VERMONT

State of Vermont
Department of Public Service
112 State Street
Montpelier, VT 05620-2601
http://public service.vermont.gov

[phone] 802-828-2811
[fax] 802-828-2342
[tdd] 800-734-8390

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May 24, 2019

Ms. Judith Whitney, Clerk
Vermont Public Utility Commission
112 State Street, Floor 4
Montpelier, Vermont 05620

Docket 18-3810-INV, Investigation into Renewable Energy Standard rulemaking

Re: Comment by the Department of Public Service on Draft Renewable Energy Standard Rule Pursuant to 30 V.S.A. § 8005, and Accompanying Order

Dear Ms. Whitney:

The Department of Public Service ("the Department") submits the following comments on the draft proposed rule ("Draft Rule") regarding the Renewable Energy Standard ("RES") issued by the Public Utility Commission ("the Commission") on the May 2, 2019, and the accompanying order ("May 2nd Order).

I. Comments Responsive to the May 2nd Order

The May 2nd Order requested comments on two topics related to the use of environmental attributes. Specifically, whether Hydro-Quebec ("HQ") attributes must be purchased in a bundle with power in order to be used for RES compliance, and similarly, whether nuclear attributes purchased separately from nuclear power can be used to increase the carbon-free portion of a utility's portfolio used to calculate Tier III savings.

Throughout this rulemaking process, the terms attributes, environmental attributes, renewable attributes, and renewable energy credits ("RECs") have been used extensively and at times interchangeably. It is important to establish a common understanding of these terms and the subtle differences between them in order to establish a clear rule.

As background, NEPOOL Generation Information System ("GIS") is the platform used in New England to track certificates for all MWh of generation produced in ISO-NE, as well as imports from adjacent control areas such as Quebec and New York. Each MWh of energy, *whether renewable or non-renewable*, has a certificate associated with it that is issued by GIS and can be transferred among GIS account holders, independent of the energy. Each GIS certificate has a unique identification number and represents the attributes (i.e., fuel type, location, month generated) and identifies renewable qualifications (e.g., Vermont Tier I, Massachusetts Class II), *if any*, of the generation. The unique identifier ensures that there is not double counting.

Therefore, all certificates are not renewable energy credits ("RECs"), and all environmental attributes are not renewable attributes. Since a certificate is created for all resources, natural gas generation has a certificate representing its environmental attributes, even though those environmental attributes are non-renewable. Only a certificate from a generator that has been qualified as a renewable resource will be marked as a REC in GIS, which can then be used for compliance with the RES (or another state's Renewable Portfolio Standard ("RPS")).

Certificates are also created for imported generation; certificates associated with imports not linked to a specific generation resource are assigned the environmental attributes of the "system mix," which represents the average emissions and fuel sources for the control area. For example, New York Generation Attribute Tracking System ("NYGATS") tracks information about electricity generated in the New York control area. NYGATS and NEPOOL GIS have the capability to exchange information about these resource specific certificates. However, Quebec does not have an attribute tracking system. Accordingly, while NEPOOL GIS tracks the quantity of energy (MWh) being imported into New England, attributes cannot be assigned to specific generators.

All certificates, whether a REC or not, can be traded, transferred, and retired; however, the demand and value of the certificates will vary based on the qualifications and environmental attributes.

1. Hydro-Quebec ("HQ") and New York Power Authority ("NYPA") Attributes

The Department appreciates the Commission's efforts to tighten up Section 4.404 related to tracking compliance for Tiers I and II. However, the Department notes that while NYPA and HQ attributes are not currently certified as Vermont Tier I and do not receive a REC designation in GIS, the attributes, which are represented as "system mix," can and should be monitored. In the first compliance year of 2017, all distribution utilities satisfied a portion of their RES requirement with the retirement of attributes from HQ and/or NYPA.

The Department supports the Commission's recommendation to require NYPA attributes to be certified as Vermont Tier I in NEPOOL GIS for the reasons cited in the order. It is the Department's understanding that because the NYPA contract is for energy from two specific hydroelectric plants in New York and that the energy is physically delivered to ISO-NE, the attributes can be directly linked to those facilities and certified as Vermont Tier I rather than being represented as "NY System Mix" in GIS.

It is the Department's view that HQ attributes, or any certificate that is not a tradeable renewable energy credit, should be required to have the associated energy delivered with the attributes. Section 8005(a)(1)(A) of Title 30 states:

> Purpose; establishment. To encourage the economic and environmental benefits of renewable energy, this subdivision establishes, for the RES, minimum total amounts of renewable energy within the supply portfolio of each retail electricity provider. To satisfy this requirement, ***a provider may***

> *use renewable energy with environmental attributes attached or any class of tradeable renewable energy credits* generated by any renewable energy plant whose energy is capable of delivery in New England. (emphasis added)

This language makes clear that there are two options for demonstrating compliance: tradeable renewable energy credits or environmental attributes *attached* to utility-procured renewable energy. Therefore, attribute-only purchases that are not marked as Vermont Tier I or II in GIS (e.g., HQ system mix) should not be allowed for RES compliance.

2. Nuclear Attributes

The Commission requests comments on "whether a utility may use nuclear attributes purchased separately from nuclear power to increase the carbon-free portion of its power portfolio."[1] The Department recommends the Commission find that the purchase of unbundled attributes to increase the carbon-free portion of a power-portfolio is consistent with the implementation and the structure of the Renewable Energy Standard and thus should be allowed. However, as described below, this position should be re-evaluated in the context of market conditions and the pace and cost of meeting obligations under the RES, including during the scheduled 2020 Review of the program.

To be clear, the Department is not recommending that nuclear attributes be used to comply directly with the RES obligations. Nuclear attributes are not renewable and cannot be retired to comply with Tier I of RES. However, as is commonly recognized, including by the Commission,[2] nuclear power is carbon free.

The structure of Tier III of the RES "encourages Vermont retail electricity providers to support additional distributed renewable generation or to support other projects *to reduce fossil fuel consumed by their customer and the emission of greenhouse gases attributable to that consumption*." (30 V.S.A. §8005 (a)(3)(A), emphasis added). The statute allows flexibility as to the manner by which fossil fuel reductions are achieved. For instance, a retail provider may invest in weatherization, it may encourage installation a heat pump, or it may incent the purchase of an electric vehicle. For those measures that increase electric consumption, the amount of fossil fuel savings credits applied toward meeting obligations must be reduced by taking into account the fossil fuel generated portion of the utility's electric portfolio. That reduction can currently be limited (or set to zero) by the purchase and retirement of "unbundled" (purchased separately from the energy or capacity) attributes from Tier I resources - for example, from an older hydroelectric facility in New England - to increase the carbon free portion of its power portfolio, and thus increase the

[1] May 2nd Order, at 8.
[2] See 17-4632-INV, Commission Order of 1/24/2019 adjusting Vermont Electric Cooperative's RES savings claim based on nuclear in its portfolio. Also, the Regional Greenhouse Gas Initiative, a region-wide effort to reduce carbon emissions, does not require nuclear units to retire emissions allowances.

amount of credits acquired. Tier I RECs and nuclear attributes share two common characteristics related to Tier III – neither are generated by fossil fuel and both are tracked in NEPOOL GIS. Thus, consistency requires that they be treated the same.

This treatment could reduce upward cost pressures associated with Tier III measure implementation. The Department understands that both Tier I qualified and nuclear attributes can often be purchased for less than $1/MWh, with nuclear attributes closer to zero. Where the cost is similar, the Department encourages utilities to purchase renewable energy credits as consistent with the spirit of the RES. However, where the cost separates, utilities are required to evaluate the purchase based on the decision-making framework as articulated in its approved Integrated Resource Plan (IRP). The cost of nuclear attributes is currently low; the low cost may not remain indefinitely.

While there is not currently a market construct for nuclear attributes that is similar to a Renewable Portfolio Standard, nuclear attributes are beginning to have value both in New England and elsewhere. For example, in 2018, Connecticut issued a request for proposals for "Zero Carbon Resources" that explicitly allowed nuclear to participate. New York, Illinois, and New Jersey have all implemented "Zero Emission Credit" (ZEC) efforts in order to subsidize non-emitting nuclear. Other states have considered similar legislation. The ZEC structures are closer to being direct subsidies for specific nuclear plants than being competitive market constructs, but they do illustrate the value policymakers are placing on the carbon-free attributes of nuclear. As markets for nuclear attributes develop, it makes sense for Vermont to not preclude the purchase of unbundled nuclear attributes early in the implementation of the RES.

Possible Vermont REC or nuclear attribute purchases are relatively small on the scale of the region, but they can help to have a lasting impact on the amount of carbon emissions that result from Tier III. Tier I qualified REC purchases currently provide a revenue stream for existing hydroelectric facilities in New England, helping to keep them economic and operating. The effect would be the same for nuclear attributes. If existing hydro or nuclear facilities become uneconomic then carbon-free power will be replaced by other sources in the region – at least a portion of which will likely be carbon emitting.

It is important that Vermont continue to make progress toward its statutory and Comprehensive Energy Plan targets; the RES is a key mechanism on that path, but it remains in its infancy. Moreover, other states are creating markets or administrative incentives for nuclear attributes that ultimately could preclude or displace the need for unbundled nuclear attribute purchases. Thus, the impact that this decision has on the pace and cost of Tier III measure implementation should be re-evaluated regularly.

II. Draft Rule Comments

Section 4.403, Definitions

Definition of "Energy Transformation Project":
The Department's April 5, 2019 comments in this proceeding recommended the following definition for "Energy transformation project" (page 3):

> an undertaking that provides energy-related goods or services but does not include or consist of the generation of electricity and that results in a net reduction in fossil fuel consumption by the customers of a retail electricity provider and in the emission of greenhouse gases attributable to that consumption. Examples of energy transformation projects may include home weatherization or other thermal efficiency measures; air source or geothermal heat pumps; high efficiency heating systems; increased use of biofuels; biomass heating systems; support for transportation demand management strategies; support for electric vehicles or related infrastructure; and infrastructure for the storage of renewable energy on the electric grid. *Projects can consist of one or multiple prescriptive measures (e.g. a distribution utility's electric vehicle project) or one or multiple custom measures, installed/completed at a single facility or site.* (emphasis added)

The definition for energy transformation project included in the Draft Rule under section 4.403 does not include the last sentence of the Department's recommend definition. The Department recommends this sentence be added to the Draft Rule, to clarify that an energy transformation project can be considered one or more prescriptive or custom measures. This should help avoid any confusion with regard to the reference to project in statute relative to the references in the Commission rule.

Definition of "Environmental attributes" or "attributes":
The current proposed definition of environmental attributes "means the characteristics of a plant that enables the energy it produces to qualify as renewable energy[.]" As discussed above, every MWh of generation has environmental attributes in NEPOOL GIS, not just renewable generation. Therefore the Department recommends changing the definition to reflect this. The Department also notes that the Massachusetts standard refers to a "Generation Attribute," of which "Renewable Generation Attribute" is a subset.[3] The Department further notes the definitions of "GIS Certificate" and "NEPOOL GIS" contained therein.

[3] *See* https://www.mass.gov/files/documents/2019/04/08/225%20CMR%2014.00%20Draft%20RPS%20Class%20I%20REDLINE%20%28030119%29_0.pdf, at 8 (definition of "Generation Attribute"), 11 (definition of "Renewable Attribute").

Definition of "REC" or "renewable energy credit":
The REC definition should clarify that a REC is only a certificate that has been certified in NEPOOL GIS as a renewable energy credit.

Section 4.404(b), System for Tracking Compliance with Tiers I and II

The Department notes that HQ attributes can monitored in NEPOOL GIS, but cannot be *certified* in that database. The proposed text for 4.404(b) appears premised on the HQ attributes being bundled with the power, and the Department suggests the below revisions in the event the Commission adopts the Department's recommendation regarding HQ attributes. On the other hand, if the Commission permits unbundling of HQ attributes, the below text would need to be revised.

> (b) Retail electricity providers shall demonstrate their compliance with their Tier I and II obligations, as established under 30 V.S.A. §§ 8005(a)(1)(B) and (a)(2)(C), through ownership and retirement of RECs in GIS, unless the environmental attributes cannot be certified as Vermont RECs in GIS, in which case the provider shall demonstrate compliance as provided in subdivision (1) of this subsection.
>
> (1) A retail electricity provider may demonstrate its compliance with the RES by means of environmental attributes that cannot be certified as Vermont RECs in GIS. A provider using attributes that cannot be certified as Vermont RECs in GIS shall retire GIS attributes associated with the renewable energy being used for compliance, and shall submit with its annual RES compliance filing documentation demonstrating that:
>
> (A) it owns the attributes in question,
>
> (B) the attributes are eligible for the RES, and
>
> (C) the attributes have not been claimed in any other jurisdiction.

Section 4.410 (5), Cost-Effectiveness Screening for Energy Transformation Projects

The Department recommends changing the existing language from "All projects" to "Each project." The current language could be read that the requirement to cost less than the applicable Alternative Compliance Payment ("ACP") is placed upon all projects, collectively, rather than each project. The Department understands the requirement is that every project must cost less than the alternative compliance payment; the Department's proposed revisions are intended to clarify.

The Department also recommends two additions to Rule 4.410 (5) to clarify items on which the Commission has already ruled. First, the Department recommends adding language that requires administrative and implementation costs to be included when determining if an energy transformation project costs the distribution utility less than the ACP, as previously ordered.[4] Further, the Department recommends clarifying that distribution utilities may use net costs when assessing whether an energy transformation project costs less than the applicable ACP as long as

[4] *See* Order re: 2018 Renewable Energy Standard Tier III Annual Plans, at 7, *In Re: Vermont Electric Distribution Utilities' 2018 Tier III Annual Plans*, Docket 17-4780-INV (Vt. P.U.C. Mar. 15, 2018).

it makes available the relevant assumptions used in its analysis, consistent with the Commission's prior order.[5] These additions will help to clarify screening for distribution utilities.

Section 4.413(c), Equitable Opportunity to Participate in and Benefit from Energy Transformation Projects

The Department recommends Draft Rule section 4.413(c)(1) be revised to include the language in blue:

> A retail electricity provider shall track and report energy transformation project participation spending, and benefits by customer sector (residential, commercial and industrial, and low-income) in each year that it chooses to meet any portion of its Tier III obligations through energy transformation projects.

This would enable the Commission, the Department, and other stakeholders to be aware of the utilities' progress in meeting the requirement to provide equitable opportunities to all customer sectors.

Section 4.416, Specific Types of Energy Transformation Projects

The Draft Rule language currently states that a retail electricity provider "may…pay $X per MWh of energy savings to a low-income weatherization provider[.]" The Department suggests that the language be changed to require the utility to pay a $/MWh as determined by a Commission proceeding rather than including an actual $/MWh in the rule. This will allow for expediency in process if it is necessary to change the $/MWh value. The Department agrees that an annual review of this value is appropriate. In addition, the Department recommends keeping the existing language in the Draft Rule that states that, "The rate shall be adjusted, as necessary, after an annual review[.]"

Sincerely,

/s/ Allison Bates Wannop
Special Counsel
Vermont Department of Public Service

cc: ePUC Service List

[5] *See id*. at 8.