

**STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION**

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

**BROOKFIELD RENEWABLE’S PETITION FOR  
RECONSIDERATION OR, IN THE ALTERNATE,  
LIMITED REHEARING**

Pursuant to Public Service Law Section 22 and Section 3.7 of the New York State Public Service Commission’s (“Commission’s”) regulations, Brookfield Renewable respectfully requests reconsideration, or in the alternative, limited rehearing of the Commission’s August 1, 2016 Order Adopting a Clean Energy Standard (“CES Order”).<sup>1</sup> Brookfield Renewable continues to be an adamant supporter of Governor Cuomo’s initiative to provide 50% of New York’s power generation from renewable energy by 2030 (the “50 by 30 goal”) and the adoption of a Clean Energy Standard (“CES”) to meet that goal.

However, Brookfield Renewable believes that the CES as proposed by the Commission must be more robust and consistent in order to attain the Governor’s lofty goal and ensure that the CES is successful and cost-efficient to ratepayers by including *all* existing privately-owned hydroelectric power in either the Renewable Energy Credit (“REC”) market or compensated the same as nuclear generation under the Zero Emission Credit (“ZEC”) program. Currently, the

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<sup>1</sup> 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 Aug. 1, 2016) (“CES Order”).

CES Order provides no competitive compensation for existing private hydropower facilities when those same facilities have been a critical component in achieving the energy profile New York currently enjoys in terms of the level of renewable resources as well as the associated decreases in carbon dioxide (“CO<sub>2</sub>”) emissions and greenhouse gases. In addition, under any circumstance, the Commission should allow Load Serving Entities (“LSEs”) to offset their CES obligations through contracts with privately-owned legacy resources, thus creating additional demand and value for renewable attributes.

Therefore, Brookfield Renewable respectfully requests that the Commission reconsider the portions of its Order that ignore prior recommendations for legacy renewables, including hydropower, with a continued maintenance tier that restricts eligibility for such maintenance contracts to existing hydropower facilities producing 5 megawatts (“MW”) or less, and that do not compensate existing privately-owned hydropower – a zero-emitting resource – based on the benefits provided (the same or greater than nuclear facilities) and in recognition of the true market value of such resources. In the alternative, Brookfield requests that the Commission grant limited rehearing on these issues, as is more fully described below. The renewal of the maintenance program as described in the CES Order, at the exclusion of the proper up-front compensation as noted above, is of particular concern because:

- It is not supported by evidence on the record, including the concern of Staff and intervenors regarding ownership of environmental attributes and market opportunities for existing renewable generation.
- The market opportunities for existing renewable generation already exist and are increasing, including new law passed in Massachusetts that provides direct opportunities for existing hydropower.

- Under this construct New York’s renewable goals, especially its baseline, could be significantly impacted with no possibility to modify this *fait accompli*.
- The decision to exclude hydropower greater than 5 MW from any consideration was never considered in the context of an overall CES program for the State.
- The exclusion of large-scale legacy hydropower in attainment of the goals of the CES without any compensation was both unjust and discriminatory, resulting in economic free-ridership by the State on the benefits of privately-owned non-emitting generation.
- There is no consideration of how exports of renewable, non-emitting generation will be treated under the CES, resulting in the potential for double-counting.

All of these concerns are described more fully herein, and need to be considered in the aggregate to properly address the objective of cost-effective achievement of the CES goals under a competitive market construct.

## **I. BACKGROUND**

Brookfield Renewable strongly supports the overall CES program in New York and has repeatedly expressed its gratitude toward the Commission and the Governor for taking a proactive and innovative approach to clean energy. The CES Order is a tremendous first step towards incorporation of renewable resources into the electric generation profile in New York.

It is important to note that the current CES proceeding grew out of the Large-Scale Renewable (“LSR”) track of the Commission’s Reforming the Energy Vision (“REV”) proceeding.<sup>2</sup> Through its February 26, 2015 Order, the Commission instituted a Large-Scale

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<sup>2</sup> Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision*, Order Adopting Regulatory Policy Framework and Implementation Plan (Issued Feb. 26, 2015) (“REV Order”).

Renewables track for the REV proceeding.<sup>3</sup> The Commission noted that in addition to new resources, a market structure would be required to increase renewable resource penetration and maintain existing resources while also meeting the other REV objectives.<sup>4</sup> Therefore, on June 1, 2015, the Commission instituted a new proceeding to specifically address Large Scale Renewables, which is the current 15-E-0302 proceeding.<sup>5</sup> The Large Scale Renewable proceeding was to be “focused on the next evolution of the Renewal Portfolio Standard, and how to bring renewable energy to the scale needed to meet New York’s energy goals.”<sup>6</sup> Also on June 1, 2015, the Commission released a paper entitled “Large Scale Renewable Energy Development in New York: Options and Assessment,” (“LSR Options Paper”) prepared by Department of Public Service Staff, the New York State Energy Research and Development Authority (“NYSERDA”) and its consultants.<sup>7</sup>

In December 2015, Governor Cuomo directed the Department of Public Service to develop a Clean Energy Standard to implement the State’s goal that 50 percent of the State’s electricity would be generated from renewable sources by 2030. On January 21, 2016, the Commission expanded on the scope of the Large Scale Renewable proceeding to incorporate consideration and implementation of a CES to meet the 50 by 30 goal.<sup>8</sup> And on January 25,

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<sup>3</sup> REV Order, at 83.

<sup>4</sup> REV Order, at 82.

<sup>5</sup> Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Notice Instituting Proceeding, Soliciting Comments, and Providing for Technical Conference (Issued June 1, 2015) (“LSR Order”).

<sup>6</sup> Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Order Expanding Scope of Proceeding and Seeking Comments, at 5-6 (Issued Jan. 21, 2016) (“Jan. Order”).

<sup>7</sup> Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Large-Scale Renewable Energy Development in New York: Options and Assessment (filed June 1, 2015) (“LSR Options Paper”).

<sup>8</sup> Jan. Order, at 1-2.

2016, the Department of Public Service Staff (“Staff”) released its White Paper on the Clean Energy Standard to implement the Governor’s plan (“CES White Paper”).<sup>9</sup> The scope of the proceeding was later expanded again to include consideration for nuclear facilities at risk of retiring.<sup>10</sup> On April 8, 2016, Staff’s Cost Study for the Clean Energy White Paper was released (“CES Cost Study”).<sup>11</sup> After a series of workshops, public hearings, and comments from various parties, on August 1, 2016, the Commission issued its CES Order. However, key provisions of the CES Order deviated significantly from the information presented in the CES White Paper, Cost Study, and workshops and ignored vital portions of the clear record that was before the Commission, the parties, and the public. Moreover, there is important new information that the Commission should consider as part of the record for its decision, most notably new legislation passed in the State of Massachusetts since the time of the CES Order that will have the potential to create a significant impact on New York’s existing fleet of privately-owned renewable resources. Therefore, as specifically identified, explained, and supported below as required by 16 NYCRR 3.7, certain errors of law and fact as well as new circumstances warrant reconsideration of portions of the CES Order, or in the alternative, warrant limited rehearing.

## **II. NEW YORK’S HYDROELECTRIC POWER**

New York State has been successful in harnessing the emission-free, cost-efficient, and renewable energy of hydropower at a massive scale for decades. In fact, New York can boast

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<sup>9</sup> Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Staff White Paper on Clean Energy Standard (Issued Jan. 25, 2016) (“CES White Paper”).

<sup>10</sup> Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Order Further Expanding Scope of Proceeding and Seeking Comments (Issued Feb. 24, 2016).

<sup>11</sup> Case 15-E-0302, *Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard*, Clean Energy Standard White Paper – Cost Study (Issued Feb. 24, 2016) (“CES Cost Study”).

that it is “the largest hydroelectric power producer east of the Rocky Mountains and [ ] fourth in the nation in the generation of electricity from hydropower” with over 300 hydropower stations.<sup>12</sup> As noted by the Commission in its CES Order, in 2014, 23.5% of the State’s electric generation mix was from hydropower.<sup>13</sup> To expand on the information in the CES Order, it should be noted that in 2014, New York’s hydropower generated 28,525 gigawatt-hours (GWh) of net energy,<sup>14</sup> which saved New York over 10 million tons of CO<sub>2</sub> emissions for that year alone compared to if that electricity had been generated from fossil fuels (720.8 pounds of CO<sub>2</sub> per MWh generated from fossil fuels). Clearly, the facts show that hydropower is an important and critical element of not only the State’s energy profile, but the State’s clean energy mix.

### **III. ARGUMENTS**

Under the Commission’s regulations, grounds for rehearing include (i) if the Commission committed an error of law or fact; or (ii) if new circumstances warrant a different determination.<sup>15</sup> Here, both errors of fact and law materially impacted certain provisions of the Commission’s CES Order such that reconsideration or limited rehearing on those points should be granted. Moreover, new circumstances and information regarding opportunities for exports of resources warrant reconsideration or limited rehearing to fully evaluate the immediate threat that exists for the export of renewable resources outside of New York, thus endangering the likelihood of success of the Governor’s renewable goals.

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<sup>12</sup> *Hydropower in New York, A Workhorse Renewable Energy Technology*, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, <http://www.dec.ny.gov/energy/43242.html>.

<sup>13</sup> CES Order at 19.

<sup>14</sup> New York Independent System Operator, *Power Trends 2015, Rightsizing the Grid*, at 7 (2015).

<sup>15</sup> 16 NYCRR § 3.7(b).

**A. The Commission’s Decision to Solely Implement Maintenance Program Eligibility and Contracts for Tier 2 Resources is Not Supported by the Record.**

Although the LSR Options Paper generally discussed maintenance tiers in the context of a crafting a program that might use an overall tiered approach,<sup>16</sup> the subsequent CES White Paper that laid out the CES construct, and which was the basis for public review and comment, proposed that existing, privately-owned resources would participate in the REC market. The Commission’s change in direction in the CES Order, its limitation of support to maintenance contracts and its limitation of support to small hydro for existing resources is not supported by the record, particularly given the new renewable and carbon reduction objectives that have been adopted by the State.

The LSR Options Paper explained various options for treatment of an incremental Large Scale Renewable program as well as support for continued operation or contribution of existing generators.<sup>17</sup> As part of that discussion, the LSR Options Paper noted that tiers were used in other programs, including growth and maintenance tiers.<sup>18</sup> While New York’s approach has been the implementation of the Main Tier Renewable Portfolio Standard (“RPS”), the LSR Options paper noted an “impending novel situation” – New York did not have long-term rights to RPS attributes.<sup>19</sup> The LSR Options Paper remarked that “it is inevitable that in the absence of New York policy stimulating demand that creates sufficient value for Legacy LSR RECs, the energy and RECs from some or all of these resources are likely to leave the market.”<sup>20</sup> Subsequently, the CES White Paper proposed to establish distinct tiers with overriding

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<sup>16</sup> LSR Options Paper, at 50.

<sup>17</sup> LSR Options Paper, at 50.

<sup>18</sup> *Id.*

<sup>19</sup> LSR Options Paper, at 114.

<sup>20</sup> LSR Options paper, at 115.

objectives and considerations that included the preservation of existing clean energy generation and competition, among others.<sup>21</sup>

The CES White Paper proposed a Tier 1 for new sources and a Tier 2 with two sub-tiers for continued contribution of existing, privately-owned resources. The CES construct in the CES White Paper was that both Tier 1 and Tier 2 resources would participate in a REC market.<sup>22</sup> In the six months of comments and workshops that followed, not once was the possibility of a maintenance tier discussed for existing Tier 2 resources. Most of the discussion at the various technical conferences and the myriad of comments submitted revolved around how many tiers should be included and what resources should be included in which tiers. The CES Order was the first time that maintenance contracts were presented for existing resources. Therefore, that Tier 2 would not participate in the REC market is a new direction and one that was never contemplated, discussed, or publicly vetted until the CES Order.

In the CES Order, the Commission opined that while some existing facilities will sell in other states, that such was “merely hypothetical that there will be a mass flight of these sources,” and that “at this time, there is no imminent risk of losing emission attributes associated with these facilities permanently and no concomitant need to provide them with additional New York consumer support for those emission attributes.”<sup>23</sup> However, besides providing no factual support for these conclusions, as discussed below, there is adequate evidence and basis to show that there are significant opportunities outside of New York, and that in-state renewable generation is already leaving New York. The Commission then found that there was no need for Tier 2B “except for the concern that the clean energy attributes of these facilities may be at risk

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<sup>21</sup> CES White Paper, at 16-18.

<sup>22</sup> CES White Paper, at 22-23.

<sup>23</sup> CES Order, at 116.



because they may fail financially and retire for the lack of sufficient overall revenues due to the failure of markets to fully internalize the value of their clean energy and fuel diversity benefits.”<sup>24</sup> Therefore, instead of adopting the CES White Paper proposal to allow existing resources to participate in the REC market, the Commission “generally renew[ed]” the RPS maintenance program.<sup>25</sup> This departure is not based on any factual support in the expansive record, either within the CES White Paper, which was the grounds for the Tier 2B proposal in the first instance, or as provided in comments filed by the parties, including Brookfield Renewable, which clarified in its submission that, despite the Tier 2B being construed in the CES White Paper as “non-competitive,” there are in fact significant market opportunities for the sale of this non-emitting generation outside of New York, that the sale of this generation already happens (and will need to be accounted for in adjusted New York baseline for the CES program to be credible), and that the market opportunities for the sale of such generation is indeed increasing. Moreover, the concomitant costs associated with imposition of a maintenance tier and contracts was not evaluated in the Cost Study for the CES White Paper. Therefore, the costs and overall effect of the maintenance tier has not been evaluated, and is not supported by the record.

Similarly, while the need to incentivize new resources is well founded and understood, that only new sources will be allowed to compete in the REC market was never evaluated in the record. In addition, while the social cost of carbon was evaluated for new resources as part of the cost-benefit analysis in the CES Cost Study, the social cost of carbon has never been evaluated for existing, privately-owned resources that were previously classified as Tier 2B.

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<sup>24</sup> CES Order, at 116.

<sup>25</sup> CES Order, at 117.

Therefore, the cost and benefits of the entire CES program would need to be reevaluated should the Commission proceed with the maintenance tier and exclude existing privately-owned resources from participating in the REC market.

Even though the Commission indicated that it would review the maintenance program and out-of-state sales in the future, the competition for RECs and energy from other states is already occurring, as detailed in the record and discussed below. In addition, intervening circumstances since the record closed provides even stronger evidence regarding the threat of export and provides a basis for the Commission reconsidering its decision in this regard.<sup>26</sup> As noted throughout the record in this proceeding, the loss of these resources to out-of-state programs will have a significant impact on New York insofar as once a resource is committed elsewhere, that energy and its attributes will be gone for an extended period of time – if not permanently – such that New York’s renewable goals, especially its baseline, will be significantly impacted with no possibility to modify this *fait accompli*. Furthermore, the loss of energy and RECs will need to be replaced by either fossil fuel-generated power, or energy and RECs from more costly Tier 1 resources at the expense of the ratepayer; scenarios that are not fully evaluated on the record and that would both impede the goals of the CES.

The CES Order also imposed a variety of criteria that eligible existing facilities will be required to demonstrate that its clean energy attributes are at risk in order to qualify for a maintenance contract.<sup>27</sup> None of these additional criteria were presented or discussed at any point in the underlying proceedings, and the CES Order itself provided no reasoned explanation

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<sup>26</sup> See An Act Relative to Energy Diversity, H.4568 (Approved Aug. 8, 2016).

<sup>27</sup> CES Order, Appendix D, at 1.

for how or why these demonstrations would be made. Therefore, neither the public nor parties to the proceeding were given an opportunity to review or comment on these new requirements.

Because the maintenance tier as proposed in the CES Order is not supported by the record and because it was never previously proposed or discussed such that the public and parties to the proceeding had any notice or opportunity to review and comment on that part of the CES, the Commission should reconsider its inclusion of the maintenance tier in the CES, and instead, allow existing, privately-owned hydropower facilities to participate in the REC market or allow them to be compensated as calculated for ZECs, also discussed below, which is more thoroughly supported by the record. In the alternative, the Commission should grant limited rehearing on portions of the CES Order, as required, to better recognize privately-owned legacy hydro's contribution to the State's new baseline which is vital to achieving 50% renewables by 2030 and to meaningfully address the specific issues facing this resource so that it can continue to contribute meaningfully to the State's ambitious goals.

**B. The Record Does Not Support the Commission's Decision to Exclude Hydropower Facilities Greater than 5 MW.**

The first and only time that eligibility for existing resources in Tier 2 was to be limited to run-of-river hydropower facilities of 5 MW or less was in the CES Order. Over the two years of the REV and Large-Scale Renewable proceedings that were the basis for the CES Order, no mention of any limitation on the size of existing hydropower facilities was proposed. Therefore, comments that were made by the various parties and intended to contribute to the record were based on the assumption that existing hydropower would qualify as outlined in the CES White Paper. However, with the 5 MW cap being imposed in the first instance in the CES Order, this new eligibility restriction was never subject to public review or comment.

The CES Order provides no basis for its decision to restrict eligibility to hydropower to less than 5 MW. While in other areas of the CES Order the Commission explains its rationale for foregoing or implementing a particular aspect of the CES as outlined in the voluminous record, no calculations or reasoned explanation was given to support this highly restrictive condition. This restriction would effectively eliminate a significant number of New York's hydropower facilities from eligibility.<sup>28</sup> Because the Commission imposed the 5 MW condition in the first instance in the CES Order, the impact to ineligible facilities was not evaluated in the record. The CES Order provided no insight or analysis into the benefits provided by, and the potential effect of losing, a large portion of the State's hydropower profile. If the excluded facilities are not allowed to compete or participate in the CES, the facilities may seek opportunity to export energy outside of New York where there is more recognition of the value of this non-emitting power, or it could otherwise, in the Commission's own words, "be at risk because they fail financially and retire for the lack of sufficient overall revenues due to the failure of markets to fully internalize the value of their clean energy and fuel diversity benefits."<sup>29</sup> However, these excluded facilities will be a necessary and integral part to the success of the CES program, attainment of the 50 by 30 goal, and reliability of the grid.

In addition, while the scope of the instant proceeding changed with the addition of the CES, the main focus has always been the contribution and development of renewable energy into New York's energy supply at a large scale. However, the Commission's August 1, 2016 CES Order limited the broad scope of the proceeding when it restricted eligibility for existing

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<sup>28</sup> Based on NYISO data, in 2016, there were 67 units greater than 5 MW, exclusive of the New York Power Authority, with a total nameplate capacity of 829 MW and which generated 2,815.6 GWhs of net energy in 2015 for an estimated savings of 1 million tons of CO<sub>2</sub> had that same energy been generated from fossil fuels.

<sup>29</sup> CES Order, at 2, 116.

hydropower to small facilities that are 5 MWs or less without basis in law or fact. To now change direction so abruptly and limit participation to smaller hydropower and move away from the focus and need for large-scale renewable hydropower is not supported by the record and, without further explanation, is an unwarranted and unexplained policy change, which would render any such action arbitrary.

Therefore, Brookfield respectfully requests that the Commission reevaluate the unsupported elimination of the Tier 2 and reconsider the institution of a limited maintenance tier with a 5 MW limitation on eligibility for existing, privately-owned hydropower sources, or in the alternative, grant limited rehearing on this issue to fully explore the basis for and effect of the restriction.

**C. The Commission Erroneously Assumed that Existing Hydropower Facilities Do Not Have Significant Opportunities to Export to Other States and in any Event, Recent Developments Make the Export Threat More Imminent than Ever.**

As noted above, the Commission stated that it does not believe that clean energy programs outside of New York will have an impact on exports of renewable energy to other states. The Commission erroneously assumed that “given the vintage and delivery requirements in other states it remains merely hypothetical that there will be a mass flight of these resources.”<sup>30</sup> However, information submitted by Brookfield Renewable and others over the course of this proceeding clearly shows that there are current, substantial opportunities to export existing privately-owned hydropower and its environmental attributes outside of New York.

It should also be noted that the very real potential for in-state resources to export to other more lucrative areas was contemplated and evaluated by Staff in both the LSR Options Paper

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<sup>30</sup> CES Order, at 116.

and CES White Paper. The LSR Options Paper specifically noted that “it is inevitable that in the absence of a New York policy stimulating demand that creates sufficient value for Legacy LSR RECs, the energy and RECs from some or all of these resources are likely to leave the market.”<sup>31</sup> In addition, a concern was identified and raised by the authors of the Options Paper as well as by policymakers and RPS administrators in New England that New York Legacy LSR generation would “swamp neighboring markets.”<sup>32</sup> It was noted that “these implications should trigger design considerations for future New York large scale renewable energy contracting.”<sup>33</sup> These concerns were echoed in the CES White Paper which proposed Tier 2 to address competitive opportunities for existing resources. In addition, despite the CES White Paper’s distinction between competitive Tier 2A and “non-competitive” Tier 2B resources, Brookfield Renewable noted in its comments on the CES White Paper that in fact all Tier 2 resources have competitive opportunities under other state’s and province’s RPS and procurement programs.

More specifically, in its comments regarding the CES White Paper, Brookfield Renewable submitted a list of RPS and procurement programs in adjoining service territories that provide for hydropower eligibility at more favorable conditions and criteria.<sup>34</sup> In particular, Brookfield Renewable noted the recent solicitations from the New England Clean Energy RFP, and that several significant New York market participants, including Brookfield Renewable, had submitted proposals for existing assets and development of assets in response to the New England RFP.<sup>35</sup> The New England Clean Energy RFP includes eligibility for long-term

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<sup>31</sup> LSR Options Paper, at 115.

<sup>32</sup> LSR Options Paper, at 115.

<sup>33</sup> *Id.*

<sup>34</sup> Case 15-E-0302, Comments of Brookfield Renewable Energy Group, at 15 and Appendix A (Apr. 22, 2016); Brookfield Renewable Comments on the CES Cost Study, at 9-10 and Appendix A (Jun. 6, 2016).

<sup>35</sup> Case 15-E-0302, Reply Comments of Brookfield Renewable, at 3 (May 13, 2016).

contracting for firming hydro products pursuant to legislation passed in Rhode Island and Connecticut in 2014 and 2015, respectively.<sup>36</sup> Facilities eligible for the New England Clean Energy RFP include hydropower located in New York – the same resources that are currently deemed as Tier 2 in the CES Order.<sup>37</sup> Overall, the New England market continues to evolve toward the inclusion of all clean energy resource to meet greenhouse gas emission reduction needs. In fact, on August 8, 2016, Massachusetts Governor Baker signed a clean energy bill that will offer extended opportunities to renewable sources in New York, with an emphasis on hydropower.<sup>38</sup>

Massachusetts' *An Act Relative to Energy Diversity* will allow for the contracting of up to 9.45 terawatt-hours (“TWh) clean energy generation as firm hydroelectric generation alone, new Class I RPS resources that are firming up with hydropower, or new Class I RPS sources. Solicitations may be coordinated and issued jointly with other New England states or entities designated by other states. Long-term contracting opportunities considered will include REC only and a combination of REC and energy. This new legislation not only lends credence to the immediacy of the threat of export of existing renewables and/or hydropower, but provides a basis for rehearing under the Commission’s standard as a new fact or circumstance.

Other states that provide *current* opportunities for existing hydropower as well as other existing renewables include Maryland, Connecticut, and Vermont. In Maryland, hydropower up to 30 MW that was constructed before 2004 is counted as Tier 1 in its RPS. In Connecticut, when paired with a Class I renewable on a transmission line delivered into New England,

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<sup>36</sup> See R.I. Gen. Laws § 39-31, Affordable Clean Energy Security Act; C.T. Public Act No. 15-107, An Act Concerning Affordable and Reliable Energy.

<sup>37</sup> See New England Clean Energy RFP, CLEANENERGYRFP.COM.

<sup>38</sup> An Act Relative to Energy Diversity, H.4568 (Approved Aug. 8, 2016).

“firming hydropower” is allowed, thus implicitly giving it value beyond the energy market despite that it is not inherently counted as Class I. In Vermont, under its Renewable Energy Standard and Energy Transformation (“RESET”) bill, which calls for 75% of the state’s electricity needs to come from clean energy by 2032, both new and existing sources qualify as long as the energy is capable of delivery in New England.<sup>39</sup> An updated list of these and other programs that recognize existing hydropower is provided as Appendix A.

These opportunities coupled with the findings of Staff in the CES White Paper and LSR Options Paper clearly show that ample competitive opportunities exist in neighboring states, thereby supporting the conclusion that the Commission committed an error of fact and law in its CES Order.

The result of the Commission’s ignoring the robust record regarding the abundant opportunities outside of New York, could be that the progress and goals of the CES will be significantly impeded and the State will lose both energy and attributes from exports when it could have easily provided a level-playing field and market for all new and legacy renewable resources. Other negative impacts to New York, which were warned of by Staff in its Options Paper, include that such exports might “[n]egatively impact New York’s compliance with the federal Clean Power Plan (EPA 111(d)) targets, either directly (based on accounting procedures) or indirectly (because exported energy would need to be replaced by increased energy production from fossil-fueled generators).”<sup>40</sup> Here, the Commission’s error of fact regarding the state of competition will have a substantial and long-lasting negative impact on the CES and New York.

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<sup>39</sup> An Act Relating to Establishing a Renewable Energy Standard, “RESET HB-40” (Act 56) (Feb. 12, 2015).

<sup>40</sup> LSR Options Paper, at 115.



As noted above, large scale legacy hydropower is a significant portion of the State's energy profile. The exclusion of a large tranche of power from existing, privately-owned facilities with the potential for corresponding loss of the renewable attributes to other states would severely curtail compliance with the 50 by 30 goal and pose both long term and short term issues that cannot be easily or quickly rectified. If not properly addressed in the CES Order, these resources may be forced to consider opportunities to export power outside of New York or in certain cases may continue to do so (which will need to be measured, tracked and subtracted from the CES baseline for the program to be credible). The size and scope of hydropower that could be lost cannot be easily replaced as new renewable resources will take time to be constructed and come on-line. In the meantime, energy lost to out of state areas will need to be replaced with fossil-fuels or newer, more expensive renewables, thereby setting back the intended goal of the CES and increasing its cost.

Therefore, because the Commission erroneously relied on an assumption that there is not already significant and increasing levels of competition outside of New York, and because the Commission more generally has not addressed the implications arising from the fact that the State does not have long-term rights to renewable and carbon-free attributes from existing privately-owned facilities, the Tier 2 provisions and eligibility criteria should be reconsidered, and in the alternative, the Commission should grant limited rehearing to evaluate alternatives to the maintenance tier approach that would better address evidence on the record regarding adequate support for existing renewable resources, including considering the effect of competition from other states and provinces.

**D. The CES Order Unjustly Excludes and Discriminates Against Other Zero-Emissions Resources.**

The ZEC portion of the CES program was specifically added to address and support uneconomic nuclear facilities.<sup>41</sup> The CES Order stated that, with respect to nuclear,

Based on current market conditions, losing the carbon-free attributes of this generation before the development of new renewable resources between now and 2030, would undoubtedly result in significantly increased air emissions due to heavier reliance on existing fossil-fueled plants or the construction of new gas plants to replace the supplanted energy. The added emissions would complicate the State's compliance with likely federal carbon standards and would result in dangerously higher reliance on natural gas, radically reducing the State's fuel diversity. Such reduced fuel diversity could affect system reliability and price stability, making consumers more vulnerable to natural gas and concomitant electric price spikes. The loss would also have other significant adverse economic impacts on State energy consumers and the State as a whole.<sup>42</sup>

These same effects will apply to existing, privately-owned hydropower resources if not adequately supported by the CES Order. Just as the loss of nuclear energy would result in a heavier reliance on fossil fuel resources, complicate compliance with federal carbon standards, and reduce fuel diversity, so too will the loss of existing hydropower, which is the third largest energy source in New York, with nuclear being the second, and fossil fuels the first.<sup>43</sup>

The CES Order noted that in 2014, nuclear powered generation constituted 31% of New York's electric generation mix and estimated that nuclear plants avoid the emission of over 15 million tons of CO<sub>2</sub> per year. As noted above, hydropower provides the same carbon-free electricity, and in 2014 alone, saved over 10 million tons of CO<sub>2</sub>. Moreover, hydropower is not

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<sup>41</sup> ZEC Order, at 1.

<sup>42</sup> CES Order, at 19.

<sup>43</sup> NYISO, *2016 Load & Capacity Data "Gold Book"*, 61 (Apr. 30, 2016).

only emission free, but also a renewable resource that provides significant economic and social benefits.<sup>44</sup>

To date, the Commission has provided no reasoned explanation or evidence on the record to indicate why hydropower should be compensated differently than nuclear generation under a Zero-Emission Credit framework. Hydroelectric generation offers a similar percentage of New York's generation, has the same zero-emission attributes, and has the added benefit that it is a renewable resource, without being burdened with the complex waste disposal challenges and liabilities that result from nuclear generation. As such, in the event that the Commission continues to apply the CES Order as it stands and not allow existing, privately-owned hydropower resources to participate in the REC market as discussed above, Brookfield Renewable respectfully requests that existing privately-owned hydropower be compensated for its zero-emissions attributes based on the same social cost of carbon calculation under which nuclear generation is compensated under the ZEC program.

Non-nuclear, non-emitting resources are clearly treated in a discriminatory manner vis-à-vis the Commission's Order. Nothing in the record as it currently stands supports outright exclusion of other zero emission sources in qualifying for ZECs. In addition, there is no record basis for or reasoned explanation as to why these resources are otherwise excluded from the REC market. In fact, as drafted, the CES Order would include large-scale legacy hydropower in attainment of the goals of the CES without any compensation whatsoever, which is clearly unjust and discriminatory. It should also be noted that a Commission-sanctioned preference for one

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<sup>44</sup> As noted in Brookfield Renewable's prior comments submitted in this proceeding, hydropower provides millions in property taxes, hundreds of jobs, and millions in economic investment. In addition, as noted in the record by Ampersand Hydro, hydro helps maintain critical local infrastructure, including facilitating recreation needs and certain flood control measures. 15-E-0302, Ampersand Hydro Comments, at 4 (Mar. 14, 2016).

zero-emitting resource over another – without a rational basis – is contrary to a competitive market.

When an agency inconsistently applies facts, policies, or methodologies, courts have found the decision to be arbitrary and capricious, and annulled such determinations.<sup>45</sup> Here, the CES Order unjustly discriminates between existing nuclear facilities and existing privately-held hydropower facilities by inconsistently applying facts regarding the zero-emission capabilities of each, the similar generation profiles of each, the need for each to remain economic, and the effect of losing these resources.

In addition, the Commission seems willing to provide economic support for the non-emission attributes of nuclear assets while hoping to continue to glean the benefits of non-emission, renewable assets such as hydroelectric generation, without supporting them economically. Other states that hope to encourage and retain renewable resources provide support for all such resources, not merely those that threaten economic dissolution. Insofar as New York appropriately considers the encouragement of renewable resources an important policy goal, it should be willing to provide a vehicle to compensate all such providers for the value of these resources to its citizens. It should not rely on the possibility that the resource will continue to provide this resource into the state until it proves otherwise. This willingness to depend upon a resource without paying for it constitutes a classic case of “free ridership.” In economics, the free-rider problem occurs when those who benefit from resources, goods, or

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<sup>45</sup> *Council of Trade Waste Assoc., Inc. v. New York*, 179 A.D.2d 413, 415-416 (1st Dep’t 1992) (finding that “while respondent was not bound to use any single formula or combination of formulas in determining its rates, its use of inconsistent methodologies supports our decision to annul its rate-setting determination”) citing *New York Tel Co. v. Public Service Comm’n.*, 64 A.D.2d 232, 245-246 (3d Dep’t 1978); see also *Matter of Charles A. Field Delivery Serv.*, 66 N.Y.2d 516 (N.Y. 1985) (finding that an agency’s change in policy must be supported by an explanation for failure to conform to agency precedent, or otherwise require reversal on the law as arbitrary).

services do not pay for them, which ultimately results in an under-provision of those goods or services.<sup>46</sup>

In light of the foregoing, the Commission should reconsider so much of the CES Order as to compensate existing privately-owned hydropower facilities for their zero-emission attributes, based on the benefits provided (social cost of carbon calculation) and in recognition of the true market value of such resources, or in the alternative, grant limited rehearing on that part of the CES Order required to adequately evaluate these issues.

**E. The CES Order Does Not Account for Exports of Renewable Energy or RECs.**

As noted in the CES Order, RECs will be tracked and verified through the New York Generation Attribute Tracking System (“NYGATS”).<sup>47</sup> However, to our knowledge, only energy and RECs generated in or imported into New York will be tracked. There is no concomitant mechanism we are aware of to track exports of energy or RECs *out* of New York either through NYGATS or otherwise, and no mechanism to track or subtract such exports from the baseline. Without any accounting of these exports, there is no transparent way to (1) accurately track and verify whether the State is on track to meet the 50 by 30 target; (2) determine the competitive impact of out-of-state markets; or (3) ensure that resources and RECs are not being double counted. Because the record lacks adequate evaluation of these issues, the Commission should reconsider the portions of the CES Order that seek to address verification measures for the program in order to address exports, and in the alternative, grant rehearing for this limited purpose. This issue is compounded by the lack of adequate compensation for

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<sup>46</sup> *Free Rider Problem*, INVESTOPEDIA, [http://www.investopedia.com/terms/f/free\\_rider\\_problem.asp](http://www.investopedia.com/terms/f/free_rider_problem.asp) (last visited Aug. 30, 2016).

<sup>47</sup> CES Order at 106.

existing non-emitting resources under the CES Order, which means that without further clarification on the treatment of exported non-emitting generation, the State could be seen as claiming ownership over attributes it does not in fact own, as was highlighted by Staff in the LSR Options Paper.

**F. LSEs Should be Permitted to Offset CES Obligations Through Contracts with Existing Resources**

As existing hydropower has been a key player in New York's renewable energy profile and as hydropower's significant contributions have been counted towards the CES baseline, under any circumstance, the continuing contributions of existing, privately-owned hydropower should be counted towards meeting the 50 by 30 goal and thus, reduce the number of RECs required to be purchased. To that end, under any circumstance of reconsideration of compensation of Tier 2-eligible facilities, LSEs should have the option to offset their CES obligations through contracts with existing privately-owned hydropower facilities, with a corresponding reduction in REC or Alternative Compliance Payment ("ACP") requirements. Therefore, in addition to the procurement of RECs or ACPs, a demand and value for the attributes of renewable resource, which is the main focus of the CES, would be realized.

**IV. CONCLUSION**

Brookfield Renewable strongly supports the overall direction of the CES Order, notably the adoption of the overall 50% renewable generation target, and will continue to support a successful implementation of a CES in New York that addresses the deficiencies noted above. In furtherance of that support, Brookfield Renewable respectfully requests that the Commission reconsider portions of the CES Order to address errors of law and fact and to provide adequate support to existing hydropower resources, which have been the backbone of New York for decades, to ensure long-term viability within the State.

As currently written, the CES Order provides no possibility of compensation to the very resources that have been the backbone to New York's decrease in CO<sub>2</sub> emission and increase in renewable generation. To ignore these valuable resources – or worse yet rely on them to continue to sell into New York markets without commensurate support – without any justification or reasoned explanation would be irrational and unsupported by the very goals and objectives of the CES. As such, the Commission should reconsider relevant portions of the CES Order and allow privately-owned existing hydropower facilities to either compete in the REC market or be compensated the same as nuclear generation under the ZEC portion. In addition, under any circumstance of reconsideration, LSEs should be allowed to offset CES obligations through contracts with existing privately-owned hydropower resources, particularly since those resources are counted in the CES baseline. In the alternative, Brookfield Renewable requests that limited rehearing be granted to evaluate issues regarding the maintenance tier (which does not in itself, under the current administrative construct, address the issues noted in this filing), eligibility, out of state competition for existing, privately-owned hydropower facilities, and appropriate compensation for New York's zero-emitting hydropower resources, as discussed in this Petition.

Dated: August 31, 2016

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## **Appendix A: Hydro in other states**

### **Connecticut:**

Public Act 15-107:

<https://www.cga.ct.gov/2015/act/pa/pdf/2015PA-00107-R00SB-01078-PA.pdf>

### **Delaware:**

#### **Class I: Up to 30 MWs:**

To be an Eligible Energy Resource under the Act, a hydroelectric facility shall: 1) have a maximum design capacity of 30 MW or less from all generating units combined; and 2) meet DNREC standards including Low-Impact Hydro standards. DNREC standards include: 1) cannot diminish water quality and/or adversely impact watersheds; 2) provide an adequate water flow for protection of aquatic life and for safe and effective fish passage; 3) protect state and federally-designated threatened and endangered species and their habitat; 4) protect cultural and historic resources; 5) preserve or improve public access and recreation opportunities; and 6) meet the certification standards established by the Low Impact Hydropower Institute or their successors.

<http://dep.sc.delaware.gov/orders/8139.pdf>

### **Maine:**

#### **Class I qualification, under 30 MWs built before Jan 1, 2004:**

[http://www.mainelegislature.org/legis/bills/bills\\_125th/chapters/PUBLIC413.asp](http://www.mainelegislature.org/legis/bills/bills_125th/chapters/PUBLIC413.asp)



**Maryland:**

**Tier 1:** Eligibility restricted to small hydroelectric plants (systems less than 30 MW) that were in operation as of Jan. 1, 2004.

[http://www.dsd.state.md.us/comar/subtitle\\_chapters/20\\_Chapters.aspx#Subtitle61](http://www.dsd.state.md.us/comar/subtitle_chapters/20_Chapters.aspx#Subtitle61)

**Massachusetts:**

**An Act to Promote Energy Diversity:**

<https://malegislature.gov/Bills/189/House/H4568>

Signed into law August 8, 2016, requiring procurement of hydropower, Class I renewables, and Class I renewables balanced by hydropower, with first solicitation required by April 1, 2017.

**Tier 2: Up to 7.5 MWs:**

Electrical energy from a generation unit that uses flowing fresh water as the primary energy resource, with or without a dam structure or other means of regulating water flow, and that is not located at a facility that uses mechanical or electrical energy to pump water into a storage facility is eligible. The Department can consider facilities that have been denied LIHI certification. Must meet certain environmental standards and have LIHI certification. Standards address adequate and healthy river flows, water quality standards, fish passage and protection measures and mitigation and enhancement opportunities in the impacted watershed.

<http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/rps-aps/rps-and-aps-program-summaries.html>

**Pennsylvania:**

**Tier 1, up to 50 MWs** licensed by FERC on or prior to Jan. 1, 1984, and facility must be held, at least in part, by commonwealth municipal or electric cooperative on July 1, 2007. Eligibility includes new and existing low-impact hydro facilities. Low-impact hydropower consists of any technology that harnesses the hydroelectric potential of moving water impoundments, provided that such development does not adversely impact aquatic systems, meets the certification standards of LIHI and American Rivers, Inc., provides adequate water flow for protection of aquatic life and for safe and effective fish passage, protects against erosion, and protects cultural and historic resources.

[http://www.puc.pa.gov/consumer\\_info/electricity/alternative\\_energy.aspx](http://www.puc.pa.gov/consumer_info/electricity/alternative_energy.aspx)