

Sen. Natural Resources & Energy Committee  
Testimony on H.40/S.51 RESET bill

I am writing with serious concerns about H.40/S.51 as currently drafted. As it is, it discourages solar energy adoption in Vermont and/or encourages dishonesty in solar marketing. It can easily be revised to eliminate these problems.

I am writing with three distinct perspectives. These include (1) a native Vermonter born and raised in Rutland, (2) a graduate of Dartmouth and an economist with a Ph.D. from Oxford (UK) University, and (3) President of Solaflect Energy, a rapidly growing solar technology company in Norwich and White River Junction that in two years has become the largest installer in the Upper Valley. Solaflect is already a significant employer in Vermont, and has developed technology that has national and international relevance (and has received two \$1 million awards from the U.S. Department of Energy).

In my lifetime, I have seen dramatic changes in Vermont's climate. I know that winters are not what they used to be (despite this February), but only recently have seen this quantified by Alan Bett's study completed for the Agency of Natural Resources (<http://alanbetts.com/workspace/uploads/vtccadaptclimatechangevtbetts-1323872366.pdf>). Extrapolating from that report, in my lifetime Vermont average summer temperatures have increased 2.3 degrees, while average winter temperatures have increased 5.2 degrees (from 18 to 23 degrees). The growing season is three weeks longer, and the lilacs leaf out 17 days earlier. Stiles Pond is frozen 40 days less each winter. These are dramatic changes in a short time, and this makes me worried about the Vermont that will be inherited by our children and grand-children.

As an economist, I understand incentives and markets. One of the global mechanisms for combating climate change has been the creation of markets for Renewable Energy Certificates (RECs). These are established because it is impossible to put labels on electrons so that you can control whether your electric meter accepts electrons from a coal plant or a solar plant. As a result, electricity is a commodity, but we all know that the side effects (externalities) from a coal plant are very different from those of a solar facility. It is possible to separate the commodity (electricity) from the renewable attributes associated with producing the electricity (RECs), and to have markets for each. A fundamental premise in the integrity of such markets is that the RECs can be audited and verified (in other words, we know for sure that the electricity was produced in an environmentally friendly way), and that there is only one owner that can claim the renewable attributes of one REC. I have attached a document with numerous references detailing various organizations which underline the importance of not double counting RECs. This has become particularly egregious with the advent of community solar in Vermont. Some Vermonters are paying thousands of hard earned dollars to join a community solar facility because they believe it is critical to the future of their children and grand-children. However, the RECs are then sold, which is effectively selling solar twice. The legal composition of the energy they receive is the New England residual mix, which is 60% fossil and 37% nuclear. This is never made clear, and most are under the mistaken impression that they are receiving

cleaner electricity than before their investment. The FTC has clearly stated that this is deceptive marketing (16 C.F.R. §260.15(d); see attachment)

As President of Solaflect Energy, we do not sell RECs. In this case, if one of our customers elects to spend thousands of dollars on solar equipment, they should be able to legally claim that they are solar. That is NOT the case with H.40.

Our issues are with language beginning on p. 89 of the official version passed out of the house (<http://legislature.vermont.gov/assets/Documents/2016/Docs/BILLS/H-0040/H-0040%20As%20Passed%20by%20the%20House%20Official.pdf>).

Sec. 11. 30 V.S.A. § 219a(h) is amended to read:

(h)(1) An electric company:

**(l) Shall receive ownership of the environmental attributes of electricity generated by the customer's net metering system**, including ownership of any associated tradeable renewable energy credits, unless at the time of application for the system the customer elects not to transfer ownership of those attributes to the company...

Sec. 12. 30 V.S.A. § 8010(c) is amended to read:

(c) In accordance with this section, the Board shall adopt and implement rules that govern the installation and operation of net metering systems.

(1) The rules shall establish and maintain a net metering program that:

...

(H) allows a customer to retain ownership of the environmental attributes of energy generated by the customer's net metering system and of any associated tradeable renewable energy credits or to transfer those attributes and credits to the interconnecting retail provider, and:

**(i) if the customer retains the attributes, reduces the value of the credit provided under this section for electricity generated by the customer's net metering system by an appropriate amount; and**

...

This language puts us between a rock and a hard place. In the case of either community or residential solar, our choices are:

- 1) offer *solar* that has reduced net metering value (reduction to-be-determined), or
- 2) offer Residual Mix (60% fossil; 37% nuclear) to provide our customers full net metering value and the benefit of the solar adder, or
- 3) violate FTC truth-in-advertising regulations (like many others!) to keep our customers in ignorant bliss.

This is an unpalatable choice.

Kevin Jones at Vermont Law School has proposed a fix to the bill, such that the total mWhs for these net metered customers' production would be reduced from the DG requirement for each

utility. For example, the individual utility requirement for 2017 would become (a slight variant from Kevin's proposal):

$(0.01 \times \text{utility's annual electric sales}) - (\text{total individual green mWhs from new renewable generation of net metering customers in utility's service territory}) = \text{utility DG requirement (mWhs)}$ .

Thank you very much for your consideration.

Best regards,

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