STATEWIDE *GUIDELINES* FOR REDUCING IMPACTS TO BIRD AND BATS FROM WIND ENERGY DEVELOPMENT *(GUIDELINES)*

MEETING SUMMARY
STAFF WORKSHOP #4

Wednesday and Thursday, January 17-18, 2007
University of California, Riverside

I. Introductions and Agenda Review

The facilitator, Paul De Morgan of RESOLVE, welcomed participants and initiated a round of introductions. He reminded the group that the objectives of the meeting are to assess initial stakeholder reactions to the draft *Guidelines* and to provide the California Energy Commission (CEC) and California Department of Fish and Game (DFG) staff the opportunity to clarify the current content of the *Guidelines*.

It was further clarified that this is not a decision-making meeting. Rather it is an opportunity to establish a common understanding of the current version in order to inform subsequent written comments and the February 5 CEC Committee Workshop. In combination, these opportunities for public input will influence the final draft of the *Guidelines*. Participants were informed that unlike previous meeting summaries produced throughout this process, this one would only identify key issues raised throughout the discussions but not summarize the evolution of the conversations, nor identify the commenter that raised the issue.

II. Updates Since Last Workshop

Misa Ward of CEC provided a brief overview of updates since the last workshop. She stated that CEC and DFG would like to receive written comments by January 23. Although this is not the last opportunity for comment on the draft, it would be helpful to receive written comments in advance of the February 5 Commissioner-led Committee workshop if possible. She encouraged stakeholders to focus comments on larger/significant issues for this first round of written comments if time is a constraint.

Ms. Ward further clarified there will not be another draft of the *Guidelines* released before the final draft is released in May, but noted that there is the potential for CEC to hold another staff workshop in advance of the business meeting where adoption of the final *Guidelines* will take place. Mr. York added that CEC and DFG are considering writing a companion document which would respond to comments received and would be released at a similar time as the final *Guidelines*.

III. Participant Opening Comments

Participants had the opportunity to provide initial reactions to the *Guidelines* with the understanding that they could discuss each chapter in greater detail later in the meeting. Following is a list of items shared during opening comments, as well as broader comments made throughout the two-day meeting:

- Appreciation regarding the detail and thoroughness of the *Guidelines*
- Identification of flexibility versus specificity/certainty as potentially conflicting objectives in the *Guidelines*
- Chapter 8, the Step-by-Step Implementation Guide, pulls out what is really important
    - Alternative opinions: move to the front of the *Guidelines* for emphasis or keep at end to encourage thorough read of entire document
- Emphasize purpose of *Guidelines* up front and reinforce throughout
    - Voluntary; provide guidance to reduce impacts to birds and bats and assist counties/lead agencies in determining what is expected of them to satisfy various laws within reasonable timeframe, expense and effort; not intended to make determinations of significance under CEQA
- Caution: avoid words/phrases that could be open to interpretation, such as "issues of concern" or "substantial impact"; consider using language from CEQA that has already been parsed and vetted, and the meaning made clear (e.g., use "significant" instead of "substantial")
- Change qualifier for validity and applicability of data as "scientifically-defensible" throughout document
- Industry wants some certainty regarding bounds/limitations on the *Guidelines'* recommendations effects on: 1) timing of project development process; 2) triggers for recommendations; and 3) predictable costs
    - As currently written, the *Guidelines* require the developer to assume a worst-case scenario and budget accordingly
- Providing a context and examples for the recommendations in the *Guidelines* would help readers understand how and when those recommendations may be applied
- Need to prioritize methods and give more examples of when to use them
- It would be helpful to produce a revised draft in response to stakeholders' comments before moving to the final draft phase
- It would be helpful if CEC and CDFG staff gave a presentation at the February 5 Committee Workshop to describe the revision to be made in response to comments
- Define how the *Guidelines* apply to projects that are in progress (neither new nor repowering)
    - Maybe keep this topic as part of the Chapter 8 checklist
- Need certification of projects that follow the *Guidelines* or a clearinghouse for wind projects
- Consider including how a "safe harbor" or "permit shield" incentive can be provided for compliance with the *Guidelines*
- There are several policy issues which influence the science-based *Guidelines* but need to be addressed outside this process

IV. Brief Overview of Draft *Guidelines*

Dick Anderson provided a brief overview of the draft *Guidelines* content, along with rationale for its inclusion. Participants then had the opportunity to pose clarifying questions before turning their attention to the agenda. It was agreed that the structure of the agenda was acceptable to all; therefore participants began to walk through the draft *Guidelines* chapter by chapter; sharing thoughts and asking clarifying questions of CEC and DFG staff. Participants were asked to frame their comments in the following questions:

1. *What works well?*
2. *What are your concerns and what might address the concerns?*

V. Chapter 1 – Preliminary Site Screening

Following is a bulleted list of issues raised, suggestions for improvements, and areas in need of further clarification:

- Reference to aerial photos in "Reconnaissance Site Visit" implies developers are trying to access private lands before permission is granted – strike this portion of the sentence or create caveat of assuming there is access
- Table 1: Checklist
    - Checklist is not useful as a screening tool because all answers will be "yes"
    - Define purpose of checklist – if for a fatal flaws assessment, make the questions specific to those kind of site characteristics
    - Consider whether making it "scored" or bulleted rather than a "yes/no/unknown" list makes more sense
    - If it is a screening tool, rethink questions and evaluation and provide subsequent direction that links the answer to the need for specific kinds of study/action
    - Focus on all-important questions to ask to determine "level of" studies required (e.g., more or less than baseline) rather than "if"
    - Add a seasonal and abundance component to the questions
    - May be better placed in Chapter 3
- Instead of setting a time limit on field data for it to be useable (currently five years), require it be scientifically defensible data
- Need time limit as recent data are needed to address climate change related concerns
- Adjacent property data should be not necessarily be used to conclude "little work needs to be done"
- Page 3, paragraph 2 – add "near or" adjacent to one or more existing sites

VI. Chapter 2 – Science Advisory Committee (SAC)

Following is a bulleted list of issues raised, suggestions for improvements, and areas in need of further clarification:

- Ad hoc or formalized process – clarify intent and that SAC does not function as an agency decision-maker
- SAC formation lends flexibility to the process. The technical experts can analyze the data to inform decisions (think of them as consultants)
- Cost burden for SAC participation (specifically of agencies) could be a challenge and should not be borne only by applicant through cost recovery accounts
- Establishment of a SAC should not be a requirement:
    - Should be a recommendation that provides an overview of a process to establish SAC and defines its role(s)
    - If a SAC cannot be formally established due to agency staff limitations; the absence of a SAC should not delay the process
    - Use for some projects, especially complicated ones, but may not be necessary for some small projects
- Emphasize more/earlier that if a SAC cannot be formed, there is a need for lead agency/developer solicitation of stakeholder input, engagement with experts, and interagency communication early on in the process

- Ideally, emphasize idea of consistent membership and adequate level of knowledge for a standing committee, such as that used by Washington State
- Include a future goal that all agencies have a wind energy staff member designated as the point person (and eventually the expert) for the State of California
- Formation of SAC (and public access to SAC meetings) has to occur after initial site screening assessment due to competitive nature of developer process
- Remove specific suggestion to use CDFG online guidelines (for formation for a Natural Community Conservation Plan) as a starting place for SAC formation
- Strike all SAC "approval" language throughout
- Acknowledge the problem of conflicts between agencies on the SAC
- Differing opinions on whether the SAC members should be open to the public

VII. Chapter 3 – Pre-Permitting Assessment

Following is a bulleted list of issues raised, suggestions for improvements, and areas in need of further clarification:

- Crosswalk references to Chapter 3 within Chapter 8 and create stronger link between them
    - Chapter 8 is clear that Bird Use Counts is the primary pre-construction study tool, with other techniques (moon watching, area searches) used as needed, but Chapter 3 implies they are all equally used
- BACI is not needed for every study, it is expensive and used mostly for assessing impacts of a project on ground-nesting birds.
- Chapter 3 offers a laundry list of study methods, but need prioritization as to which are recommended and why
    - Need to provide context for study types listed – pros and cons for each, identifying which are the most standard and useful tools, clarifying which studies are long-term research tools and which are project-specific risk assessment tools
- Need to elaborate on when less or more study is warranted
    - Duration of pre-permitting studies should be determined by a full set of screening questions to get at complexity of site and what is known
- Balance guidance on determining when one year (default duration) would be sufficient in addition to describing why one year may not be enough
- Timing of studies – most counties allow continuance of one year studies during permitting process
- Area Searches – why use more than point counts for determining species likely to occur in the rotor-swept area?
- In determining number of sample points the size of project may not be as relevant as homogeneity of habitat
    - On page 14, rather than 30 percent of turbine number on large projects or 16, whichever is greater, it should be lesser.
- Large (41 turbines or more) v. small projects is arbitrary
    - A 500 acre project is not large, that is only 10 turbines, should be measured in square miles rather than acres
- Use of the term "random" should be avoided (e.g., page 13) unless it really is random
- Nocturnal Bird Survey Methods:
    - Need to clarify definition of (migration) corridors, routes and flyways
    - If nocturnal studies are triggered, which studies are recommended

- Bat Survey Methods:
    - The current requirement (i.e., acoustic detection of bats for one-year) exceeds that done in other parts of the country; in eastern US, it is usually done mid to late fall
    - Rather than proposing a minimum one-year study duration for every project, consider proposing more thorough studies when and where risk is known
    - Lack of information on bat migration in California prompts this concern – perhaps collect the data then screen what is needed for analysis
    - The lack of bat information is a research void rather than a project specific impact assessment
    - Consider proposing that industry collect acoustic monitoring data and hand off to the state to do the more expensive analysis
    - Genetic analysis of bats killed by turbines may be low cost way of assessing population impacts
- Repowering – Pre-Permitting Assessment
    - Need a discussion of when and where studies are needed for repowering because there is much greater baseline of information than for new projects. Outlining the instances where less study is needed will encourage repowering.
    - Consider changing "recent, credible and applicable" studies to "scientifically-defensible"
    - We do not know that repowering works as mitigation and could provide disincentive to include same level of studies if repowering is an option – policy issue
    - Keep in mind that repowering may lessen impacts to birds but may impact bats more by moving into a higher elevation of air space
- Remove specific references to FPL projects (Diablo Winds and High Winds) on page 19; do not imply that numbers of bat mortalities are low/high given the current lack of data

VIII. Chapter 7 – Operations Monitoring and Reporting

Chapter 7 was discussed at this time in the agenda given its linkages, and similarity of issues, with Chapter 3 (Pre-Permitting Assessment). Following is a bulleted list of issues raised, suggestions for improvements, and areas in need of further clarification:

- Clarify objectives of operations monitoring and reporting up front to help select study design(s) and describe the utility and priority of the various study tools available
    - Is the goal to verify pre-permitting estimates of mortality, assess bird mortality with a high degree of accuracy, or to determine if mitigation measures are effective? The necessary sample size will vary depending on which question is being asked
- Consider recommending 2 years of studies as a baseline with:
    - The potential to determine on a project-by-project basis if a shorter duration would be appropriate based on Year One results and/or pre-existing data
    - The potential to do one year of monitoring up front, and one year conducted some period of time later (e.g., year three or year five)

- Need to provide some level of certainty of costs up front when financing a project, therefore consider:
    - Providing descriptions of how decisions/judgments would be made regarding the need for long-term monitoring
    - Paying into a mitigation bank in lieu of life-of-project monitoring
    - Clarify that some projects may not need to conduct long-term monitoring but that decisions should be made via a well thought out process
- Typically on projects where only one year of post-construction monitoring is done rather than two there are data available from adjacent sites with similar habitat
- Could be helpful to build in criteria and describe what drives decision-making process to balance flexibility and certainty
- Concern exists about the potential for monitoring every five years for life of project
    - Too open-ended, needs some clarification and context as to when this might be necessary – an alternative might be payment into a mitigation bank if impact is greater than predicted
- Many regulated industries have ongoing monitoring and mitigation for the life of the project
    - If a choice is made to develop a high impact site, need to address those throughout the project
- Clarify the inclusion of BACI here (as linked to Chapter 3); the connection is where before-after studies are needed for impacts to grassland and resident birds
- Periodic, long-term monitoring is important due to the effects of global warming (e.g., shifts in species ranges and migratory paths) on project impacts over time
- Need to tie post-construction monitoring to permit conditions
- Page 41 – narrow acoustic monitoring to bats alone (as this is rarely done for birds) and trigger only if carcass surveys show elevated levels of bat mortality; currently an unresolved research issue regarding the potential attraction of bats to turbines – perhaps try to resolve this issue with other bat experts before requiring it.
- Operations monitoring costs are high and vary with sample size and frequency of monitoring ($350,000 for Maple Ridge, $500,000 for NYSERDA's acoustic and radar monitoring) – better to start with a moderate level of operations monitoring, then ramp up if mortality is higher than regional or national averages
- Section on daily searches for bat carcasses needs revising – the scavenging rates are what determine search frequency, not necessarily that they are bats. Not all sites with bat mortality have high scavenging rates
- General comments – *Guidelines* seem to be searching for "perfect information" which is unattainable, and need to nail down criteria for when less or more study is necessary.

IX. Chapter 4 – Impact Analysis and Conformance with Laws

Following is a bulleted list of issues raised, suggestions for improvements, and areas in need of further clarification:

- Good explanation of CEQA impact analysis and wildlife laws
- Turbine height/size duplicative with language in Chapter 5 – drop here and keep there
- Clarify that the intent is not to provide guidance for making determinations of significance under CEQA, but to assist in complying with CEQA and wildlife laws and streamline this process (because the same information is needed)

- Legally or practically, the wildlife laws cannot be separated from CEQA because CEQA includes compliance with them, and the same information is needed to satisfy both CEQA and wildlife laws
- Need to define (cumulative, reasonably foreseeable) impacts further or refer to CEQA for more information rather than try to define here
- Consider adding language "by following the *Guidelines* developers will have done everything to maximum extent practicable" for compliance with (wildlife) laws
- There should be some incentive/payoff for following the *Guidelines* (e.g., state/publicly-funded support for research or immunity from litigation via MOU with conservation organizations)
- How many enforcement actions have there been lately? Should there be enforcement actions on less than significant take? Consider an internal CDFG guidance document on enforcement discretion
- Page E-1, paragraph 4 – change "ensuring" compliance to "helping achieve" compliance because no voluntary guidelines can ensure compliance.

X. Chapter 5 – Impact Avoidance, Minimization, and Mitigation Measures

Following is a bulleted list of issues raised, suggestions for improvements, and areas in need of further clarification:

- Compensation:
    - Clarify objective(s) of mitigation (e.g., Reduce significant impacts? To mitigate for violations of Migratory Bird Treaty Act?) CDFG does allow mitigation for such violations and has numerous examples on other projects
    - Clarify range of (comparable) options for location of mitigation banks where such mitigation can occur (i.e., mitigation is possible at sites not within impact area) and mitigation options for impacts affecting migration routes/habitats
    - If compensation is provided upfront, why spend money confirming pre-construction estimates of mortality, why not spend it instead on additional compensation?
    - Redraft "absolute compliance is required" to fit the goals of the *Guidelines* given that it is impossible to "absolutely" comply with some wildlife laws and discretionary enforcement can be applied; however, it should not be revised as a vague characterization of the legal requirements of the wildlife laws
    - Page 35, last sentence – clarify that "Compensation may be required…life of the project." refers to spreading payments out over time, not necessarily variable payments each year
- Operations Impact Avoidance, Minimization, and Mitigation
    - Consider including criteria for shutdowns/moving turbines, as they are last resort options taken under extraordinary circumstances
    - Lay out compensation levels ahead of times to clearly explain what might trigger compensation during operation of the project; such compensation might be triggered by a regulatory taking that was not spelled out in the permit
    - Strike "such as mortality in violation of state or federal laws"
- Adaptive Management/Effectiveness Monitoring
    - This is good discussion of adaptive management, but explain when adaptive management needs to be applied

  - Consider setting biological goals for adaptive management to bound costs for industry, and keep techniques to achieve goals flexible and open to negotiation
  - Clarify that shutdowns are the last option for adaptive management actions

XI. Chapter 6 – Permitting

Following is a bulleted list of issues raised, suggestions for improvements, and areas in need of further clarification:

- This chapter does not provide much value as a stand-alone; consider including as part of Chapter 4
- Replace "ensure" species protection by mitigation to "assist" or "improve (Page 38, paragraph 1, last sentence)
- Add FAA's lighting plan requirements as part of the permitting that needs, or put that in the section on lighting

XII. Chapter 8 – Implementing the *Guidelines* – A Step-by-Step Approach

Following is a bulleted list of issues raised, suggestions for improvements, and areas in need of further clarification:

- This was the most understandable chapter, but sometimes conflicted with other sections
- The bulleted list of questions was clearer than the checklist in Table 1, although the checklist did separate out listed and protected species
- Further develop this chapter and make more prescriptive, then use the rest of the chapters to provide flexibility and consistency to ensure they work in support of Chapter 8
- Consider the CEQA checklist model – process oriented rather than results focused. Include a final checklist that describes compliance with the *Guidelines* steps; "no" response requires rationale. Helps to easily identify any red flags
- Consultation process:
  - Hold a seat on SAC for conservation organizations and remove USFWS from the mix (due to potential conflicts with their interim guidelines); some concern about conservation organizations being a required element of the SAC, because their resources are stretched thin
  - Given the challenges of formally convening a SAC, change "approval" from SAC to "solicit written input within a certain time frame." The written input should state level of agreement/approval for adequacy of plans moving forward. Approval is a necessary element from state wildlife agencies on wildlife laws
  - Establish some level of standardized process to be able to determine if an attempt(s) was made at early consultation with stakeholders and wildlife agencies
  - Clarify that the objective is to engage in consultations with stakeholders and wildlife agencies as early as possible, with a caveat that the public process cannot begin until developers have secured the land

XIII. Open Discussion/Other Topics

Conversations then turned back to discussions which were raised and/or cut short earlier in the meeting in order to ensure the group went through all the chapters. The content of these continued discussions have been incorporated into the previous chapter-specific lists.

The following items were identified as policy issues/influences that may impact the development and implementation of the *Guidelines,* however it was recognized they are not specifically part of the *Guidelines'* development process:

- Federal fees for wind (renewable) energy consultations – work to remove them or increase agency internal budgeting to ensure their participation in the process
- Public benefits funding for long-term research
    - To get at effects of global warming
    - To reduce financial burden on industry
    - Objectives to assess risk or information gathering?
- Incentivize/promote repowering
- Incentivize joint research
- If certified compliance with *Guidelines*, environmental groups work with industry to go to legislature for "waiver" acknowledgment (i.e., fully protected species)
- Other incentives to use *Guidelines*
    - MOUs?
    - Permit "shield"?
- What can be resolved near-term and what needs a separate platform for future discussions?
- Need to identify potential (state and federal) policy conflicts/challenges for future alignment.
    - How will USFWS' wind guidelines dovetail with the State's and how will conflicts be handled?
- How do the *Guidelines* help meet state's RPS?

XIV. Next Steps

Ms. Ward shared the following timeline regarding the revision and finalization of the *Guidelines,* as well as opportunities for further stakeholder involvement with the group:

- January 23: the first round of written comments are due
- January 31: brief meeting summary distributed; focusing on key issues discussed during this Workshop
- February 5: CEC Committee Workshop (1/2 day in PM, Livermore Library in Alameda County) with a 10 working day (15 calendar day) comment period to follow
- Early May: Final draft *Guidelines* released with one month comment period
- Late May: Commission Hearing with comment period following
- June: Commission Business Meeting to consider adoption of final *Guidelines*

Participants were thanked for their thoughtful feedback and suggestions for improvement, and were encouraged to further develop and reinforce their thoughts via written feedback in advance of, and participation at the February 5 Committee Workshop.

XV. Participant List

Dick	Anderson	Consultant to California Energy Commission
Jennifer	Bies	RESOLVE
Greg	Blue	EnXco
Jared	Bond	Riverside County Environmental Programs
Michelle	Conway	Oak Creek Energy Systems
Paul	De Morgan	RESOLVE
Melinda	Dorin	California Energy Commission
Wally	Erickson	Western EcoSystems Technology, Inc.
Scott	Flint	California Department of Fish and Game
Bronwyn	Hogan	California Department of Fish and Game
Chuck	Holloway	Los Angeles Department of Water and Power
Brenda	LeMay	Horizon Wind Energy
Julia	Levin	Audubon California
Andy	Linehan	PPM Energy
John	Mathias	California Energy Commission
Bev	McIntosh	Retired CT/Riverside County
Karla	Nelson	Oak Creek Energy Systems
Jim	Newman	Pandion Systems, Inc.
Jay	Olivas	Riverside County Planning Department
Nancy	Rader	CalWEA
Paul	Richins	California Energy Commission
Susan	Sanders	California Energy Commission
Jim	Sheridan	California Department of Fish and Game
Karen	Shull	M. H. Wolfe and Associates
Mark	Sinclair	Clean Energy States Alliance
Mark	Sinclair	Clean Energy States Alliance
Stuart	Smith	Oak Creek Energy Systems
Kenny	Stein	FPL Energy
Dave	Sterner	California Department of Fish and Game
Annette	Tenneboe	California Department of Fish and Game
Scott	Thomas	Audubon California
Paul	Vercruyssen	Center for Energy Efficiency and Renewable Technologies
Misa	Ward	California Energy Commission
Craig	Weightman	California Department of Fish and Game
Tom	White	EnXco
Rick	York	California Energy Commission
Carl	Zichella	Sierra Club