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California Energy Commission  
Dockets Office, MS-4  
Re: Docket No. 06-OII-1  
1516 Ninth Street  
Sacramento, CA 95814-5512

Re: CESA Comments re: Docket No. 06-OII-1;  
Development Statewide Avian Guidelines

Dear Commissioners:

These comments are submitted on behalf of the Clean Energy State Alliance (CESA) (electronically and by mail). These comments supplement the comments filed by CESA on June 16, 2006 and respond specifically to the Notice of Staff Workshop #1 and related discussion topics identified in the agenda for Workshop #1.

CESA is a nonprofit, multi-state coalition of state clean energy funds and programs working together to develop and promote clean energy technologies. CESA seeks to identify and address barriers to the development and growth of viable renewable energy resources in the United States. The California Energy Commission (CEC) is a member of CESA.

#### **Comments on Discussion Topics and Agenda Discussion Topics and Questions for Workshop #1**

- *How should new guidelines be used by lead agencies?*
- *Relationship of Guidelines to CEQA, State, and Federal Wildlife Laws*
  - *The Guidelines should be used for several purposes:*

First, the Guidelines should be used to ensure that the wind industry is aware of, and considers, the factors that present the greatest risk to birds and bats and to promote the use of best practices to avoid risk from project siting and operation.

Second, the Guidelines should be recommended to local agencies reviewing wind projects as best practices to avoid or minimize the adverse effects on birds and bats.

Third, the Guidelines should be recommended for use by local and state agencies to specify the types and amount of baseline information that is required for a CEQA review.

- *The Guidelines should be crafted for use in several contexts:*

First, the Guidelines could be used as a pre-assessment tool early in the project planning process to alert developers to important siting considerations.

Second, the Guidelines could be used as a tool for making decisions by agencies on the adequacy of CEQA information and to determine the significance of potential adverse effects.

Third, and more boldly, the Guidelines could be used to provide “safe harbor” protection from enforcement under state and federal wildlife laws. This third context would constitute a more ambitious use of the Guidelines but would ensure that the Guidelines would drive decisions by regulators and developers.

CESA understands that the lead agencies for permitting wind projects in California are local agencies, generally counties. However, CESA suggests that CEC and/or the Department of Fish & Game (CDFG / DFG) consider assuming primary authority for addressing the wildlife-related effects of wind projects, rather than deferring to local agencies. In many states, local officials have neither the resources nor expertise to address this aspect of wind siting, and they rely on state agencies to determine the compatibility of wind projects with wildlife laws. Also, states rather than local agencies have primary and obligatory trust responsibilities for state wildlife and for enforcing state wildlife laws. Therefore, it seems fitting for a California state agency to have primary responsibility for ensuring wind projects protect wildlife resources.<sup>1</sup>

There are several mechanisms that could be considered by the State for use of the Guidelines, whether voluntary or binding, to ensure wind projects comply with state wildlife laws and the CEQA process. The mechanisms could range from

- a) creation of a centralized state permitting and review process for wind projects to receive a determination that the proposed siting and operation are consistent with wildlife laws, with the Guidelines informing the permitting process,
- b) the filing of a development plan with a state agency by a project applicant indicating use of the voluntary Guidelines that would result in a “safe harbor” treatment of the project from enforcement under state wildlife laws,
- c) certification by CEC and DFG, (and/or a local agency) that a wind project will not interfere substantially with migratory wildlife species within the context of CEQA if a developer uses the Guidelines.

- *How should the Guidelines relate to state and federal wildlife protection laws?*

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<sup>1</sup> CESA has not analyzed whether CEC and/or CDFG have existing authority to control wildlife-related wind siting issues or whether this would require further legislative action.

CEC could ensure that the Guidelines are compatible with state and federal laws protecting wildlife by requesting review by the state attorney general's office and by the U.S. Fish and Wildlife Service (USFWS) that the guidelines are consistent with relevant state and federal wildlife laws.

CESA specifically recommends that CEC request that the USFWS review the guidelines to determine that they are rigorous enough to create a "safe harbor" for wind developers for meeting the MBTA objectives to minimize regulatory duplication, inefficiency, and delay. Possibly, the Commission could pursue a memorandum of agreement with the USFWS for the purpose of addressing both federal and state wildlife law requirements.

The guidelines also should be drafted to ensure they address the requirements for protected birds and bats under state and federal endangered species laws.

- ***Determining Pre-Construction Study Needs***
  - ***What sort of ranking procedure, if any, should be used to determine the duration and intensity of pre-construction studies?***

CESA is aware that the Canadian Wildlife Service (CWS) employs a site sensitivity rating system and level of concern matrix to determine the required level of baseline information necessary from developers to assess potential bird effects. CESA recommends that CEC staff communicate with CWS to determine how valuable, effective, and administratively efficient such a rating system has been in the Canadian wind siting context. CESA is concerned that such an approach is too formalistic, too inflexible, and only marginally useful to wildlife managers in determining site sensitivity.

CESA also notes that the approach proposed by the USFWS draft guidance for pre-screening wind sites should be rejected by California. The USFWS endorses a so-called *Protocol to Rank Terrestrial Wind Energy Development Sites by Impacts on Wildlife* and Potential Impact Index (used by state of Wisconsin). This approach requires developers to pre-screen all potential development sites within a geographic area to determine relative site sensitivity to wildlife impacts. The approach is not practical to implement and would place tremendous permitting and transaction costs on the industry, disproportionate to the risk from wind technologies on avian resources. It ignores the fact that the siting of a wind project is dependent on many factors coming together for project viability, including adequate wind resources, transmission infrastructure, etc.

- ***What level of effort is required to determine if a site is very sensitive? Does a very sensitive site warrant two or more years of baseline information gathering?***



The primary purpose of a pre-project assessment should be to collect sufficient information for predicting potential impacts on wildlife resources of concern, and to design the project layout to minimize and avoid impacts on these resources. To the extent feasible, pre-project assessment should allow use of existing information from projects in comparable habitat types and/or nearby locations. The site-specific components and duration of the assessment should depend on project size, availability and extent of quality information, the sensitivity of the habitat potentially affected, and the likelihood and timing of the occurrence of special status species. The study plan should be developed based on prior consultation with the CDFG.

One full season of avian use surveys should typically be sufficient to estimate use of the site. Additional seasons of surveys may be justified on a case-specific basis if the project is located in an identified flyway or other particularly sensitive habitat.

- *Post-Construction Monitoring*

- *Should the guidelines recommend minimum/maximum number of years for conducting post-construction studies? Based on what factors? Should the data be publicly available?*

CESA does not believe that the duration and scope of monitoring should be predetermined by the Guidelines. Rather, the monitoring requirements should be established on a case-specific basis, dependent on the size of the project, the quality and importance of the avian resources at the site, and the availability of monitoring data at projects in comparable habitat types. Monitoring requirements should be established based 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.

- *Post-Construction Management*

- *What process should California recommend for reviewing data and making post-construction management decisions?*

When monitoring is required, 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 local agencies and DFG on the need to adjust mitigation and monitoring requirements based on the data -- which also should be made publicly available. The range of possible operational and mitigation adjustments, however, should be clearly stated in the project permit to facilitate project financing and business planning.

*Use of Adaptive Management.* CEC should follow the lead of the state of Washington, Canada, and the Bureau of Land Management (BLM) by developing Guidelines that endorse and implement the use of an "adaptive management" approach to address wildlife impacts at wind

farms. Adaptive management is an explicit and analytical process for adjusting regulatory, 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.

Most wind farms will cause some bird mortality. The Guidelines should require follow-up to determine the actual direct impact on birds. Prior to construction and as part of the follow-up protocol, in consultation with the DFG specialist, unanticipated impacts should be identified through review of publicly-available monitoring data, and require additional monitoring if needed. Creation of a balanced technical advisory committee could be useful in making these data evaluations. The Guidelines then should call for consideration and use of operational or practical micro-siting adaptive methods, and reporting on the successes and failures of the methods – to guide future research and development.

If a wind farm is found to cause an unacceptable, unanticipated number of kills, and various adaptive mitigation methods prove unsuccessful, other options such as purchase of conservation easements with similar habitat and same region, should be considered.

Adaptive management strategies are well suited for addressing the wildlife impacts of wind development – an approach recently endorsed by BLM. The BLM, in its Final Programmatic EIS for wind energy development on BLM land, determined that BLM's *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. 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.

*CEC should consider following the BLM's lead by allowing 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 and/or project-specific mitigation. An adaptive management approach would allow California agencies 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 by California agencies to uphold the mandates of state wildlife laws while preventing unnecessary or unjustified pre-construction studies and delays in permitting of wind projects.*

Use of the adaptive management process could prove beneficial to CEC and local 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 a regulatory approach prematurely that could chill beneficial wind development without good cause.

- ***Mitigation:***

***Use of Mitigation for Unacceptable Levels of Harm.*** If post construction monitoring and evaluation by a technical advisory committee finds that wind turbines are causing unacceptable levels of fatalities and avoidance mitigation proves unsuccessful, CESA recommends that the Guidelines endorse the use of area-wide habitat conservation plans, mitigation banks, and species recovery research, plans, and actions as effective compensatory mitigation approaches, based on the experience and approaches used under the Endangered Species Act. For example, the Commission should consider, as part of the California Guidance, requiring wind developers, as part of the project development process, to develop a habitat restoration plan to avoid or minimize negative impacts on vulnerable wildlife while maintaining or enhancing habitat values for other species.

- ***What elements of other guidelines would be appropriate to incorporate into California's guidelines?***

***Flexibility of Protocols.*** CESA suggests that if various elements from other guidelines are employed by California, they should be used to develop an approach that is commensurate with the relatively low risk to wildlife involved from modern wind farms. Specifically, developers should be afforded flexibility in the assessment tools, macro and micro-siting practices, and mitigation measures that they select to assess and avoid avian/bat risk at proposed sites, with primary emphasis placed on reasonable post-construction monitoring and adaptive management. (CESA believes that the state of Vermont and USFWS draft approaches that require a minimum number of years for studies are misinformed.) The Guidelines should not trigger the need for all projects to undertake the same rigorous scope and extent of studies and the multi-year monitoring. Rather, the type and scope of surveys deemed necessary by the Guidelines should be determined in partnership with the developer and based on project-specific factors, previous studies in the region and the characteristics of the proposed location and habitat.

***Use of Best Management Practices.*** CESA recommends that CEC design the Guidelines with an approach that requires developers to adopt specified best management practices (BMPs) and avian protection principles through development of a project or company-specific avian protection plan, combined with commitment to adaptive management responsibilities if significant mortality occurs.

We recommend the following BMPs to reduce avian mortality to an acceptable, modest level:

1. 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.


2. Wind project developers should be encouraged to site wind power projects on disturbed lands where possible.
3. Wind project developers should be discouraged from using or degrading high value habitat areas.
4. High bird concentration areas should be avoided, especially concentration areas of sensitive species, and important migration stop-overs or breeding sites. Areas with high bird use should be avoided through micro-siting alternatives.
5. Turbines and associated facilities should not be located in areas of known bird and/or bat migration corridors, or near raptor nest sites, *if* pre-project studies show that they would pose a high risk to species of concern, using an ecological risk assessment methodology.
6. 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, using an ecological risk assessment methodology.
7. Use of tubular towers or best available technology is recommended to reduce ability of birds to perch and risk of collision.
8. The minimum amount of pilot warnings and obstruction avoidance lighting recommended by the FAA should be used, and FAA should be consulted so that only white strobe lights with a minimum number of flashes per minute are used.
9. Operators should determine if active raptor nests are present, and if so, buffers should be provided to avoid disturbance to nesting raptors.
10. Either no vegetation or native plant species that do not attract small mammals should be maintained around the turbines.
11. Road cuts should be minimized.
12. A decommissioning condition should be established for wind projects that require 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.
13. 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.

***In conclusion, CESA strongly recommends that CEC not adopt an approach that is unduly prescriptive and that establishes inflexible study requirements for all projects, regardless of size, risk, location, or habitat context. Instead, we recommend that CEC's guidelines allow***

*developers to apply best management practices, micro-siting techniques, adaptive management, and avian protection plans to ensure responsible siting and operation of wind projects to minimize avian and bat mortality. If early wind projects demonstrate wildlife impacts that are significant, ANR then can impose more stringent requirements.*

CESA looks forward to working with the Commission in the development of the Guidelines.

Sincerely,



Mark Sinclair  
Deputy Director  
Clean Energy States Alliance

Enclosures

cc: Dr. Susan Sanders