STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 18-3810-INV

Investigation into Renewable Energy Standard Rulemaking

COMMENTS OF GREEN MOUNTAIN POWER

In its May 2, 2019 Order in the above-referenced matter, the Public Utility Commission ("Commission") requested comments on its draft proposed Renewable Energy Standard ("RES") Rule ("Rule"). Green Mountain Power ("GMP") appreciates the work of stakeholders and the Commission and is pleased to provide comments on the draft rule. GMP is committed to working with customers to cut carbon, and take steps to fight the climate crisis.

Definitions

The Rule provides definitions for Energy Transformation Measures, Energy Transformation Projects and Energy Transformation Programs. GMP recommends further clarifying these definitions to define the distinction between custom measures, and prescribed measures approved by the Technical Advisory Group ("TAG"). Prescribed measures are developed and approved by the TAG. Custom measures are developed by the electric utility and/or efficiency utility and vetted with the Department of Public Service ("Department"). These custom measures must evaluate the net reduction in fossil fuel. A distribution utility's program would consist of all of its projects and measures.

The role of the TAG is to develop, evaluate and codify the Tier III value of prescriptive measures such as cold climate heat pumps, electric vehicles and vehicle chargers. This is distinct from a custom measure associated with individual projects or measures not evaluated by the TAG. Custom measures are specifically developed for a project where the quantifiable carbon offset needs to be developed as part of the project, and prescriptive measures do not reflect the quantified fossil fuel offset. Appropriately, custom measures are evaluated with the Department. GMP recommends the definition of Energy Transformation Measures explain the difference between custom and prescriptive measures and the role of the TAG in prescriptive measures.

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

This section of our comments addresses the Commission's request (page 4 of the May 2, 2019 order): Additionally, regarding attributes from HQ, the Commission seeks comments on whether, for purposes of RES compliance, HQ attributes must be purchased in a bundle with power or whether a utility may purchase the attributes separate from a power purchase.

The RES statute clearly anticipates and allows for unbundled purchases of attributes, including those associated with HQ system power[1], to be used for compliance with RES Tier I. There are sound

[1] HQ system power is supplied from a system of generating plants (e.g., the Hydro-Quebec Production system generation mix), as opposed to one or more specific generating plants.

policy reasons for this, including the fact that the RES framework provides Vermont utilities with a degree of flexibility to determine how best to meet Vermont's renewable requirements. Limiting the flexibility that is embedded in the RES framework would not meaningfully advance renewable energy goals and would also seem to undercut an important objective of the RES by potentially increasing costs for customers.

The RES Statute Allows Unbundled System Attributes to Meet RES Requirements

Title 30 of Section 8004(a) outlines the RES requirements, establishing that a Vermont electricity provider cannot sell or provide electricity without "ownership of sufficient energy produced by renewable energy plants or sufficient tradeable renewable energy credits from plants whose energy is capable of delivery in New England that reflect the required amounts of renewable energy set forth in section 8005 of this title or without support of energy transformation projects. . ." This section establishes that retail electricity providers may meet their renewable energy obligation through "eligible tradable renewable energy credits that it owns and retires, eligible renewable energy resources with environmental attributes still attached, *or* a combination of those credits and resources." (emphasis supplied) This introduction clearly contemplates the use of renewable attributes to demonstrate achievement of the RES requirements (whether those attributes are purchased separately or purchased/generated along with the associated energy), and it specifically contemplates the use of attributes from plants located outside of New England. There would be no reason to distinguish between the use of tradeable RECs and the purchase of renewable energy with attributes attached if the statute did not allow the use of RECs purchased separately from energy to satisfy RES requirements.

In order to use tradeable RECs to satisfy RES, there are two requirements: first, the RECs must be eligible, and second they must be tradeable. The HQ RECS are eligible. Section 8002(21) defines eligible renewable energy as "…energy produced using a technology that relies on a resource that is being consumed at a harvest rate at or below its natural regeneration rate. Hydroelectric energy sources generally qualify under this definition of renewable energy, and the statute specifically contemplates that renewable energy may be obtained from a system of generating resources (not only from individual generating plants), with the portion of that system that is considered renewable being limited to the portion generated by a technology that qualifies as renewable.

The RECs also are tradeable. Section 8002(26) defines tradeable renewable energy credits as follows:

> *"Tradeable renewable energy credits" means all of the environmental attributes associated with a single unit of energy generated by a renewable energy source where:*
>
> *(A) those attributes are transferred or recorded separately from that unit of energy;*
>
> *(B the party claiming ownership of the tradeable renewable energy credits has acquired the exclusive legal ownership of all, and not less than all, the environmental attributes associated with that unit of energy; and*
>
> *(C) exclusive legal ownership can be verified through an auditable contract path or pursuant to the system established or authorized by the Commission or any program for tracking and verification of the ownership of environmental attributes of energy legally recognized in any state and approved by the Commission.*

Renewable attributes associated with HQ system imports (whether purchased with the associated energy or unbundled) can clearly meet this definition. Specifically, the NEPOOL GIS assigns system import certificates to quantities of system energy that are physically delivered from Quebec into New England; appropriate volumes of these attributes are transferred to the NEPOOL GIS accounts of the utility buyers under Vermont's long-term HQUS PPA. The Vermont utility PPA buyers regularly obtain attestations from the seller which more accurately identify the generation mix from which the deliveries were supplied; attest that Seller has not used the associated environmental attributes in some other way (e.g., transfer to another party, claim or represent the attributes elsewhere, use the attributes to meet another obligation); and attest that Seller is transferring its full interests in the attributes. These steps establish the existing HQUS PPA as a source of tradeable renewable energy credits that are eligible to help meet a utility's RES requirements. The same steps establish that an unbundled purchase of attributes from the HQ system (in which case the associated quantity of energy was also delivered into New England, but ultimately sold to another energy buyer or into the spot market) are eligible for RES compliance.

Background Information on Attribute Transactions and HQ Imports

Renewable energy attributes can be sold separately from the electric energy that a renewable plant generates, or bundled with the plants' electric energy. As noted in the statute, renewable energy can also be supplied from a system of renewable plants collectively, as opposed to a single plant or several specific plants. Imports into New England that are backed by a system of resources and are not tied specifically to the output of one plant or a subset of plants), like Vermont's long-term HQUS PPA, receive GIS certificates reflecting volumes of energy that were delivered into New England. GMP's understanding is that these system import certificates are not presently assigned contract-specific attributes in the NEPOOL GIS. Rather, certificates for these volumes of delivered system energy are depicted in the GIS as reflecting a "system mix" of resources from the supplying region. This mix is not presently tied to the contract supplier's mix of resources during the delivery period; GMP and other Vermont utilities receive attestations from HQ which accurately reflect the renewable nature of the mix. This practice was approved by the Commission in its March 1, 2016 Order in Docket No. 8550.

Unbundled trading of renewable attributes is broadly accepted and conducted in the electric industry and offers a number of commercial advantages that tend to support the exchange of renewable attributes, and ultimately the development of new renewable resources and support of existing renewables. These advantages include simplicity (e.g., buyers are able to purchase an agreed-upon volume of RECs without having to engage in the operations, scheduling, and other activities associated with the purchase of the associated physical energy) and flexibility (e.g., buyers like GMP can purchase unbundled RECs in specific volumes to meet specific portfolio attribute requirements or goals, without also having to purchase the same volume of energy)[2].

Most state renewable portfolio standard ("RPS") programs measure compliance by requiring load serving entities to retire eligible renewable attributes – whether those attributes were procured

[2] GMP notes that statute does not define what constitutes a bundled transaction. In order to establish a requirement that only bundled system import attribute transactions should be eligible for RES compliance, it would be appropriate to define what a bundled transaction means in terms of the types of parameters (e.g., pricing structure, firmness/scheduling, term) that can vary across energy contracts.

together with the associated energy or separately (i.e., in an unbundled transaction). In New England, this is typically done by retiring sufficient volumes of eligible NEPOOL GIS certificates to match or exceed the applicable RPS requirement. The Vermont RES program uses the same approach, although it allows (see Section 8002(26)) ownership of environmental attributes to be verified through an auditable contract path or a system established or authorized by the Commission. The Commission has recognized that NEPOOL GIS certificates may not accurately represent the environmental attributes of system imports received by Vermont utilities, and has appropriately adopted the use of seller attestations to accurately reflect the proportion of renewable attributes received.

It Is Appropriate For Unbundled Attribute Purchases To Meet RES Requirements

Not only is the use of unbundled attribute purchases to meet RES requirements allowed by statute as explained above, it is appropriate from a policy perspective because it advances the statutory goal of meeting the RES requirements in a cost-effective manner for customers. In particular, the use of unbundled attributes provides Vermont utilities flexibility to meet their RES requirements (in combination with other portfolio needs, particularly energy) in a cost-competitive way.

First, unbundled attribute purchases allow utilities to effectively match their energy supplies with the needs of their customers. This consideration is important for GMP which like most other Vermont utilities, uses significant volumes of output from some renewable energy plants to meet its needs in the ISO-NE energy market, but also sells the associated RECs to RPS compliance markets in neighboring states, with the proceeds used to lower net power costs and retail rates for our customers[3]. GMP has also put in place forward energy purchases several years into the future in order to insulate our customers from potential increases in energy market prices. For these reasons, GMP's needs for renewable attributes to meet RES requirements for a given year can and often do greatly exceed its need for additional energy supplies to meet the requirements of its customers. If the RES requirements were changed such that GMP were required to purchase system import attributes on a bundled basis, GMP could be forced to purchase significant amounts of excess energy that would need to be sold at then-current market prices, creating financial risk for our customers, or additional costs to mitigate that risk.

Unbundled attribute purchases also allow buyers to purchases firm quantities of renewable attributes (no more or less than needed at a given time), without the fluctuations of volume that often occur under purchases from one or more individual generators. These unbundled purchases also allow important flexibility to schedule multiple years of purchases at one time using set prices, which can help manage potential fluctuations in REC market prices, further benefitting customers.

The flexibility provided by unbundled attribute purchases is also significant considering the scale of GMP's requirements for additional Tier 1-eligible attributes, which is presently over 1 million MWh per year, above those obtained through our committed long-term renewable sources. GMP has pursued a strategy of meeting its Tier 1 requirements through a mix of RECs from owned generation, bundled energy and REC purchases, and unbundled attribute purchases. While GMP expects to continue to rely on purchases of RECs from generating units within New England to meet some of its RES needs, it is useful to keep in mind that GMP's supply needs significantly exceed the total

[3] Of course, to the extent that Vermont utilities sell RECs associated with certain output from a renewable source, they cannot claim that volume as renewable power that was supplying Vermont customers.

volume of available Tier 1-eligible resources within Vermont, and represent a significant fraction of the supply in New England. Shifting exclusively to in-region unbundled REC purchases could put upward pressure on market prices for those RECs, and there also is no guarantee that such purchases would be available over contract terms consistent with GMP's purchasing strategy. Unbundled plant-specific attribute imports from Quebec or other control areas may also be available in the future, although at this time the pricing and terms of such options are not known.

For these reasons, we believe that the ability to use unbundled system import attributes for part of Tier I provides useful flexibility that is likely to help GMP achieve the RES requirements in a way that is cost-effective for our customers. We also note that GMP has made significant forward purchases of unbundled Quebec hydroelectric import attributes for delivery through the next few years, with the goal of locking in a block of affordably priced renewable supply and protecting our customers from potential increases in the market price of Tier 1-eligible attributes that are available in the region. While more commercial offerings of unbundled attribute imports may become available in the future that avoid the complexity of the attestation process that is presently required for Quebec system imports (e.g., through plant-specific import transactions, or if Quebec were to adopt a reciprocal generation attribute tracking system), GMP believes that for now the option to utilize unbundled system imports to meet some renewable needs is still useful.

It is Appropriate to Retire HQ System Attributes in the NEPOOL GIS

The Commission has proposed (page 3 of the May 2, 2019 order) to remove the present requirement that a Vermont utility demonstrate ownership of attributes through retirement of the attributes as they are monitored in GIS, even if the utility claims a different value for the environmental attributes than that displayed in GIS. The Commission recognizes that retirement of such system import certificates in the GIS is not presently sufficient alone to support a Vermont utility's RES compliance claim for environmental attributes associated with HQ system imports. As discussed above, an attestation letter is also required to more accurately identify the supply mix from which the deliveries were supplied; to attest that the associated environmental attributes have not been sold or used in some other way; and to attest that the seller is transferring its full interests in the attributes.

Nonetheless, GMP believes that it is appropriate for Vermont utilities to continue to retire such attributes in the NEPOOL GIS. The retirement of HQ system import certificates by Vermont utilities indicates that the attributes are associated with a volume of power that was delivered into New England - displacing fossil-fired generation and other energy sources which would otherwise have been required to serve electricity demand in the region. In addition, retirement of the system import certificates in the NEPOOL GIS accounts of Vermont utilities (rather than letting those attributes flow to the system residual mix) seems important because it limits the potential for conflicting or mismatching renewable claims in the region. We also note that renewable attributes associated with HQ system imports comprise a significant portion of the attributes retired by GMP and many other Vermont utilities to meet their RES Tier 1 obligations; removing them from the GIS would seem to make it more difficult to review and audit each utility's RES compliance. In short, these attributes are monitored in the GIS and should be retired if used for RES compliance.

<u>Section 4.406, Qualification of Generation Facilities for Tiers I and II</u>
The process set forth in Section 4.406 for the qualification of Tiers I and II generation facilities seems appropriate. We note that the term "Qualified Facility" is capitalized but not defined. The

term also is used without capitals. Given that a Qualified Facility is a term of art under the Public Utilities Regulation Act, it would be helpful to clarify the definition of that term in the Rule.

Section 4.408, Conversion Method for Fossil Fuel Savings for Energy Transformation Projects
Section 4.408(b) references a "publicly available spreadsheet, provided and maintained by the Department, to determine the MWH-equivalent energy values. The referenced spreadsheet is the TAG Planning Tool, which contains the calculations for the Tier III value of prescribed measures.

Section 4.409, Process for Prior Approval of Energy Transformation Measures
The Commission included a provision in the Rule requiring TAG meetings related to energy transformation measures to be noticed and open to the public and for a time to be included in meeting agendas for public input. GMP definitely supports these steps.

Section 4.410, Cost-Effectiveness Screening of Energy Transformation Projects
GMP agrees with the Commission's proposal not to include any substantive changes to this section of the Rule as the Department will be working with stakeholders on these issues, and the Commission will ensure the public comment period is held open until September 30, 2019. We note Section 4.410(1), which has not been revised from the June 2016 Order in Docket No. 8550, could be clarified. It suggests the statewide cost effectiveness screening tool applies to the retail electricity provider's Tier III projects. We recommend this section be clarified to state that the statewide cost-effectiveness screening applies only to the efficiency measure of an electricity service provider's Tier III project.

Section 4.412 Evaluation, Measurement, and Verification of Energy Transformation Projects
Section 4.412(7) proposes further process to address recommendations to reject a retail electricity provider's energy transformation project fossil-fuel savings. Under the Rule, by June 1, the Department must provide its recommendation, and 15 days thereafter, interested parties and the retail electricity providers must provide comments on the Department's recommendation. Under proposed subsection (7), the retail electricity provider must then petition the Commission for a ruling by July 1. It is unclear why this petition would be necessary given that the retail electricity provider would already have commented on the Department recommendation in mid-June.

Section 4.413, Equitable Opportunity to Participate in and Benefit from Energy Transformation Projects
The Commission has not made substantive changes to the language in the June 2016 Order in Docket No. 8550 which have been incorporated into the Rule. GMP supports this language. In implementing the RES, we have focused on making opportunities available across customer classes and income levels because we believe that approach will result in equitable implementation overall. While not all projects are transferrable among customer classes (e.g., some commercial projects are not appropriate for residential and vice versa), all customer classes receive offerings. We will continue to collaborate with our peers and partners to provide equitable opportunities for all. Our goal is to continue to move faster to offer innovations and drive widespread transformation that benefits all customers, as we work to cut carbon and costs.

Section 4.415, Best Practices and Minimum Standards

Section 4.415(5) requires that the savings a retail electricity provider may claim for the installation of an energy transformation project in a building achieving minimum energy performance standards be determined through the TAG. Since savings claimed in a custom project would not be determined in the TAG, which only addresses prescribed measures, GMP recommends this section apply only to prescriptive measures.

Section 4.416, Specific Types of Energy Transformation Projects
GMP has no comment on this section.

Section 4.417, Tier III Annual Planning

A. Approval of Tier III Plans
GMP agrees with the Commission's decision and supports the Commission's process set forth in section 4.417(d) to address Tier III plans. Because the retail electricity provider must implement the plan commencing in January of each year, GMP believes any order to file an amended plan, or order opening an investigation, be provided by December 31. GMP further recommends that the order specifically identify the potential deficiency and allow the retail service provider to commence implementation.

B. Custom Energy Transformation Projects
GMP agrees with the Commission's decision not to propose changes from the June 2016 Order as well as the decision not to require a competitive solicitation process to select custom energy transformation projects. It is important to note that GMP does not perform this energy transformation work directly, and works with third parties to achieve results.

C. Load Growth
GMP agrees with the Commission decision not to propose substantive changes to this section.

D. Nuclear Power, Non-renewables, and Energy Transformation Projects
The RES statute clearly allows for purchases of unbundled RECs to contribute toward meeting RES Tier I and II requirements. It appears that it would be consistent for unbundled purchases of nuclear attributes to contribute to the carbon-free portion of a Vermont utility's portfolio, although GMP does not anticipate making such purchases.

Section 4.419, Filing Schedule and Requirements
GMP supports the use of the spreadsheet included in the Departments April 5th comments. We also appreciate that the spreadsheet is not part of the Rule. The RES still is in the early stages, and as our collective experience grows, stakeholders may recommend changes to improve the spreadsheet from a user perspective or for other uses such as reporting needs.

Dated at Rutland, Vermont this 24th day of May, 2019

GREEN MOUNTAIN POWER