

**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 THE CITY OF NEW YORK
IN RESPONSE TO
PETITIONS FOR REHEARING
ON THE CLEAN ENERGY STANDARD**

Dated: November 14, 2016

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PRELIMINARY STATEMENT

The City of New York (“City”) applauds the Public Service Commission (“Commission”) for taking affirmative action to reduce greenhouse gas emissions and reduce the State’s reliance on fossil fuels for electricity generation. Although the Commission’s Order Adopting a Clean Energy Standard¹ was a positive step, the Commission should do more. In particular, the decision to exclude Canadian hydropower from participating in the Clean Energy Standard (“CES”) was a missed opportunity that should be rectified. Also, the Commission should recognize the benefits of biogas, as it does other similar types of resources, and make it an eligible technology under the CES.

The City respectfully submits these comments to support the positions advanced by Brookfield Renewable, H.Q. Energy Services (U.S.) Inc., (“HQ”), Energy Ottawa, Inc. (“energy Ottawa”), CH4 Biogas, LLC (“CH4”), and Transmission Developers, Inc. (“TDI”) in their petitions for rehearing.² The Commission should reconsider the matters raised in these petitions and revise the CES Order to fully include hydropower and biogas resources.

¹ Case 15-E-0302, Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard, (issued August 1, 2016) (“CES Order”).

² Brookfield Renewable’s Petition for Reconsideration or, in the Alternate, Limited Rehearing (August 31, 2016) (“Brookfield Petition”); Petition for Rehearing of H.Q. Energy Services (U.S.) Inc. (August 30, 2016) (“HQ Petition”); Petition for Rehearing of Energy Ottawa Inc.

COMMENTS

POINT I

THE CES ORDER SHOULD BE REVISED TO EXPAND THE ELIGIBILITY OF HYDROPOWER RESOURCES LOCATED IN NEW YORK AND ADJACENT REGIONS

As adopted on August 1, 2016, the CES Order excludes from Tier 1 all hydropower coming into operation before January 1, 2015, as well as hydroelectric upgrades comprising new storage impoundments.³ Tier 2 eligibility for hydropower is equally exclusionary, limited to run-of-river hydroelectric facilities of five megawatts or less, wind facilities, and biomass direct combustion facilities that were in commercial operation any time prior to January 1, 2003 and originally included in New York’s renewable resources baseline calculated in the adoption of the Renewable Portfolio Standard.⁴

The basis stated in the CES Order for Tier 1’s restrictive eligibility is primarily a generalized, qualitative concern about methane emissions associated with storage impoundment, even though large-scale storage impoundment hydropower was factored into the Commission’s calculation of the State’s baseline renewable generation of 41,296,000 MWh.⁵ A recent study that examined this issue determined that there are many factors which contribute to the amount of

(August 31, 2016) (“Energy Ottawa Petition”); Petition for Rehearing of Transmission Developers, Inc. (August 31, 2016) (“TDI Petition”). CH4 Biogas, “CES Comments” (September 2, 2016) (“CH4 Petition;” although denominated as comments, this pleading is being treated as a Petition for Rehearing pursuant to the notice published September 28, 2016 in the State Register I.D. No. PSC-39-16-00027-P).

³ CES Order at Appendix A, pp. 1–3, 16.

⁴ *Id.* at p. 117. Tier 2 is essentially a renewal of the Renewable Portfolio Standard’s maintenance program and requires distribution utilities to “continue to invest in the maintenance of existing at-risk generation attributes.” *Id.* at pp. 65–6; 116–17.

⁵ *Id.* at pp. 15, 105–6.

methane released and the time frame over which it is released.⁶ Importantly, the study did not suggest that use of hydropower from reservoirs should be curtailed; rather, it concluded only that greenhouse gas emissions should be considered in siting new reservoirs and in revising management practices for existing reservoirs, and that changes in reservoir management (particularly the implementation of watershed nutrient reduction strategies) can mitigate methane and other emissions.⁷ The researchers did not call for cessation of the use of reservoirs for power production purposes.

In commenting on the study, the MIT Technology Review observed that “[c]learly, hydroelectric plants are by no means as polluting as fossil-fuel energy production.”⁸ In a separate comment on the study, Washington State University noted that “[r]eservoir methane production is comparable to rice paddies or biomass burning.”⁹ Thus, the reason stated in the CES Order does not appear to provide a legitimate basis to exclude any form of hydropower as an eligible resource under the CES. Indeed, given the study’s analysis, it would be irrational to exclude reservoirs because of their methane emissions while allowing biomass combustion (which is an eligible resource for the CES).¹⁰

⁶ See, generally, Deemer, B., *et al.*, “Greenhouse Gas Emissions from Reservoir Water Surfaces: A New Global Synthesis,” *BioScience*, Vol. XX No. X (published online October 5, 2016), available at <http://bioscience.oxfordjournals.org/content/early/2016/10/02/biosci.biw117>.

⁷ *Id.* at p. 13.

⁸ Condliffe, J., “Hydroelectric Power Isn’t as Green as We Thought,” *MIT Technology Review* (September 29, 2016), available at <https://www.technologyreview.com/s/602508/hydro-electric-power-isnt-as-green-as-we-thought/>.

⁹ Sorensen, E., “Reservoirs are underappreciated source of greenhouse gases,” *WSU News* (September 28, 2016), available at <https://news.wsu.edu/2016/09/28/reservoirs-play-substantial-role-global-warming/>.

¹⁰ See CES Order at p. 105 and Appendix A, p. 2.

As a result of the exclusion of certain types of hydropower in the CES Order, the options available to load serving entities (“LSE”) meet their renewable energy credit (“REC”) obligations are unnecessarily limited. Given neighboring states’ more advantageous clean energy incentives, this restriction could inhibit New York’s ability to achieve the 50x30 goal set forth in the CES. Brookfield Renewable, Energy Ottawa, HQ, and TDI raise these valid concerns in their Petitions for Rehearing, and the City respectfully urges the Commission to reconsider and revise this aspect of the CES Order.

Brookfield Renewable argues that “limit[ing] participation to smaller hydropower and mov[ing] away from the focus and need for large-scale renewable hydropower is not supported by the record.”¹¹ It asks the Commission to include all existing, privately-owned hydropower in the REC market.¹² Regarding interstate REC market competition, Brookfield Renewable aptly notes that contrary to the Commission’s position that a “mass flight” of existing renewable facilities out of state is “merely hypothetical,”¹³ competition for RECs is already underway in Massachusetts, Connecticut, Vermont, and elsewhere.¹⁴

Energy Ottawa recommends in part that the Commission allow generally hydropower resources from adjacent regions “the opportunity to participate meaningfully in the State’s new REC market.”¹⁵ It asserts that the CES Order’s limitations will be a detriment to the State’s clean energy goals is contrary to both the evidence included in the record in this proceeding and the

¹¹ Brookfield Petition at pp. 1, 13.

¹² *Id.*

¹³ CES Order at p. 116.

¹⁴ Brookfield Petition at pp. 10 and 15.

¹⁵ Energy Ottawa Petition at pp. 9, 12, 14.

Commission’s recognition that hydropower represents the second-largest zero-emitting portion and the largest renewable portion of the state’s total electric generation mix.”¹⁶

HQ seeks reconsideration of the exclusion of incremental hydropower relying on new storage impoundment and incremental renewables “delivered over new or expanded transmission line projects that could bring large amounts of renewables into New York.”¹⁷ HQ observes that it supplies seven to ten million MWh per year of carbon-free, clean energy to New York’s wholesale markets each year, but the entirety of that supply would be precluded from counting towards LSE’s REC purchase obligations.¹⁸

TDI asserts that the CES Order makes private sector investment decisions more difficult, especially for projects that involve New York State and another region.¹⁹ TDI also notes the conflict inherent in the CES Order that certain types of resources were included in the baseline measurement for the CES but are not eligible for use by LSEs towards meeting their REC purchase obligations under the CES Order.²⁰

The City agrees with these entities that excluding hydropower, and particularly Canadian hydropower, from CES eligibility reduces flexibility for LSE and for consumers striving to incorporate renewable resources into their portfolios while ensuring they satisfy the CES purchase obligations. Put another way, this limitation is inapposite to the CES Order’s list of steps needed to achieve the 50x30 goal, specifically that “[c]onsumer-initiated green energy purchases or

¹⁶ *Id.* at p. 6.

¹⁷ HQ Petition at p. 3.

¹⁸ *Id.* at p. 1.

¹⁹ TDI Petition at p. 2.

²⁰ *Id.* The types of resources qualifying as part of the 2014 Baseline Renewable Resources include hydropower. *See* Case 15-E-0302, *supra*, Staff White Paper on Clean Energy Standard (released January 25, 2016) at Appendix B p. 3.

investments ... will be encouraged through market-based incentives[.]”²¹ The Commission needs to take action to remove the hydropower limitation to maximize the opportunity for consumers to be proactive in making green energy purchases and investments.

In addition, as noted by these parties, there is an inherent contradiction in the Commission’s logic. In determining the amount of renewable power already produced in New York and the amount that must be acquired to achieve 50x30, the Commission included the State’s long-existing hydropower facilities in its baseline without limitation. To then exclude some of the same types of hydropower facilities from eligibility under the CES is not rational or reasonable. This differing treatment also creates a disincentive for clean energy suppliers. As HQ noted, the exclusion “render[s] New York uncompetitive in comparison to other markets.”²² HQ also emphasized that:

In today’s market and with the initiatives being taken by New England states to incentivize large scale hydro projects, wholesale energy and capacity revenues for future hydropower sales from Québec to New York are not sufficient to attract incremental deliveries over either new or existing interfaces. With the elimination of incentives for hydropower sales in the CES Order, New York is left without a funding mechanism to enable projects to deliver incremental hydro energy into the State.²³

With the construction of new transmission lines to increase the flow of power from Canada into New York and through New York, HQ claims that it could deliver 25 to 30 million MWh per year of green, clean energy into New York.²⁴ However, the CES Order as adopted would

²¹ CES Order at p. 12.

²² HQ Petition at p. 6.

²³ *Id.* at p. 22.

²⁴ *Id.* at pp. 1, 6. Recently, the City and other market participants submitted recommendations to the New York Independent System Operator, Inc. that it and the Commission should identify a general need to expand the State’s transmission system to address public policy needs. Many of these proposals highlighted particularly the need to expand the transmission links to Canada in order to import more renewable power from Canada. *See* Case 16-E-0558, In the Matter of

disincentivize HQ from doing so.²⁵ Brookfield Renewable and Energy Ottawa echo these concerns.²⁶ TDI concurs with this assessment, asserting that broadening LSEs' options to fulfill their CES obligations will help alleviate "siphoning off of a significant portion of the renewable energy supply" caused by the enactment of programs in nearby states like Massachusetts' "Act to Promote Energy Diversity."²⁷

To address the concerns it raised, HQ recommended a series of improvements to the eligibility requirements for Tier 1 resources under the CES. These include removing the requirement that hydropower resources have no new storage impoundments, allowing all new hydropower resources to participate, allow all existing hydropower resources that were included in the baseline to receive some type of compensation for their environmental attributes, and permit all incremental generation from hydropower resources to participate regardless of when the incremental generation commences operation, provide that the incremental power is delivered over new or expanded transmission lines.²⁸

The Commission should not create barriers to access to renewable resources, and it should not be blocking a significant contribution to the 50x30 goal due to possibly overstated concerns.²⁹ Indeed, removing these limitations, such as in the manner proposed by HQ, will directly advance

New York Independent System Operator, Inc.'s Proposed Public Policy Transmission Needs for Consideration for 2016, NYISO submission (dated October 3, 2016).

²⁵ HQ Petition at pp. 1, 6.

²⁶ Brookfield Renewable Petition at pp. 1, 13 ; Ottawa Energy Petition at p. 6.

²⁷ TDI Petition at p. 1.

²⁸ HQ Petition at p. 4.

²⁹ CES Order at pp. 15, 105–6.

the 50x30 goal by promoting the “aggressive pursuit of cost-effective energy efficiency, established through market initiatives.”³⁰

The City offers one other reason for broadly including hydropower resources in the CES.³¹ In September 2014, the City agreed to take steps to reduce its carbon emissions by 40 percent by 2030 and by 80 percent by 2050. In September 2016, the City issued its plan for achieving these goals.³² To develop the Roadmap, the City performed extensive modeling of scenarios to determine the actions necessary to substantially reduce carbon emissions in the energy supply (including electric generation, transmission, and distribution), buildings, transportation, and waste sectors. Part of this effort related to modeling the CES and understanding whether and how its concurrent goals can be achieved.

This modeling work revealed that the City is on track to achieve its 40x30 goal. It also revealed that solar, wind, and hydropower resources would need to provide approximately 70 percent of the State’s generation output to achieve the 80x50 goal.³³ As to the CES 50x30 goal, the City’s modeling work indicated that approximately nine percent of the statewide compliance obligations would be comprised of alternative compliance payments under a “business as usual” trajectory. This result underscores the importance of taking a broader view of qualifying resources for CES compliance in order to increase the amount of deliverable renewable energy that can advance the ambitious greenhouse gas reduction goals of both the City and State.

³⁰ CES Order at p. 12.

³¹ Although pumped storage is a type of hydropower resource, the City does not believe that an appropriate justification has yet been advanced for its inclusion as an eligible resource under the CES. The City takes no position on whether it should be included.

³² *New York City’s Roadmap to 80x50*, issued September 2016 (“Roadmap”), available at <http://www1.nyc.gov/site/sustainability/codes/80x50.page>.

³³ *Id.* at p. 44.

To be clear, the City is not opposed to the use of alternative compliance payments to keep renewable power costs in check. However, alternative compliance payments are not equivalent to generation from renewable resources and do not contribute to achievement of the greenhouse gas reduction goals at the City and State levels. The City respectfully submits that the potential gap in achievement of the deliverable renewable generation goal can be cost-effectively closed by broadly allowing hydropower generation to be eligible for participation in the CES.

For the foregoing reasons, the Commission should grant the Petitions for Rehearing submitted by Brookfield Renewable, Ottawa Energy, and HQ, and it should revise the CES Order to remove all limitation on the eligibility of hydropower to qualify for participation in the CES.

POINT II

THE BENEFITS PROVIDED BY BIOGAS SHOULD BE RECOGNIZED IN THE CES

Eligible Tier 1 resources are those that came into operation after January 1, 2015, including biogas, biomass, and liquid biofuels.³⁴ The City supports the favorable treatment of biogas as a renewable resource. Indeed, the City has invested millions of dollars to capture and productively use the large quantities of biogas that are continually produced from its wastewater treatment facilities for two primary reasons. First, methane is a more potent greenhouse gas emission than CO₂, and it is critical to reduce methane emissions from all sources. Second, the use of biogas can offset the use of natural gas and reduce emissions associated with the production of natural gas.

CH4 asks the Commission to designate a biogas REC or “BREC” to “provide a premium for biogas generated renewable electricity”³⁵ because biogas provides additional benefits by

³⁴ *Id.* at Appendix A, pp. 1–3, 16.

³⁵ CH4 Petition at p. 1.

diverting waste from landfills, eliminating the spread of “untreated organic waste on cropland which can lead to nutrient pollution of surface waters, and reducing the carbon footprint of farms and food processors making New York State an attractive location for economic development.”³⁶

The City supports CH4’s request as a reasonable step designed to further reduce methane emissions in New York while simultaneously achieving the 50x30 goal. The increased incentives could spur more development of methane capture facilities at landfills and wastewater treatment plants, as well as the development of waste to energy biogas facilities. This proposal also is consistent with the CES and Reforming the Energy Vision principles of incentivizing market transformation and market initiatives to achieve the State’s goals.

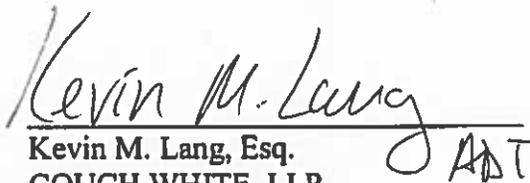
The City respectfully requests that the Commission favorably consider CH4’s proposal and take affirmative action to spur the marketplace to invest in waste to energy facilities and reduce methane emissions.

³⁶ *Id.*

CONCLUSION

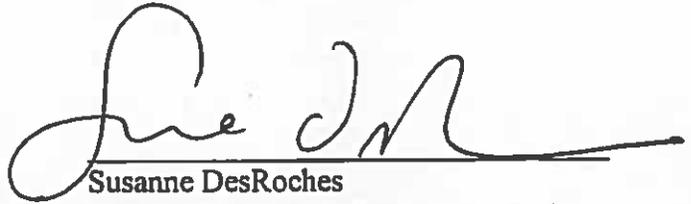
For all of the foregoing reasons, the City respectfully requests that the Commission (1) grant the Petitions for Rehearing of Brookfield Renewable, Energy Ottawa, HQ, and TDI insofar as they request expanding REC market eligibility for hydropower, and revise the CES Order to remove limitations on the eligibility of hydropower resources under the CES; and (2) grant the Petition for Rehearing of CH4 and expand the opportunities for the productive use of biogas as discussed above and by CH4.

Respectfully submitted,



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