

Maureen O. Helmer
Partner

June 6, 2016

VIA ELECTRONIC MAIL

The Honorable Kathleen H. Burgess
Secretary
New York Public Service Commission
Empire State Plaza
Albany, NY 12223-1350

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

Dear Secretary Burgess:

On behalf of Brookfield Renewable, please accept the attached Comments regarding the April 8, 2016 Cost Study for the Clean Energy Standard White Paper in the above-referenced proceeding.

Very truly yours,



Maureen O. Helmer
Counsel for Brookfield Renewable

MOH:lm
Attachment

cc (via email): Jeff Bishop, Brookfield Renewable

Proceeding on Motion of the Commission to
Implement a Large-Scale Renewable Program
and a Clean Energy Standard.

Brookfield Renewable (“Brookfield Renewable”) respectfully submits the following comments on the Department of Public Service Staff (“Staff”) Cost Study on the Clean Energy Standard (“CES”) White Paper in this proceeding (“Cost Study”).¹ Brookfield Renewable has been an active participant in the CES proceeding, in which it submitted initial comments on the White Paper on April 22, 2016 and filed Reply Comments on the White Paper on May 13, 2016. 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 Commission’s CES proposal to meet that goal. However, if the Cost Study is to be relied on for policy decisions regarding the CES, portions of the Cost Study need to be more robust and consistent in order to attain that goal and ensure that the CES is successful and economical.

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Because the Cost Study was based on the construct outlined in the White Paper, many of the issues previously identified by Brookfield Renewable and others regarding the White Paper are carried over into the Cost Study. Most notably, the discriminatory treatment of Tier 2B in the Cost Study should be re-evaluated so that all resources are valued the same. For example, Tier 1, Tier 2A, and Tier 3 considered the social cost of carbon in the calculation of the net program costs and whether there would be a resultant cost or benefit to the CES. Whereas the existing resources in Tier 2B were relegated to an analysis which did not consider the value of avoided carbon. This is an overly conservative and unjustified estimate particularly considering the enormous environmental benefits of hydropower and the substantial contributions that legacy resources have already made toward reducing carbon emissions. Moreover, both the White Paper and, hence, Cost Study do not adequately represent or account for the significant, current and future opportunities for existing Tier 2B resources to export out of New York. Without sufficient and adequate consideration of these and other issues outlined below, Brookfield Renewable believes that the Cost Study should not be the basis for decision-making related to the CES, particularly with respect to existing legacy renewables. Issues identified by Brookfield as presented below include the following:

- The Cost Study should include the social cost of carbon in the cost-benefit analysis for Tier 2B.
- Tier 2B should be valued and evaluated the same as Tier 2A.
 - Ample revenue opportunities are available outside of New York.
 - Devaluation of Tier 2B resources risks loss of generation.
- The methodology used to calculate the ACP for Tier 2A should be used to calculate the ACP for Tier 2B.

- The bundled PPA price premium should be evaluated for Tier 2B resources.
- The Cost Study with its current deficiencies should not be relied upon to inform ultimate decision-making for the CES program.

BACKGROUND

Brookfield Renewable strongly supports Staff's conclusions in the White Paper and its Cost Study that legacy resources are crucial to meet the 50 by 30 goal and that support for existing sources will be necessary to ensure continued efficient operation of those resources as well as mitigate exports of eligible renewable energy generation out of New York. However, as suggested in Brookfield Renewable's initial and reply comments, Tiers 2A and 2B should be collapsed into one tier to ensure there is a vibrant market for Renewable Energy Credits ("RECs"), timely compliance with goals the CES program, and to mitigate reliability concerns. While the sub-tiered approach will be problematic and sub-optimal for New York's achievement of its renewable objectives, should the State proceed with the sub-tiered program as proposed, it is crucial that corresponding ACPs and/or price benchmarks for all tiers accurately reflect the full long-term value and opportunity cost for those resources. Brookfield Renewable's comments here on the Cost Study are presented against this backdrop.

BROOKFIELD RENEWABLE ASSETS IN NEW YORK

Brookfield Renewable has played a key role in New York's clean energy past and hopes to significantly contribute to its future. Brookfield Renewable has been actively investing in New York and currently owns and operates 75 hydroelectric stations across western and upstate New York representing over 700 MWs of nameplate capacity. In addition to generating clean,

renewable electricity, Brookfield Renewable has provided substantial value-added benefits to New York. For example, in 2013, Brookfield Renewable provided the State:

- 3 Terawatt hours (TWhs) of carbon-free electricity, representing over 2% of the power generated in New York,² which saved approximately 1 million tons of carbon dioxide (“CO₂”) emissions had that electricity been generated from the typical system power emission profile (720.8 lbs of CO₂ per MWh);
- Over \$25 million in property taxes;
- Over 200 jobs across the state, many in the north country;
- Over \$30 million in economic investment in operating and capital expenses;
- Resource diversity at a high level of performance during critical periods such as the polar vortex;
- Capacity and reliability; and
- VAR support to the grid to maintain voltage and power factors even with intermittent resources.

Besides providing clean, renewable energy that avoids a substantial quantity of CO₂ emissions, hydropower also offers other environmental and societal benefits. Hydropower facilities play a critical role in dam maintenance and repair, functions that would otherwise be the responsibility and financial burden of the state. Hydro facilities also promote environmental stewardship, water quality, and recreational opportunities. These and other benefits are

² In 2013, a total of 140,338 GWhs of net energy was generated in New York. Of that total, 25,631 GWhs was from hydroelectric sources, of which Brookfield Renewable contributed 12% in supply. NEW YORK INDEPENDENT SYSTEM OPERATOR, INC., 2014 LOAD & CAPACITY DATA (“Gold Book”), 28, Figure III-2 (April 2014).

demonstrated by the Low Impact Hydropower Institute (“LIHI”), who certifies hydropower facilities that meet its stringent criteria, as is further detailed in our initial comments.

COMMENTS ON THE COST STUDY

As discussed in our initial and reply comments to the White Paper, Brookfield Renewable believes Tiers 2A and 2B should be collapsed into one tier for existing resources. In short, combining these subtiers will provide the simplicity needed to ensure the CES is easy for consumers and participants to understand and apply, and provide stability and predictability in a non-discriminatory manner. To that end, and regardless of whether the CES construct continues to use the subtiered approach, Brookfield believes that the Cost Study should present a cost-benefit analysis in a non-discriminatory manner such that all resources are valued using the same method.

In particular, Tier 2B should be evaluated using the same methodology as all other sources. As presented in the Cost Study, Tier 2B sources are relegated to a cost benefit analysis of its own that does not include the social cost of carbon in the net program costs, does not employ the same methodology to calculate the Alternative Compliance Payment (“ACP”) as was done for other resources, and has no evaluation of the bundled Power Purchase Agreement (“PPA”) price premium. Yet, these considerations were part of the evaluations for other Tiers and resources.

In addition, the assumptions in the Cost Study rely on the premise that there are no competitive opportunities for legacy resources outside of New York. Brookfield Renewable believes there is ample evidence to support that adequate competitive opportunities currently exist and will be increasing in the future for existing Tier 2B resources outside of New York, as discussed below.

A. The Cost Study Should Include the Social Cost of Carbon in the Cost-Benefit Analysis for Tier 2B

Brookfield Renewable was pleased to see that the benefits of carbon reduction were included in the Tier 1 and Tier 2A cost/benefit analysis, but was disappointed that the social cost of carbon was inexplicably not accounted for in the net present value calculation for Tier 2B. As a result, the cost of Tier 2B appears unnecessarily high and is not evaluated consistent with other resources.

For the net present value, the Cost Study evaluated the gross and net program costs to determine the overall benefit of the CES. Gross program costs were developed for each Tier and resource to “reflect the estimated additional payments (above energy and capacity value revenue) which developers would require to receive in order for projects to be commercially viable.”³ The net program benefits were defined as the gross program costs “reduced by the societal value of the avoided CO2 emissions.” The Social Cost of Carbon (“SCC”), as published by the U.S. Environmental Protection Agency, was used to quantify the benefit of the avoided carbon emissions.⁴ This approach was used for each Tier and resource, except Tier 2B.⁵ For Tier 2B, the Cost Study opined that because of the “uncertainties around the extent to which Tier 2B installations may currently or in the future have access to realistic export opportunities” that a “conservative” approach was taken to not include the SCC in the Tier 2B net program cost, even though it did so for Tier 1, Tier 2A, and Tier 3.⁶ As discussed below, significant opportunities

³ Cost Study at 16.

⁴ Cost Study at 6.

⁵ See Cost Study at 283-84. The social cost of carbon is included in the net program costs for Tier 1, Tier 2A, and Tier 3, but not Tier 2B.

⁶ Cost Study at 83.

exist outside of New York for Tier 2B resources. Therefore, the SCC should have been included for Tier 2B resources.

For Tier 2B, the gross program costs to 2030 were calculated at \$277 million.⁷ The same \$277 million cost was used for the net program cost because the SCC was not considered for Tier 2B.⁸ As a result, Tier 2B appears to have significant financial *cost*, as opposed to a *benefit* to the CES. As also noted in the Cost Study, Tier 2B will still contribute toward avoiding carbon emissions in an estimated amount of 8.3 million tons of carbon avoided per year, with a carbon value of approximately \$340 million (in 2017).⁹ Following the methodology used for other Tiers and resources, if the \$340 million in carbon value for Tier 2B is considered as part of the net program cost, there would be a \$63 million *benefit*, as opposed to a \$277 million *cost* for Tier 2B.¹⁰

Every megawatt hour of renewable energy generation can potentially displace fossil fuel generation and reduce carbon emissions. However, renewable power removed from the market, through retirement or export, requires carbon-emitting generation to take its place, all else being equal. As discussed below, there are ample opportunities for export of all clean energy generation within New York. Therefore, generation from Tier 2B resources should not be treated as a sunk benefit with respect to the social cost of carbon. Instead, Tier 2B existing resources that have laid the foundation for clean energy in New York should be accounted for and valued with the same methodology used for Tier 1 and Tier 2A.

⁷ Cost Study at 283.

⁸ Cost Study at 274.

⁹ Cost Study at 83.

¹⁰ The net program cost is calculated based on the gross program cost reduced by the societal value of the avoided CO2 emissions. Cost Study at 16. Therefore, \$277 million reduced by the estimated \$340 million in carbon value equates to a \$63 million benefit. (\$277 million - \$340 million = \$63 million).

Moreover, discriminating between new and existing resources in the CES cost-benefit analysis will prove to be highly inefficient, especially when attempting to evaluate economic attributes such as the carbon value, renewable value, and capacity value. In the energy and capacity markets, there is no discrimination between new and existing resources¹¹ as doing so would lead to inefficient outcomes in the long-term throughout the State. The same should hold true for carbon and renewable attributes in the CES.

Overall, the existing resources that have paved the way for renewable energy in New York and provided the forward progress towards meeting the 50 by 30 goal should not be evaluated differently with respect to the carbon cost/benefit analysis, especially when *all* CES resources will reduce carbon emissions. Regardless of the competitive distinction for Tier 2, Tier 2B existing resources provide the same carbon-reducing benefit as all other resources as well as avoid additional carbon emissions associated with construction of new projects.

B. Tier 2B Should be Valued and Evaluated the Same as Tier 2A

The overall analysis for Tier 2 was based on an assessment of opportunity costs.¹² For Tier 2A, the analysis was based on an estimated ACP, bundled PPAs, and the “breakeven payments required to make NY CES revenues sufficiently attractive relative to export to such other markets (particularly New England) to retain most or all of the supply in New York.”¹³ Therefore, “[t]he [Tier 2A] analysis attempts to identify a payment level that will successfully attract most or all such resources to sell their RECs for CES Tier 2A in New York State rather than exporting their energy to other markets.” Whereas for Tier 2B, the Cost Study assumed that

¹¹ With the exception of out-of-market actions.

¹² Cost Study at 267.

¹³ Cost Study at 268-69.

Tier 2B resources have limited revenue opportunities for RECs in other markets. Therefore, the Cost Study assumed the costs that would apply to Tier 2B would be those that are representative of similar resources in nearby state RPS markets and assumed that they would be “sufficiently above transaction costs to motivate a sale of RECs to CES obligated entities, but not much more.”¹⁴ The Cost Study further assumed that because Tier 2B resources had “very limited revenue opportunities for their REC in other markets, likely lower than the cost of accessing those markets,” that a breakeven analysis for Tier 2B was not feasible.¹⁵ However, as discussed below, Tier 2B resources have significant revenue opportunities for RECs outside of New York.

a. Revenue Opportunities Outside of New York

The White Paper’s assumption that there are limited competitive opportunities for Tier 2B resources outside of New York fails to consider recent changes in state policies, and the ongoing evolution of new opportunities to sell into other jurisdictions. This inaccuracy was carried into the evaluations in the Cost Study, and does not accurately reflect the current and future state of programs in adjacent areas.

The recent New England Clean Energy RFP now includes eligibility for long-term contracting for firming hydro products after legislation to allow for the contracting of all hydro was passed in Rhode Island and Connecticut in 2014 and 2015, respectively.¹⁶ Facilities eligible for the New England Clean Energy RFP include hydropower located in New York – the same resources that are currently deemed as Tier 2A or 2B in the proposed CES.¹⁷ Overall, the New

¹⁴ Cost Study at 274.

¹⁵ *Id.*

¹⁶ 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.

¹⁷ See New England Clean Energy RFP, CLEANENERGYRFP.COM (last visited Jun. 5, 2016).

England market continues to evolve toward the inclusion of all clean energy resource to meet greenhouse gas emission reduction needs. Last year, Vermont passed the Renewable Energy Standard and Energy Transformation (“RESET”) bill which calls for 75% of the state’s electricity needs to come from clean energy by 2032.¹⁸ And in Massachusetts, legislation is being considered that would allow for the contracting of up to 18.9 TWhs of Class I renewables and/or hydroelectricity and permit import of 9.45 TWh of clean energy (roughly 1,200 MWs of baseload power).¹⁹ As currently drafted, the bill would allow New York’s Tier 2B-defined resources to be eligible for PPAs with the state of Massachusetts.²⁰ As such, there is a strong potential for significantly more value in the New England market for these resources as compared to the lack of value recognition for similar resources in New York, as described in the White Paper.

Brookfield Renewable expects that this external market recognition could evolve further as federal carbon pricing policy is implemented at the state level, potentially through direct contracting mechanisms.²¹ Even when a state does not explicitly allow existing hydroelectric power in the Class I category, it will often value it higher than other resources in a separate tier, such as Massachusetts Class II, New Hampshire Class IV, Maine Class II, or Maryland Tier 2.²²

¹⁸ Vermont’s 2015 Renewable Energy Standard and Energy Transformation (RESET HB-40) creates a mandate for 55% renewables by 2017 and 75% renewables by 2032 for electric utilities. This includes all hydropower.

¹⁹ An Act to Promote Energy Diversity, H2881, 189th Gen. Ct. (Mass. 2016); *see also* State House News Service, *Beaton: Hydro is Most Cost Effective Renewable*, WBJOURNAL.COM (Mar. 1, 2016) *available at* <http://www.wbjournal.com/article/20160301/NEWS01/160309996/beaton-hydro-is-most-cost-effective-renewable>.

²⁰ *See* An Act to Promote Energy Diversity, H2881, 189th Gen. Ct. (Mass. 2016).

²¹ Adjacent states like Pennsylvania and New Jersey are facing significant compliance gaps under the proposed Clean Power Plan, and are considering various options under a mass-based approach, which could include contracting of imported existing hydropower as an incremental non-emitting resource to enable offsets of fossil generation.

²² *See* Appendix A.

The evolution of clean energy programs in adjacent areas, therefore, diminishes the distinction between Tier 2A and Tier 2B. Indeed, many of these programs already enable eligibility of New York-based resources. Although the Cost Study values Tier 2B RECs at \$1.50 to \$3.00, the renewable energy programs in adjacent areas have values from under \$1.00 per REC (Maine Class II and Maryland Tier 2) up to \$25.00 per REC (New Hampshire Class IV and Massachusetts Class II). As such, the values and approach in the Cost Study lack a clear and demonstrable basis.

Moreover, as discussed in the comments of the Low Impact Hydropower Institute (“LIHI”), the ISO New England and PJM control areas include low impact certified hydropower, as evidenced by the statutes and regulation in Delaware, Massachusetts, and Pennsylvania.²³ As noted by LIHI, this demonstrates that “the assertion of little access to these markets is overstated.”²⁴ It should also be noted that requiring low impact certification would also achieve the Commission’s objective to limit costs to consumers by limiting the overall eligible pool while encouraging generation that has additional environmental and societal benefits.

Similar to a Tier 2A resource coming off a long-term contract, legacy hydropower resources, which are currently classified as Tier 2B in the Cost Study, can qualify in renewable energy programs in surrounding markets. If the CES is not appropriately constructed and valued, clean energy exports out of New York are likely as projects will be enticed to participate in the New England Clean Energy RFP or any future out-of-state RFP due to inadequate value recognition in New York.⁴ Several significant New York renewable market participants, including Brookfield Renewable, have in fact submitted proposals for existing assets and

²³ Low Impact Hydropower Institute Comments, at 2, 5 (May 13, 2016).

²⁴ Low Impact Hydropower Institute Comments, at 5-6 (May 13, 2016).

development of assets in response to the New England RFP. This and other opportunities provide evidence that ample demand does, in fact, exist in surrounding markets, and at values that are significantly higher than the opportunity costs assumed in the Cost Study for Tier 2B. A list of states in adjacent control areas that value hydro different from New York is included as Appendix A.

In addition to the White Paper and Cost Study overlooking the ample opportunities outside of New York, the Cost Study does not specify the assumptions used as the basis for the “representative” costs of similar resources in nearby state RPS markets let alone identify the states, programs, or data relied on. As such, Brookfield Renewable respectfully requests that the background information used in the evaluation of nearby programs and resources be made public.

b. Devaluation of Tier 2B Resources Risks Loss of Generation

Brookfield Renewable appreciates that the Cost Study acknowledged that if the CES cannot sustain legacy Tier 2B resources, that “such generators might cease to operate without higher revenues or co-incentives.”²⁵ Legacy resources have already proved to be and will continue to be the critical backbone to the success of the CES. The loss of legacy resources due to a discriminatory approach in the CES would undermine the principles and goals of the overall program and the 50 by 30 goal. If Tier 2B resources cannot remain competitive and generators are lost, the overall goals and timeline of the CES will not be met, costs for Tier 1 will significantly increase, and reliability issues for consistent supply could be more prevalent; each MWh of Tier 2B generation that is exported under a long-term contract means an additional MWh of Tier 1 generation is required for compliance, with each marginal product being more

²⁵ Cost Study at 274.

expensive and cumbersome for the network. While not every scenario and generator can be accounted for in the Cost Study, at minimum, the Cost Study should include an evaluation of a certain percentage loss of existing Tier 2B sources and a concomitant increase in Tier 1 costs to replace the lost resources. This point alone illustrates why it is far more efficient for the State not to discriminate between “competitive” and “non-competitive” resources, which is a distinction that will not survive over time as competitive opportunities continue to evolve for existing renewable assets, and therefore result in more expensive outcomes for ratepayers.

C. The Methodology Used to Calculate the ACP for Tier 2A Should be Used to Calculate the ACP for Tier 2B

The Cost Study does not list an ACP for Tier 2B, although the price benchmark identified is at least an order of magnitude below alternative out-of-state opportunities for these resources.²⁶ To retain value in the overall CES program and ensure longevity of the baseline legacy resources, Brookfield Renewable suggests the ACP for Tier 2B should be set at the same value for Tier 2A under any case either by merging the tiers or, in the absence of merger, by applying the same methodology for calculating the ACP for both tiers. This approach will ensure that the ACP is fairly determined for all existing resources on a non-discriminatory basis and ensure that resources are maintained within the State for the benefit of New Yorkers.

D. The Bundled PPA Price Premium Should be Evaluated for Tier 2B Resources

The Cost Study included an analysis of levelized prices paid under bundled PPAs for Tier 2A generators, which was calculated much in the same way as the derivation of the ACP for Tier 2A. This same analysis should have been performed for Tier 2B generators. Like the Tier 2A

²⁶ See Cost Study at 83.

approach, the lower level of revenue risk should equate to lower project costs for New York ratepayers, as payments required for revenue opportunities within New York State will be on a level playing field with those opportunities provided by exporting.

E. The Cost Study With Its Current Deficiencies Should Not Be Relied Upon To Inform Ultimate Decision-Making For The CES Program

In addition to the deficiencies and issues outlined above, the Cost Study requires modification to address many other issues, as raised by the various stakeholders. As the White Paper does not address reliability issues, the Cost Study also neglects to address reliability-related cost issues.²⁷ As noted by Deepwater Wind, the selection of technologies evaluated is not clear, and as such, the assumptions and the formulae should be made public.²⁸ Overall, as noted by various parties, the Cost Study lacks sufficient detail to fully evaluate whether the assumptions are even reasonable.²⁹ Regardless of stakeholder views of whether the cost study is under- or over-estimated, the Cost Study simply lacks enough detail and support to provide an adequate basis on which stakeholders can properly evaluate and comment on the overall program, and should be revised or supplemented. Most critically, the deficiencies in the analysis that supports the Cost Study, notably the problems described herein for the Tier 2B program, mean that the Cost Study in its current form should not be relied upon for the ultimate decision-making on the CES program, particularly to make conclusions regarding existing legacy renewable resources. Brookfield Renewable, therefore, suggests refreshing the analysis using the assumptions we have recommended in that Tier 2A and 2B should be merged, carbon pricing

²⁷ Nucor Initial Comments.

²⁸ Deepwater Wind Initial Comments.

²⁹ City of New York Initial Comments; Multiple Intervenors Initial Comments; Business Council of New York State Initial Comments; Nucor Steel Auburn Reply Comments.

should be applied on a consistent basis, and reliability should be considered in the overall analysis.

CONCLUSION

In order to ensure a robust and successful CES as well as timely compliance with the 50 by 30 goal, the Cost Study should be revised to (1) appropriately value existing resources in a non-discriminatory manner; (2) account for the true benefits of the CES through proper evaluation of the avoided cost of carbon for Tier 2B; (3) account for the substantial opportunities of legacy resources to export to other states; and (4) provide sufficient detail to analyze the assumptions used in the analysis. While Brookfield Renewable believes that these revisions, along with appropriate stakeholder input, will add to a more accurate and thorough Cost Study to adequately support implementation of the CES and in furtherance of the State's laudable renewable energy goals. Overall, Brookfield Renewable believes that it is imperative that the Cost Study, in its current form, not be used as a basis for decision-making relating to the CES program, in particular with respect to existing legacy renewables.

Dated: June 6, 2016

S/

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Appendix A: Hydro Eligibility in State RPS or Procurement Programs in Adjoining Service Territories

1. Connecticut:

Allows for the contracting of existing hydropower if used to “firm” Class I renewables:

Public Act 15-107:

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

2. Massachusetts:

Class 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>

Massachusetts is also considering on legislation (H2881) that could allow for the import of 9.45 TWh-18.9 TWh of clean energy (roughly 1200-2400 MWs of baseload power). As it is currently written, New York’s defined Tier 2B resources could be eligible for PPAs with the state of Massachusetts.

3. Rhode Island

2014’s Affordable Clean Energy Security Act (“ACES” H-7991, S-2439) allows the Rhode Island Office of Energy Resources to work with energy officials throughout the New England region to identify cost-effective energy infrastructure projects – using coordinated, competitive procurement processes – that have the potential to lower consumer energy costs; improve system reliability; advance clean energy mandates; and enhance our quality of life and environment. The costs of these regional projects – which may include electric transmission to interconnect hydropower and other renewable resources, will be shared across the New England states in an equitable manner.

<http://webserver.rilin.state.ri.us/BillText/BillText14/HouseText14/H7991A.pdf>

4. Vermont

Vermont's 2015 Renewable Energy Standard and Energy Transformation (RESET HB-40) creates a mandate for 55% renewables by 2017 and 75% renewables by 2032 for electric utilities. This includes all hydropower.

<http://legislature.vermont.gov/bill/status/2016/h.40>

5. Maine

Maine Statute ([M.R.S. 35-A §3210](#)) requires 30% of Maine load be satisfied by existing renewable electricity generation (Class II) and 10% of Maine load in 2017 and beyond be satisfied by new renewable resources (Class I). Chapter 311 of the Commission rules implements the RPS. Class II includes all hydropower under 100 MWs

<http://www.mainelegislature.org/legis/statutes/35-A/title35-Asec3210.html>

6. Maryland

The Maryland Tier 2 includes hydropower other than pumped storage, regardless of size.

<http://www.psc.state.md.us/electricity/maryland-renewable-energy-portfolio-standard-program-frequently-asked-questions/>

7. New Hampshire:

The New Hampshire Class IV includes hydropower up to 5 MWs, provided the generator began operation before January 1, 2006, and complies with certain environmental protection criteria;

8. Ontario:

Ontario is directly interconnected with New York and while it does not have a formal RPS, it regularly engages in bilateral negotiations on hydropower purchases from neighboring jurisdictions in order to serve load and reduce carbon emissions from its electricity system. This includes a recent transaction and ongoing negotiations with Hydro Quebec, for which New York resources are also eligible in principle and have been considered accordingly.

9. Voluntary REC Programs:

Increasingly, corporations and non-profit organizations are seeking out renewables as they develop and look to implement sustainable energy strategies. Existing renewables often play a large role in these strategies, not to mention the procurement strategies of the various utilities and their voluntary green pricing programs.