STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

Renewable Energy	)	Docket No.
Executive Order	)	09-Renew EO-01

COMMENTS OF THE
CALIFORNIA WIND ENERGY ASSOCIATION
ON DRECP FRAMEWORK CONSERVATION STRATEGY - MAY 5, 2011, DRAFT

The California Wind Energy Association ("CalWEA") has been actively engaged in the DRECP process as a stakeholder representative, participating in all three working groups. We are pleased to present our limited comments on the "Framework Conservation Strategy" dated May 5, 2011 ("Draft Conservation Strategy"). To summarize our comments:

- Regarding the acreage used to quantify wind energy impacts,
  - a 0.025 MW/acre metric for wind energy projects should be used for general planning purposes, but should not be used as a ground-disturbance metric; and
  - the DRECP should plan for the total amount of forecast energy, including a variety of possible technology mixes within that total.
- Regarding species-level goals and objectives, the document should indicate that wind projects are potentially compatible with species of concern.
- There is no need for the DRECP to plan for on-site storage in conjunction with wind (or non-thermal solar) projects, because, to the extent needed, storage is more efficiently located near load centers.
- The comments that CalWEA previously provided to the Covered Activities Work Group should be reflected in Table V-1, the Covered Activities Overview Chart.

1. Use of Acreage for Quantification of Wind Energy Impacts

Chapter V (sections A and B) describes the principles that will guide "the quantification of impacts associated with Covered Activities that are proposed for take authorization under the DRECP." The chapter states that it "is assumed that the primary means of defining impacts is calculation of an area of ground disturbance" (emphasis added) and notes that the unique impacts of some technologies may require consideration of "other other assessment parameters and set maximums for these parameters" which, in the case of wind energy "could be established based on what correlates best with

impacts to avian and bat Covered Species." The chapter also includes an initial "rough estimate" for acreage scenarios that could potentially meet anticipated future targets for renewable energy production that range from 100,000 to 500,000 acres of ground disturbance. This estimate compares to a range that was subsequently released by the California Energy Commission (CEC) ranging from 571,676 acres to 1.17 million acres. [1]

While the Draft Conservation Strategy does not document the methodology that produced its estimated acreage range, the spreadsheet that accompanied the CEC document employs a figure for "needed acreage" for wind energy projects of 0.025 MW/acre (40 acres per MW). This figure corresponds accurately to the area that typically must be leased in order to reserve and protect the surrounding wind resource that supplies the project's wind turbines. It does not represent ground disturbance area – i.e., all Covered Activities such as roads, turbine pads, maintenance and storage facilities, and substations – which is typically just 2%-5% of the lease area.[2]

CalWEA does not object to the use of the 0.025 MW/acre metric for purposes of anticipating and planning for the area needed for wind projects (discussion at the May DRECP Stakeholders Committee meeting indicated such a purpose for the total acreage figures). DRECP documents that employ this metric should, however, clearly state that this metric does not represent disturbance area. For impact metrics, wind energy's impacts should be based on some combination of actual disturbance area and, as indicated in the Draft Conservation Strategy, a metric that captures bird and bat impacts.

CalWEA has one related comment, anticipating future iterations of the Draft Conservation Strategy that incorporate technology-specific acreage estimates, such as those released by the CEC. CalWEA is less concerned about the total estimate of the amount of renewable energy that may be required in the 2050 timeframe (assuming a reasonable upper-bound case is included), and more concerned about technology-specific estimates that could translate into technology-specific caps. As no one can forecast technology advancements within such a long time frame, as well as related capabilities (such as the ability to integrate intermittent resources into the grid), it will be essential that the DRECP plan for the total amount of forecast energy, including a variety of possible technology mixes within that total.

2. Indicate that Wind Projects are Potentially Compatible with Species of Concern

Chapter IV of the Draft Conservation Strategy (specifically, IV.B.3 Species-Level Goals and Objectives) states the objective for several species that renewable energy facilities should be sited outside of areas known to be occupied by those species. (The noted species are the desert bighorn

[1] "Acreage Needed in 2050 for Renewable Generation to Meet California's GHG Emission Reduction Goals," California Energy Commission, May 9, 2011.

[2] See, e.g., *20% Wind by 2030; Increasing Wind Energy's Contribution to U.S. Electric* Supply, U.S. DOE (May 2008) at p. 110 (available at http://www.20percentwind.org/20percent_wind_energy_report_05-11-08_wk.pdf).

sheep, Mohave ground squirrel, desert cymopterus, Barstow woolly sunflower, and the Mohave monkeyflower.)

As CalWEA has previously noted in comments submitted to the Covered Species Working Group in relation to the Reserve Design and Assembly Principles, the document should reference the fact that wind energy projects are potentially compatible in some reserve, corridor and buffer areas, and could support biological resources and wildlife movement in those areas, presuming careful siting, mitigation and monitoring. This ability is due to wind energy's small ground-disturbance footprint and the ability to carefully micro-site turbines. Therefore, total avoidance of areas occupied by these and other species should not be an across-the-board recommendation for wind projects. In fact, "co-location" of wind energy projects and sensitive species could facilitate the ability to identify and secure large, contiguous reserve areas while simultaneously preserving high quality wind resource areas for development.

3. Storage

Section V. C.3 on wind projects states, "To provide a dependable resource, wind energy systems may be coupled with energy storage or with other power generation sources." This sentence is followed by this note:

> <<Energy storage requires discussion among the REAT, the DRECP Stakeholder Committee, and DRECP working groups, on the extent to which storage technology and options should be outlined.>>

While the DRECP might want to provide for the possibility of on-site storage or other "back-up" facilities (which would probably be similar to an ancillary building, e.g., one that houses a battery bank), CalWEA's understanding is that storage and other on-site "back-up" facilities -- to the extent that they are needed to integrate renewables into the grid (and initial studies are showing they will not be for the 33% RPS) we not -- do not need not be coupled on-site with a specific power plant. As part of an integrated utility grid, it would be grossly inefficient to require each individual wind (or solar) project "dependable". The grid as a whole needs to be dependable, not each power plant. From both system efficiency and transmission utilization standpoints, installing storage systems very close to load centers will be optimal.

When numerous wind and solar plants are spread across wide geographies and have widely diverse and complementary generation output, their overall output is much smoother and more "dependable" than any single plant. Storage, if needed, should be applied to make overall system operations dependable under the combined circumstances; further, storage per se may not be needed – the need for system flexibility and capacity may well be served more cheaply via additional gas units and/or demand response programs (beyond what is needed for meeting the system's planning reserve margins). Whichever means of providing the needed "dependability," the total need will be significantly smaller than what would be required to make wind/solar plants individually "dependable."

Therefore, although the sentence in the draft says "To provide a dependable resource, wind energy systems may be coupled with energy storage or with other power generation sources", it leaves the impression that wind energy systems need or should be coupled with such systems, which is not the case. Therefore, we need not focus much of the DRECP's attention on desert siting of storage (or non-renewable power generation sources) in conjunction with wind (or non-thermal solar) projects (storage systems may be inherently more efficient in conjunction with solar-thermal projects).

Finally, the "dependability" statement is made only in reference to wind energy, even though, to the extent that the notion is accurate, it applies equally to other intermittent renewable resources.

4. Table V-1 - DRECP Covered Activities Overview Chart

In the Covered Activities Working Group process, CalWEA provided edits to the Covered Activities chart that are either not reflected or not accurately reflected in Table V-1. (See 12/20/10 email from Nancy Rader to Covered Activities Working Group.) The file containing our proposed edits is attached. It appears that the mis-incorporation of our comments was inadvertent; we would like to discuss any discrepancy that represents a disagreement.

Respectfully Submitted,

/s/

Nancy Rader
Executive Director

May 31, 2011