STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard — **Case 15-E-0302**

COMMENTS OF NUCOR STEEL AUBURN, INC. CONCERNING PROPOSED TIER 4 CONTRACTS

February 7, 2022

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on the Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard — **Case 15-E-0302**

COMMENTS OF NUCOR STEEL AUBURN, INC. CONCERNING PROPOSED TIER 4 CONTRACTS

INTRODUCTION

By Order dated October 15, 2020, the Commission initiated various modifications to its Clean Energy Standard ("CES") programs intended to align those programs with the clean energy targets established by the 2019 Climate Leadership and Community Protection Act ("CLCPA").[1] The programmatic changes included establishing a new "Tier 4" renewable energy credit ("REC") program designed to apply exclusively to qualified resources locating in New York City or whose energy would be delivered to NYC utilizing incremental transmission capacity.[2]

In accordance with the CES Modification Order, and following a competitive procurement process, by petition dated November 30, 2021, the New York State Research and Development Authority ("NYSERDA") and the Department of Public Service Staff ("DPS Staff") petitioned the Commission for approval of two contracts, each 25 years in duration, for renewable energy credits under Tier 4 (the "Tier 4 Petition").[3] The proposed Tier 4 REC contracts encompass costs

---

[1] Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable and Clean Energy Standard*, Order Adopting Modifications to the Clean Energy Standard, (issued October 15, 2020) (the "CES Modification Order"). The CLCPA was codified as Chapter 106 of the laws of 2019.

[2] CES Modification Order at 79-80.

[3] Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable and Clean Energy Standard*, Petition Regarding Agreement for Procurement of Tier 4 Renewable Energy Certificates (Nov. 30, 2021) ("Tier 4 Petition").

associated with renewable energy production and dedicated new high voltage Direct Current ("HVDC") transmission lines to be constructed to deliver that energy to New York City (NYISO Zone J).

In tandem with the Tier 4 Petition, New York City ("NYC") filed a Notice to the Commission that it is entering into a 25-year agreement with NYSERDA through which NYC will procure offshore RECs and Tier 4 RECs "in a quantity equal to its energy consumption."[4] NYC proposes to self-supply its obligations under the CES by procuring more expensive Tier 4 RECs while correspondingly reducing the Tier 1, Tier 2 and ZEC[5] obligations of its energy supplier, the New York Power Authority (which obligations would be re-allocated to other New York load serving entities).[6] NYC does not seek Commission approval of its self-supply plan or the corresponding proposed adjustment to NYPA's CES purchase obligation. NYC and the Tier 4 petitioners maintain that NYC's self-supply plan will lower overall cost impacts to other New York electric end users.[7]

By Notice dated December 2, 2021, and a subsequent publication in the State Register, the Commission solicited comments on the proposed Tier 4 Petition and contracts. The Notice did not mention the NYC filing, although the NYC Tier 4 procurement plan appears to require Commission approval to modify NYPA's Tier 1, Tier 2 and ZEC obligations (NYPA did not join in the NYC Notice or the Tier 4 Petition). Nucor Steel Auburn, Inc. ("Nucor") respectfully submits the following comments on the proposed Tier 4 contracts and the NYC self-supply proposal.

---

[4] Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable and Clean Energy Standard*, Notice of the City of New York Regarding Renewable Resource Procurements at 1, 3-4 (Nov. 30, 2021) ("NYC Notice").

[5] Zero Emission Credits are payments to New York's four upstate commercial nuclear units authorized under the CES that are intended to ensure their continued operation into the year 2029.

[6] NYC Notice at 3.

[7] *Id.* at 6.

I. About Nucor

Nucor operates an energy intensive steel recycling and manufacturing facility in Auburn, NY (in NYISO Zone C). Taking advantage of the abundant clean energy in Upstate, and employing a highly electrified process for melting and re-casting steel scrap using an electric arc furnace, the Auburn facility produces recycled steel products with the lowest GHG emissions footprint of any comparable steel-maker on the planet.[8] As a company, Nucor is committed to lowering the GHG intensity of its steel mills to 77% less than the global average, making it an American and global leader in reducing GHG emissions in the manufacturing and construction supply chain.[9] At the same time, steel products are sold in an intensely competitive global commodity marketplace. This requires both a laser-like focus on maximizing efficiency opportunities and continued access to competitively priced energy.

II. Background

A. Confronting the Core Challenges

For the purposes pertinent here, the CLCPA sets two electric sector targets for New York to achieve:

- Procure 70% of the energy serving New York loads from qualified renewable sources by the year 2030 ("70 by 30"); and
- Reduce electric sector greenhouse gas emissions to zero by the year 2040.[10]

There are two fundamental barriers to achieving New York's clean energy objectives. The first concerns the electric topography of New York captured by NYISO's reference to the "Tale

---

[8] Recycling steel scrap in an electric arc furnace process requires approximately one-third the energy and carbon emissions associated with iron ore and coke blast furnaces that dominate steel production in China and elsewhere. Further, Upstate New York has by far the lowest CO2 emissions rate from electric generation of any NERC sub-region in the United States. *See* EPA eGRID data, *available at* https://www.epa.gov/egrid/data-explorer.

[9] *See* Nucor Sustainability Commitments, https://www.nucor.com/sustainability/.

[10] CLCPA §1(12)(d); PSL§ 66-p (2).

of Two Grids."[11] New York has an abundance of clean generation Upstate, with roughly 90% of the energy produced having no demonstrable GHG emissions.[12] Further, given the siting suitability requirements for land-based wind and large scale solar PV, most of the incremental land based wind and large scale solar PV generation to be built to satisfy the CLCPA objectives will likely be sited Upstate. In contrast, with the retirement of the Indian Point nuclear units, downstate electric supply is almost entirely fossil-fueled (oil, natural gas or dual fueled).[13] New York's offshore wind investments and urban energy storage initiatives are expected to relieve reliance on the In-City fossil units to some extent but are not considered sufficient to ensure reliable grid operation.

In this context, the recently released NYISO *2021-2030 Comprehensive Reliability Plan*, points to narrowing operating reserves over the next decade, and particularly in Zone J, as well as a series of important risk factors that may accelerate reliability concerns. [14] As more intermittent generation is added to the system and older In-City generating units are retired, particularly over the next few years in response to the DEC Peaker Rule on NOX emissions,[15] dynamic stability concerns mount regarding the electric network in NYC as local dynamic reactive power capability is lost.[16] These trends make coordinated resource planning and the development of local resources (supply and demand) crucial to reliable and affordable system operation and CLCPA compliance.

---

[11] *See* NYISO Power Trends, New York's Evolving Electric Grid 2017, p. 8.

[12] NY Indep. Sys. Operator, Power Trends 2021: New York's Clean Energy Grid of the Future at 25 (May 2021), *available at* https://www.nyiso.com/documents/20142/2223020/2021-Power-Trends-Report.pdf/471a65f8-4f3a-59f9-4f8c-3d9f2754d7de/.

[13] *Id.* at 24 (showing that only 2% of downstate capacity is zero-emissions in 2021).

[14] NY Indep. Sys. Operator, *2021-2030 Comprehensive Reliability Plan* at 5-8 (Dec. 2, 2021), *available at* https://www.nyiso.com/documents/20142/2248481/2021-2030-Comprehensive-Reliability-Plan.pdf/99a4a589-7a80-13f6-1864-d5a4b698b916 ("2021-2030 Comprehensive Reliability Plan").

[15] *See* 16 CRR-NY § 227-3, Ozone Season Oxides of Nitrogen (NOx) Emission Limits for Simple Cycle and Regenerative Combustion Turbines, Notice of Adoption (Dec. 31, 2019).

[16] 2021-2030 Comprehensive Reliability Plan at 13. Reactive power capability must, as a matter of physical necessity, be supplied locally (*i.e.*, reactive capacitance does not "travel" appreciable distances on transmission systems).

The second principal barrier concerns the affordability of electric service. For decades, average electric rates in New York have been among the nation's highest.[17] The comparatively high cost of power has had a profoundly adverse effect on Upstate's manufacturing sector and overall economic prospects. In her 2022 State of the State address, Governor Hochul noted with concern New York's population loss during the pandemic and the need to face certain economic realities in that regard.[18] In fact, population erosion has been endemic in the Upstate region for some time.[19] To finally arrest this trend, particularly among young adults, Upstate communities require quality and sustainable employment. The State has recognized the adverse impacts of New York's high electric rates on job attraction and retention, and NYPA implemented the ReCharge NY power allocation program in 2011 to help mitigate those impacts on economically significant employers.[20] This fundamental concern is also a basic reason why the CLCPA requires an implementation plan designed to minimize leakage (*i.e.*, to avoid merely shifting emissions and jobs elsewhere).[21]

The Commission has established a broad suite of rate-payer funded programs aimed at reaching the State's clean energy objectives. They include the CES Tier 1 (new renewable) and Tier 2 (existing renewable retention) programs, the ZEC (zero emissions credit) nuclear plant

---

[17] According to the U.S. Energy Information Administration, New York's average retail electric rates are 40% above the national average and 7th highest in the continental U.S. (only California and five New England states are higher). *See* EIA, State Electricity Profiles, https://www.eia.gov/electricity/state/ (data for 2020).

[18] *See* Gov. Kathy Hochul, *State of the State 2022: A New Era for New York* at 6, *available at* https://www.governor.ny.gov/sites/default/files/2022-01/2022StateoftheStateBook.pdf ("As we embark on this New Era for our state, we need to take a hard look in the mirror and deal with a harsh reality. Nearly 300,000 New Yorkers left our state last year. That is the steepest population drop of any state in the nation.").

[19] In 2021 New York manufacturing jobs were approximately half the 1990 level. U. S. Bureau of Labor Statistics. *See* data and charts available at: https://data.bls.gov/pdq/SurveyOutputServlet. Also, between 2010 and 2019, the New York State population outside of New York City decreased by 0.8%, whereas the New York City population increased by 2.0%. *See* N.Y. Dep't of Health, Vital Statistics of New York State 2019, Table 2, https://www.health.ny.gov/statistics/vital_statistics/2019/table02.htm.

[20] N.Y. COM L § 188-A.

[21] *See* N.Y. En Con L § 75-109 (3)(e).

retention scheme, behind the meter renewable investments throughout the State supported by the value of distributed energy resource ("VDER") measures adopted in Case 15-E-0751, expanded utility administered energy efficiency and heat pump promotional programs, energy storage pilots, a "Build Ready" renewable siting assistance program, and various customer-sited efficiency and clean energy measures supported by the Clean Energy Fund. Most of these are multi-year, multi-billion dollar programs. Additional billions in local and bulk system transmission investments will also be required to maintain reliability while implementing these fundamental changes to the electric grid. The collective New York consumer bill impacts are already material and will rapidly become serious. Ratepayer funding for extra-market programs is not an inexhaustible resource, and it is imperative that every dollar collected through utility rates be well spent.

In parallel with the Commission and NYSERDA efforts, NYISO and its stakeholders have been undertaking an expansive assessment of proposed generation, ancillary services, transmission and other actions, encompassed generally under the heading of the "Grid in Transition" reforms, to accommodate clean energy integration designed to satisfy the CLCPA mandates while ensuring electric system reliability and pursuing market-based actions to the extent practicable.[22] Commission orders designating Public Policy Requirements ("PPR") transmission needs to relieve historic transmission congestion and facilitate greater movement of clean energy to downstate zones have served as a crucial example of coordinated Commission and NYISO efforts in this area.[23]

---

[22] NYISO 2021 Power Trends at 6-10.

[23] *See, e.g.*, Case 20-E-0497 *et al.*, *Order Addressing Public Policy Requirements for Transmission Planning Purposes* (issued Mar. 19, 2021); Case 12-T-0502, at al., *Order Finding Transmission Needs Driven by Public Policy Requirements* (issued Dec. 17, 2015).

B. The Proposed Tier 4 Results

In response to its Request for Proposals, NYSERDA did not receive any bids for qualifying resources located in New York City. All seven of the bids submitted proposed to transmit renewable energy to Zone J employing new high voltage DC transmission connections. After employing its scoring evaluations and applying a broader public interest final ranking, NYSERDA selected two projects:

- **Clean Path New York ("CPNY")**.[24] CPNY is a proposed 174-mile, 1,300 MW HVDC line running from the Frasier substation in Delaware County to the Con Edison Rainey substation in NYC. The CPNY transmission line is linked contractually to 10 land-based wind and 12 large scale solar PV projects scattered throughout upstate New York totaling 3,362 MW of installed capacity (the "Selected Projects").[25]

    - According to the Tier 4 Petition, many of the Selected Projects already have Tier 1 contracts.[26] The proposed contract provides for the substitution of more expensive Tier 4 RECs for the otherwise applicable Tier 1 RECs,[27] and any excess RECs not purchased by NYSERDA under Tier 4 can be converted back to Tier 1 RECs and sold to NYSERDA at the Tier 1 REC contract price.[28] This apparently will not affect the planned financing, construction, in-service dates or operation of the Selected Projects but clearly affects New York consumers.

    - None of the Selected Projects are physically connected to the CPNY line, but each will be interconnected to the Upstate AC transmission network in various zones. The CPNY proposed Delivery Plan will endeavor to match the collective hourly output of the Selected Projects with energy deliveries to NYC using the HVDC line.[29] Because each Selected Project should operate exactly as it would under a Tier 1 contract (*i.e.*, produce the exact same number of RECs), there are no incremental renewable energy or environmental benefits from those projects under Tier 4 compared to Tier 1 apart from potentially reduced In-City fossil-fired generation dispatch.

---

[24] Tier 4 Petition at 17-22.

[25] *Id.* at 18-19.

[26] *Id.* at 20.

[27] *See* Tier 4 Petition, App. A (NYSERDA-CPNY contract) § 18.12.

[28] *Id.* § 4.12 (f).

[29] *Id.* § 3.01, sch. 3.01 & Exhibit E.

- NYPA, which is part of the CPNY project, proposes to re-purpose most of the existing Blenheim-Gilboa ("B-G") pumped storage facility capacity to serve as a "firming" source for the intermittent energy produced by the Selected Projects.[30] It also proposes to use energy from the projects at times of excess renewable production from the Selected Projects to charge B-G (*i.e.*, whenever the renewable output exceeds the capability of the HVDC line).[31] The Tier 4 petition does not explain how this is expected to alter B-G's charge/discharge pattern or its economic dispatch, or how energy associated with B-G dispatch would satisfy the "additionality" requirement for Tier 4 RECs.

- The costs associated with CPNY are premised on an indexed REC bid tied to a fixed strike price of $129.75/MWh.[32]

- **HQUS/Champlain Hudson Power Express (CHPE)**.[33] CHPE is a 375 mile, 1,250 MW HVDC line originating in Canada and injecting power at the Astoria Annex substation in Queens.

  - CHPE plans to access Hydro Quebec dispatchable hydroelectric power, which should make it a more reliable resource than the intermittent resources associated with CPNY; however, its capacity commitment is limited to the summer capability period,[34] making the power from CHPE less valuable as expected electrification effects move New York towards winter peaking.[35]

  - As the Tier 4 Petition accurately describes it, "[the] CHPE bypasses completely the NY grid and injects the Quebec renewable resources directly into NYC." [36] Hence, there are no energy-related benefits to any area of the state apart from Zone J.

  - The costs associated with CHPE are premised on an indexed REC bid tied to a base strike price of $97.50/MWH that is subject to an annual escalation rate of 2.5%.[37] The project has an expected commercial operation date of

[30] Tier 4 Petition at 19.

[31] Blenheim-Gilboa has a rated capacity from its four generators of 1,160 MW. As proposed, 850 MW of that capacity would be made available for CPNY purposes, and the remaining 318 MW would continue to serve as a resource for NYCA benefit generally. Tier 4 Petition, App'x C Cost Analysis at 4.

[32] Tier 4 Petition at 20.

[33] *Id.* at 22-25.

[34] *Id*. at 26.

[35] 2021-2030 Comprehensive Reliability Plan at 35, 38-39.

[36] Tier 4 Petition at 33.

[37] *Id.* at 24.

> December 2025, so, for the comparison year of 2030 used in the Petition's Cost Analysis, the applicable strike price would be $105.00/ MWh.

Appendix C to the Tier 4 Petition contains the Cost Analysis required by the CES Modification Order. As discussed further below, the Cost Analysis reveals that the proposed Tier 4 REC costs are unreasonably high, that the expected customer bill impacts, especially for upstate consumers, are excessive, and that the Cost Analysis under-states those impacts.

C. The Tier 4 Larger Picture

The DPS Staff whitepaper ("CES Whitepaper") that served as the foundation for the Tier 4 program emphasized the importance of displacing In-City fossil generation, but noted concerns regarding the need to constrain the cost to consumers of bundled (energy and transmission) Tier 4 RECs, as well as overlap with the CES Tier 1 program and other initiatives.[38] Many parties commenting on the CES Whitepaper expressed concerns that a technical conference and further work were needed to flesh out those issues as well as to remedy the essential mis-match of costs and benefits associated with statewide recovery of Tier 4 REC costs for investments designed exclusively to benefit New York City.[39] Others also argued that awarding Tier 4 RECs based solely on energy delivery (and not demonstrated reliable capacity) would fail in the essential year 2040 task of actually displacing In-City fossil-fueled generation.[40] With the challenge of displacing In-

---

[38] Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large- Scale Renewable Program and a Clean Energy Standard*, *White Paper on Clean Energy Standard Procurements to Implement New York's Climate Leadership and Community Protection Act* at 45-57 (June 18, 2020) ("CES Whitepaper" or "Whitepaper").

[39] Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable and Clean Energy Standard*, Comments of Nucor Steel Auburn, Inc. at 5-6 (Aug. 31, 2020); Comments of Multiple Intervenors on White Paper at 3-7 (Aug. 31, 2020); Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable and Clean Energy Standard*, Avangrid, Inc. Final Comments on the White Paper on Clean Energy Standard procurements to Implement New York's Climate Leadership and Community Protection Act at 4-5 (Aug, 31, 2020) ("Avangrid CES Whitepaper Comments"); Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable and Clean Energy Standard*, Joint Utilities Comments Regarding the Whitepaper on Clean Energy Standard Procurements to Implement New York's climate Leadership and Community Protection Act at 6-9 (Aug. 31, 2020).

[40] Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable and Clean Energy Standard*, Preliminary Comments of the City of New York at 13-14 (July 24, 2020).

City fossil generation with reliable and affordable clean power arguably being too complex for one-off solicitations, numerous parties maintained that New York instead needed a coordinated and comprehensive effort that involved all affected State entities, NYISO and core stakeholders.[41]

In deciding to press forward with Tier 4, the Commission recognized that it was "an untested concept" and that it was "unclear . . . whether the Tier 4 solicitation . . . will foster a sufficient quantity of comparative bids to provide inherent assurance that the prices reflected in the winning bids are just and reasonable."[42] For precisely that reason, the Commission directed the resulting contracts be submitted for Commission approval with a demonstration of cost-effectiveness.[43]

COMMENTS

These comments first address the proposed Tier 4 contracts in relation to broader efforts to meet the CLCPA requirements. In brief, the Tier 4 proposed contracts appear to represent, as several parties rightly feared, transmission selection divorced from a coherent planning process. This places New York's energy policies on an inefficient track that is not in the public interest.

Next, the comments discuss the overall cost and cost-effectiveness of the proposed Tier 4 REC contracts. The Tier 4 REC costs are excessive at roughly double the cost of comparable indexed Tier 1 RECs. No party challenges the Commission's focus on displacing fossil-fired In-City generation, but the Cost Analysis simply does not establish that the very high costs of these

---

[41] Avangrid CES Whitepaper Comments at 4-5; Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable and Clean Energy Standard*, Comments of the New York Independent System Operator, Inc. on the White Paper to Address the CLCPA Requirements for a Renewable Energy Program at 1-2 (Aug. 31, 2020); Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable and Clean Energy Standard*, Joint Utilities Comments Regarding the Whitepaper on Clean Energy Standard Procurements to Implement New York's Climate Leadership and Community Protection Act at 6-7 (Aug. 31, 2020).

[42] CES Modification Order at 83.

[43] *Id.* at 82-84.

proposals are justified, particularly when many of the CPNY Selected Projects already possess Tier 1 contracts.

The comments discuss cost allocation of the proposed Tier 4 RECs and explain that, based on the proposed contracts and the Cost Analysis, the planned cost allocation and rate recovery is transparently inequitable and should be revised. When assessing public policy transmission projects, the Commission has regularly reinforced its policy that those grid costs should be allocated primarily based on cost causation and "beneficiaries pay" principles, and with 25% of the costs recovered statewide to account for common environmental and other non-economic benefits.[44] The CES Modification Order looked to displace that prevailing cost allocation formula in the Tier 4 setting with a 100% state-wide cost recovery concept.[45] However, with the decision to deploy HVDC circuits to deliver energy to NYC and to bypass much (or all) of the State's grid, as proposed in the Tier 4 Petition, it is now apparent that allocating Tier 4 REC costs statewide based on all LSE loads and recovering them through an energy charge is not remotely commensurate with the expected project benefits.

As proposed, the contracts will impose significantly greater bill impacts on all Upstate consumers and businesses than for the Zone J loads the projects actually will serve.[46] Moreover, neither the Tier 4 Petition nor the proffered Cost Analysis attempt even to discuss the severe bill impacts that would be visited upon energy intensive manufacturing upstate. Further, by basing the bill impact assessment on the Bid Quantities of the projects rather than the considerably higher Annual Tier 4 cap amounts that NYSERDA is obligated to purchase, the analysis seriously

---

[44] Case 12-T-0502 *et al*., *Order Establishing Modified Procedures for Comparative Evaluation* at 40-42 (issued Dec. 11, 2014).

[45] CES Modification Order at 102-03.

[46] *See* Tier 4 Petition, App'x C at 26.

understates the expected consumer bill impacts. The Commission should revise its prior order and allocate Tier 4 costs consistent with its PPR precedent, recover those costs on a demand basis for demand metered loads, require NYSERDA to perform additional bill impact assessments as described above, and consider such other measures as may be appropriate to control the costs borne by New York consumers and businesses.

Finally, the comments will discuss the contract features pertaining to the projects' economic benefit commitments and the NYC proposal to reduce NYPA's CES Tier 1, 2 and ZEC obligations as a result of the NYC self-supply proposal.

I. The Commission Should Adopt a Comprehensive and Holistic Approach to the Transmission Needs Required to Affordably Reach the CLCPA Targets

NYTransco, NYPA and several other commenters in Case 20-E-0197 maintained that a holistic and coordinated approach to electric system planning (generation, local and bulk transmission, storage and demand response) is essential to reliably and affordably meeting the CLCPA goals.[47] With the proposed contracts and Tier 4 Petition now in hand, it is readily apparent that NYSERDA's Tier 4 solicitation and project ranking system is not an adequate substitute for coordinated planning.

Selecting discrete transmission projects divorced from a coordinated and integrated planning process, such as the HVDC lines proposed here, is not an efficient way to approach the serious challenges of achieving the CLCPA goals. These inefficiencies will become evident in

[47] Case 20-E-0197, *Proceeding on the Motion of the Commission to Implement Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act*, Comments of New York Transco LLC on the Initial Report on the Power Grid Study at 2 (Mar. 22, 2021) ("The CLCPA requirements represent a significant challenge and without a coordinated approach to planning, including input from resource planners, transmission planners, distribution planners, and other key stakeholders, the State will likely fall short of its clean energy goals.") ("Case 20-E-0197, NYTransco Comments"); Comments of New York Power Authority at 5-8 (Mar. 22, 2021); Joint Utilities' Comments on the Initial Report on the New York Power Grid Study at 22 9Mar. 22, 2021).

many respects. For example, with respect to issues associated with delivering off shore wind energy to NYC loads, NYTransco noted:

> There seems to be a significant disconnect with where projects were assumed to interconnect in the OSW study versus where they are actually going to interconnect. This again raises the point made earlier in these comments about the need for improved and coordinated planning.[48]

When addressing this concern in its January 20, 2022, *Order on Power Grid Study Recommendations,* the Commission noted several problematic assumptions regarding off shore wind points of interconnection, and specifically observed that the CPNY project's presumed HVDC point of connection at the Rainey substation physically foreclosed the use of that substation to deliver off shore wind energy to New York City[49] The fact that CPNY may have gotten there first through the Tier 4 solicitation does not mean that it is either an economic or electrically optimal way to apportion limited substation space for remote renewable energy attempting to reach NYC.

By the same token, the absence of any Tier 4 proposals located in Zone J should be grounds for concern by itself, but this is not discussed in the Tier 4 Petition or the Cost Analysis. In their respective comments on the CES Whitepaper, NYPA, the Joint Utilities and the Named Utilities all urged the Commission (unsuccessfully) to include behind the meter resources in the Tier 4 program.[50] In this same context, The Analysis Group's 2020 "Phase 2" climate report to the NYISO pointed to a need for more than 32,000 MW of local clean dispatchable resources (and nearly 12,000 MW in Zone J alone) to maintain a reliable network while meeting the CLCPA 2040

[48] Case 20-E-0197, NYTransco Comments at 4.

[49] Case 20-E-0197 *et al*., *Order on Power Grid Study Recommendations* at 20-21 (issued Jan. 20, 2022).

[50] *See* CES Modification Order at 85-86, App'x F at 80, 82 & 107.

zero emission objective.[51] As noted earlier, the NYISO *2021-2030 Comprehensive Reliability Plan* pointed to significant risk factors that could jeopardize reliable grid operation in Zone J in a time frame that is considered quite short by electric system planning standards.[52]

In short, the *ad hoc* approach reflected in the Tier 4 process does not give due consideration to the wealth of factors that a comprehensive planning process would coherently take into account. There is a desperate need for the Department of Public Service, NYISO, NYSERDA, NYPA and the State's electric utilities to be on the same page when planning transmission to reliably integrate clean energy resources into the network. Such coordination and integration is not evident in the selection of the proposed Tier 4 contracts. The Commission should eschew any further Tier 4 solicitations until a comprehensive planning process is established.

II. The Proposed Tier 4 Contract Costs are Excessive

In the CES Modification Order, the Commission expressed concern that Tier 4 solicitations may not produce contract costs that could be considered just and reasonable, and it accordingly directed that, given the untested nature of the Tier 4 concept, agreements to procure Tier 4 RECs must be cost-effective and shown to advance the public interest to be approved.[53] The Tier 4 Petition states that the consumer cost of the proposed Tier 4 RECs may be as high as $11.6 billion over the contracts' terms, [54] and will produce double digit electric bill increases for many upstate end users for a program expressly designed to benefit New York City. More pointedly, the Petition

---

[51] Analysis Group, Climate Change Impact Phase II: An Assessment of Climate Change Impacts on Power System Reliability in New York State at 9 (Sept. 2020), *available at* https://www.analysisgroup.com/globalassets/insights/publishing/2020-climate-change-impact-and-resilience-study-phase-ii-report.pdf

[52] 2021-2030 Comprehensive Reliability Plan at 6-8 ("While transmission security within New York City is maintained through the ten-year period in accordance with current design criteria, the margin would be very tight starting in 2025 and would be deficient beginning in 2028 if forced outages are experienced at the historical rate.").

[53] CES Modification Order at 82.

[54] Tier 4 Petition at 2.

reveals that, based on the proposed contract strike prices, the Tier 4 REC costs to consumers will be roughly twice the REC prices produced by the latest NYSERDA Tier 1 indexed REC solicitation.[55] Such a cost outcome is excessive, validates the Commission's cautious approach in the CES Modification Order, and requires corrective Commission action.

Moreover, as noted above, CPNY Selected Projects that are already holding Tier 1 contracts, and would simply be trading up to the much higher Tier 4 prices will provide exactly the same energy (and RECs) as promised under Tier 1. For these projects, converting the output from these projects to Tier 4 prices does not provide any incremental contribution toward the CLCPA 70 x 30 renewable energy production goal for 2030. Consequently, to assess whether the proposed contracts are cost-effective and in the public interest, the Cost Analysis should have examined more closely the exceptional premium associated with the Tier 4 prices. That comparative evaluation did not occur in this instance.

In contrast, when first considering transmission needs associated with Public Policy Requirements, the Commission directed DPS Trial Staff to perform a thorough comparative cost-effectiveness assessment. In recommending pursuit of AC transmission upgrades to mitigate historic congestion limiting power flows of energy to downstate loads, Staff reported that the recommended AC upgrades were considered more cost-effective than building additional central station generation downstate, and were at least as cost-effective as local DER non-transmission alternatives.[56] Here, no comparable alternatives are discussed in the Cost Analysis.

---

[55] See NYSERDA Clean Energy Standard Annual Progress Report: 2019 Compliance Year at 3(Jan. 2021) *available at* https://www.nyserda.ny.gov/-/media/Files/Programs/Clean-Energy-Standard/2021-CES-2019-Annual-Progress-Report-Compliance-Year.ashx (explaining that 2020 indexed REC prices were 40% lower than the 2019 average Tier 1 REC fixed price of $18.59/MWH, or approximately $11.15/ MWh). Stated differently, strike prices among Indexed Tier 1 REC projects from the prior NYSERDA solicitation averaged $54.84/ MWh, or roughly half of the proposed Tier 4 REC strike prices for the CPNY and CHPE contracts.

[56] See Cases 12-T-0502, *et al.*, *Order Finding Transmission Need Driven by Public Policy Requirements* at 13 (issued Dec. 17, 2015).

NYSERDA compared the prices in the submitted bids by developing a Levelized Net REC Cost ("LNRC") metric as part of its ranked scoring of bids,[57] but the Cost Analysis does not describe any external assessment of the reasonableness of the proposed strike prices. Instead, NYSERDA implicitly recognized the adverse consumer cost consequences of the unreasonably high Tier 4 REC prices by placing a precise MWH limit on NYSERDA's annual purchase obligation of Tier 4 RECs as the contracts' primary cost control mechanism.[58] While this contract mechanism may be necessary under the circumstances, it evades the core cost justification question while establishing a highly perverse incentive (*i.e.*, it limits Tier 4 RECs when achieving the CLCPA objectives requires New York to maximize renewable energy production deliverable to NYC). In short, the costs as presented in the Tier 4 Petition are excessive, and the Cost Analysis fails to adequately examine the Tier 4 price premium, fails to examine comparable alternatives, and fails to examine the overall reasonableness of the proposed strike prices.

III. The Commission Should Re-Assess Tier 4 Cost Allocation Based on the Features Disclosed Regarding the Proposed Contracts

As largely a fixed cost capital investment, for rate-setting purposes transmission costs are typically allocated and recovered on a demand basis. In assessing public policy transmission investments, the Commission has determined that such costs generally should be allocated following the "beneficiaries pay" principle. In keeping with those principles, the Commission allocated costs associated with the Western New York and AC Transmission expansion based on a formulaic approach that allocated 75% to primary beneficiaries and 25% allocated statewide method that received consensus support for all stakeholders.[59] The Commission has repeatedly

---

[57] Tier 4 Petition at 9.

[58] See CPNY and CHPE contracts, Tier 4 Petition App'x A & B at § 201 (c) (the "Annual Tier 4 REC cap").

[59] Case 12-T-0502, *et al*., *Order Finding Transmission Needs Driven by Public Policy Requirements* at 51-53 (Dec. 17, 2015).

reinforced its determination that allocating 25% of such public policy transmission needs reasonably compensates for the non-economic benefits that would be realized by all ratepayers.[60] The introduction of transmission costs to deliver renewable energy to NYC should consistently track the allocation and cost recovery applicable to PPR projects intended to serve a same or very similar purpose.

Instead, although expressly designed to benefit loads in Zone J, in the CES Modification Order, the Commission decided that Tier 4 REC costs should be spread statewide in their entirety and recovered on an energy (per KWh) basis comparable to other RECs and ZECs on the theory that all benefit from progress toward meeting the CLCPA objectives.[61] With the information now available for the proposed Tier 4 contracts, it is apparent that the planned cost allocation and recovery of transmission investments on an energy basis produce highly inequitable outcomes that the Commission must remedy. The proposed cost allocation imposes inappropriately high bill impacts on all Upstate consumers, and the expected bill impacts on energy intensive manufacturing upstate will be excessive.

Table 13 of the Cost Analysis indicates that the expected average bill impacts for customers served by Upstate Utilities (NYSEG, RG&E, and National Grid) will be nearly double the impacts experienced by Con Edison customers in Zone J.[62] Because REC costs are recovered on an energy (per KWh) basis, the study acknowledges that impacts for large commercial customers, particularly for businesses located upstate, may exceed twice their utility system average

---

[60] *See, e.g.*, Case 12-T-0502, *et al.*, *Order Addressing Public Policy Transmission Needs for AC Transmission Upgrades* at 20 (issued Jan. 24, 2017); *Order Finding Transmission Need Driven by Public Policy Requirements* App'x D (issued Dec. 17, 2015); *Order Establishing Modified Procedures for Comparative Evaluation at 40-41* (issued Dec. 16, 2014).

[61] CES Modification Order at 102-03.

[62] Tier 4 Petition, App'x C at 26.

increase.[63] The Cost Analysis does not provide any quantitative assessment or sensitivities concerning those impacts on business customers upstate. Indeed, it is at that point that the Cost Analysis simply stops. That is a glaring inadequacy that must be fixed.

Neither the Petition nor the Cost Analysis even discuss the fact that expected bill impacts imposed on upstate energy intensive manufacturers would be much higher than even the commercial load impacts (or several times the bill impacts visited upon Zone J customers). Nor does the Cost Analysis consider the extent to which such over-allocation of the high-priced Tier 4 REC costs to upstate businesses may precipitate the very leakage that the CLCPA mandates state policies look to minimize.[64]

Also, the Cost Analysis bill impacts are premised on the Bid Quantity amounts stated in each of the two contracts,[65] although NYSERDA is obligated to purchase up to the annual Tier 4 cap, which is more than 4,000,000 MWh (over 18%) higher each year than the Bid Quantities. Consequently, the Cost Analysis materially understates the potential consumer bill impacts by failing to account for the costs associated with as many as 100 million RECs over the 25 year contract terms.

Next, the selection of HVDC cables also matters with respect to cost allocation. Using HVDC lines as the delivery vehicle for Tier 4 energy ensures that all of the energy, capacity and ancillary service benefits accrue exclusively to Zone J. As the Tier 4 Petition notes, for example, the CHPE line "bypasses completely the New York grid."[66] The proposed HVDC lines should deliver the promised energy to NYC, but without providing any material electric system benefits

---

[63] *Id.*

[64] NY ECL § 75-109 (3)(e).

[65] Tier 4 Petition, App'x C (Cost Analysis) at 10.

[66] Tier 4 Petition at 33.

to the rest of the State. With respect to environmental attributes, all of the local emission benefits (NOx, SOx and particulate matter reductions) are designed to apply to Zone J. As for carbon emission reductions, all of the basic benefits of energy production by the CPNY Selected Projects that have Tier 1 contracts would have been realized at the Tier 1 REC prices because the operation of those facilities will be the same either way. Thus, the premium price and consumer cost of the Tier 4 RECs is not supported by energy production from the Selected Projects, but only by the extent that Tier 4 energy deliveries actually displace In-City fossil unit emissions.

Further, employing a statewide cost recovery approach negates pricing incentives needed to develop acceptable local In-City resource alternatives. New York's clean energy mandates have not waited for market prices to initiate public policy prerogatives, but proper price signals are crucial to confronting and successfully resolving the supply and demand changes inarguably needed in the metropolitan area.

Finally, it bears noting that the proposed Tier 4 contracts will impose billions of dollars in costs for New York consumers, but the Tier 4 Petition Cost Analysis is a summary level document describing analytical results but failing to provide any underlying workpapers. This makes it difficult (or impossible) to verify many of the claimed benefits. Given the extraordinary level of cost to New York consumers and businesses, NYSERDA should be required to fully disclose the input assumptions and modelling results associated with its cost and benefit conclusions. In any event, the Cost Analysis nonetheless demonstrates that the proposed cost allocation and rate recovery of Tier RECs required by the CES Modification Order is unfair and inappropriate. Since the Tier 4 costs above the level of Tier 1 RECs can only be explained by the transmission investments, those Tier 4 Costs should be allocated and recovered consistent with the Commission's established formula for PPR transmission projects.

IV. Stronger Commitments are Required Concerning Local Project Economic Benefits

Providing tangible state-wide economic benefits is an essential feature of the proposed Tier 4 contracts which Nucor strongly supports, but the contractual provisions concerning New York State economic benefit commitments are ineffectual. The Tier 4 Petition claims that through the first three years of operation (*i.e.*, planning, licensing, construction and initial operation) the contracts commit to provide a total of $3.4 billion in local economic benefits using New York labor and purchasing locally sourced materials ($2.1 billion for CPNY and $1.3 billion for CHPE).[67] These commitments are very important to the State as a whole. Unfortunately, the contractual enforcement mechanism for these commitments is quite weak. The contracts only require, that, three years after operation, the projects submit a report to NYSERDA demonstrating compliance with at least 85% of the promised local spending level, and failing that level, the project sponsors may eventually need to write NYSERDA a check for any deficiency.[68] At that point, however, with the facilities already built and in operation, the prime opportunity for the intended local economic support will have come and gone. The Commission should require more definitive local spending commitments before project construction begins.

V. NYC's Self-Supply Plan Should Not Reduce the CES Obligations of NYPA

NYC's notice filed with the Commission announced the intent of the City to execute a long term agreement with NYSERDA to acquire additional Tier 4 RECs above the level otherwise applicable to its load serving entity (NYPA) so that the combination of off shore wind RECs ("ORECs") and the Tier 4 RECs would match the NYC estimated annual energy consumption.

---

[67] Tier 4 Petition at 21 and 25. The CPNY commitments include investments and spending for Selected Projects that have Tier 1 contracts. Consequently, an unspecified portion of the economic benefits commitments are not incremental. *Id.* at 22, n.20.

[68] See Tier 4 Petition, App'x A & B §§ 12.01-02.

NYC proposes to work with NYPA to directly procure the additional Tier 4 RECs.[69] NYC explains that this initiative is driven by emission reduction goals that New York City has adopted that are more aggressive than the requirements of the CLCPA.[70] NYC asserts that its additional purchases should ratably reduce NYPA's CES purchase obligations regarding Tier 1 and Tier 2 RECs as well as Tier 3 (ZECs) as an offset. NYC and the Tier 4 petitioners claim that, on balance, this procurement/offset plan should reduce CES compliance costs for other LSEs in the State and their New York customers.[71]

NYC is, of course, free to adopt more aggressive policies than those applicable throughout New York State pursuant to the CLCPA (just as Nucor's sustainability goals are more aggressive than many of its global steel-making competitors), but NYC should not shift any portion of its costs of achieving its enhanced targets to the rest of the State. That is precisely what NYC proposes to accomplish by reducing NYPA's CES compliance commitments to offset the cost of its incremental REC purchases.[72] It does not appear that any Commission action is required with respect to NYC's Tier 4 self-supply plan, but the Commission should re-affirm that such action does not alter NYPA's CES commitments.

While NYPA is not subject to the Commission's jurisdiction, the Commission has allocated a ratable share of all CES costs to NYPA since the 2016 order initiating the Clean Energy Standard program.[73] Moreover, the Commission has consistently maintained that customer self-supply of

---

[69] NYC Notice at 1.

[70] NYC has committed to carbon neutrality by 2050 and 100% clean energy by 2040 (the CLCPA seeks a reduction of at least 85% below 1990-level GHG emissions by 2050). *Id.* at 7-8.

[71] *Id.* at 5.

[72] *Id.*

[73] Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable and Clean Energy Standard*, *Order Adopting a Clean Energy Standard* at 27 (issued Aug. 6, 2016).

RECs would not alter the CES obligations assigned to an LSE.[74] Most recently, in the CES Modification Order, the Commission affirmed that NYPA would be allocated its load share of costs for CES compliance.[75]

NYC claims that its proposal to modify NYPA's CES obligations is distinct from similar proposals that the Commission previously has declined to endorse. NYC points to the New York Association of Public Power ("NYAPP") and the Long Island Power Authority ("LIPA") requests to modify their CES obligations that the Commission rejected, and argues that, unlike those requests, NYC's proposal would provide benefits to rate payers in the rest of New York state (if NYC succeeds in gaining budgetary approval to actually purchase additional Tier 4 RECs).[76] The Commission, however, has to this point, as a matter of overall policy, refused to brook any exceptions to the assignment of CES compliance obligations to any LSE, including the Power Authorities. The Commission should not alter its well-defined policy here based on the information presented, and particularly since it would in this instance effectuate a cost shift of NYC's more aggressive requirements to the rest of the State.

In the alternative, if it decides to now open that door for NYC and NYPA, the Commission should consider whether CES costs overall could be reduced if other end users are similarly permitted to self-supply RECs or ZECs and, in so doing offset the CES obligations of their respective LSEs. Such an approach may stimulate interest in bi-lateral trading in Tier 1 and Tier 2 RECs and ZECs that are not in evidence today.

---

[74] *Id.* at 80.

[75] CES Modification Order at 107-109.

[76] *Id.* at 10-12.

CONCLUSION

When considering the exceptionally high proposed Tier 4 REC prices, the flawed contractual construct, the unreasonable bill impacts assigned to upstate consumers and businesses, and the evisceration of essential price signals affecting local Zone J alternatives, the Commission cannot reasonably find the contracts or the proposed allocation of Tier 4 REC costs to be in the public interest. The Commission should re-direct its approach before Tier 4 heads too far down the wrong track. Nucor urges the Commission, at a bare minimum, to revise its Tier 4 REC allocation to align with its established PPR transmission formula, and to recover Tier 4 transmission costs on a demand basis. The Commission should require contract modifications, and further clarifications and bill impact analyses from NYSERDA on the additional points noted above, or it should simply reject the proposed contracts altogether.

Respectfully submitted,

/s/ James W. Brew

James W. Brew
Laura W. Baker
Joseph R. Briscar
Stone Mattheis Xenopoulos & Brew, PC
1025 Thomas Jefferson Street, N.W.
Suite 800 West
Washington, D.C. 20007
(202) 342-0800
(202) 342-0807 (fax)
Email: jbrew@smxblaw.com
lwb@smxblaw.com
jrb@smxblaw.com

Attorneys for Nucor Steel Auburn, Inc.

Dated: February 7, 2022