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Vermont Public Utility Commission  
Judith Whitney, Clerk of the Commission  
112 State Street  
Montpelier, VT 05620-2701

October 5, 2018

RE: Standard Offer            Case 17-5257 INV

Dear Ms. Whitney,

Thank you for the opportunity to respond to comments made about improving the Standard Offer Program or potentially developing a new program to replace it.

My point of view comes from being a manufacturer and developer of small wind turbines. Five years ago, I moved my company from New Jersey to Vermont. The then SPEED program was the main reason for my coming to Vermont in that I hoped to develop and install turbines locally and to operate them for many years before evolving into mass production. I have seen many programs, such as one in Oregon, where a 30MW feed-in tariff was sold out on opening day. The Vermont SPEED program was different from other feed-in-tariff programs in that it spread out the contract awards over twelve years, to 2021. This made for stability, predictability and the ability to forecast, all of which would give an enterprise the confidence to invest in Vermont, build a factory and employ a work force which, as I have said before, was my motivation in coming here.

While the main difficulty that I have encountered with SPEED/Standard Offer Program has been that the rules themselves have been changed almost yearly, making it difficult to keep forecasts and to make sales to customers, from my point of view, after many workgroups, the program has stabilized and is working smoothly. I am able to make reasonable predictions and make sales for small wind development with the expectation that there are three more years left. I am alarmed, however, that the idea now is to throw all of that work away and start up a whole new program, making 2019 the last RFQ.

I have read the reasons put forward for dissolving the program and understand them to be associated with proximity to load, wheeling charges, exemptions and administrative efficiency.

Before addressing anything else, I would like to say that as for administrative efficiency, I have had a completely positive experience with VEPP Inc. From the beginning, my engagement with them has been easy, transparent, stable, predictable and fair. Information has been readily available, and questions were answered quickly. I support a centralized procurement agency. As to the other concerns, I have a hard time believing that it would not be easier and more efficient to address them within the Standard Offer Program and let it finish out the last three years, rather than spending the energy in creating an entirely new program. One need only look as far as our neighbor Massachusetts, for example, to see that their SMART program solved the load issue equitably, making location one factor to be considered in the RFP process. Vermont could similarly fix this issue without scrapping the program.

An important underpinning to all of my contentions is found at 30 V.S.A. Sec. 8001, which states that one of Vermont's renewable energy goals is

to ensure that to the **greatest extent possible** the benefits of renewable energy in the state flow to the Vermont economy in general, and to the rate payer in particular.

The program has accomplished the reduction of the cost of solar PV from \$0.30 to under \$0.10. As reflected in the PUC's recent media release *Vermont Public Utility Commission Approves Contracts for Over 10 W of Renewable Energy under 2018 Standard Offer Contract*, the Standard Offer Program has produced the lowest-priced solar PV in the state, with solar projects ranging in price from 8.8 to 11 cents per kWh. The program is working and is on schedule to deliver the 127,500 MW as designed. In my opinion, the Standard Offer Program could have delivered potentially four times the capacity if it were allowed to.

I do not interpret 30 V.S.A. Sec. 8001 to mean, however, that developing the lowest priced energy source is the only goal of Section 8001. Supporting the local economy **to the greatest extent possible** appears to be just as important. I believe this means that the Vermont energy programs are meant to incentivize Vermonters to learn how to make their own energy and take ownership themselves so that those revenues flow into the local economies and communities. I agree with the comment from **Anette Smith, VCE**, that Vermont communities are "feeling left out of the process." In the four years since I moved Star Wind Turbines LLC to Vermont, I have found and continue to observe that the vast majority of Vermonters are still unaware of the Standard Offer Program and do not know that there is a cash program available to them. I believe that more has to be done to inform the communities and emphasize the development of small to medium-sized systems to be locally or community-owned.

The advantage of a small system, whether it is solar PV, small wind, methane, bio, hydro, etc., is that there is a higher probability that the cash made will flow into the local

economy. I agree with the comments from **All Earth Renewables** that the system size limits should be reduced to 1500kW, but I believe the emphasis should be toward systems under 150kW. Smaller is better. I believe the statute would be better served to have 100 x 50kW systems owned by Vermont farmers and landowners instead of one large 5MW solar PV field. Like Solar PV, the other developing technologies' prices will come down as the market based RFQ mechanism takes its effect, serving the rate payer.

Importantly, 30 V.S.A. Sec. 8001(a) (2) and (7) highlights the support of development of Vermont energy industries, jobs, and economic benefits. I understand that in Vermont, there is still a crisis to create jobs and income for so many Vermonters who are having a hard time making ends meet. Many of these Vermonters own their own land. One might consider that erecting one 50kW turbine or 50kW solar PV system could be equivalent to one long term sustainable job that could last for 20 years. This job is making energy, not just installing it. This job is needed, cannot be laid-off, cannot move to China, and is very **sustainable**.

30 V.S.A. Sec. 8001(a) (4) calls for the development of markets for renewable energy. The Standard Offer Program **is** that market to sell electricity into. Cash is the life blood of a local economy, not electrical credit as in the Net-metering program. Cash from a feed-in-tariff program is superior when it comes time to obtain financing and pay for equipment. Also, because every distributive generator should be incentivized to export to the neighborhood and make extra electricity, cash is a better compensation than electrical credit. Assigning electrical credits and forming a net-metering group is difficult.

Notably, 30 V.S.A. Sec. 8001(a)(3) calls for "long-term" contracts. I agree with **Thomas Melone/Allco Renewable Limited**, that no facility will be built without a long-term benefit or revenue stream, long-term being defined as +20 years, not 7 years. A 7 year contract will not be sufficient to obtain financing or make a good return on investment. It must be remembered that the Standard Offer program is based on private equity instead of public equity, and the entrepreneurial risk is solely the burden of the producers.

Along these lines, perhaps, there could be discussion about what happens after the contract is over in the present Standard Offer Program. To prevent a void in generation, perhaps these contracts could be given the first option to obtain a net metering position instead of coming off line and being decommissioned.

In further defense of the Standard Offer program, I would point to 30 V.S.A. 8001(a)(8), which refers to the goal of developing a diverse portfolio of different technology renewable energy plants. As illustrated from the **Lawrence Berkeley National Lab. /Andrew Mills** presentation and other sources, it has been established that the Vermont load has shifted to the evening hours, which are outside the generation window of solar PV. Wind technology, battery storage, methane, hydro, and bio fuels can all address this, and therefore need to be emphasized. Perhaps other climate change scenarios like increased cloud cover or

temperature will happen. The Standard Offer Program has been instrumental in stimulating new technologies and should be continued, not dissolved.

Theoretically, it is possible that developing technologies like small wind or anaerobic digestion will be able to make energy cheaper than solar PV years from now. But this will not happen without technology allocations, and it takes commitment. 836kW/yr. allocation per year is a drop in the ocean compared to the 30-40MW of capacity per year that is proposed for the RES Tier II. I can only speak for small wind technology, but the prices can come down if manufacturing evolution occurs and volume increases. At that time, the very small investment in technology allocation will yield a big return.

Concerns I have about creating a new program:

1. Within the Standard Offer Program, why can't communication to the public be developed towards locating efficient proximity to load? The information would have to come from the utility company and perhaps interconnection agreements that can be made prior to the RFQ.
2. Who would be the impartial 3<sup>rd</sup> party in charge of oversight and establishing the avoided cost?
3. Who will be responsible and ensure that the developing technology allocations are maintained?

Suggestions for changes to the existing Standard Offer program:

1. Change the name to something like "**Vermont Public Feed-In-Tariff**" - **VPFIT**
2. Extend the program out to 2032 Tier II. This program serves the goals enumerated in 30 V.S.A. SEC. 8001 very well. It has been shown to produce the lowest priced solar PV and helps to develop new technology. The administration works well.
3. Provide a net-metering position when the contract is over.
4. Fix the wheeling charges and exemptions.
5. Advertise the program to the public.
6. Make an allocation for systems under 150kW for any technology.

Thank you for your consideration in this matter.

Jason Day  
Star Wind Turbines LLC