

# Jt. Board June 15, 2020 Topic Discussion Summaries

## Summary of Main Points | Emilie Nelson

### Topic 1: Navigating Uncharted Territory

#### **Pandemic – The pandemic has taken a terrible toll on human life, as well as the economy.**

- There is deep concern regarding the costs of electricity and the going forward impact on consumers. Overwhelmingly, stakeholders urged continued focus on working toward our long-term strategic priorities to evolve the markets, consider the changes on the grid driven by the CLCPA and keep an unwavering eye on reliability. The state and governor have communicated that investments in transmission and renewable energy to support the green economy is an important platform to revive the overall state economy.
- Several stakeholders additionally advised that NYISO consider the possibility of long term shifts in load forecasts that may result – for example due to changes in commercial priorities or due to factors such as work practices that include more work from home than in-office.
- Another suggestion is to leverage long-term load forecasting work from the Climate Study that considers electrification, among other things, and update models and forecasts periodically.

#### **Considering the future role of capacity markets and EAS markets given clean energy policies**

- Many stakeholders expressed the value of markets in supporting reliability and minimizing costs to consumers. Another emphasis was the importance of sheltering consumers from investment risk. Many cited California as a case study to understand in order to avoid repeating the challenges experienced there in supporting reliability, and not shifting into a reactive posture.
- Concern was expressed by some market participants that in the pursuit of a different construct, new problems would be introduced that challenge the reliability and overall benefits to consumers that have been provided by the admittedly contentious capacity market. Concern was also expressed that absent further changes, BSM could lead to extra consumer cost without effectively discouraging out-of-market incentives... Reinforcing the importance of the Comprehensive Mitigation Reform and other market changes that strengthen signals in the Energy and Ancillary Services (EAS) markets.
- There was general agreement that continued enhancements to the market are important and necessary. Many believe the EAS markets should be the focus of our work. The interplay between the EAS and capacity markets is important and necessary to ensure resource adequacy.

#### **Continuing with the theme of... Enhancements to the EAS & Capacity Market**

- Although all agree, continued evolution is needed, there is a diversity of opinion regarding the scope and scale and what exactly those changes should be.
- There is general support for continuing to pursue EAS changes, hybrid resource market efforts and the Comprehensive Mitigation Review effort, albeit with some additional understanding of how the respective efforts fit together.

- Some stakeholders are concerned that additional products should not be procured until the reliability need is manifested, whereas others advocated that the leading market signal is critical to drive investment.
- Many view the evolution through the lens of what types of resources need to be incented – how does Canadian hydro fit in? How do the incentives support fossil needed for reliability, while still allowing turnover of an aging generator fleet? How do we recognize that certain renewable resources need additional compensation to achieve the CLCPA? Where should additional compensation come from—the markets, or from outside the markets?
- Overall, the NYISO was encouraged to consider bold ideas across the markets, but to implement those ideas following careful deliberation with stakeholders.

## Topic 2: A Grid In Transition

### **Reliability – Absolute expectation that the NYISO will continue to do what is needed to maintain reliability.**

- Prioritize market enhancements that best incentivize the attributes that contribute the most to reliability. Many agree that the market design will need to recognize the changing nature of requirements into the future.
- Make sure NYISO does not lose sight of consumer costs as it implements new market products. Balance price signals by not overpaying for resources that do not contribute much to reliability.
- Encouraged NYISO to work with the state to consider key issues impacting the Grid in Transition; particularly in the context of addressing congestion and the need to build-out the underlying and bulk power systems. The NYISO working quickly with the state to identify and approve Public Policy Transmission Needs is important.
- There was emphasis on the NYISO's role as an authoritative source of information as being a critical part of its mission.

### **Value of Studies – Many cite the studies NYISO performs as a core part of the value NYISO is bringing to the Grid in Transition effort.**

- The NYISO was urged to continue performing study work to be a purveyor of information identifying what is needed from a reliability and market design perspective. Although the NYISO must move quickly, study work is needed to inform longer-term needs. Continue to think outside of the confines of the Tariff regarding what studies need to be pursued.
- Encourage the NYISO to be mindful of how difficult it can be to follow all of the studies in flight, consider how to communicate results and findings in layman terms.
- Identify challenges in achieving the transformation envisioned on the grid – gather information on what the transformation will require, including the need for flexibility and responsiveness, anticipating a future where the system may become winter peaking.

### **Carbon Pricing**

- Broad sentiment that NYISO's work and communication on carbon pricing is industry-leading and an effective means to align the markets with environmental policy.

- This effort is also seen as an important mechanism to address the BSM concerns, and attract new technologies and innovative solutions necessary to achieve a carbon-free electric system.
- Although, there was also concern expressed about how carbon pricing will work with mechanisms that exist outside of the market and the possible impact to consumers.
- Some frustration that future movement regarding carbon pricing is largely seen as a political decision to garner state support.

### **Overall**

- Market Signals identified as critical to support the resource transition. Keep working through EAS and Capacity market changes – facilitate discussion on bold ideas, remain engaged, work with all stakeholders, provide expertise regarding what is needed for reliability.

## Summary of Main Points | Jane Quin (Management Committee Chair)

### TOPIC 1: Navigating Uncharted Territory

The overarching theme of the Topic 1 discussion is that there is substantial agreement on the issues facing the NYISO markets moving forward, but at this stage, not a lot of agreement on how to address those issues. This will be the focus of my review of the comments. I broke this into topics and Aaron did the same – you will note that many of the same topics came up in both discussions.

New York's wholesale electricity markets are impacted by many external factors, such as evolving energy policies, COVID-19 and changing financial market conditions. The goal of this session is to elicit feedback from stakeholders on the impact these factors are having on the wholesale electricity markets to help assess the types of adjustments the NYISO may need to consider for its priorities.

#### COVID 19 Impacts

Overall, most stakeholders viewed COVID 19 impacts as a short term concern, with NYISO's market reform issues being longer term and not necessarily impacted by COVID. In fact, stakeholders cautioned that we should make sure that COVID does not negatively impact our long-term focus on public policy because the CLCPA goals are not going away. However, specific areas of COVID concern included:

- Most comments focused on the pandemic having potentially a short-term impact on investment, market risk and required returns.
- Most comments did not anticipate long term delays in construction, or significant impacts on NYISO's efforts to reform the market, which are viewed as longer term efforts, even if the economic impacts of COVID manifest themselves over time, for example through changes in load shapes.
- Stakeholders were concerned about impacts to the capacity market caused by lower loads and shift in loads from commercial to residential this summer, i.e., will limit capacity available next summer due to baseline calculations. Also, will impact customer allocations and LSE procurement requirements. One group asked if the capacity market should include a metric for pandemic or crisis needs, or if payments should be made outside of the market as needed, similar to what was done during the 2013 outage.
- Stakeholders recognize that NYISO will incur increased costs due to COVID, such as employee testing, enhanced cleaning, sequestration, etc., and think NYISO should adopt a more formalized process for ensuring that these costs can be recouped.
- Stakeholders note that there will be a continuing impact on customers' ability to pay utility bills.
- This pressure on residential bills, rate pressure on utilities, utilities suspending terminations and deferring recovery of costs will hamper utilities ability to invest in their system.

## Resource Adequacy and Capacity Market Reform

Some stakeholders opined that the capacity market is not perfect, but that it has worked to maintain reliability and attract investment. These stakeholders concluded that there is risk in leaving it and trying an unknown construct. Others however, advocated for reform, including: moving more revenue to the energy and ancillary services markets; co-optimizing the energy and capacity markets into a single product to save customers money; implementing carbon pricing and relying less on the capacity market; and developing a multi-dimensional capacity market that values attributes on a technology neutral basis and pays accordingly. Stakeholders noted the double payment problem associated with renewable capacity being mitigated.

- Stakeholders also questioned how we could completely rework the capacity market without engendering major litigation.
- Some stakeholders are concerned with a lot of new generation entering the market that does not have a reliability benefit but that pushes generators that are needed for reliability out of the market resulting in RMRs which will be much more expensive for consumers. These stakeholders also support pushing more revenue into the energy and ancillary services markets and away from the capacity market, but are concerned with the impact this has on the Demand Curve Reset. On moving revenue to the ancillary services market, which some stakeholders noted would provide flexibility needed in the market, but other stakeholders urged caution in designing boutique ancillary services, noting the difficulty and extreme risk in getting it right. The MISO ramp product was offered as an example of not getting it right.
- A stakeholder commented that BSM is an old concept, but there may be a place for some level of mitigation. As such, NYISO Comprehensive Mitigation Review project is very important.
- Consumers are concerned with being placed in a lose-lose situation where there are lots of resources receiving subsidies that are also mitigated. Concerns were raised that even under the status quo there is a divergence between capacity on the system and capacity recognized in the market; thereby sending incorrect price signals.
- On reforming the capacity market stakeholders provided that:
  - a. Development of a multi-dimensional Capacity Market that values attributes on a technology neutral basis and pays accordingly.
  - b. NYISO's efforts are applauded but a bolder push for capacity market reform is needed.
  - c. Public Policy payments should not take capacity out of the market.
- Several stakeholders noted that a central procurement model is not the answer.
- Commenters noted that the NYISO and stakeholders should be actively engaged in the PSC's Resource Adequacy proceeding and should contribute to a resolution that works for all.
- Commenters cautioned that NYISO needs to be proactive in addressing resource adequacy issues and not reactive like California, which ended up with increased customer costs.
- On that note, a number of stakeholders pointed to the importance of keeping abreast of what is happening around the country. While the California market was referenced most frequently, stakeholders also pointed to examples in almost every other RTO/ISO in the

country with reference to market design or reforms that are working or not working.

- Some stakeholders concluded that what makes the markets valuable is that the markets can respond without bias or politics.

### **Other Market Concepts:**

- Some stakeholders see great value in carbon pricing; others are less clear on its value.
- It is appropriate for the NYISO to focus efforts on improvements within the energy and ancillary services markets; over time, though, it is unclear whether either the energy or capacity market will be sustainable – zero fuel costs and low operating costs could cause energy prices to fall to near zero; because renewables have less reliability value, the value of their capacity also could decline. Even carbon pricing would have less value over time.
- A number of stakeholders agreed that additional reserves (operating and installed) will be needed going forward, along with more granular operating reserves.
- Demand Response/SCR need market support and the NYISO should re-focus some effort on restoring this program. These services provide value in light of increased intermittency and aging infrastructure.

### **Transmission**

- New transmission will alleviate some of the issues associated with the increase of renewables and new transmission and renewable siting needs to be thought of together.
- Some stakeholders concluded that for transmission and transmission planning, the NYISO process is preferable to the process contemplated in the Accelerated Energy Growth Act (which established a new PSC-led planning process with a large role for NYPA to construct new transmission).
- Stakeholders believe the NYISO should be facilitating State policy by continuing to find efficiencies in the Public Policy Transmission Process.
- Others opined that the NYISO's process is at odds with the new law and that transmission planning issues could get hung up between the PSC and the FERC. The growing divide between the PSC and the FERC was noted in other contexts as well.
- Some stakeholders believe that the Accelerated Energy Growth Act law, along with the recently released PSC Order, could help alleviate transmission congestion and facilitate renewable interconnections by encouraging local transmission build, but that cost allocation issues could be the sticking point.

### **Reliability**

- Not surprising, all stakeholders are in favor of maintaining a reliable system. The need to continue to meet NERC, NPCC and NYSRC standards was noted. Also, the need to educate policy makers on what is necessary for a reliable grid.
- Some stakeholders stated that we cannot discount reliability services that on-call generators can and will continue to provide. People need to be honest about what this is going to cost.
- Others questioned whether we need to reevaluate the idea of the 1 in 10 planning criteria. It

was designed to be reconsidered and updated but that has never occurred.

- It was noted that reliability requirements, especially in the City just make meeting clean energy goals all the more difficult and expensive.
- Shifting to a winter peaking system will bring a whole host of new issues.

### **The Role of Technology**

- Significant changes in other markets, such as telecom, have been driven by technology changes. These changes are driven by public policy and not by technology. We do not know how technology will ultimately adapt to it.

### **The Role of Studies**

- A few stakeholders referenced the importance of studies to planning for the grid of the future and informing policy makers, including the Climate Change study, which should be periodically updated.

### **How Fast Should NYISO Move?**

- NYISO should move forward incrementally rather than try to tackle all issues and market changes simultaneously. NYISO should be cautious not to make market changes before they are needed, but don't wait until reliability is jeopardized either. Moving incrementally would allow for new ideas to emerge as we move forward.
- Some thought that NYISO should move full speed ahead on its Comprehensive Mitigation project, while others thought it should pump the breaks on this effort.
- Others believe change is needed sooner, not later and that there needs to be more revenue in the marketplace.
- A stakeholder inquired on whether our governance process was not agile enough to keep up with the necessary changes moving forward. Other stakeholders noted that our shared governance is a positive distinguishing aspect of the NYISO and that stakeholder's can and have moved quickly when needed.

## Summary of Main Points | Aaron Breidenbaugh (Management Committee Vice Chair)

### Topic 2: A Grid In Transition

#### Reliability/Capacity/Resource Adequacy

Everyone appears to agree that reliability is NYISO's "Job #1" and it was noted that consumers have significant concerns about the future reliability of the grid in the face of pending requirements of the CLCPA and other public policy initiatives. If businesses cannot be assured of reliable, high quality power and gas they will leave the state and take the jobs with them. NYISO needs to continue working quickly addressing the reliability gap analysis from the Grid in Transition whitepaper.

Some stakeholders believe that the reliability impact of different technologies should become a focus of how technologies are compensated for their services and more specifically for their capacity. Some believe that renewables are certainly valuable for their energy but not valuable for reliability. Others ask, "what is the risk to reliability? What does NYISO have to examine?" Asked what more can the NYISO look at, some suggested a long-term product for reserves or localized reserve markets.

NYISO should work on market solutions to incentivize technologies that may help to firm-up supply. While there are no current incentives under CLCPA to build a new (renewable) dispatchable resources like renewable natural gas (RNG), the studies like Grid in Transition and Evolution to a Zero Emission Power System demonstrated that "firm" generation is a must in order to meet load during periods of low or no wind and/or low or no sunlight that may last hours to days to weeks.

It was noted that it is important to learn for other ISO/RTO experiences like California (with roughly 35% of renewable penetration) that recently has been retaining existing and procuring new fossil fuel resources. We are making massive investments with intermittents adding, but we need, above all else, to keep the lights on. Some suggested that we may need to retain flexible fossil units - they can become like peakers, not adding much energy but providing critical flexibility (ramping, load following).

There was a lot of focus on the RAM proceeding and the recent Brattle Report. NYISO is interested in what it can do to be more helpful there. Suggestions included opining on the merits and desire/ability to implement the various alternatives. In at least a couple of groups, the question was asked should NYISO move to an ERCOT-like energy-only market and a more robust ancillary services market. There did not appear to be much confidence that such an approach would pass muster with policy makers.

There was a suggestion that consideration should be given to changing the minimum interconnection



standard which was better suited for fossil resources with a marginal cost but not good for resources like renewables and storage.

### **Carbon Pricing**

Carbon pricing enjoys broad support with most sectors, and no one appears opposed in principal, but the state remains uncommitted and it is not a panacea. It may also be less relevant or redundant depending on what other courses the state may decide to pursue. It was observed that Carbon Pricing:

- Has the advantage of being able to be (relatively) quickly implemented.
- Could head off thorny BSM issues.
- Is an important market-based approach.

### **Questions/open issues for some include**

- Not properly accounting for the value of imports and exports.
- What will the social cost of carbon be and how will it be set and by whom?
- How will revenues be allocated (despite NYISO's proposal)?
- Some expressed a sense that NYISO has done all it can on carbon, and venue may be FERC.

### **Energy**

Energy and ancillary services should be a priority and should provide most of the market revenues, but proposed changes to the market rules must be implemented ahead of time to send a signal to the marketplace. Right incentives and right compensation for the right set of products will produce the right competitive market outcomes.

### **Ancillary Services**

The Market Monitor and others agree that A/S markets will be key to incorporating more renewables and that NYISO needs to be working to address these issues. However, there was also some sentiment that the NYISO is pursuing a “throw it all at the wall and see what sticks” approach to A/S and are concerned that reforms and associated costs are being pushed faster than needed. At least one table asked whether we should allocate a share of the ancillary service costs to renewable projects that are driving the need.

### **Transmission**

Transmission is seen as important to integrating renewables, both local and bulk transmission. Local transmission upgrades will face cost allocation issues. Changes to streamline the PPTN process should help, but more streamlining could be done at the state. It was suggested that a transmission buildout schedule needs to be developed in order to align with the renewable buildout.

## End-Use Engagement

There were suggestions that customers need to become more engaged, possibly by being more exposed to prices. Concerns were noted that NYISO's approach to engaging the end users through DER, especially storage, were resulting in complex and unfriendly mechanisms.

## Planning

There was a general theme regarding consistency and coordination between the NYISO and TOs. Not resolving disconnects between the NYISO's planning processes on the BPTF and local upgrades necessary to make renewables deliverable will be an impediment to transmission development, to the detriment of the consumers and the state mandates. NYISO needs to work more closely with TOs on planning for climate impacts and developments that impact both transmission and distribution systems.

It was noted that studies are informative, but often difficult for stakeholders to track how each are inter-related and how the assumptions and study results are caveated. It was also recommended to distill down key findings into more digestible formats (short blogs, videos, etc.) to facilitate disseminating information to lay-persons and policy makers. "Power Trends" is a great example, but still a very lengthy document. There was a request for the NYISO to create a monthly summary of the on-going studies that provides information such as what is the purpose of the study, how it compares and contrasts to other on-going studies, and inclusion of base case metrics. There was also a suggestion to create a central repository of studies and assumptions, and interrelations.

- Base case assumptions need to be reasonably consistent across all NYISO studies, and clear early on. It is important to have an operational focus in planning. Not just resources but reserves, ramping, other things needed to integrate intermittent resources.
- NYISO should continue to expand its analysis as it did for CARIS, expand that to the RNA, and possibly implications for the peaker rule. NYISO needs to be mindful of focusing reader's attention on the key points – bullets.
- Transparency at T&D system planning - info need by gens planning for investment.
- Transmission Planning – continues process improvements to streamline planning processes (focus PPTN), re-evaluate minimum interconnection criteria – is this the appropriate metric going forward; expand interconnection studies to look at the interaction of resources and creation of congestion on the system that may limit the resources ability to participate in the NYISO markets; improved coordination of local and bulk transmission development.
- NYISO needs to study renewable natural gas. NYISO should bring in some experts to first report how many resources in NY run on gas – e.g. what is the market opportunity? Then, NYISO could bring in experts from other countries further along to advise NYISO and the state on concrete steps.

## **Studies, Information and Education**

There is an appreciation for the number and quality of studies that the NYISO does, going beyond the four corners of what is required by the tariffs (*e.g.*, CARIS, 70x30.) However, more studies may be required for CLCPA and its implementation. NYISO's role as an unbiased source of information for policymakers and others is greatly valued. NYISO has said that CLCPA is doable so far, but it needs to not be afraid to say otherwise if that's what it believes. There is a lot of uncertainty regarding how much this will all cost. When NYISO puts out reports that address how reliability will be maintained they should also include the cost. A number of parties made this point.

There was broad agreement that the NYISO needs to remain relevant with respect to providing input to policy makers and ensuring the markets are serving the needs of its stakeholders. There is a tension between fully developing information and analyzing issues and making expeditious decisions. Past experience demonstrates that projects can move through the stakeholder process relatively quickly but it is important to recognize that the stakeholder process is only part of the total project timeline. Sometimes, the NYISO's internal process (software development, testing, etc.) can take much longer than the stakeholder process.

It was suggested that NYISO and DPS should work together to educate consumers and the Climate Action Council to ensure that we have an accurate picture of the task at hand and that NYISO should be more proactive in educating general public and policy makers. An example given was that reliability is not the same as energy and that intermittent resources do not provide that same level of reliability and that total reliability of the grid would diminish as penetration of renewables increase if nothing is done to "firm up" supply.

Finally, it was suggested that NYISO needs to better help new participants get up to speed.

## **Inter-Regional/Seams Issues**

Some stakeholders feel that the NYISO needs to be more aware of how market changes impact cross-border transactions and coordination with external markets, and that it should coordinate, or continue to coordinate, its efforts with those of neighboring regions as broader approaches regarding future market structures and products will be needed. It may also be that some problems may be easier to solve if we can look beyond NY's borders for help (*e.g.*, Canadian resources can help NY with ramping needs).

## **Prioritization of Effort**

Some stakeholders evidenced some dissatisfaction with the existing project prioritization process. They believe that NYISO should seek and solicit more input from stakeholders on the projects and market changes they view as priorities and that the planning studies now underway (*e.g.*, Brattle and Analysis

Group studies) should inform the prioritization. Part of the concern stems from the fact that many projects now take two to four years from inception to deployment, while the BPWG process is annual in nature. There was a sense (fair or not) that the NYISO seems to set its own priorities, or at least that projects it believes are important always seem to end up getting prioritized.

### **Miscellaneous/Resource-Specific Issues**

- Removing barriers to storage should be a focus at NYISO.
- Developers need more certainty that the future deliverability of their project won't be reduced as the result of interconnection of future resources in the region.
- Regulatory uncertainty is of strong concern – having certainty around market products and how they are valued will help provide developers certainty.
  - a. How far in the future should NYISO be planning products (5, 10, 15, 20 years?).
  - b. Political pressure to meet targets, while competing market designs create additional uncertainty.
- External resources (hydro) capable of providing the desired services (fast ramp rates, etc.) currently not able to provide those services to NYISO (Ontario market model as an example).
- NYISO needs to better consider "hybrid sites" - renewables plus battery.
- It was noted that run of river hydro does not qualify for tier 1 recs and it will not qualify for the A/S projects that NYISO is proposing. If carbon is not approved, they see themselves as a resource without a country. Nothing presented benefits this resource type.

### **Miscellaneous**

Committee Meetings there was a suggestion that the NYISO provide the recordings it makes of the committee meetings to stakeholders, but there was agreement that these recordings should be at the committee level only and not at the working group level.