



U.S. Fish & Wildlife Service Virginia Field Office Attn: Sarah Nystrom 6669 Short Lane Gloucester, VA 23061 April 15, 2016

Re: Rocky Forge Wind Project and the Eastern Golden Eagle

Dear Ms. Nystrom:

Apex Clean Energy (Apex) proposes to build the Rocky Forge Wind Energy Project (WEP) in Botetourt County, Virginia, near Eagle Rock. This proposed development would place 25 550-foot tall wind turbines, along with associated roads and infrastructure, along the ridgeline of North Mountain. American Bird Conservancy (ABC) and Virginians for Responsible Energy have serious concerns about the siting of this project, particularly the risks it poses to federally protected birds and bats. ABC expressed its concerns about the impacts of this poorly sited project on our nation's wildlife in a June 18, 2015 letter to Botetourt County's Board of Supervisors, copying Virginia Department of Game and Inland Fisheries (DGIF) and U.S. Fish and Wildlife Service (USFWS) officials. The proposed project sits within a Globally Important Bird Area (GIBA), a key location for neotropical migrant songbirds, including several species of conservation concern. One critical concern about the Rocky Forge WEP is the impact it may have on the Eastern Golden Eagle (*Aquila chrysaetos*), and it is the focus of this letter.

ABC and Virginians for Responsible Energy support the development of clean, renewable sources of energy such as wind power, but also believe that it must be done responsibly and with minimal impact on our public trust resources, including native species of birds and bats, and particularly threatened, endangered and other protected species.

ABC developed the concept of Bird Smart Wind Energy, which is described in some detail on our web site (https://abcbirds.org/program/wind-energy/bird-smart-strategies/). In the case of wind energy, careful wind generation siting is crucial in preventing the unintended impacts to America's native bird species, and ABC and Virginians for Responsible Energy are concerned that the proposed site for this project poses an unacceptably high potential risk to state and federally-protected species.

According to the DGIF, the Eastern Golden Eagle is believed to be a "small and potentially vulnerable population" that is "geographically isolated and potentially [a] distinct

population...." (DGIF 2016). This population breeds in northeastern Canada, migrates through the central Appalachians, and winters in Virginia. According to DGIF, "Eastern golden eagle migration is strongly associated with the Appalachian ridgelines...." In fact, "in the East they spend the winter primarily in dense deciduous forests, usually at higher elevations, like ridgetops and mountaintops." (Greenspan 2015).

Since 2010, DGIF has been engaged in research to better understand this small, potentially vulnerable, and possibly genetically distinct population to include "potential impacts of wind energy...." Indeed, wind turbines are killing hundreds of thousands of birds annually in the U.S. (Smallwood 2013, Loss et al. 2013, Ericson 2014), and when infrastructure, such as roads and power lines are considered, the number goes into the millions (Loss et al. 2015). Raptors, such as eagles and nocturnal migratory birds are especially vulnerable.

The Eastern Golden Eagle Working Group is attempting to increase awareness of the significance of this unique population (EGEWG 2016). As members of this working group, Drs. Todd Katzner and Trish Miller are the experts concerning this rare and potentially threatened population of eagles and can be of valuable assistance in analyzing and measuring threats to the Eastern Golden Eagle from a variety of human activities, including wind power generation projects. Their research and that of other scientists has been impressive but remains ongoing, and is cited below. Significantly, however, Drs. Katzner, Miller, and others have estimated that this distinct migratory population is at a critically low level of 1,000-2,500 individuals (Katzner et al. 2012). With a population size, this small east of the Mississippi River, extreme care must be exercised to ensure its viability. One recent study stated: "The eastern population of Golden Eagles is of increasing concern to conservationists and managers range-wide due to its small size, its vulnerability to a suite of human threats (e.g., wind-energy issues, trapping bycatch, lead poisoning) and the general lack of knowledge about these birds" (Morneau et al. 2015).

The threat to this particular population in this particular area has been noted by Nelson et al. (20150, who stated: "Golden Eagles are at high risk for collision with wind turbines In eastern North America, the small Golden Eagle population breeds in Canada and migrates through and winters in the U.S. Appalachian Mountains." This risk is further substantiated by the toll that turbines have taken on Golden Eagles at the infamous Altamont Wind Resource Area in California (Smallwood and Thelander 2008). Tracking data from DGIF, the Wildlife Center of Virginia, and West Virginia University, demonstrates that this population — while significantly dispersed in its summer grounds in the Canadian province of Quebec — migrates and nests in a concentrated pattern in the winter months in the ridgelines along the Virginia-West Virginia border and, clearly, in the area where the Rocky Forge WEP is proposed (Katzner Labs 2016, Wildlife Center of Virginia 2016, Benson 2015). In other words, this small, vulnerable population of Eastern Golden Eagles migrates in a funnel pattern, and this proposed wind generation project is sited at the base of that funnel, thus creating a potentially dangerous and uniquely serious threat to this geographically isolated and possibly genetically distinct eagle population.

The Canadian Government, a signatory to the Migratory Bird Treaty Act (MBTA), has begun to examine this distinct population of eagles. Under the Ontario Endangered Species Act and the Accord for the Protection of Species at Risk in Canada, the Ontario Provincial Government recently (2015) published a Recovery Strategy for the Golden Eagle that focuses on this specific population (Wyshynski and Pulfer 2015). The Ontario population of Golden Eagles involves precisely the migratory sub-group at issue here, is distinguished from the global or national populations of Golden Eagles, and is classified as "Endangered" under Section 7 of Ontario's Endangered Species Act, 2007. Its Conservation Status at the Sub-National level is considered "Imperiled" which is just one step above "Critically Imperiled." According to the Recovery Strategy for the Golden Eagle, "Golden Eagles in eastern North America are faced with many direct and indirect threats, such as: ... electrocution and collisions with structures that obstruct flight paths, disturbance at nest sites, habitat loss, environmental contamination, and climate change. The extent of many of these threats to the Ontario Golden Eagle population currently remains unknown and needs further investigation." Other threats to eagle populations include shooting, lead poisoning, and disease. Even with the limited information from both U.S. and Canadian researchers, it is now clear that this is a small, vulnerable, and potentially genetically distinct population that is entitled to increased protection in both countries.

Of course, the species is already strictly protected by the Bald and Golden Eagle Act (BGEPA) in the United States and any take of individual eagles is strictly prohibited unless the developer has first obtained an incidental take permit (ITP) from the USFWS. We do not see how an Eagle ITP could be issued in this case, as the status of this population is still unclear and the USFWS has expressed an interest in retaining viable regional populations of eagles. Since the goal of USFWS' eagle management program is to maintain a stable or increasing population of eagles over 100 years, any take of an Eastern Golden Eagle could be incompatible with that goal, especially if its current population is less than 2,000. At that or lower levels, any loss could be of significance to the population and its long-term viability. More research is nevertheless needed, and this proposed project provides both the incentive and imperative necessary to require and institute independent expert analysis of the impact of industrial scale wind energy and other development projects on this population. Without this effort, grave harm to this federally-protected and ecologically important population of Golden Eagles may result.

Considering that the Rocky Forge WEP is sited precisely in the concentrated migration and nesting location of the "small and potentially vulnerable population" of the Eastern Golden Eagle, viability of the project and its impact on this population should be a matter of great concern for the USFWS and DGIF. At a minimum, the USFWS should require an independent analysis from subject-matter experts (such as Drs. Katzner and Miller) on this Golden Eagle population to determine if the threat to this species from Rocky Forge WEP is unacceptable. Since there are no currently verifiable and tested methods of mitigation for bird kill at WEPs, we do not see how mitigation would reduce the potential losses. Furthermore, the Service should be examining this project closely for enforcement of Endangered Species Act (ESA),

BGEPA and MBTA in light of the direct threat to this vulnerable population and other migratory birds. Furthermore, the Service should require Apex to apply for an eagle take permit. Independent study of the possible impact on the Eastern Golden Eagle population and independent review of mitigation and compensation plans should be necessary preconditions for granting such a permit. In addition, due to the poor siting of this WEP, the permit, should, if eventually granted, be conditioned on independent, third-party monitoring of Eastern Golden Eagle and other bird and bat deaths using standardized methods prior to any re-approval. If Apex refuses to obtain an Eagle ITP, and the project is still allowed to go ahead, then they should be subject to regular, unannounced spot checks and prosecution to the extent of the law if federally protected birds are killed in the absence of necessary permits.

Because this is such a small population, which may be genetically distinct from other populations of Golden Eagles, it is imperative that any threats be closely examined and prevented. Even a small number of eagle deaths from collisions with wind turbines or power lines and electrocution could have serious consequences for this population. In this case, it does not yet appear that Apex has considered the impact of its project on the Eastern Golden Eagle and federal laws protecting it in its unique and narrowly focused winter migration and nesting area. Considering its "small and potentially vulnerable population," we consider this a major cause for concern. Loss of the Eastern Golden Eagle to the cumulative impacts of energy and other development would be a tragedy of immense proportions. The siting of a wind farm in this area has the potential to be catastrophic for this unique population of iconic and ecologically important federally protected species. The USFWS and VA DGIF are strongly encouraged to do everything in their power to ensure that this does not happen.

Sincerely,

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American Bird Conservancy

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Cc: W. Weber, B. Millsap, J. Ford, R. Duncan, D. Whitehurst

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