STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 17-4632-INV

In re: Continuing issues related to the implementation of the Renewable Energy Standard	

COMMENTS OF VERMONT ELECTRIC COOPERATIVE, INC.

Vermont Electric Cooperative, Inc., (VEC) offers the following comments in response to the Order Re Request for Comment issued on August 14, 2018 as to the use of energy storage to meet Tier III Renewable Energy Standard (RES) obligations.

VEC appreciates the opportunity to comment on this important topic related to Vermont's energy future. VEC urges the Commission to ensure battery storage qualifies as an eligible Tier III measure under the RES. Battery storage is a critical tool in meeting Vermont's ambitious goal of sourcing 90 percent of the state's total energy from renewable sources by 2050. A large amount of battery storage in the state will be required in order to reap the benefit of Vermont's ever-growing supply of intermittent renewable resources connected to the grid. Without adequate incentives for battery storage, it will be more difficult to obtain the deployment levels needed for Vermont to meet its renewable energy and carbon reduction goals.

At the August 13th workshop on this topic, there appeared to be consensus among the parties present that residential-scale battery storage projects reduce carbon emissions in Vermont during power outages for those customers that otherwise would have used fossil fuel generators to provide backup power to their homes. Calculating the Tier III carbon credits in this circumstance would be fairly straightforward.

The larger issue discussed at the August 13th workshop was whether battery storage used to reduce peak loads meets Tier III RES obligations. As Green Mountain Power (GMP) explained at the workshop, the regional generation fuel portfolio contains significantly more

fossil fuel during times of peak demand on the ISO-NE system compared to the average of all other hours during the year. By dispatching battery storage devices and reducing demand during these critical peak hours, fossil fuel use is being displaced all around New England. At times, the displacement may occur within Vermont.

This use case should qualify as a Tier III energy transformation project as defined in 30 V.S.A. § 8002(28). 30 V.S.A. § 8002(28) defines an "energy transformation project" as:

> ...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... support for transportation demand management strategies...and infrastructure for the storage of renewable energy on the electric grid.

A battery storage device used for peak shaving is a perfect example of both a demand management strategy and infrastructure for the storage of renewable energy on the electric grid.

VEC supports GMP's position on the qualification of battery storage used for peak load reduction. The Department expressed its general agreement with GMP on the method used to calculate the carbon emissions reductions in GMP's 2017 Tier III compliance filing. However, the Department does not believe that the savings should qualify as a Tier III measure since the location of the carbon emissions reductions may occur outside of Vermont state lines.

This argument seems counter intuitive to the intent of Vermont's RES. Environmental impacts know no boundaries. Fossil fuel emissions have an impact on Vermont's environment and climate, regardless of if they occur within state boundaries or not. In fact, Tier I of the RES allows for buying, selling, and trading Renewable Energy Certificates (RECs) outside of Vermont. Tier I RECs created by renewable resources outside of Vermont can be obtained and retired by Vermont utilities. A utility's Tier I REC position has a direct impact on the amount of Tier III carbon credits that the utility is able to claim for any given measure.

Additionally, 30 V.S.A. § 8005(a)(3)(C)(ii) states that for an energy transformation project to be eligible under the RES, "Over its life, the project shall result in a net reduction in fossil fuel consumed by the provider's customers and in the emission of greenhouse gases attributable to that consumption, whether or not the fuel is supplied by the provider." When a battery storage device is used for peak shaving, it does exactly that. Nowhere in the language does it state that the greenhouse gas and fossil fuel reduction must physically occur within Vermont state boundaries.

For these reasons, VEC believes that battery storage used for peak load shaving qualifies under Tier III of the RES. VEC thanks the Commission for the opportunity to comment on the topic and awaits clarification moving forward.

Sincerely,

Tucker Williams

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