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HQUS Comments on Analysis Group Report

H.Q. Energy Services (U.S.) Inc. (“HQUS”), the subsidiary of Hydro-Québec (“HQ”) in the United States, welcomes this opportunity offered by the New York Independent System Operator (“NYISO”) to submit comments on the recently published Analysis Group (“AG”) report *Clean Energy in New York State: The Role and Economic Impacts of a Carbon Price in NYISO’s Wholesale Electricity Markets* (“AG Report”).

By way of background, HQUS supports the concept of pricing carbon in the wholesale energy market but opposes the treatment of clean energy imports within the NYISO Carbon Pricing proposal (“Proposal”). Our concerns have been described in detail in previous comments through the NYISO stakeholder process and are summarized again below, along with our comments on the AG Report¹:

1. The Proposal is discriminatory, unduly harms clean external supply resources, and threatens attainment of New York (“NY”)’s clean energy goals;
2. Because the recent AG Report fails to consider the impact of the Proposal on imports, and the associated potential loss of clean energy in NY, it results in flawed assumptions and conclusions;
3. The Proposal fails to meet the stated objective of harmonizing markets with public policy actions and jeopardizes the ability for NY to meet environmental objectives efficiently and cost effectively by discouraging clean energy imports; and
4. Market based mechanisms are a desirable alternative to Federal Energy Regulatory Commission (“FERC”) imposed actions, but in order to be effective, these market mechanisms must be designed and applied in a uniform, consistent and nondiscriminatory fashion.

¹ For example: (i) June 20, 2018, *HQUS Comments on Draft Straw Proposal*, and (ii) November 15, 2018, *HQUS and Brookfield Renewable Comments on Carbon Pricing Proposal*.

1. The Proposal is discriminatory, unduly harms clean external supply resources, and threatens attainment of NY's clean energy goals

As HQUS has advocated for two years, a critical defect of the Proposal is its inability to integrate the value of clean imports within its design. In failing to do so, the Proposal creates a commercial environment that favors a sub-set of generators (thermal and renewable generation) and ignores the true carbon impact (positive or negative) of external transactions². As reported by AG³, in 2018, clean and zero-carbon energy imports represented more than 19 TWh of supply, which is equivalent to roughly 13% of total NY energy demand. The current proposal puts the delivery of this energy at risk and simultaneously threatens to increase the cost of supply to NYISO customers.

By assigning clean external resources a carbon charge based on the NY Marginal Emissions Rate ("NY MER"), the Proposal will add transaction risks and distort energy market price signals to clean and zero-carbon external resources. The Proposal would require these external resources to add to their bids an estimation of what the applicable NY MER will be for each hour. This will result in the dispatch of higher emitting resources in NY over cleaner external resources when the estimation of the hourly carbon charge by clean external suppliers is higher than the actual real time rate. This will occur even though it is possible to clearly demonstrate the source and mix of such imports, particularly those from a system like HQ which utilizes controllable DC interties, and which can track generation. Perversely, when internal generation is running the most carbon intensive resources at the margin, the penalty on external clean resources will be greatest. This will likely increase overall carbon-emitting generation by foregoing cleaner generation options.

In addition, the Proposal could create significant inconsistencies in the application of buyer-side mitigation in the capacity market. The discriminatory application of Carbon Pricing will hurt the competitiveness of clean capacity provided by external resources by lowering the relative value of clean import projects delivering in mitigated capacity zones (e.g. NY City)⁴ as compared to projects located within NY State. Again, controllable transmission (e.g. DC interties), along with generation tracking mechanisms, can allow for clear distinctions in a generation source's carbon intensity. This outcome lies in sharp contrast to the Proposals' underlying objective which is to increase NY's access to price-competitive clean energy generation, not discourage it.

Finally, by creating an uneven playing field for external resources to participate in the NYISO markets, in aggregate, the Proposal will increase risk and uncertainty for additional clean energy supplies in NY from external resources. This will threaten the attainment of

² Using a simplistic and discriminatory approach for representing the carbon content of imports, the NYISO proposes to impose on external resources a new unpredictable charge, based on the physical characteristics of the marginal generation station within NY State, the locational NY MER.

³ *Clean Energy in New York State*: Technical Appendix, p. A-15

⁴ The NYISO issues buyer-side mitigation determinations notably based on forecasted energy revenues of a project, which could be relatively lower for an import project when competing with another project located within the boundaries of NY State and which has access to a "carbon premium" (through higher LBMPs). Also, for projects that are mitigated (i.e. that failed both Part A and Part B tests), these would receive price floor determinations that, again, could be based on projected energy and ancillary service revenues, which could perpetuate the discrimination of external resources in the capacity market over time.

Climate Leadership and Community Protection Act's ("CLCPA") goals by potentially pushing clean imports to other markets and increasing all-in prices in NY.

2. Because the recent AG Report fails to consider the impact of the Proposal on imports, and the associated potential loss of clean energy in NY, it results in flawed assumptions and conclusions

The AG Report does not question the design of the Proposal nor does it evaluate its impact on external resources, including the impact of future market prices on the participation of external resources. Rather, the AG Report argues that past (i.e. historic) clean imports into NY will persist into the future and assumes an additional 8 TWh of clean imports, based on the HQ-sourced Champlain Hudson Power Express project⁵.

This cannot be assumed under the proposed design. As stated above, by assigning a new carbon charge to clean external resources the Proposal will reduce the economic merit of existing clean imports, leading to lower deliveries. This reduction will require replacement of existing clean and zero-carbon energy output with new renewables that will result, as the AG Report evaluated, in an increased cost to ratepayers⁶. These risks were further outlined in London Economics International LLC's presentation to the Integrating Public Policy Task Force on April 9th 2018⁷.

Further, the Proposal creates new challenges for bilateral contracts between counterparties, such as those that would be necessary to facilitate the delivery of clean energy from external suppliers over new transmission projects into NY. Because the carbon charge is applied to clean imports in a discriminatory way, it creates a disconnect between the price the buyer pays and the seller receives in the market, requiring one, or both, parties to receive a lower value upon settlement of the contract (i.e. one of the counterparties has to pay the NY MER for imports under the bilateral contract regardless of the fact that there may be no carbon content in the imported power). This disconnect will result in unnecessarily higher contract prices, which must factor in the application of an artificial (and potentially volatile) carbon charge on otherwise clean energy. Similarly, by putting in play a discriminatory set of rules, parties will need to hedge themselves against additional biases against imports and price that into their business strategies and overall risk assessments.

3. The Proposal fails to meet the stated objective of harmonizing markets with public policy actions and jeopardizes the ability for NY to meet environmental objectives efficiently and cost effectively by discouraging clean energy imports

As stated in the AG Report, one of the incremental value propositions of adding a carbon pricing mechanism in NYISO markets is the "ability to harmonize policy and markets". However, as currently proposed, NYISO's Proposal will create greater friction between

⁵ *Clean Energy in New York State*: Technical Appendix, p. A-4

⁶ *Clean Energy in New York State: The Role and Economic Impacts of a Carbon Price in NYISO's Wholesale Electricity Markets*, p. 3

⁷ Frayer and Roumy, *Carbon pricing in the NYISO Wholesale Energy Market, Integrating Public Policy Task Force, April 9, 2018*

policy and markets by failing to create a level playing field for external clean energy resources which are eligible for state and municipal renewable programs.

A prime example of this friction is the existing Clean Energy Standard (CES) framework which recognizes a significant quantity of clean energy from external suppliers in its renewable energy baseline and allows the participation of external resources in the Renewable Energy Standard's (RES) Tier 1⁸. Given the scale of the goals in the recently passed CLCPA, it's fair to assume that the programs that will be created to meet these goals will preserve rules allowing participation of external resources and could, according to recent statements made by Public Service Commission ("PSC") Chairman John Rhodes, be expanded, as the PSC will "take up Canadian [hydropower] eligibility" as part of its "Clean Energy Standard 2.0" formulation⁹. Application of the NY MER to clean energy imports, as proposed by the NYISO, directly contradicts the state-wide clean energy program, calling into questions the ability of the Proposal to harmonize policy and markets to achieve the state's goals.

Similarly, the NY City Climate Mobilization Act¹⁰ sets ambitious emission reduction requirements for large commercial building owners in the city. The law allows RECs or attributes associated with energy from Clean Distributed Energy Resources¹¹ which are located in, or physically deliverable to, NYISO Capacity Zone J to offset the obligation of building owners. Given the NYISO Proposal's treatment of clean external resources, a valuable compliance option for building owners, which incents delivery of additional clean energy via new transmission into one of the state's most carbon intensive regions, will be significantly diminished. This outcome conflicts with city, state, and ISO level policies which have explicitly stated the need to increase clean energy penetration in NY's southeast load centers.

This dissonance between the Proposal and public policy not only fails to achieve the stated "Value Proposition" of aligning the two, but if implemented without changes to ensure proper alignment, will threaten the ability to acquire resources essential to meeting the clean energy and climate objectives in both NY City and NY State. Under the current design, state policy is calling on clean external resources to participate and increase the number of resources available to meet state objectives, while the Proposal is creating barriers for these same resources. This conflict will result in both higher costs for delivered clean energy and greater use of alternative compliance penalties from shortfalls.

⁸ *New York State Clean Energy Standard RES Tier 1 Certification, Submission Instructions and Eligibility Guidelines*, pp. 9-11

⁹ Politico Pro New York, Marie J. French, *Subsidies for Canadian hydropower will be reexamined, PSC chair says*, 9/20/19

¹⁰ New York City Local Law 97 of 2019, https://www1.nyc.gov/assets/buildings/local_laws/l197of2019.pdf

¹¹ The term "clean distributed energy resource" means a distributed energy resource that (i) uses any of the following sources to generate electricity: hydropower, solar photovoltaics, geothermal wells or loops, tidal action, waves or water currents, and wind; or (ii) is designed and operated to store energy, including, but not limited to, batteries, thermal systems, mechanical systems, compressed air, and superconducting equipment.

4. Market based mechanisms are a desirable alternative to FERC imposed actions, but in order to be effective, these market mechanisms must be designed and applied in a uniform, consistent and nondiscriminatory fashion

As the AG Report states, one of the Essential Value Propositions of NYISO's Carbon Pricing Proposal is "*Better protection against the possibility of federal regulators' actions to mitigate a broader set of clean energy resources in New York, by establishing an economic basis to avoid mitigation through a carbon pricing mechanism as part of the NYISO wholesale market design*"¹². However, by establishing two distinct sets of market signals between internal and external resources, the current Carbon Pricing design undermines the efficacy of this approach. Because a significant portion of NY's existing clean energy supply is currently sourced from external control areas, a reduction in clean energy imports will result in a push for a greater dependence and immediate deployment of new in-state clean resources, which would be expected to occur through the central procurement contracting model traditionally employed by the state¹³. The scale and timing of this deployment of new clean resources will likely result in wholesale markets reaching a "tipping point" where they fail to function appropriately, thus increasing the likelihood that FERC will impose mitigation measures onto the state. This is likely to be particularly true for the NYISO capacity market, where the ability to have sustainable workable competitive conditions is essential for driving continued investments. Such measures will decrease flexibility for the state, resulting in higher costs and less effective solutions in meeting environmental objectives: "*It will be no secret to FERC that the magnitude of resources stemming from the Act will overwhelm market operations over the next 5-15 years, unless they are made harmonious with markets through an internal market mechanism*"¹⁴.

In conclusion, while supporting the concept of carbon pricing in wholesale electricity markets, HQUS is opposed to a discriminatory Carbon Pricing design, which furthermore fails to align policy and markets by not recognizing the value of deliveries from external clean energy suppliers. Unfortunately, over the past months the Proposal has not evolved to address HQUS' concerns and the AG Report fails to properly evaluate the impacts of the Proposal on both existing external clean energy supplies and new supply opportunities. HQUS' long-standing request¹⁵ to the NYISO for a source-based approach to Carbon Pricing is achievable and intended to maximize the ability of the Proposal to achieve NY State's ambitious goals in an efficient manner. HQUS welcomes additional collaboration between stakeholders in achieving this goal.

¹² *Clean Energy in New York State: The Role and Economic Impacts of a Carbon Price in NYISO's Wholesale Electricity Markets*, p. 2

¹³ Alternatively, the state's carbon abatement objectives will not be reached, however, in either event clean imports will decline, and internal NY prices will increase.

¹⁴ *Clean Energy in New York State: The Role and Economic Impacts of a Carbon Price in NYISO's Wholesale Electricity Markets*, p. 29

¹⁵ For example: (i) June 20, 2018, *HQUS Comments on Draft Straw Proposal*, and (ii) November 15, 2018, *HQUS and Brookfield Renewable Comments on Carbon Pricing Proposal*.

Respectfully submitted,



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