

March 22, 2016

Representative David Deen
House of Representatives
State of Vermont
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*Scientists, Engineers &
Environmental Planners
Designing Innovative
Solutions for Water,
Wetland and Soil
Resource Management*

Honorable Representative Deen and Members of the Committee on Fish, Wildlife and Water Resources:

On behalf of Energize Vermont and Vermonters for a Clean Environment, I am here today to discuss my observations and concerns regarding wind energy development and the siting of solar energy projects.

It has been four (4) years since I last testified in front of this committee, and since that time, the Lowell Kingdom Community Wind Project has been built and operational. As you are very aware, this project was the subject of much controversy and was appealed by my client, Energize Vermont to the Public Service Board. In the end, the PSB upheld the permit with a primary basis of the upholding of the appeal that the alternate stormwater treatment practice (STP) would be monitored within specific parameters as outlined in the VT Stormwater Management Manual (VSMM) as well as specifications as outlined by Green Mountain Power's consultant. However, while there is only about 4 months remaining on the issued individual operational stormwater permit, GMP has yet to start the monitoring requirements of the alternate STPs and the VT ANR has yet to issue a warning, notice of violation or fine to GMP for non-compliance. There is no data to show that these systems are functioning, and so the renewal of the permit, if issued in August of this year, would be done so with no foundational data.

Specifically, Condition 14 requires that a minimum of one year following the completion of construction and within three years of the completion of construction that the experimental level spreaders and vegetated buffers are to be monitored with data collected to determine if they meet the performance standards of the VSMM. GMP further committed in their initial alternate STP monitoring plan in 2010 that this study would be completed "over the course of 3 years". Well, to date and over two and a half years following the minimum start date for monitoring, nothing has been done. It is my conclusion that GMP cannot show that these systems will work. And these very same systems are proposed for the Deerfield Wind project, which has received its stormwater permits. While there is water quality monitoring being conducted thousands of feet downstream of the stormwater discharge points at Lowell, that monitoring is a condition of the issued 401 water quality certificate and is not a surrogate for compliance with Condition 14 and being, on average, thousands of feet downstream of the stormwater discharge points does not provide data to confirm or refute the protection of water resources in the regulated waters in the higher elevations.

Based on my review of the record at ANR, I further offer the following concerns on wind and solar projects:

- The level spreaders and associated vegetated buffers for high elevation energy projects are not functioning effectively on their own and require significant maintenance and upkeep to keep them from failing.
- Deerfield Wind in southern Vermont is proposing to use the same alternate STPs as a Lowell KCW, with no data, and a construction start date expected in the near future, there is no data from Lowell to support their use. And it is has been permitted already. If these systems are found not to protect water quality, you will now have two projects to fix. And of course, there are other projects in the works, including in Grafton/Windham and Swanton.

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- The stormwater permitting program does not promote public input until the draft permit is issued by ANR, well after the developer and ANR has negotiated a final plan. By the time the draft permit is issued for review public comment does little to affect the outcome of the project. This process then leads the need to appeal the permit in an attempt to get a seat at the table to comment.
- The appeal process of a stormwater permit for renewable energy projects is unaffordable by the aggrieved. For example, the Lowell KCW project costs Energize Vermont nearly \$400,000, including attorneys and experts.
- An appeal at the Public Service Board of ANR permitted energy projects, puts the appellant at a disadvantage as ANR, a defendant in an appeal, is usually the PSB's expert on environmental matters.
- There is a misconception about the impact of solar projects on the landscape. Construction is significant and is not simply an impact by the poles of solar panels on the ground. And, as I understand, ANR permits solar arrays in wetlands. The effect of soil compaction and shading is not conducive to a healthy remaining wetland.
- The renewable energy program in Vermont does not apparently have incentives to promote the installation of projects on the already built landscape. For example in NJ, for solar projects built on active agricultural lands do not receive renewable energy credit, instead pushing energy development to brownfields, landfills and other built/disturbed lands. Vermont, in the push toward meeting their renewable energy goals should do the same to preserve its agricultural, wetlands and forest lands.
- Ironically, renewable energy projects are not designed with climate change in mind, and as a result, stormwater systems currently designed will likely not meet the needs of increased expected flooding in the years ahead.

As I have observed, Vermont is no closer in balancing its renewable energy needs with adaption to climate change and the preservation of its natural resources for future generations than it was four years ago when I first testified. This Committee and the legislature must commit to finding that balance.

Thank you for your time and consideration.

Respectfully,



Geoffrey M. Goll, P.E.
Vice President