



SUBMITTED ELECTRONICALLY

March 20, 2020

Ms. Judith C. Whitney, Clerk
Vermont Public Utility Commission
112 State Street, Drawer 20
Montpelier, VT 05620

Re: Case No. 19-2956-INV, Comments of Clean Energy Group (CEG)

Dear Ms. Whitney:

Clean Energy Group (CEG) is pleased to submit this letter to provide the Vermont Public Utility Commission (PUC) with comments in response to the Case No. 19-2956-INV information request issued by the PUC on February 21, 2020. Specifically, CEG is responding to the following topic from the information request:

6(c). Whether the entities identified above in 1(a) and 1(b) should incorporate additional technologies, services, and strategies, including: c. energy storage

Clean Energy Group is a leading national, nonprofit advocacy organization working on innovative policy, technology, and finance strategies in the areas of clean energy and climate change. CEG's energy storage advocacy work is focused on the advancement of state, federal, and local policies and programs that support increased deployment of energy storage technologies. Battery storage technologies are critical to accelerate the clean energy transition, to enable a more reliable and efficient electric power system, to promote greater energy equity, health, and resilience for all communities.

CEG has advocated, both in Vermont and in other states, for the inclusion of behind-the-meter (BTM) energy storage as a peak demand reducing measure in state energy efficiency plans. We worked to support the development of the ConnectedSolutions program within the Massachusetts 2019-2021 Three-Year Energy Efficiency Plan, which allows utilities to contract with energy storage customers to aggregate BTM storage services for peak load reduction during peak regional load hours. This program has now been adopted in both Massachusetts and Rhode Island and is being considered in New Hampshire and Connecticut. CEG has provided information on this program both to the Vermont Legislature and to the Vermont PUC.

An aggregated battery program offered through a state energy efficiency plan (such as ConnectedSolutions) provides many benefits over a customer demand charge management (DCM) model. Chiefly, it allows for better alignment of BTM load reduction with regional peak demand hours. At the same time, it provides storage customers and developers access to reliable,

bankable revenue streams through contracts with utilities for battery services. And, through incentives and adders established by the state, such a program can support numerous state energy goals, such as enhanced resiliency, increased renewables deployment, and cleaner peak power.

CEG recognizes that Vermont's energy efficiency program differs from other efficiency programs in New England, in that it is administered by Efficiency Vermont rather than by utility program administrators. And we understand that the positions of Green Mountain Power (GMP), Efficiency Vermont and the state Department of Public Service on this issue seem to be that energy storage should remain within the province of utilities in Vermont, with Efficiency Vermont playing, at most, a relatively minor role providing information to ratepayers. However, CEG also recognizes that despite the success of GMP's Tesla and BYOD battery programs, this current system has some drawbacks, which could be remedied by incorporating energy storage into the state's energy efficiency program.

The primary shortcoming of the present system in Vermont is that **GMP cannot offer energy storage to all ratepayers**. Although it is the state's largest utility and has done admirable work in developing both utility scale and BTM storage, it does not serve large portions of the state served by VEC and WEC, as well as numerous cities and towns served by municipal utilities. This means that under the current system, the benefits of an aggregated BTM energy storage program, including utility ownership and/or system financing and predictable revenues, are not available to non-GMP ratepayers in Vermont. Although the states electric co-ops and municipal utilities could develop such customer battery programs, ratepayers have no assurance that they will do so.

As Vermont recognized in its 2013-2014 Demand Resources Plan Proceeding, "Energy efficiency that reduces peak load would lower the locational marginal clearing price, thereby lowering the cost of electricity that is purchased from the market (and potentially lowering the cost of future power contracts that are indexed to the market). These benefits would stabilize and reduce power costs, and ultimately rates."¹ In addition, increased deployment of distributed energy storage could help to increase renewable energy use, decrease emissions, and enhance electric grid resiliency in Vermont, while supporting electrification and reduced fossil fuel use. In other words, increased levels of customer battery storage would benefit all ratepayers, and would support goals outlined in the state's Comprehensive Energy Plan. In addition, BTM batteries confer direct benefits to their hosts, such as resilient backup power during grid outages, and increased ability to use solar power behind the meter, for example in net metering constrained areas. For these reasons, batteries should be offered to all ratepayers, not merely those in GMP's service territory.

In addition to this geographic shortfall, there is a second problem with Vermont's current system: **leaving customer battery programs to utilities deprives the state of a valuable tool in meeting state energy goals**. As noted above, adding distributed battery storage to the state's energy efficiency plan would provide the state with a useful tool to meet numerous energy goals described in the state's Comprehensive Energy Plan. For example, through the efficiency plan,

¹ https://puc.vermont.gov/sites/psbnew/files/doc_library/order-re-eeu-budgets-for-drp.pdf

the state could choose to provide an incentive adder for battery storage combined with rooftop PV, thereby incentivizing increased adoption of solar generation. The state could (and should) also provide added LMI incentives, to increase the ability of low-income Vermonters to access the benefits of energy storage. Such social benefits should be incorporated into a state-overseen and guided energy efficiency plan, rather than left up to utilities that may or may not implement programs that support these important goals.

For these reasons, CEG again urges that battery storage be offered through the Vermont energy efficiency program. This would not necessarily preclude storage from also being offered by utilities such as GMP, but would ensure that these systems are made available to all Vermonters, and that benefits are better aligned with state energy goals.

To achieve this, CEG again recommends the following steps:

- 1. The state's definition of energy efficiency should be amended to specifically include peak demand reduction, and**
- 2. The list of eligible efficiency measures within the efficiency program should be expanded to specifically include behind-the-meter energy storage.**

As always, CEG would be happy to provide more information to Vermont PUC upon request.

Respectfully submitted,



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Project Director
Clean Energy Group
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