HAWK MIGRATION ASSOCIATION OF NORTH AMERICA

February 4, 2015

Dear Ms. Albright:

I am writing in support of your concerns about Apex Clean Energy's plans for Lighthouse Winds, a project that would site industrial wind turbines in the towns of Somerset and Yates, Niagara and Orleans Counties, on New York State's southeast shore of Lake Ontario.

I currently serve on the board of directors of the Hawk Migration Association of North America and chair HMANA's Conservation Committee. I have served for about 10 years on HMANA's board, two years as chairman. Currently, I coordinate the Ripley Hawk Watch on the south shore of Lake Erie in the westernmost corner of New York State, where I am official counter. The Ripley Hawk Watch has reported its data to HMANA's database since the early 1980's.

HMANA's official mission is to conserve raptor populations through the scientific study, enjoyment and appreciation of raptor migration. As a scientific, educational and conservation organization, HMANA collects data from hundreds of affiliated raptor monitoring sites throughout the United States, Canada and Mexico, including Braddock Bay Raptor Research hawk watch (BBRR), just to the east of the proposed Lighthouse Winds project.

HMANA has developed (in conjunction with Hawk Mountain Sanctuary, HawkWatch International and Bird Studies Canada) the Raptor Population Index, a project that analyzes decades of data submitted by affiliated hawk watches, including BBRR, to establish population trends and identify important conservation issues. HMANA also publishes the journal "Hawk Migration Studies" that includes data from participating

hawk watches as well as articles on raptor conservation and other issues impacting raptors.

HMANA is concerned about the threat posed by industrial wind energy developments to migrating, nesting and wintering raptors. Wind conditions favorable for industrial wind energy projects frequently coincide with locations where concentrations of migrating raptors occur. Industrial wind projects are already developed, and more are proposed along known migratory flyways and near nesting and wintering concentrations of raptors. Some industrial wind energy developments clearly cause high mortality rates in a variety of raptor species, frequently as a result of inappropriate siting. At this point remediation strategies have not been proven effective at poorly sited developments. Carefully siting projects to avoid unacceptable risk to wildlife resources remains the only way to assure that industrial wind power development is safe for migrating, nesting and wintering raptors and other wildlife resources.

HMANA's wind power policy calls for no wind power development in areas with landscape features known to attract raptors (such as interior ridges and the coastlines of the Great Lakes, Gulf of Mexico and the Atlantic and Pacific Oceans), in areas formally designated as Important Bird Areas, and in areas that experience concentrations of wintering, nesting and migrating raptors. Apex's plan to site industrial wind turbines along the south shore of Lake Ontario has potential for disastrous—and irreversible—long-term effects as the south shore of Lake Ontario concentrates migrating raptors (including significant numbers of the very fragile population of northeastern Golden Eagles), hosts many nesting bald eagles, provides important staging areas for migrating waterfowl and passerines, and includes areas officially designated as Important Bird Areas. Arguably the whole south shore of Lake Ontario could qualify as an IBA. Because of the concentration on Lake Ontario of migrating raptors and other birds, as well as nesting eagles and other birds of conservation concern, it is not an appropriate location for industrial wind turbine projects, unless new technologies are developed, such as shrouded turbines, that make wind power less of a risk to wildlife. It is imperative that local municipalities and state and federal agencies establish setbacks from the south shore of Lake Ontario of at least three miles, under which industrial wind turbine projects are prohibited. A number of us on the south shore of Lake Erie feel that six-mile setbacks from Great Lakes shorelines are more advisable. Appropriate setbacks from active bald eagle nests also must be implemented.

Because of the environmental sensitivity, at and near the south shore of Lake Ontario, care must be exercised in the siting of wind turbine projects even beyond any prohibiting setbacks. If large-scale wind energy projects are contemplated, then carefully designed pre-construction risk-assessment studies coordinated with a commitment to appropriate post-construction mortality studies must be undertaken.

The BBRR hawk watch data documents the area's concentrated use by eagles and other raptors, and its data as formally submitted to HMANA should be taken into consideration in siting decisions. As valid as HMANA data is in documenting the

occurrence of raptors in an area, HMANA data collection protocols are not designed to support risk assessments by themselves. The use of HMANA data in siting decisions cannot be substituted for robust pre-construction studies specifically designed and carried out to determine the risk from wind development at specific locations.

As articulated by the U.S. General Accountability Office report of 2005 and the National Academy of Science report of 2007, knowledge about the impacts of new-generation turbines on raptors is currently lacking. In fact, basic knowledge about raptor migration and other behavior patterns continues to be incomplete. Compounding our incomplete basic knowledge is the fact that raptor monitoring demonstrates high year- to-year variability in numbers at migration observation sites, wintering grounds and other locations. This variability only further emphasize the importance of establishing and consistently applying pre-construction and post-construction monitoring procedures for industrial wind power projects that are capable of improving the understanding the risk to wildlife from wind power. Adequate pre-construction and post-construction monitoring practices also are important for assessing the appropriateness of any specific sites for wind power development.

The National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the Migratory Bird Treaty Act (MBTA) and other federal legislation require federal agencies to carefully consider and assess the possible adverse effects in their projects and permitting practices. HMANA supports guidelines for the siting of wind power projects that are consistent with and at least as rigorous as provisions in the NEPA, the ESA, the MBTA and other existing federal legislation.

Mandatory design and siting standards must require collecting at least three years of pre-construction study data for projects where landscape features, natural history patterns or other data suggest raptor concentration is possible. Pre-construction studies of raptor behavior must not be limited to migration issues but need to be comprehensive and include not only the risk associated with direct turbine strikes and possible avoidance behavior, but also terrestrial habitat degradation and its effects on nesting and wintering raptors, as well as the effect of such degradation on migrating raptors' roosting needs.

When multi-year pre-construction studies confirm migration, wintering or breeding season concentrations of raptors in a particular area, then plans for development in that area must be abandoned and development forbidden; if such study shows minimal concentration of raptors, or if specific designs can be demonstrated to pose minimal danger to wildlife present in the area, then projects can be considered. In cases when developers have invested in diligent efforts to locate wind power development appropriately, post-construction monitoring might still show an entire project or individual turbines to be particularly fatal to raptors: when this happens, turbines must be decommissioned or their operation suspended during the periods when the problematic turbines are found to be most destructive. Developers must agree to such remedial action as a precondition of project approval by federal, state and local permitting agencies.

HMANA urges that international, national and state and provincial standards for pre- and post-construction monitoring be promulgated and enforced that will make possible the scientifically valid assessment of risk associated with industrial wind power development. But, unfortunately at this point, such mandatory standards do not exist. In their absence, monitoring protocols must be specifically designed for each project by qualified and independent consultants in collaboration with federal regulatory and conservation agencies (e.g. the USFWS), state conservation agencies (e.g. NYSDEC), appropriate non-governmental conservation and scientific organizations and independent experts. The protocol for this monitoring and the monitoring results must be peer-reviewed and publicly accessible.

My comments in this letter draw heavily and specifically from HMANA's policy statement on wind power development, which can be found on HMANA's website (www.hmana.org). I hope this letter can help you in your important efforts to assure that industrial wind power development on the south shore of Lake Ontario and environs avoids unacceptable risk to important wildlife resources. To that end, please feel free to share the concerns in this letter with other organizations involved in conservation efforts and with local, federal and state decision makers.

Thank you for efforts on behalf of raptors and other wildlife resources.

Sincerely,

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HMANA's Mission
To advance scientific knowledge and promote conservation of raptor populations through study, enjoyment, and appreciation of raptor migration