To Whom This Concerns,

H.Q. Energy Services (U.S.) Inc. ("HQUS") is pleased to provide these comments to NYISO in response to the December 7, 2020, presentation "Proposed Approach for Considering Grid in Transition Recommendations" ("Presentation").

Hydro-Québec's ("HQ") fleet encompasses over 37 GW of installed capacity, 62 hydroelectric generating stations, 15 interconnections and 27 reservoirs providing a combined 176 TWh in water storage capability. HQ and its predecessors have a long-standing relationship with New York, and have been supplying New York with clean, reliable power since the early 20th century. HQUS is looking forward to maintaining and enhancing this partnership on the road to the New York grid decarbonation.

HQUS supports the NYISO's objective to prepare for these changing times, including as appropriate aligning market incentives with state clean energy objectives, reviewing key energy and ancillary services design and improving capacity market valuation. HQUS would like to hereby provide targeted comments for each of the main categories listed in the December 7th Presentation.

Aligning Competitive Markets and State Clean Energy Objectives

- **Carbon Pricing**: As HQUS explained in past comments, HQUS believes the NYISO Carbon Pricing proposal should be expanded to also include external resources based on their source-specific carbon contribution. This inclusion will be key in providing a level-playing field for clean external resources such as HQ and will spur market efficiency and better align market signals with NY State policy objectives. This is even more true today considering the recent NYPSC ruling in the Large-Scale Renewable Program and Clean Energy Standard Proceeding[1], creating the Tier 4 REC program, which seeks to trigger significant investments in order to deliver large amounts of clean energy resources directly into New York City, including from external control areas.

Valuing Resource & Grid Flexibility

- **RTC vs RTD:** Flexible external resources such as HQ are committed using the Real-Time Commitment ("RTC") while pricing is provided through the Real-Time Dispatch ("RTD"). There is a persistent market issue from discrepancies between RTC and RTD, which is accentuated by the removal a few years ago of real-time bid price guarantees for external resources. External resources are incented to avoid or reduce their participation in the NYISO real-time market, since they have no way to protect against a drop in real-time prices after commitment (RTC). Furthermore, with the upcoming addition of vast quantities of intermittent generation in New York, price volatility is expected to increase significantly and the RTC-RTD risk will amplify accordingly. Should the NYISO want to attract significant and meaningful quantities of flexible external resources in the real-time horizon, this RTC-RTD issue needs to be addressed, and a fulsome discussion needs to happen, including as appropriate with respect to real-time price guarantees.
- **5/15 min external transaction scheduling:** HQUS fully supports improvements to the 15 min external transaction scheduling as well as to the CTS. In fact, in order to improve external transaction scheduling and provide additional flexibility to the NYCA, HQUS has proposed the development of the 5 min transaction scheduling project, which was prioritized at BPWG for

[1] NYPSC, Case 15-E-0302

2020, but not for 2021. HQUS believes that the design of external transaction scheduling should fully capture the value and capabilities of these resources and offer adequate incentives for the provision of flexibility and reliability services. HQUS will continue to support and participate in these discussions.

- **Ancillary Services**: While to date, HQ supplies to New York have been limited to energy and capacity due to market rule limitations, HQ is technically able to provide existing ancillary services (e.g. regulation, operating reserves, black start) and would likely be able to provide new services that could be developed, such as ramping services. As aforementioned the HQ system includes an enormous amount of storage and benefits from a large ramp rate that can provide NY with a fast response rate (i.e. regulation market, 5 min scheduling) and balancing and firming services either daily, monthly or on a seasonal basis (e.g. long duration storage capacity). Given the scale and flexibility of its system, qualifying HQ for these services is in the best interest of NY ratepayers, as they will benefit from a substantial quantity of additional supply. In order to minimize costs and provide a level-playing field among resources, HQUS believes eligibility for these services should be based on technical ability rather than geographical location.
- **Shortening Real-Time Market Close**: HQUS is pleased to see that the NYISO is considering reducing the current 75 min interval between real-time market close and the start of the operating hour. This would enable market participants to factor in their offers the most recent information before commitment. HQUS further appreciates and supports the fact that the NYISO is considering taking steps on this important issue in the short term.

Improving Capacity Market Valuation

- HQUS supports exploring differentiated capacity pricing based on physical characteristics of the underlying resources, such as multiple value pricing. The nature and needs of the capacity market are changing and they are expected to evolve even further as New York looks to decarbonize and electrify a large portion of its economy. Access to highly reliable and stable hydropower resources can help preserve the affordability and reliability of the grid and integrate the large quantities of clean and intermittent resources that are expected in New York in the next few years.

In summary, HQUS agrees with the NYISO's general approach for addressing the ambitious task of adapting its wholesale markets to the reality of decarbonation, and respectfully requests that the NYISO also take into consideration its comments in this endeavor.

Best regards,