California Wind Energy Association

May 25, 2012

California Energy Commission
Dockets Office, MS-4
Docket No. 09-RENEW E0-01
Scoping Comments
1516 Ninth St., Sacramento CA 95814-5512
Via email to: docket@energy.state.ca.us

Re: Docket No. 09-RENEW E0-01
Comments on the Renewable Energy Development Scenarios Presented at the April 25-26, 2012, DRECP Stakeholders Meeting and Associated Materials

To Whom It May Concern:

The California Wind Energy Association ("CalWEA") continues to appreciate the opportunity to participate in the development of the Desert Renewable Energy Conservation Plan ("DRECP") as an active member of its Stakeholder Committee. This letter includes CalWEA's comments on the Renewable Energy Development Scenarios ("Scenarios") presented at the April 25-26, 2012, DRECP Stakeholders Meeting and Associated Materials.

On March 14, 2012, CalWEA presented to the Stakeholder Committee a "Proposed DRECP Alternative for Wind Energy Resources", followed on April 17, 2012, by a complete "Proposed DRECP Scenario for Wind Energy Resources" ("CalWEA Proposal"). This 21-page document proposed a wind "Development Focus Area" ("DFA") along with a supporting rationale.

In general, given CalWEA's constructive engagement in this process, we are disappointed that CalWEA's Proposal has not been evaluated, nor do the Scenarios presented indicate that our proposal has been seriously considered. As a result, the scenarios do not fulfill the DRECP's objective of promoting achievement of California's renewable energy goals.

1. Summary of Comments

- Scenarios 1-5, apparently developed under the instruction of the REAT agencies, appear to be arbitrary and scientifically unsupported; the methodology was not, however, described in sufficient detail to enable very specific comments.

- The methodology behind Scenarios 1-5 appears to be fundamentally flawed because it begins incorrectly with the premise that wind energy development is incompatible with other land uses and biological resources.
- Excluding eagle and condor breeding and foraging habitat from wind DFAs – as we understand was a key part of the methodology – is scientifically unsupportable and inappropriate for several reasons. More generally, broadly excluding habitat areas for the eagle -- a special-status, but non-threatened, species, while not broadly excluding habitat for endangered species, will disproportionally disfavor wind energy compared to other types of renewable energy generation that impact federally listed species.
- In developing Scenarios 1-5, it is apparent that the REAT agencies failed to seriously consider the reasoning in the CalWEA proposal. Scenario 6 is not fully reflective of CalWEA's proposal.
- Scenarios 1-6 will actually increase potential conflicts by constraining siting flexibility. For example, some scenarios would encourage development near more urbanized areas. More generally, by excluding areas with the highest power output per acre, the Scenarios would produce increased potential for conflict per unit energy.
- No economic analysis has been done to evaluate the impact of the scenarios on the cost of achieving California's renewable energy and greenhouse-gas reduction goals.
- Because of these methodological failings, the scenarios do not fulfill the DRECP's objective of promoting achievement of California's renewable energy goals; indeed, Scenarios 1-5 would certainly have the opposite effect. This problem would be greatly compounded by the Department of Defense's announced plans to place approximately one-and-a-half counties entirely off limits for wind development.

CalWEA cannot support any DRECP scenario that unfairly marginalizes development opportunities for wind energy. We strongly encourage the DRECP leadership to revise its methodology for identifying wind DFAs to focus first on the highest quality wind resource areas – particularly areas with active project developments, and then remove reserve design areas that are both essential to achieving the DRECP's biological goals and objectives and incompatible with wind energy development as supported by evidence. To exclude the best wind resource areas due to widespread potential conflicts (from the potential presence of an avian species to off-highway-vehicle use to cattle grazing) is to preclude the serious site-specific study and discussion that needs to occur to carefully balance competing goals.

This study and discussion can occur most effectively on a case-by-case basis in accordance with state and (evolving) federal avian guidelines, which can be accomplished only if the DRECP leaves the best resource areas open to the necessary site-specific studies, and potential development.

2. Scenarios 1-5 are Fundamentally Flawed

Scenarios 1-5, apparently developed by the DRECP consultants under the instruction of the REAT agencies, appear to be arbitrary and scientifically unsupported. While the methodology was not described in sufficient detail to enable specific comments, the results of the methodology are plain enough to conclude that the methodology resulted in an overly broad exclusion of lands with commercially viable wind energy resources. Scenarios 1-5 would capture only between 14% (Scenario 2) and 27% (Scenario 5) of the wind-DFA in the CalWEA Proposal. Moreover, the DFAs in Scenarios 1-5 capture very little (approximately 15% or less) of active wind development areas, which – each representing tens if not hundreds of thousands of dollars of investment in site-specific studies – are highly indicative of the most promising sites. As a result, these scenarios fail to appropriately balance the DRECP's dual goals of facilitating sufficient renewable energy development to achieve California's clean energy goals and conserving the desert's natural communities.

a. The methodology is unclear

The modeling and the DFA delineation process is not being conducted in the spirit of transparency advocated in the *Recommendations of Independent Science Advisors for California DRECP* (October 2010):

> "all analyses and decision-making processes [should be] as transparent and understandable as possible, and avoid maps that compile multiple data inputs into a single data layer without adequate documentation and justification."

We would like to emphasize the importance of clear and transparent decision-making in the creation, refinement, and validation of models and geospatial analyses.

b. The creation of the DRECP's wind DFAs should not be based on the exclusion of modeled habitat for the California condor and golden eagle

To date, we have been unable to have a discussion with the relevant personnel engaged in DFA modeling to understand how that modeling was conducted (given the lack of clear, thorough documentation). For example, for the golden eagle, two separate models exist. Which of these models is being used or were both models used? If both of these models are being used, how is the information being combined? Are decisions being made based on breeding or foraging habitat? How current and accurate were the data points used in the model? Are some species being given higher priority than others (e.g., golden eagles over desert tortoise)?

In any case, based on our understanding of the model results presented at the April 25-26, 2012, Stakeholders Meeting, as well as conversations between CalWEA staff/members and DRECP and REAT agency staff, it appears that Scenarios 1-5 excluded large areas of land based on habitat model results. CalWEA has serious concerns with this approach, explained in the subsections below.

We suspect that an overly conservative approach was taken in view of the fact that the REAT agencies have not fully worked out how to issue incidental take permits for the golden eagle. This unfortunate circumstance would not be sufficient grounds, however, for removing vast portions of land with viable wind resources for site-specific study and potential development – particularly for a species that no one asserts is threatened or endangered. Such an action would be particularly inappropriate given that the agencies' Scenarios include DFAs in areas with federally listed species. If windy areas that may have special-status, but non-threatened, golden eagles cannot be part of a DFA, the result will disproportionally disfavor wind energy over other types of renewable energy generation that impact federally listed species.

i. Habitat models used in DRECP planning need to be field-validated for golden eagle presence

Neither the expert-based models nor the statistically based (Maxent) model created for the DRECP Baseline Biology Report and subsequent reserve design and DFA conflict identification were sufficiently field-validated to confirm that they effectively predict presence/abundance of the species. The use of a randomly-selected subset of occurrence data points to test the Maxent golden eagle habitat model, while useful as an initial test of the model, is inadequate because it relies on the assumption that the entire dataset is an accurate and complete representation of eagle use of the DRECP area. To date, areas that have wind development are more likely to have had systematic breeding and/or presence surveys, thereby potentially biasing the data against areas with wind development. As field validation, we recommend using the nest data being collected this year for a BLM-commissioned study.

In order to identify areas of highest value for eagles and condors, the large swaths of land identified as suitable habitat should be refined and constrained to areas that are truly ecologically and biologically preferred by the species, rather than simple areas where the species could be or has been at one time. These areas are likely to be those that have overlap for the needs of breeding and non-breeding individuals such as isolated, steep topography, undisturbed native vegetation, and prey base.

ii. The expert-based and statistically based (Maxent) habitat model results are not good predictors of risk or potential impacts from wind energy development

Even if the habitat models are refined to identify prime habitat, habitat models are lacking in their ability to predict risk of impacts from wind turbines. Guidance from USFWS suggests that eagles' use of the turbine areas is proportional to risk and that wind direction and slope also change the risk profile. Habitat models assume risk is equal across all areas and do not account for the possibility of avoidance or behavior patterns that might reduce risk in a particular area (e.g., forging in canyons as opposed to ridgetops).

More broadly, risk factors for eagles are not well understood and further research is needed, including site-specific evaluation, before large areas are prematurely excluded from potential development. A more appropriate approach to predicting and assessing risk should include the use of empirically estimated fatality rates from existing wind projects in combination with quantitative and possibly qualitative levels of relative abundance and site use during preconstruction studies.

Likewise, identifying and assessing risk factors for condors requires further scientific study. For the past 25 years, there have been no reported condor fatalities resulting from operation of over 2,600 wind turbines in the region. Results from the first condor-wind risk assessment study by the U.S. Geological Survey (USGS) for the California Condor Wind Energy Work Group are not expected to be available until later this year.

A site-specific approach is incorporated into CalWEA's Proposal, which recommended the use of state and federal avian guidelines in the study, selection and design of specific sites, versus the overly broad exclusionary approach apparently taken to develop Scenarios 1-5.

c. The methodology may have presumed incompatibility of wind energy development with other land uses and values

Again, while the methodology was not clearly articulated, it resulted in a lack of overlap between wind DFAs and "potential conflict areas" such as cattle grazing, desert tortoise habitat, and off-highway vehicle (OHV) areas. For example, only Scenario 4 exhibits overlap with Open OHV areas, with just 2% overlapping -- and this area largely consists of areas classified as "Geothermal only." To the extent that the methodology began with the presumption that wind energy development is incompatible with, and is the *lowest priority among*, other land uses and biological resources, that presumed incompatibility is not only factually incorrect and scientifically unsupportable, it is at odds with one of the two main objectives of DRECP – renewable energy development, along with desert conservation. We request that the REAT agencies or the consultants provide evidence to support any presumption of incompatibility.

With regard to the desert tortoise, for example, if an exclusionary screen was applied to the DFAs for this species (as may be indicated by the limited overlap of DFAs in Scenarios 1-5 with tortoise habitat – from 0% in Scenario 1 to 2% in Scenario 5), the REAT agencies/consultants should provide scientific evidence of incompatibility and answer any evidence to the contrary (e.g., Lovich et al. 2011, which found that rates of desert tortoise survivorship within a wind project area were very high relative to tortoise populations living in more natural environments).

Similarly, if exclusionary screens were applied to the wind DFAs for land uses such as cattle grazing and OHV use, evidence of incompatibility should be provided. Wind projects successfully coexist with cattle grazing in California and across the country, and there is no reason to presume that OHV areas are necessarily incompatible with wind development with appropriate siting and mitigation.

Excessively constraining wind resource development areas, as under Scenarios 1-5 and, to a lesser extent, Scenario 6, will actually create more potential conflicts between wind energy development and other land uses. Developers strive to find sites that minimize conflicts, which is only possible with siting flexibility. When possible sites are constrained, more potential for conflict is created. For example, Scenarios 1, 2 and 3 would encourage development near more urbanized areas. More generally, areas with the highest power output per acre – a high percentage of which are excluded in all scenarios, will have lower potential conflicts per unit energy. In this way, Scenarios 1-6 will actually increase potential conflicts.

Instead, the methodology to identify wind DFAs should focus first on the highest quality wind resource areas and then remove reserve design areas that are both essential to achieving the DRECP's biological goals and objectives and incompatible with wind energy development as supported by evidence. To exclude the best wind resource areas due to widespread potential conflicts is to preclude the serious study and discussion that needs to occur to carefully balance competing goals. This study and discussion can occur most effectively on a case-by-case basis that can be accomplished only if the DRECP leaves the best resource areas open to necessary site-specific studies, compliance with state and federal avian guidelines, and potential development.

3. The REAT Agencies Failed to Respond to the CalWEA Proposal

In developing Scenarios 1-5, it is apparent that the REAT agencies failed to seriously consider the reasoning contained in CalWEA's Proposal. Without repeating that proposal, we note that none of the following objectives would be achieved by Scenarios 1-5, nor have the REAT agencies responded to these important objectives:

- preserve the DRECP's prime wind resource areas in order to facilitate achievement of California's clean energy goals – indeed, as noted above, Scenarios 1-5 fail to include most currently active project development areas, which represent the most promising development areas;
- preserve for exploration as much of the DRECP's commercially viable wind resources as possible, due to numerous site-specific factors that will not be controlled by the DRECP and will preclude development of many sites – the REAT agencies cannot assure that the limited areas identified in Scenarios 1-5 are indeed developable;
- foster competition among developers of wind projects and between other renewable energy technology developers to enable the state's renewable energy and greenhouse-gas-reduction goals to be met at least cost and within society's willingness to pay – no economic analysis of Scenarios 1-5 has been done. (Scenarios 1-5, which capture between 21% and 40% of the best solar resource areas proposed by solar advocates as compared to 14% to 27% of the area proposed by CalWEA for wind, would put wind energy at a competitive disadvantage relative to solar); and

- promote efficient use of the transmission system by fostering both wind and solar generation, which have complementary generation profiles – by failing to capture most of the DRECP's best wind resource areas.

Moreover, Scenario 6 (which was intended to reflect the solar and wind industry's proposal) is not truly reflective of CalWEA's Proposal. The Scenario 6 wind DFA does not include all of the land included in CalWEA's proposed wind DFA, and does not address how lands outside of the DFAs would be treated, as did CalWEA's Proposal. We request that our proposal, as submitted, be evaluated, and that all proposals be evaluated for their economic impact on achievement of California's clean energy goals.

The consultants or agencies should also explain why lands included in CalWEA's proposed wind DFA were excluded from Scenario 6. For example, the reason for apparently excluding tribal lands should be explained, given that wind projects are being proposed on tribal lands in California today.

- DFAs developed by CalWEA already take into account physical and administrative constraints [Ashley can you explain?]

Finally, the proposals do not include an eagle and condor permitting approach, as was included in the CalWEA Proposal. As discussed above, it appears that, in lieu of this, excessively large amounts of eagle and condor habitat were removed from the DFAs in Scenarios 1-5. As noted, this is overly broad and scientifically unsupportable.

With important course corrections, CalWEA looks forward to continued engagement in this important planning process.

Sincerely,

Nancy Rader
Executive Director