whitepaper should build on this work by exploring how the transmission planning framework can be further enhanced so as to efficiently facilitate achievement of the state's clean energy goals, while also enhancing system reliability and resilience. This should include a review of the public policy transmission planning process, and how public policy needs should most effectively be defined and identified in a 70 X 30 regime. It should also review related processes. For example, NYISO should explore whether changes are necessary to the interconnection and CRIS rights assignment process to facilitate the construction of offshore wind backbone or hub transmission facilities. Finally, NYISO should examine the possibility of implementing new technologies to enhance system efficiency, such as dynamic line ratings equipment to more efficiently use existing infrastructure.

Beyond identifying these additional areas for inquiry in the Grid in Transition whitepaper, we recommend, as a general matter, that NYISO avoid presuming the answers to any of the questions that it explores in this paper. Some portions of the draft outline appear to prematurely assume a particular outcome. For example, section 2.b.iii of the outline describes a

[2] NYISO 2018 Master Plan, at 20; *see also* Wind Solar Alliance, Customer Focused and Clean: Power Markets for the Future (2018), available at https://windsolaralliance.org/wp-content/uploads/2018/11/WSA_Market_Reform_report_online.pdf

[3] *See* Mark Ahlstrom, The Universal Market Participation Model (2018), available at https://www.esig.energy/blog-the-universal-market-participation-model/

"need for fuel security". This framing implicitly assumes (i) that there is in fact a problem of unacceptable outage risk due to potential resource unavailabity, and (ii) that fuel security is the solution to the underlying reliability need. We suggest that instead of framing the problem as "fuel security", which inherently discriminates among resources (in favor of those that rely on fuel), NYISO instead focus on the service delivered in a resource-neutral manner so as to avoid presuming a solution. An alternative formulation, such as the need to "limit the risk of outage due to resource unavailability, including correlated resource unavailability" or "increase grid resilience to extreme weather events" would accomplish the same objective without discriminating between technology types. Similarly, the whitepaper's question whether "the investment signal [is] there while the fleet is in transition" could be read to assume that additional investment is needed while the fleet is in transition, above and beyond investments driven by state programs. Given the current glut of supply in NYISO, it is not clear that that is the case. We suggest first asking "what level of investment is necessary while the fleet is in transition?" before proceeding to an inquiry regarding whether the market is delivering the appropriate investment signal.

Finally, the whitepaper appropriately plans for a future shaped by New York state's aggressive clean energy policies. NYISO should also account for other significant local policies, such as the Climate Mobilization Act recently passed by New York City.

Respectfully submitted,

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