Virginia Wind
481 Ravens Run Road
Monterey, VA 24465

September 21, 2010

Ms. Laura Hill, Assistant Field Supervisor
U.S. Fish and Wildlife Service
West Virginia Field Office
694 Beverly Pike
Elkins, WV 26241

RE: Preparation of an Environmental Impact Statement for Issuance of an Incidental Take Permit and Associated Habitat Conservation Plan for the Invenergy Beech Ridge Wind Energy Project, Greenbrier and Nicholas Counties, WV

Dear Ms. Hill:

I appreciate the opportunity to comment on the content of National Environmental Policy Act (NEPA) review related to the Invenergy Beech Ridge Wind Energy Project.

The U.S. Fish and Wildlife Service (USFWS) NEPA review process provides perhaps the first opportunity for objective and rigorous analysis of the costs and benefits associated with utility-scale ridgeline wind energy development in the central Appalachian region. I was a committee member and co-author of the National Resource Council (NRC) 2007 report, Environmental Impacts of Wind Energy Projects, which focused on the Mid-Atlantic Highlands (www.nap.edu/catalog.php?record_id=11935) . I am thus well aware of the limitations of current information, analysis, and regulatory review, and I am deeply concerned about the potential for significant environmental impacts associated with this type of development in this region.

Although a long list of issues and recommendations can and should be compiled related to the Beech Ridge project, my comments here focus on two broadly encompassing issues, evaluation of cumulative impacts and evaluation of benefits. These issues apply to USFWS decisions concerning the individual project and to the consequences of the precedent that will be established for wind energy development in the region.

Evaluation of Cumulative Impacts

As evidenced by multiple letters concerning wind energy projects, the USFWS is fully aware of the need to address the cumulative environmental impacts of wind energy development in the central Appalachian region. These letters, several of which are provided here as attachments, express concerns about cumulative regional impacts associated with direct harm to bats and birds, including endangered and protected species, as well as general habitat degradation due to forest fragmentation resulting from construction of turbines, roads, and transmission corridors.

The 2007 NRC report took a step toward quantifying potential turbine-caused bat and bird mortality associated with central Appalachian region (mountain areas of MD, PA, WV, and VA) wind energy development based both on (1) the record of bird and bat mortality at existing wind projects in the region and (2) on projected additional wind project development in the region.

The NRC committee found (based on projections for development and on projects listed in the grid interconnection queue):

- The number of bats killed per year will be 33, 017 to 119,665.
- The number of birds killed per year will be 5,895 to 44,999.
- There is insufficient information to assess potential population impacts on birds.
- The potential for impacts on bat populations appears significant.
- Additional impacts to wildlife will occur due to habitat alteration.

The estimates for bird and bat mortality should be viewed as conservative, as they were based on projections for future wind development that should now be recognized as low. In addition, the prognosis for sustainability of bat species is now even more dire due to the emergence of white nose syndrome.

It would be contrary to the clear intent of the Endangered Species Act, NEPA, and the mission of the USFWS to ignore the actual harm to bats, birds, and other wildlife by basing decisions about an individual project as if the impacts of that project occur in isolation from the cumulative impact of expected regional-scale development.

Evaluation of Benefits

The NEPA review process requires consideration of alternatives, including the alternative of not building a project. In the Invenergy Beech Ridge case, the USFWS must decide whether the benefits of the project outweigh the environmental costs, or more appropriately, whether the benefits of utility-scale wind energy development in the central Appalachian region outweigh the costs.

The 2007 NRC report again took a step toward this evaluation by estimating the potential benefits of wind energy development in terms electricity supply and air quality improvement.

The NRC committee found (based on U.S. Department of Energy Projections for 2020):

- Wind energy development will equal 2 to 7% of U.S. installed generation capacity, but only 1.2 to 4.5% of actual U.S. generation (less than installed capacity due to the intermittency of wind).
- Wind power development will provide no reduction in nitrogen and sulfur emissions in the eastern U.S. –because these pollutants associated with acid rain and ozone formation are regulated by emissions caps.
- Wind power development will offset emissions of carbon dioxide by 0.5 to 1.8% from the levels of emissions that would otherwise occur from energy use.

Although these findings indicate that projected wind energy development will provide only minimal benefits, it should be noted that the estimated benefits are based on national-scale analysis and projections. As indicated in the 2007 NRC report, the density of the wind resource in the Mid-Atlantic Highlands is substantially less than in most other U.S. wind-development areas, and thus the benefits will be less than for the country as a whole.

Although the 2007 NRC report indicates that benefits of wind energy development will be minimal in terms of air quality improvement, a number of recent reports have suggested that wind energy development will actually have the effect of increasing carbon emissions (e.g., http://www.wind-watch.org/documents/wp-content/uploads/BENTEK-How-Less-Became-More.pdf). The argument is made that due to the intermittency and unpredictability of wind power, especially during peak-demand periods (e.g., late-summer afternoons), the need for readily available backup power requires inefficient operation of fossil-fuel generators, and results in a net increase in carbon emissions. The validity of this argument is difficult to determine. Although wind developers may claim benefits with respect to reduced carbon emissions, they deny access to the information required for objective verification.

In the present Invenergy Beech Ridge case, the USFWS should reasonably expect Invenergy, which operates multiple wind projects in the U.S., to provide the data necessary to support any claims made concerning benefits, including reduction in carbon emissions. This is simply the level of transparency that should be required for any objective regulatory review or scientific analysis. Qualitative arguments or unverified assertions should not be accepted.

Finally, the USFWS needs to ensure that any contractors or consultants it employs to conduct the required NEPA review are fully qualified to perform the needed analysis. Moreover, all data, analysis, and models used by the contractor or USFWS in conducting the NEPA review should be made available, without exception, for public review.

I look forward to your responses to my comments.

Thank you,

Rick Webb

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USFWS letters: Highland New Wind Project
Pinnacle Project
Liberty Gap Project