



July 6, 2005

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Re: Supplemental, Substantive Comments of CESA State Members on U.S. Fish & Wildlife Service's Interim Guidance to Avoid and Minimize Wildlife Impacts from Wind Turbines

Dear Gentlemen:

These supplemental comments are submitted on behalf of the Clean Energy State Alliance (CESA). CESA is a non-profit, multi-state coalition of state clean energy funds and programs working together to develop and promote clean energy technologies. CESA represents these state funds and serves to coordinate their common goals. CESA, and its state members individually and collectively, seek to address barriers to the development and growth of viable renewable energy resources in the United States.¹

The purpose of this letter is to provide substantive comments on the Service's *Interim Guidance to Avoid and Minimize Wildlife Impacts from Wind Turbines*.

¹ Twelve states across the U.S. are CESA members, including California, Connecticut, Illinois, Massachusetts, Minnesota, New Jersey, Oregon, New York, Wisconsin, Pennsylvania, Ohio, and Rhode Island.

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Summary of CESA Recommendations:

1. The Service should participate in a collaborative process with CESA, state energy and wildlife agency representatives, and other key stakeholders to develop a cooperative set of guidelines before finalizing any final guidance document.
2. The Service should use an “adaptive management” approach to implement the MBTA’s goals in order to generate further needed information and to allow state and regional experimentation with mitigation and operational techniques to minimize risk of avian mortality from wind development.
3. Through a collaborative process, the Service should establish a set of general principles for wind project siting and mitigation that would be presumed to fully mitigate for habitat and avian mortality under the MBTA, unless post construction monitoring indicates serious environmental consequences are occurring to avian species.
4. Site-specific, pre-project assessment recommendations for proposed wind projects should be established on a case-specific basis, and determined based on the project size, availability and extent of existing information, and the habitats potentially affected. Assessments should use existing information from projects from comparable habitat types, to the extent feasible.
5. The Service should endorse the use of reasonable mitigation measures if a determination is made, through post-construction monitoring, that a project has had a significant impact on habitat or a species of concern.

Creation of Collaborative Process with the States

As a preface to our comments, we refer you to our prior letter of July 1, 2005, requesting that the Service enter a collaborative process with the CESA states and other stakeholders to review and refine the guidance before publishing final Guidance. We believe that many of the concerns discussed in this comment letter can be addressed and resolved through use of such a collaborative. We further believe that a collaborative process would allow the Service and the states to better understand each other’s perspectives and responsibilities, and assist in the creation of a more effective, comprehensive approach to siting and operating wind projects to minimize impacts to wildlife.

Specific Comments on the Interim Guidance

As currently proposed, we believe that the interim Guidance represents an overly prescriptive regime for wind development that is not commensurate with the observed or expected risk posed by wind development on avian species, based on the current information available. Current

research indicates that the relative risk of mortality to birds from modern wind turbines is low, especially when compared with other power generation and transmission projects.

For example, a comprehensive analysis of mortality data collected at U.S. wind plants, conducted by the National Wind Coordinating Committee and Western EcoSystems Technology Inc. in August 2001, concluded that “the current levels of mortality caused by windplants do not appear to be causing any significant population impacts (except possibly for golden eagles at Altamont ... although several possible contributors to this decline have been proposed).” Erickson et al., *Avian Collisions with Wind Turbines: A Summary of Existing Studies and Comparisons to Other Sources of Avian Collision Mortality in the United States*, p.20.

According to this analysis,

... reports indicat[e] the following estimated annual avian collision mortality in the United States:

- Vehicles: 60 million – 80 million
- Buildings and Windows: 98 million – 980 million
- Powerlines: tens of thousands – 174 million
- Communication Towers: 4 million – 40 million
- Wind Generation Facilities: 10,000 – 40,000

The large differences in total mortality from these sources are strongly related to the differences in the number (or miles) of structures in each category...
However, even if windplants were quite numerous (e.g., 1 million turbines), they would likely cause no more than a few percent of all collision deaths related to human structures.

* * *

Data collected to date indicate an average of 2.19 avian fatalities per turbine per year in the U.S. for all species combined and 0.033 raptor fatalities per turbine per year. Based on current projections of 15,000 operational wind turbines in the U.S. by the end of 2001, the total annual mortality was estimated at approximately 33,000 bird fatalities per year for all species combined. ... We estimate a range of approximately 10,000 to 40,000 bird fatalities ... Based on current estimates, windplant-related avian collision fatalities probably represent from 0.01% to 0.02% (i.e., 1 out of every 5,000 to 10,000 avian fatalities) of the annual avian collision fatalities in the United States. While some may perceive this level of mortality as small, all efforts to reduce avian mortality are important.

Id. at 1-3 (emphasis added).

The Bureau of Land Management (BLM) also recently concluded in its *Final Programmatic Environmental Impact Statement, Wind Energy Development on BLM-Administered Lands in the Western United States* (June, 2005) that the number of bird collisions at wind energy projects is relatively small. According to the BLM,

The number of bird collisions at wind energy projects is relatively small, when compared with collisions with other human-made structures. The effects of bird collisions on local populations would be a function of the number of animals killed relative to the size of the total population of the species in the region (NWCC 2002). It has been estimated that from 100 million to well over 1 billion birds are killed annually in the United States due to collisions with man-made structures (Erickson et al. 2001). These estimates include 60 million to 80 million birds from highway collisions, 28,500 from aircraft collisions, up to 174 million birds from power line collisions, 4 million to 50 million from collisions with communication towers, and 98 million to 980 million birds from collisions with buildings. In addition, an estimated 67 million birds die annually from exposure to agricultural pesticides, 1 million to 2 million birds from oil and gas extraction operations, and more than 100 million birds from legal hunting harvests (Curry and Kerlinger 2004a, b; Dunn 1993; Erickson et al. 2001; Klein 1990).

Other sources of avian mortality for which estimates are lacking include barbed wire fences, commercial fishing, land development, oil spills, oil and gas open pits, logging, collisions with trains, strip mining, stock tank drowning, and exposure to mercury pollution from power plants (Allen and Ramirex 1990; Curry and Kerlinger 2004; Erickson et al. 2001; Kleekamp 2004). In Wisconsin alone, cats may kill as many as 217 million birds per year (Coleman and Temple 1996).

Avian collision deaths for all existing wind energy projects are estimated at 10,000 to 40,000 each year (Erickson et al. 2001). Even as the number of wind turbines in the United States increases, wind turbine-related bird fatalities would still cause no more than a few percent of all collision deaths related to other non-wind-power-related structures (Erickson et al. 2001).

On the basis of bird and bat monitoring studies at existing wind energy projects, the contribution of wind projects to cumulative impacts on birds and bats would likely be minimal in comparison to population declines from other causes (e.g., habitat loss or fragmentation).

Id. at Chapter 6, 6-18, 6-19.

Current studies also emphasize the importance of species-specific, habitat-specific, and facility-location-specific considerations of bird vulnerability to collisions with turbines. *See* BLM FEIS at 5-60. Furthermore, birds conducting long-range migrations are not likely to be impacted by

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turbines except during weather conditions that induce them to fly low, or during takeoff and landing (Hanowski and Hawrot 2000). *See* BLM FEIS at 5-60.

Therefore, we conclude, based on the review of recent studies, that bird and raptor mortality at new wind projects is not in general a material risk. Current studies, and monitoring following construction, indicate that this is a site-specific issue that will not be a problem at most potential wind sites. Also, wind's overall impact on birds is low compared with other human-related sources of avian mortality.

At the same time, we recognize that areas identified as commonly used by threatened or endangered bird species should be regarded as potentially unsuitable for wind development. We also recognize that because the cumulative impacts of all mortality factors on birds continue to increase, efforts by every industry, including the wind development industry, to minimize bird deaths are important.

Recommendation: Use of Adaptive Management

While the current levels of mortality caused by wind facilities do not appear to be causing significant population impacts, monitoring programs in place at many of the newer generation wind plants will continue to provide valuable information to better understand avian mortality levels and to determine factors and practices important for siting wind facilities. Therefore, we recommend that the Service consider the use of an “adaptive management” approach to address avian impacts at wind farms under the Migratory Bird Treaty Act.

Adaptive management is an explicit and analytical process for adjusting management and research decisions to better achieve management objectives – here reduction of risk posed to migratory birds from wind development. Adaptive management recognizes that knowledge about natural resource systems is uncertain. Therefore, some management actions are best conducted as experiments in a continuing attempt to reduce risk arising from that uncertainty.

Some of the differentiating characteristics of adaptive management are:

1. acknowledgement of uncertainty about what policy or practice is "best" for the particular management issue,
2. thoughtful selection of the policies or practices to be applied,
3. careful implementation of a plan of action designed to reveal the critical knowledge that is currently lacking,
4. monitoring of key response indicators,
5. analysis of the management outcomes in consideration of the original objectives, and
6. incorporation of the results into future decisions.

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We believe that adaptive management strategies are well suited to addressing the wildlife impacts of wind development. In fact, BLM recently endorsed this strategy in its Final Programmatic EIS for wind energy development on BLM land. BLM determined that its' Wind Energy Development Program "will incorporate adaptive management strategies to ensure that potential adverse impacts of wind energy development are avoided (if possible), minimized, or mitigated to acceptable levels." *Id.* at 2-9. BLM has decided to use adaptive management both at the programmatic and project-level for addressing wind development on federal lands. *Id.* at 6-30. According to the BLM, the agency's programmatic policies and best management practices will be updated and revised based on adaptive management as new data regarding the impacts of wind power projects become available. At the project level, operators will be required by BLM to develop monitoring programs to evaluate the environmental conditions at the site, to identify potential mitigation measures, and to establish protocols for incorporating monitoring observations into standard operating procedure and project-specific stipulations. *Id.* at 2-9, -10; 6-30.

The USFWS itself has employed the concept of adaptive resource management since 1995 for regulating duck harvests in the United States. According to the Service, the adaptive approach explicitly recognizes that the consequences of certain regulations, such as hunting regulations, cannot be predicted with certainty, and provides a framework for making objective decisions in the face of the uncertainty. Inherent in the adaptive approach is awareness that management performance can be maximized only if regulatory effects can be predicted reliably. Adaptive management relies on an iterative process of monitoring, assessment, and decision making to clarify and meet long-term conservation goals.

In the wind siting/avian impact context, we recommend that the USFWS adopt an adaptive management strategy and allow wind development to go forward, with the condition that monitoring programs will be used to determine if there is a need to revise best management practices, agency policies, and/or project-specific mitigation. An adaptive management process will prove beneficial to both the Service and state wildlife agencies in (a) generating further needed information to understand and resolve issues regarding the frequency, likelihood, magnitude, and materiality of bird and bat impacts and (b) experimenting with mitigation and operational techniques – without locking into an approach prematurely that could chill beneficial wind development without good cause.

We believe that adaptive management has merit for addressing the wind energy/avian impact issue for several reasons. There is much that we still do not understand about birds and bats and how they interact with wind projects, or how well the proposed guidelines will produce the intended effect in each region. In addition, there is tremendous variation between regions in the interaction between avian species, their habitat, and wind projects. These variations and information gaps complicate the Service's ability to understand what the actual risk to avian species from modern wind development is, what the cumulative impacts are, what the relevant aspects of bat and bird migration ecology is, and, most important of all, how best to prevent, minimize, and mitigate any avian and bird impacts.

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Adaptive management represents a science-based management strategy that would enable critical review of the many uncertain wind/bird-bat issues. Based on the results of monitoring and evaluation at projects, an adaptive management approach would allow the Service and the states to determine what the actual magnitude of the threat to birds, bats, and other wildlife is from the construction and operation of modern wind turbine facilities and what steps are necessary to reduce any threat. Using an adaptive management strategy also will increase the chances of overall success of the Service's actions to uphold the mandates of the MBTA while helping to prevent unnecessary or unjustified pre-construction studies and delays in permitting of wind projects.

At the same time, adaptive management is not simply allowing wind projects to go forward and waiting to see what happens. Instead, it would require that states and wind developers take actions to purposefully monitor and scientifically evaluate wind project effects on wildlife species of concern, and based on the results of monitoring, take reasonable steps to increase the chances of preventing, minimizing, and mitigating avian and bat impacts. Through this approach, our understanding of what works and what does not will be increased.

Critical to implementing a successful adaptive management approach will be the establishment by the Service of clear goals for pre-project assessment, well-defined siting criteria, performance standards for minimization of wildlife impacts, and an effective monitoring program. We recommend that the initial establishment of the goals, objectives, and performance standards for this approach be developed by the Service in collaboration with key states and representatives of the wind industry, through use of demonstration and pilot projects. The performance standards then would change as new information was gained through project specific monitoring and state-sponsored demonstration projects.

Key to adaptive management will be successful monitoring of the operation of wind projects. Since more is unknown than is known about cause-and-effect relationships in the bird/wind context, monitoring in an adaptive management approach is the most efficient way to take action in the face of this uncertainty. Monitoring also must involve a strong commitment by wind developers to accountability and remedial action in response to new information. Monitoring also should be designed to provide early identification of undesirable trends and to provide the information, through an experimental construct, necessary to determine the appropriate remedial action to reverse an undesirable situation or trend.

The CESA states are eager to work with the Service in defining the ingredients of an adaptive management approach to the wind siting/wildlife impact situation to address the objectives of the MBTA.

Recommendation: Development of Avian Protection Principles

We believe that with proper design and siting of wind projects, avian mortality can be further reduced. Therefore, the CESA states recommend that the Service, through the collaborative

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process recommended above, establish a series of general principles for wind project siting that would be presumed to fully mitigate for habitat and potential avian mortality under the MBTA, unless post construction monitoring indicated serious environmental consequences to avian species was occurring.

We endorse the following general principles (highlighted in bold lettering).² Most of our recommendations are generally consistent with the “Site Development Recommendations” and “Turbine Design and Operation Recommendations” proposed by the Service in the interim Guidance document. However, we also specifically note where we disagree with the Service recommendations.

- **Raptor and bird use of the proposed project area should be evaluated. The extent and amount of baseline data required should be determined on a project-specific basis.**

We *disagree* with the Service’s recommendation that an average of 3 years pre-project data should be collected in areas of high seasonal concentration of birds. There appears to be no adequate science basis for requiring 3 years of pre-construction investigation. In addition, the relative abundance of an avian species does not necessarily predict the relative frequency of fatalities per species. In most situations, one year of pre-construction investigation, together with existing information from other wind projects, should be sufficient to determine whether a project is likely to have potentially significant impacts.

- **Wind project developers should be encouraged to site wind power projects on disturbed lands where possible.**
- **Wind project developers should be discouraged from using or degrading high value habitat areas. If survey results indicate the presence of sensitive or unique habitats in the project vicinity, facility design should employ best efforts to locate turbines, roads, and support facilities in areas least likely to impact those habitats.**

We *disagree* with the Service’s site development recommendation to avoid placing turbines in any documented locations of any species protected under the Federal Endangered Species Act. This assumes that wind energy facilities will necessarily have adverse impacts on the ESA-listed species or critical habitat – an assumption not grounded in our experience with existing wind farms. We believe that a site should only be off limits to wind development if it is shown that the project is likely to have a significant adverse effect on an ESA species or its critical habitat and no incidental take permit is obtained.

² Many of the states’ recommendations are based on (1) the *Wind Power Guidelines* issued by the Washington Department of Fish and Wildlife, which address baseline and monitoring studies for wind energy projects and habitat mitigation (WDFW 2003), and (2) the best management practices recommended by BLM for its proposed Wind Energy Development Program as identified in the PEIS (June, 2005).

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- **High bird concentration areas, especially concentration areas of sensitive species, and important migration stop-over or breeding sites should be avoided *if* sites studies show that turbines and other project facilities would pose a high risk to species of concern. Areas with high bird use should be avoided through micro-siting alternatives.**

We *disagree* with the Service's site development recommendation that high bird concentration areas should be avoided unless mortality risk is low. The mortality risk depends on species-specific, habitat-specific, and facility-location-specific considerations of bird vulnerability to collisions with turbines. Therefore, proposed sites and their potential impacts must be evaluated on a case-by-case basis.

We *disagree* with the Service's blanket recommendation to avoid areas with a high incidence of fog, mist, low cloud ceilings, and low visibility. This recommendation effectively puts off-limits the ridgelines in the Northeast which are the primary sites for economically viable inland wind projects. Excluding wind development at such sites is unwarranted unless and until there is substantial evidence showing the correlation between avian risk and poor visibility from weather events, based on site-specific studies.

We further *disagree* with the Service's recommendation that turbines should be shut down during periods when birds are highly concentrated at sites. This operational condition is not practical because it represents an open-ended shutdown requirement and will harm the economic viability and financing of wind projects. The Service should only recommend temporary shutdowns if there is substantial evidence that the operation is having significant impacts on avian species and that the curtailing of operations will minimize those impacts.

- **Turbines should be configured to avoid landscape features known to attract raptors, *if* studies show that placing turbines there would pose a significant risk to raptors. Operators should determine if active raptor nests are present, and if so, buffers should be provided to avoid disturbance to nesting raptors.**
- **Use of tubular towers or best available technology is recommended to reduce the ability of birds to perch and risk of collision.**

We *disagree* with the Service's recommendation to prohibit the use of guy wires for temporary (as opposed to permanently-located) meteorological tower supports. We are not aware of an affordable, practical alternative to installation of met towers with guy wires. In addition, the risk posed by temporary met towers to avian species appears low.

- **The minimum amount of pilot warnings and obstruction avoidance lighting recommended by the FAA should be used, and FAA should be consulted so that**

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only white strobe lights with a minimum number of flashes per minute are used. (consistent with draft Guidance).

- **Avoid fragmenting large, contiguous tracts of wildlife habitat.** (consistent with draft Guidance).
- **Minimize roads, fences, and other infrastructure.** (consistent with draft Guidance).
- **A project-specific habitat restoration plan should be developed that avoids or minimizes negative impacts on vulnerable wildlife while maintaining or enhancing habitat values for other species.** (consistent with draft Guidance).
- **Electric power lines should be placed underground, unless burial of the lines would result in greater habitat disturbance. Power lines should be configured to minimize the electrocution of birds by following established guidelines.** (generally consistent with draft Guidance).
- **A decommissioning condition should be established for wind projects which requires creation of a plan and fund for removal of the turbines and infrastructure when it ceases operation, and restoration of the site to approximate pre-project conditions.**

Recommendation: Pre-project Assessment Requirements

Perhaps the most serious concern with the Service's interim recommendations is the requirement for pre-project assessments. The proposed Guidance appears to require that all potential development sites within a geographic area must be evaluated before a site is selected for development. The Service also recommends that pre-development evaluations should be based on collection of three years of data in areas of high seasonal concentration of birds. These provisions seem onerous, impractical, and prohibitive to the economic viability of wind projects, and are not supported by a science-based rationale.

As an alternative approach, the CESA states recommend that the Service establish the following protocol for pre-project assessment:

The primary purpose of pre-project assessment studies should be to (1) collect information suitable for predicting the potential impacts of a wind facility on wildlife and (2) design the project layout so that impacts on biological resources are minimized. To the extent feasible, the pre-project assessment should allow the use of existing information from projects in comparable habitat types and/or nearby locations. The site-specific components and the duration of the assessment should depend on the project size, the availability and extent of existing and applicable information, the habitats potentially affected, and the likelihood and timing of the

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occurrence of threatened and endangered species. Pre-project assessment studies should be conducted based on consultation with state wildlife departments.

Existing information on species and habitat in the vicinity of the project should be reviewed and used to develop a current state-of-the-art field and analysis protocol that is reviewed and approved by the state wildlife agency. We suggest that one full season of avian use surveys is appropriate and sufficient to estimate use of the project area by avian species if there is very little existing data regarding seasonal use of the project site and the project is large. Additional seasons for surveys may be justified on a case-specific basis if the project is located in an identified flyway or other particularly sensitive habitat.

The Service's approach also should allow for less rigorous pre-assessment requirements for smaller and community scale wind projects that have a lesser potential for impact on avian species.

We also strongly disagree with the interim Guidance requirement that wind developers pre-screen all potential development sites within the geographic area, through the use of the so-called *Protocol to Rank Terrestrial Wind Energy Development Sites by Impacts on Wildlife* and Potential Impact Index, used in the state of Montana. This approach is not practical to implement, would place tremendous permitting and transaction costs on the wind industry, and is disproportionate to the risk to avian resources from today's wind technologies, based on current study information. It also ignores the fact that the siting of a viable wind project is dependent on many factors, including the presence of adequate wind resources and availability of transmission lines, and, therefore, alternative development sites may be limited or impractical. We recommend that the Service focus on a pre-project assessment approach that seeks to assess the wildlife risk at the proposed site rather than requiring examination of all potential development sites.

Recommendation: Operational Monitoring Requirements

As the Service has acknowledged, some mortality of bats and birds is expected to result from wind development projects, despite use of best siting practices – as in the case of most other types of development. However, significant impacts to wildlife can be avoided or lessened at most wind projects if proper pre-project assessment is implemented and good project design and management practices are established. Again, through collaboration with the CESA-states, we recommend that the Service establish current state-of-the-art protocols that developers should employ for monitoring studies to determine the actual impacts of wind farms on birds.

Post construction monitoring is important because of the relatively limited information available on impacts of wind turbines on wildlife. Therefore, post-construction monitoring should be designed to detect major impacts, such as statistically significant decreases in use by species of concern or statistically significant increases in mortality rates.

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However, we do not believe that the duration and scope of the monitoring should be predetermined in the Service's Guidance. Instead, monitoring requirements should be established on a case-specific basis, dependent on the size of the project, the quality and importance of wildlife resources at the site, and the availability of existing monitoring data at projects in comparable habitat types. Recommendations for necessary monitoring studies also should take into consideration the need for renewable wind power, the broader impacts of alternative power generation sources on avian and wildlife in the absence of wind power, the opportunity for public funding of the research, and the effect of the cost of the monitoring on the economic viability of the wind project.

Monitoring efforts may need to be more intensive or more cursory, depending on the results of the pre-construction investigation. Simple, infrequent mortality surveys may be all that is needed where pre-construction use by avian species is low.

When monitoring is required for a wind project, we recommend establishment of a technical advisory committee, with appropriate state wildlife and energy officials represented. The committee should be responsible for reviewing monitoring results and making recommendations to the permitting agency regarding the need to adjust mitigation and monitoring requirements based on data. The range of possible operational/mitigation adjustments should be clearly stated in the project permit or in USFWS comment letters to the permitting authority, to facilitate project financing and business planning. Adjustments should not be required that would make it difficult to obtain project financing.

We also strongly believe that standard operational monitoring and pre-project assessments should *not* be required as a means to perform more research-oriented studies (such as determining the effects of inclement weather in attracting birds to lighted turbines or the effectiveness of deterrents). If such research studies are determined to be necessary in the overall understanding of wind energy/wildlife interactions, they should be designed and funded from multiple sources, including state and federal agencies, rather than by individual project developers. The CESA state funds and DOE may be a source of some matching funding for important research-oriented studies.

Recommendation: Use of Reasonable Mitigation Measures

Monitoring may point to the need for cost effective mitigation or reasonably prudent management and operational adjustments. We understand that the goal of the Service is to eliminate the loss of migratory birds and endangered and threatened species due to wind energy development. Pre-project assessment can help to design a project to avoid, reduce and minimize impacts to habitat and wildlife. However, despite proper pre-project assessment and good project design, as is the case with all energy generation development, some mortality of bats and birds is expected to result. Therefore, we are pleased to see that the interim Guidance references the Fish and Wildlife Service Mitigation Policy, January 1981, as applicable to wind turbine development.

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We recommend that the Service explicitly endorse the use of mitigation measures as appropriate in its final Guidance. The Service also should set forth a protocol of mitigation measures that are presumed to fully mitigate for loss for all species covered by the MBTA (but excluding species classified as federally threatened or endangered, for which additional species and site-specific mitigation may be necessary).

In addition, to ensure that the use of mitigation and adaptive management measures is reasonable, the Service should expressly recognize the full range of environmental benefits associated with a wind project and recommend that these benefits be considered in establishing appropriate mitigation. Of particular importance, the Service's mitigation guidance should acknowledge the fact that wind is a renewable energy resource that can replace fossil fuels and other energy sources that have more serious environmental consequences to plant and animal species and their habitats.

Specifically, we recommend that the Service incorporate the following principles in developing a mitigation protocol.

- No mitigation should be required for previously developed or disturbed areas. That is, no mitigation should be required for impacts to lands that have little to no habitat value, such as lands disturbed by a road or other corridor that has eliminated natural habitat values.
- Wind developers should use best efforts to place facilities in or adjacent to disturbed corridors to minimize habitat fragmentation. Wind developers should be encouraged to site wind power projects on disturbed lands whenever possible.
- Mitigation guidance should recognize the full range of the environmental benefits of wind development in determining the appropriate mitigation, including the fact that wind is a renewable energy resource that can replace fossil fuels.
- A habitat restoration plan should be developed that avoids or minimizes negative impacts on vulnerable wildlife while maintaining or enhancing habitat values for other species.
- Buffer zones should be established around raptor nests, bat roosts, and biota and habitats of high value or sensitivity if site studies show that the proposed facility would pose a significant risk to avian or bat species of concern.
- All unnecessary lighting should be turned off at night to limit attracting migratory birds.
- Wind projects should be allowed to provide like-kind habitat and/or of equal or higher habitat value in the impacted area in the same geographical region as the impacted habitat, if a determination is made, through post-construction monitoring, that the project has had a significant impact on habitat or a species of concern. The rationale for this

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approach is that there should be no net loss of habitat function or value over time from wind projects.

- Implementation of the mitigation measures contained in the Service's protocol would be presumed to fully mitigate for habitat losses for non-ESA species.

Conclusion³

We urge the Service to work with the CESA states in establishing final guidance to implement the MBTA in a way that reconciles the benefits of renewable wind power projects with the need to protect wildlife. As the Department of Interior has recognized, when properly sited, wind energy development can reduce the loss of wildlife trust resources and their habitats by replacing other, more disruptive forms of energy development. *See* Memorandum from Director Williams to USFWS Regional Directors regarding Implementation of Service Voluntary Interim Guidelines (April, 2004). The Service's ultimate approach to evaluation and siting of wind energy development under the MBTA and other wildlife laws will have a substantial effect on the future expansion of wind power and its viability as a means to reduce the adverse effects of our current energy system on wildlife and habitat.

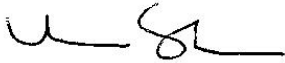
We recognize that the interim Guidelines are a work in progress. To that end, we request that the Service enter into a collaborative process with the CESA states to further refine and revise the guidance, *before* publishing final Guidelines. We would welcome the opportunity to work with the Service in a forum that could result in the cooperative development of guidelines to ensure that wind energy is developed in a way that reduces risk to avian and other wildlife species.

³ We also note that the establishment of final Guidance by the Service *may* trigger the requirements of the National Environmental Policy Act (NEPA), requiring public participation in the decision-making process prior to adoption of a final policy action. According to NEPA regulations, an environmental impact statement is to be included in every recommendation or report on a federal proposal that constitutes a major federal action that may have a significant effect on the environment. *See* 40 CFR sec. 1502.3.

Under NEPA, a major federal action includes new or revised agency rules, regulations, plans, policies, or procedures. An environmental impact statement must be prepared by a federal agency if the agency proposes to implement a specific policy or to adopt official policy in the form of rules, regulations, or interpretations pursuant to the Administrative Procedures Act, or other formal documents establishing governmental or agency policy. 40 C.F.R. sec.1508.18.

If you have any questions regarding our comments, please feel free to contact me at (802) 223-2554 or msinclair@cleanegroup.org.

Sincerely,



Mark Sinclair
Vice President, Clean Energy Group
Deputy Director, Clean Energy States Alliance

cc: Al Manville, USFWS
Brenda Aird, Department of Interior

CESA members include:

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Connecticut Clean Energy Fund	CT
Illinois Clean Energy Community Foundation	IL
Massachusetts Renewable Energy Trust	MA
Xcel Energy Renewable Development Fund	MN
New Jersey Clean Energy Programs	NJ
NYSERDA	NY
Ohio Energy Loan Fund	OH
Energy Trust of Oregon	OR
Sustainable Energy Fund of Central Eastern PA	PA
West Penn Power Sustainable Energy Fund	PA
Pennsylvania Electric Company Sustainable Energy Fund	PA
Metropolitan Edison Company Sustainable Energy Fund	PA
Sustainable Development Fund	PA
Rhode Island Renewable Energy Fund	RI
Wisconsin Division of Energy	WI

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