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**STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION**

Development of Statewide Guidelines for	)	Docket No. 06-OII-1
Reducing Wildlife Impacts from Wind	)	Developing Statewide Avian
Energy Development	)	Guidelines

**COMMENTS OF  
CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES  
(CEERT)  
ON REVISED STAFF DRAFT GUIDELINES  
August 23, 2007**

In California's recent past efforts to encouraged and incent wind development have been slowed by a series of outstanding environmental lawsuits and sometimes strong opposition from environmental advocates. In an effort to proactively address these issues the Energy Commission (CEC) has led this process, in collaboration with California Department of Fish and Game (CDFG), to develop statewide guidelines for "Reducing Impacts to Birds and Bats from Wind Energy Development". At the time this proceeding was initiated, the relationship between wind developers and environmental groups was quite simply not good. Yet it is a testament to the Commission's strong leadership that in addressing such contentious issues, these relationships have managed to improve considerably.

CEERT has reiterated throughout this proceeding its belief that the goals of all stakeholders can be met. Wildlife protections can remain strong and wind energy can be developed rapidly enough to fight the effects of global warming. As we near the end of this proceeding CEERT and its affiliate organizations remain hopeful that all stakeholders involved can be proud of the final document. While the outstanding issues of concern for all stakeholders have been narrowed substantially, failure to resolve these remaining issues in an effective and constructive manner will likely prevent the guidelines from achieving their stated goal, "to encourage the development of wind energy in the state while minimizing and mitigating harm to birds and bats." (Guidelines, pg E-1) In that spirit the following comments are put forth as effective solutions and reasonable compromise based on input from wind developers, wildlife advocates and biologists.

**1. Bat Monitoring**

In past comments, most extensively those submitted May 14, 2007, CEERT has strongly encouraged the use of a collaboratively funded research as a way of answering the numerous

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remaining questions about the way bats interact with wind turbines. To date the efficacy of pre-construction study methods to assess bat risk and thus make a CEQA determination has not been proven. Indeed the guidelines note in several places that this gap exists:

**Line 1957:** “[A] fundamental gap exists regarding links between pre-permitting assessment and operations fatalities.”

**Line 2004:** “Acoustic monitoring for a bat . . . has yet to be shown to be strongly associated with estimates of collision risk or impacts.”

A recent article authored jointly by wind siting experts and bat experts, including Ed Arnett of Bat Conservation International, concluded:

As part of the permitting process, owners and developers should be required to provide full access to proposed and existing wind energy facilities and to fund research and monitoring studies by qualified researchers...Results of scientifically sound research and monitoring studies are needed to inform policy makers during the siting, permitting, and operation of renewable energy sources. Although bat fatalities at wind turbines have been reported at nearly every wind energy facility where post-construction surveys have been conducted, few of these studies were designed to estimate bat fatalities and only a few included a full season or more of monitoring. Rigorous protocols should include reliable estimates of searcher efficiency and scavenger removal to correct fatality estimates for potential biases. (TH Kunz *et al*, 2007)

These recommendations seem very much in line with what has been consistently proposed by the wind industry, encouraging pre-construction research and uniform post-construction fatality monitoring. The article does not recommend in any way project specific acoustic monitoring, but rather again discusses the research needs to determine the method's efficacy.

The guidance document cited in the current draft as support for the recommended one year acoustic monitoring (California Bat Working Group, 2006) is a document submitted to the docket on this proceeding, yet no author is attributed. The document does not appear to specifically recommend year-round surveys or any specific monitoring protocol but rather generally lays out the tools available for studying bat behavior at wind projects. The document does not appear to have been peer-reviewed or allowed for outside input in anyway. Furthermore, the document was drafted concurrently with CEC Guidelines process and references the CEC Guidelines yet no one has yet formally testified or submitted written comments on the various Guidelines drafts on behalf of the California Bat Working Group. Of the merely two working group members listed on the group's website, one is CDFG staff scientist, Betsy Bolster. CDFG has already been well represented in this process and if the document merely restates the views of CDFG staff it should be characterized as such. The other member of the working group has submitted her own personal comments but not on behalf of any organization. No other reference

to activities or existence of the California Bat Working group can be found outside of the guidelines submitted to the docket. Until the document's authors and the working group membership can be verified, CEERT questions the use of the California Bat Working Group's *Guidelines for Assessing and Minimizing Impacts to Bats and Wind Energy Development Sites in California* as a cited resource in the guidelines.

CEERT shares the hope of many in this process that further research will lead to pre-construction monitoring protocols which can effectively assess bat risk. We remain convinced that collaboratively funded research would be the fastest, most efficient way to reach such conclusions, thus the most effective way to protect bat populations.

Given the existing dearth of knowledge about the interaction of bats and wind turbines it is important that the guidelines clarify which laws apply to bats and how those laws are to be employed. CEERT recommends the following:

**Insert at 1918:** The issue of bat presence and impacts is addressed under CEQA. CEQA does not require independent research, but rather the use of existing knowledge. CEQA also does not require mitigation or avoidance of impacts that are not significant. Because of the lack of correlation of acoustic monitoring and risk to bats, acoustic monitoring is not an investigation of the impacts of the project so much as basic research, and cannot be required under these Guidelines. The Guidelines may examine various methods to survey bats, but should not be prescriptive unless and until the research evolves to a point that it is predictive.

Some have continued to assert the need for preconstruction acoustic monitoring on a project specific basis within the permitting process. If project specific acoustic monitoring is to be recommended for project permitting within the guidelines, CEERT supports the following compromise language:

**Beginning at line 1964:** Seasonal pre-permitting surveys for bats with acoustic monitors may be recommended and survey scopes should be developed in consultation with bat experts, CDFG, and USFWS. Surveys should at least cover the period that has been shown to have higher bat risk at projects surveyed in California as well as at wind projects in other parts of the country—that is, July through October. Bat detection systems should be placed at ground level and at 100 feet (30 meters) above the ground (or as close as possible to that elevation without interfering with meteorological measurements) in multiple locations in the proposed project area (Lausen et al., 2006). Because developers usually install several meteorological towers at each proposed project site in order to characterize wind at various parts of a project site, installing acoustic bat

detectors on meteorological towers can also provide a range of locations that can characterize bat use of the site. Therefore it is recommended that developers install acoustic bat detectors near ground level and close to 30 meters when they install or service meteorological towers. While July through October should be the focus of such studies, where it is feasible monitoring should occur for an entire year. Where certain habitat features conducive to general bat activity or resident bat activity are found in a project's vicinity, year-round acoustic monitoring may be explicitly recommended.

While more extensive pre- and post-construction monitoring studies can help to assess species composition, species abundance, local population variability and temporal and spatial patterns of bat activity at facilities that encompass diverse landscapes, these studies would more appropriately be considered research (Kunz et al, 2007).

Pre-construction acoustic monitoring for bats may not be recommended at repower sites or sites near existing projects where defensible fatality data can sufficiently define the risk of bat impacts at the proposed project or repower to be less than significant. Project proponents and lead agencies, in making this determination should consult with CDFG and USFWS and should take care to ensure that sites are comparable and should also consider implications of different turbine types being assessed and compared.

Because data gathered by acoustic bat detectors (even when elevated to 30 meters) have not yet been correlated with post-construction bat mortality, it is unclear how useful this technique will be for pre-project bat risk assessment. Developers are urged to participate in research to develop better bat risk assessment methodologies funded by PIER and other organizations, by making their project sites available, by sharing funding, and by releasing study results.

Additionally, it is inappropriate to state at **Line 415 and elsewhere** that for bats the "standardized recommended method is one year of acoustic monitoring" as a pre-permitting task. It would be preferable, given the lack of correlation of acoustic studies and any risk factors, for the statement to read, "For bats, appropriate studies should be made to determine the presence and activity levels...(etc. as currently written)." This change (throughout the Guidelines) provides needed flexibility, given the existing dearth of probative studies to establish potential adverse impacts to bats.

## **2. Post-Construction Use Monitoring**

Post-construction monitoring may be required, but not simply because scientists would like to have the data. Post-construction monitoring requirements must be tied to legal bases like CEQA or other statutes. CEERT recommends the following change:

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**2536 insert new paragraph after period:** Requirements for post-construction monitoring will vary depending upon the legal framework involved. CEQA requires monitoring of mitigation measures, not a continuing monitoring of all impacts unless that monitoring is required pursuant to a mitigation measure. Wildlife agencies may look to post-construction monitoring as a measure of good faith intent to comply with various “no-take” bird protection laws. Post-construction monitoring for bats will generally be subject only to CEQA requirements.

It has been argued by some in the Guidelines process that use monitoring post-construction would not create significant additional project cost because fatality monitoring and use surveys can be done together. CEERT does not believe this is feasible due to the fact that each individual task requires focused attention, one towards the ground and the other towards the sky.

Due to the significant cost involved in use monitoring, **CEERT strongly disagrees with the general approach taken in Chapter 5: Operations Monitoring and Reporting** of requiring use monitoring on all projects in conjunction with fatality monitoring. We believe this does not represent an efficient method for protecting bird or bat species. CEERT strongly believes that only fatality monitoring should be recommended post-construction. In the case that fatality data is higher than anticipated in pre-construction risk assessments and indicate a potentially significant impact, use monitoring may be recommended. In this case use monitoring would be used to offer additional context for the fatality data and help determine if annual or seasonal variation or some other outside factor caused the unexpected fatality results. Technical comments on behalf of CEERT from Wally Erickson from WEST, Inc. will further elaborate on this topic. These comments should be received by the Commission no later than Friday, August 24, 2007.

### **3. Repowering**

Repowering by definition occurs on a landscape no longer in its natural state. Existing data may be sufficient to permit repowering with little further CEQA process (e.g. an EIR addendum or a negative declaration), or more data may be required. In any event, repower projects cannot and should not be subject to the same pre-permitting investigations as new projects, but instead must be handled on a case by case basis. The latest draft report on wind/bird interactions at the Altamont Pass Wind Resource Area, although yet to be finalized, basically states that repowering is the only sure way to reduce avian mortality. We recommend the following changes to address this issue:

**Striking lines 396 – 408 and instead inserting the following at line 347:** Repowering may be included in Category 1, depending on the state of existing knowledge regarding usage, impacts, and the projected change in existing impacts in light of repowering. Repowering refers to modernizing an existing wind resource area by removing old

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turbines and replacing them with new turbines that are generally larger, taller, and more efficient than the old ones. Data for repowering projects may be available from the existing wind farm project and/or from nearby repowering projects. The lead agency should consult with appropriate agencies and experts to assess whether these data are credible and of use in assessing the impacts of exchanging the existing turbines for the repowered turbines. If existing data is determined to be credible and useful in assessing impacts, the extent of new required field studies may be reduced. The lead agency should address the adequacy and applicability of this information in consultation with USFWS, CDFG, and other appropriate stakeholders.

**Insert the following between 1301 and 1302:** Repowering may be included in Category 1, depending on the state of existing knowledge regarding usage, impacts, and the projected change in existing impacts in light of repowering. Repowering refers to modernizing an existing wind resources area by removing old turbines and replacing them with new turbines that are generally larger, taller, and more efficient than the old ones. Data for repowering projects may be available from the existing wind farm project and/or from nearby repowering projects. The lead agency should consult with appropriate agencies and experts to assess whether these data are credible and of use in assessing the impacts of exchanging the existing turbines for the repowered turbines. If existing data is determined to be credible and useful in assessing impacts, the extent of new required field studies may be reduced. The lead agency should address the adequacy and applicability of this information in consultation with USFWS, CDFG, and other appropriate stakeholders.

**Delete 2065-2075:** Replaced by language at 1301. Specifically, language at 2067-2068, requiring the same pre-permitting studies for repowering, must be deleted.

As discussed at the workshop, repower projects take place in a landscape that has already been disturbed. The question for a repower project is whether the replacement turbines create fewer adverse impacts than those they replace. For repowering projects it is inappropriate to require the same pre-permitting studies. Studies must be tailored to the issues involved with the existing and planned turbines in question and the specific previous experience in the area. The proposed language does not say that repowering *is* a category 1, but rather that it *may* be, depending on the site and available data.

#### **4. CEQA and Other Wildlife Laws**

The Guidelines correctly state that their use is not only for CEQA compliance, but also to allow an inference by the wildlife agencies of good faith attempts to be consistent with state and federal bird protection laws. However, the Guidelines often mix up that which may be required to ascertain, avoid, or mitigate significant impacts under CEQA with actions that may be useful

to show good faith under these other laws. The issue of bat studies is one example. In addition, the level of effort or mitigation under other wildlife laws should not be couched to require net zero mortality. Previous precedents do not so require. The need for this distinction is woven throughout the guidelines and the following is a series of comments and recommended edits to clarify.

**952:** if these are rules instead of suggested guidance, they must be adopted pursuant to the Administrative Procedure Act. Specific facts may dictate results other than those adopted herein. For example, the decision of the court in the recent *Kerncrest* decision held that pre-construction monitoring for less than a full year, under those circumstances, was sufficient. There is no doubt that the Guidelines will have a strong influence on construing what is compliance under CEQA or should justify prosecutorial discretion under MBTA and other “no-take” statutes, but it is important to state that the Guidelines are not rigid rules. To clarify this point we **recommend inserting the following heading and text at line 952:**

Purpose and Use of the Guidelines

These Guidelines are intended to provide guidance, i.e. suggested activities, not impose rules. Although parties following the guidelines should expect a safe harbor with regard to investigations needed under CEQA and good faith findings regarding intent to follow other wildlife protection laws, failure to follow the guidelines does not necessarily imply a violation of CEQA or other requirements. An agency or court might find, for example, that some lesser investigation or action than suggested by these guidelines is sufficient to satisfy CEQA under specific project facts. (See, e.g. *Kerncrest Audubon Society vs. LA DWP*, 2007 WL 2208806, Cal.App. 5 Dist., not officially published, but an example of where less than one full year of pre-construction monitoring was found, under the circumstances, to comply with CEQA.)

**975-979:** these sentences, like those at lines **310-315**, are clear statements of the intended use of the Guidelines other than for CEQA purposes.

**Delete 1009-1011:** Inadequate data acquisition might result in permit denial, but CEQA does not allow “default assumptions” of impacts based on inadequate data. The sentence is a misstatement of law.

**1028:** It is important to separate out the investigations and monitoring specified in these Guidelines from the CEQA processes themselves, which are within the discretion of the lead agency depending upon the factual context. It is also important to distinguish CEQA from other wildlife law prescriptions. **We recommend deleting sentences beginning on 1028 and ending on 1033 and inserting the following:**

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CEQA requires evaluation of a project to determine if there is a fair argument that significant adverse impacts may result from the project. If so, an EIR includes a description of the project, identification of project objectives, a description of the existing environmental setting, identification of direct, indirect, and cumulative significant adverse environmental impacts of the project, and feasible alternatives and mitigation measures that would reduce those significant impacts to insignificance. If significant impacts cannot be reduced to insignificance, the lead agency may nevertheless approve a project by adopting a Statement of Overriding Considerations justifying the project going forward in spite of its impacts.

CEQA allows the lead agency to choose among appropriate processes for CEQA analysis, depending on the result of an Initial Study of those impacts. A categorical exemption, negative declaration, or mitigated negative declaration may be pursued where there is not a “fair argument,” based on the facts (not speculation), that significant adverse impacts may result. Where there is such an argument, an EIR is necessary.

These Guidelines suggest various investigations be done to fully inform decision-makers. The Guidelines do *not* suggest or compel a specific CEQA process. CEQA also requires mitigation of significant impacts to the extent feasible; it does not require a party to address non-significant impacts.

In addition to CEQA, some wildlife protection laws are guided by different standards. The federal and California Endangered Species Acts look at “take”, jeopardy of species, etc. They generally require reasonable and prudent alternatives to avoid take, but allow “incidental take” pursuant to agency regulations and practice where no jeopardy is involved and reasonable and prudent measures are taken to minimize take. Other laws protect specific species of birds (no bats are included) and preclude by their terms any take whatsoever, e.g. the Migratory Bird Treaty Act. Because these latter laws do not allow any “take,” parties rely on USFWS and CDFG to exercise prosecutorial discretion not to sue if the parties are complying with consensus guidelines such as these or the APLIC guidelines issued by USFWS.

**1043-1044:** No wildlife protection law requires that impacts be “fully” mitigated. The sentence is correct that mitigation measures in addition to those required by CEQA may be necessary to satisfy the wildlife agencies sufficient to exercise prosecutorial discretion. The sentence would not be correct with regard to bats, which are protected only against significant adverse impacts under CEQA unless they are endangered. At lines 1043 – 1044 we recommend deleting the word “fully” and the word “bats”.

**1256:** Add new paragraph, repeat or summarize statements at lines 975-979.



## 5. Mitigation

Recent research being conducted in Altamont has led to greater understanding of some mitigation measures. We recommend the following revisions to reflect this:

**2144-2150 delete and insert:** What may appear to be an indirect impact in theory may not necessarily turn out to be one in fact. CEQA Guideline section 15145 specifically prohibits speculation as to impacts. For example Smallwood and Thelander (2004 and 2005) concluded that fossorial mammals such as ground squirrels burrowed under rock piles left from the construction of turbine pads in the Altamont Pass Wind Resource Area, and concluded that raptors might then be attracted close to the turbines. However, preliminary results from two years of monitoring indicate that the impact of the rock piles is insignificant. Although the report is not yet final, it indicates that caution must be exercised to avoid speculative findings under CEQA. (Altamont Draft Results, 2007)

**2296 insert:** Preliminary results from two years of monitoring in the Altamont Pass Wind Resource Area indicates that small turbines (<250 kW) are riskier than larger turbines. (Altamont Draft Results, 2007.)

## Conclusion

CEERT appreciates the careful consideration of our comments by the Commission and staff of both the CEC and CDFG. We would also like to thank the commission for allowing some flexibility in the timing of comment submissions. Please do not hesitate to contact me if you have any questions regarding our written comments or oral testimony from August 13, 2007.

Respectfully Submitted,

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## Citations

Avian Fatality Monitoring at Altamont Pass, Winter 05—Spring 07, Draft Results for Discussion at August 20th-22nd SRC Meeting, prepared by Altamont Avian Monitoring Team (UCSC, Bioresource Consultants, Inc., Jones and Stokes, and WEST, Inc.)

California Bat Working Group, *Guidelines for Assessing and Minimizing Impacts to Bats at Wind Energy Development Sites in California*, September 2006. Available at [www.wbwg.org/Papcrs/CBWG%20wind%20energy%20guidelincs.pdf](http://www.wbwg.org/Papcrs/CBWG%20wind%20energy%20guidelincs.pdf).

Kunz, Thomas H., Edward B Arnett, Wallace P Erickson, Alexander R Hoar, Gregory D Johnson, Ronald P Larkin, M Dale Strickland, Robert W Thresher and Merlin D Tuttle, “Ecological impacts of wind energy development on bats: questions, research needs, and hypotheses”, *Frontier in Ecology and the Environment* 2007; 5(6): 315-324.

Lausen, C., E. Baerwald, J. Gruver, and R. Barclay, “Bats and Wind Turbines: Pre-Siting and Pre-Construction Survey Protocols,” in M. Vonhof (ed.), *Handbook of Inventory Methods and Standard Protocols for Surveying Bats in Alberta*, Appendix 5. Alberta Sustainable Resource Development, Fish and Wildlife Division, Edmonton, Alberta, 2002, Revised 2005, 2006. Available at [www.wbwg.org/Papers/TurbineProtocol15May06R.pdf](http://www.wbwg.org/Papers/TurbineProtocol15May06R.pdf).