Vermonters for a Clean Environment

Feb. 5, 2025

John Sinclair, Forest Supervisor
USDA Forest Service
Green Mountain and Finger Lakes National Forests
c/o Clara Kuhn
99 Ranger Road
Rochester, VT 05767

Re: *Deerfield ADLS Construction Permit #67308, comments submitted via Forest Service online comment system*

Dear Forest Supervisor Sinclair,

Vermonters for a Clean Environment (VCE) offers the following comments on the proposed Permit for construction, use, and maintenance of two aircraft detection lighting system (ADLS) towers and associated infrastructure on the East Ridge of the Deerfield Wind facility.

Background: VCE participated in the USFS's SDEIS process leading up to the ROD and issuance of the Special Use permit. VCE appealed the permit to Vermont Federal District Court, especially due to our concern about the impacted bear habitat and the visual impacts to the adjacent George D. Aiken Wilderness Area. After the project was constructed, we documented numerous vantage points within the Wilderness Area where the wind turbines are visible.

VCE supports the use of ADLS lighting to minimize the already-intrusive visual impacts of the wind turbines to visitors of the Wilderness area, which is supposed to be a place where the hand of man is not visible. The Purpose and Need proposal does not mention the George D. Aiken Wilderness Area, and points to the visibility of the project's lights on the Long Trail and Appalachian Trail.

Site specific comments about the proposal along with supporting information and rationale you believe will help identify issues.

Limited Information: The GMNF provided very little information to the public about this project. Upon inquiry we learned the name of the company the GMNF proposes to contract with, Terma.[1]

Previous ADLS System: Previously, Deerfield Wind installed an ADLS system by a different company, Laufer. The Purpose and Need document explains that the

[1] https://www.terma.com/products/radars/aircraft-detection-lighting-solution/

previous system was unreliable, and had functionality and maintenance issues that led to frequent malfunctions. Not mentioned is that Laufer went out of business.

ADLS Systems at Other Mountaintop Wind Projects: Deerfield Wind's power output is contracted to Green Mountain Power (GMP), which also has an option to purchase the project. Green Mountain Power is required by its Vermont Certificate of Public Good to install an ADLS system on its Kingdom Community Wind (KCW) project in Lowell, Vermont. The KCW project has been in operation for more than a dozen years, but has not yet installed an ADLS system. GMP is required to report its progress to the Vermont Public Utility Commission every 6 months. A compilation of GMP's recent reports[2] includes reference to the Terma product. See pages 5-6 of the compilation, a letter from July 29, 2022 pp. 3-4 that discuss the decision to not use Terma's product:

> Thereafter renewing efforts to find alternative FAA-approved solutions and reviewing one manufactured by Terma, which GMP ultimately determined was not a viable alternative because 1) its single Doppler radar unit would have environmental impacts similar to Laufer Wind that was of concern to ANR and to GMP, and 2) it would require an off grid power source for the remote location that would have resulted in lights on for long periods especially during winter months due to the significant power consumption of the Terma product;

Two concerns were raised. If the GMNF consults with Vermont Agency of Natural Resources (ANR) about their concerns about environmental impacts, the FS would learn that environment impacts outweighed the benefits, especially because of the new roads required for the towers and the significant power consumption required by the Terma product that would have resulted in lights on for long periods, especially during winter months.

The Antrim Wind project in New Hampshire is the only mountaintop industrial wind project operating in Vermont or New Hampshire that VCE is aware of that uses Terma's product. According to comments filed with the New Hampshire Site Evaluation Committee on December 11, 2023,[3] consistent with the concerns referenced in GMP's report to the Vermont PUC, Terma's system had a low, 20-30% on-average nighttime illumination period. In other words, the lights were on for long periods of time at night, despite the Terma ADLS system. The comment letter further cites an Antrim Wind Response (see footnote within the comment letter) that states

> "Due to the geographic relief and tree canopy around the Antrim Wind facility," Antrim Wind has stated that "a land mask" is required to prevent the ADLS system from activating turbine lights due to detections of the tree

[2] https://vtce.org/GMP_ADLS_KCW.pdf
[3] https://www.nhsec.nh.gov/projects/2021-02/documents/2021-02_comments_lerner_12-12-2023.pdf

> canopy." The land "mask," according to Antrim Wind, may need to be updated annually to reduce the frequency of light activations at facility."

Restated, the above indicates that regular (annual) tree clearing/trimming is necessary in forested areas for the system to work.

The only Performance Assessment[4] of Terma's system we are aware of is from 2016 for a desert setting and therefore is not useful for evaluating the performance of the Terma system in a forested area.

Concerns about environmental effects associated with the proposal.

VCE has real concerns about the environmental effects associated with the proposal. Given the high value of the beech forest in which the wind turbine project was sited, any further fragmentation of habitat is detrimental to the overall ecology of the area and especially to the genetically distinct bear population that has historically made use of this ridgeline.

The proposal involves two new roads up to 50 feet wide(!!), one ¼ mile and one ½ mile for a total of ¾ miles of new roads in. A cut and fill operation could require blasting, which is not referenced in the materials provided. The roads will have to be of sufficient structural design to hold concrete trucks.

This is not a small proposal with minimal impacts. There is no information in the materials provided to the public regarding whether any environmental assessment has been done, the types of trees proposed to be cleared in the 4.7 acres of new clearing, the existence of wetlands, the need for other permits such as stormwater construction and operational, whether ANR has reviewed and commented, or impacts to Rare, Threatened or Endangered species or any of the typical evaluations that a project of this size in such a sensitive area would involve. There is no information about the visual impact of the 197 foot tall towers.

The new roads open up the area to more intrusion by invasive species which may result in the use of more herbicides, and predation. For instance, at the Coos County "Granite Reliable" Wind project in New Hampshire, road infrastructure has been documented to have enabled canines access to the endangered American marten.[5]

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[4] https://www.terma.com/media/5vyc1ob2/faa_scanter_5000_type_approval.pdf

[5] https://www.wildlife.nh.gov/wildlife-and-habitat/nongame-and-endangered-species/nongame-projects/american-marten-monitoring
A significant finding was related to an increase in predators and competitors. Researchers documented an increase of red fox and coyotes in the study area following construction, likely due to maintained roads and snowmobile trails that provided easy access into high elevation habitats that otherwise would not have been used.

The GMNF in Southern Vermont is one of the areas where the pine marten has been identified in recent times.[6],[7],[8],[9]

Summary: While VCE supports the suppression of night lighting intruding into the George D. Aiken Wilderness, the Long Trail and the Appalachian Trail, the appropriate decision regarding the Deerfield Wind project should have been to deny it in the first place. Now, after the failure of the Laufer system, the GMNF proposes a new wound and insufficient band-aid to attempt to address the requirement of a permit that should never have been issued.

The available information before the GMNF is that the Terma system will operate at most 20 – 30% of the time, will require regular and ongoing tree clearing or trimming to remain operational, add two new tall towers, and will require ¾ miles of new roads that will further fragment important wildlife habitat.

VCE concludes that the environmental effects far outweigh any possible benefits. GMP drew the same conclusion regarding installation of the Terma product at its Kingdom Community Wind project in Lowell, Vermont. VCE recommends that the GMNF deny this project.

Sincerely,

Annette Smith

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[6] https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/marten-reintroduction.pdf
[7] https://vtdigger.org/2023/08/18/the-american-marten-reappears-in-vermont-and-intrigues-researchers/
[8] https://vtecostudies.org/blog/marten-population-continues-to-expand-in-vermont/
[9] https://vtfishandwildlife.com/learn-more/vermont-critters/mammals/american-marten