

Testimony Submitted by:

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Bio:

Occupation: Farmer

Degrees: B.S. Animal Science and M.S. Animal Nutrition, Virginia Polytechnic Institute and State University, Blacksburg VA, Home of the Hokies.

I have been involved in agriculture all of my adult life. Managing a farm in Virginia and operating my own dairy farm there for six years. And now farming for 38 years in Orwell, VT.

Two years as a Peace Corps Volunteer in the Philippines teaching agriculture at a agriculture college and as an ag extension agent.

Three years teaching agriculture at Farm and Wildness Camps in Plymouth VT.

Owner of Stonewood Farm in Orwell VT since 1976. We milked cows for 13 years then started a turkey operation and now grow, slaughter and market 30,000 annually. We have a federally-inspected turkey slaughter plant on the farm. We market fresh turkeys and turkey products all over New England and New York.

Stonewood Farm consists of 1,029 acres, 829 in Orwell and 200 along Otter Creek in Brandon and Sudbury. I have considerable experience in farming a large variety of soil types in Addison and Rutland Counties.

In addition to my experience and training in the area of animal agriculture I have a great deal of experience in crop production, soils, fertility, tillage, soil conservation work, and more. In college I minored in agronomy.

I was Commissioner of Agriculture for the State of Vermont in 1985 and 1986. Part of my job as Commissioner of Agriculture was to oversee the Act 250 consideration of agriculture soils in the Act 250 applications criteria 9B.

I have been active and held office positions in Vermont Farm Bureau, VT Dairyman's Association, Extension Service Advisory Board, and Vermont Agriculture Experiment Station Advisory Board.

I was elected and served on the Orwell Select Board for 12 years starting around 1990 and appointed to the Orwell Planning Commission approximately 1984 to

1998. I served on the Addison County Solid Waste District board as a representative of Orwell for four years. I served on the Addison County Regional Planning Commission for short period of time.

I am a legal resident of Orwell and a registered Voter 1976 to date.

Testimony Siting Solar Electric Energy Production

My most important point is that **we should not be using Agricultural Soils for siting solar installations.** For the following reasons:

1. **There is no need to develop Agricultural Soils for solar sites. Vermont has abundant land other than Agricultural Soils for solar siting.**

Attached, see Appendix A. page 215 of the Vermont Comprehensive Energy Plan, Draft:

which states Vermont has **340,000 acres of non Agricultural Soils** and needs **only 13,000 acres for solar siting** to generate the electricity needed in the plan for 2050.

Therefore there is no need to waste Agricultural Soils for solar siting.

2. **Vermont does not have a great abundance of agricultural soils,** due to an abundance of mountains, wet lands, state and national forest and wilderness, and already developed lands among other existing land uses.

Land conservation, conservation easements, and development rights. Vermont has spent hundreds of millions of dollars toward purchasing development rights and property to protect land and the agriculture. Vermont continues to spend millions more each year in the Current Use program. Morally, this is what Vermont has been about and continues to be. As a state, we have a strong history of conserving agricultural land. For us not to consider this when reviewing projects is just plain wrong.

3. **Vermont should preserve all the agricultural soils** it can, because of their importance for food production; both local and exported.

4. There is no way at this time to know positively how much agriculture land will **be needed in Vermont for future food production**, but if we do not conserve for future use the lands we now have we will be committing a very foolish act.

5. **Agriculture contributes** significantly to the Vermont economy, **providing jobs, supporting business, professions, paying taxes, and contributing significantly to tourism** by providing open fields and vistas. Addison County produces many specialty food products that are well and widely known and gives Vermont an immeasurable amount of advertising and good will. Indeed the recent emphasis on locally-produced foods are very much in demand by local and regional consumers. If we waste our good agriculture soils by development of solar projects we will be jeopardizing one of our most important and visible assets. In addition this area is near our agricultural fair site, Addison County Fair and Field Days, one of the most important agriculture fairs in Vermont.

6. **Using agricultural lands for solar sites runs counter** to Vermont's long and successful program of preserving farm land. Vermont has contributed millions and millions of dollars to the **Housing and Conservation Board**, for a long period of time. In 1986 I was part of the initial effort, to get legislation passed to set up the Vermont Housing and Conservation Board (when I Commissioner of Agriculture.)

A large part of these funds are being used to purchase easements on farm and forest land, via the **Vermont Land Trust and other such organizations**. Vermonters have taken seriously the conservation of agriculture land, probably more so than most other states. These conservation efforts are designed to **make sure we have farm land for the future**, that the best way toward planning to ensure agriculture of the future is to reward landowners, i.e. purchase development rights, in their efforts to conserve farm and forest land.

It is wrong to now indiscriminately allow the development of agriculture lands, with solar panels, when so much time on the part of Vermonters, and so much money, so much good will of the people of Vermont has been spent toward conserving irreplaceable agriculture lands.

7. The State of Vermont has long empowered **local and regional planning commissions** to protect farm land. Countless hours of local, regional, and state labor has been invested toward that cause. Immeasurable vast sums of funds have likewise been invested. Vermont started farmland protection and preservation in as early as 1847. It is wrong to change the course of good planning and now allow

indiscriminate siting of solar panels against town plans of local planning commissions. Even if the town plans are silent on this issue these solar panels are development and should be subject to the same scrutiny as any other development with the goal of protecting agricultural soils.

8. **Act 250** protects agricultural land by requiring developers to **mitigate** the destruction of agriculture lands by setting aside part of planned projects, permanently conserving agriculture lands in other locations, and other measures. It is wrong to allow solar panels to be placed on agriculture soils without any mitigation what so ever.

Though I mention mitigation I don't believe this is a good idea.

It is wrong to allow solar panels to be placed on agriculture soils period.

9. Vermont has spent many millions of dollars on the **Current Use (Use Value)** to assess agriculture lands and buildings fairly so that agriculture pays its fair share of property taxes. It is ludicrous to now come along an all of a sudden to classify solar as farming. Especially when solar is not farming and it is destroying valuable farm land, i.e. taking it out of production permanently. This makes no sense.

10. **Nutrient disposal.** With the new emphasis and enforcement on keeping phosphates out of Lake Champlain, Vermont's agricultural industry is being squeezed. There are fewer appropriate fields to spread **manure**. Removing valuable lands from farm use threatens the ability of our industry to maintain its viability while protecting Lake Champlain. This project removes 20 + acres of valuable land from productive use.

11. **Decommissioning** – There is no way to dispose of panels now, and no guarantee there will be a way in 25 years. Further, the LLC may well be gone once the project is finished. Ownership could change – the developer may well be out of business. There is no guarantee the land would revert to its proper agricultural use once the project life is over.

Therefore no agricultural land should be used for solar sites.

12. **Agricultural lands are already solar collectors and cannot be improved upon.**

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Appendix

A. Addison County Regional Planning Commission: Oct. 19, 2015, suggested a list of good sites and poor sites for solar projects. In my estimation the most important poor site listed is, "The removal of productive agricultural land from agricultural use."

B. Comprehensive Energy Plan, Draft of 2015, page 215

"These three scenarios have different land use impacts. The following summary of possible impacts is approximate, and uses current estimates and rules of thumb. It is in no way intended to describe a prediction of the

actual impacts from these scenarios, nor to suggest that any of these scenarios is the exact future electric portfolio for Vermont utilities. Assuming that all of the solar PV serving Vermont load is located here, all of these scenarios suggest significant increases from the current level of deployed solar. To date, there are approximately 120 MW of solar PV deployed (of which about 25 MW are residential rooftop-scale systems under 10 kW), and there are more than an additional 60 MW announced or in some stage of the permitting process. Scenario C involves 1,500 MW, assuming an average 16% capacity factor. If approximately ¼ of residential buildings have roofs suitable for solar PV and these roofs are all used, then between 300 and 500 MW of solar PV could likely be deployed on residential roofs. If 350 MW were deployed on residential roofs, the 1,150 remaining MW would require about 8,000 acres (assuming 7 acres per MW). To achieve 2,250 MW total in scenarios A and B, the 1,900 MW not on roofs would require about 13,000 acres. Disturbed lands, parking lots, and commercial rooftops would be possible sites for the non-residential generators. Rooftop deployment is more expensive than ground-mounted deployment, so the balance would have ratepayer cost implications as well as environmental and land use implications.”

Page 215 continued; “Under a grant from the DPS, a team of regional planning commissions has used geographic information systems (GIS) to estimate the number of acres in the state that are good for solar (e.g. reasonably flat) and also are **not**: FEMA floodways, river corridors, federal wilderness areas, rare and irreplaceable natural areas (RINAs), vernal pools, class 1, 2, and 3 wetlands, deer wintering areas, special flood hazard areas, conserved lands, hydric soils, habitat blocks > 2,000 acres, **or local, prime or statewide-classified agricultural soils.** There are more than 340,000 acres of such lands in Vermont. Many of these lands are likely not suitable due to un-accounted-for factors, such as current uses, aesthetic impacts, or other factors. However, it is also likely that there are many excellent sites for solar PV that are not counted in this total, including sites on disturbed land and in the built environment. Regardless, this data supports a conclusion that the estimated requirements for land area for