DOCKET
09-RENEW EO-1
DATE MAY 10 2010
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OAK CREEK ENERGY
a Marubeni company

10 May 2010

California Energy Commission
Dockets Office, MS-4
Re: Docket No. RENEW EO-01
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Renewable Energy Executive Order – Docket No. RENEW EO-01. Comments of Oak Creek Energy Systems, Inc. Regarding the DRECP Independent Science Advisory Process.

Dear Sir or Madam:

Thank you for the opportunity to comment on the Desert Renewable Energy Conservation Plan (DRECP) Independent Science Advisory process. Oak Creek Energy Systems, Inc. has a long history in the utility-scale wind industry, having developed one of the first wind farms in California in 1982. Oak Creek Energy Systems, Inc. is currently pursuing several wind projects within the proposed boundaries of the DRECP.

At the April 22, 2010 DRECP Independent Science Advisor meeting, the Renewable Energy Action Team (REAT) posed multiple questions and concepts it would like the Science Panel to address during its deliberations. One of those questions asks, "...would it be better to meet the DRECP goals of species conservation and the Renewable Energy Portfolio Standard by designating areas for use only by specific renewable technologies? Explain." REAT Science Panel Questions, April 22, 2010, Question 4(b).

In addressing REAT's question, we encourage the Science Panel to distinguish – and closely examine the differences between – solar and wind energy generation projects when considering conservation, reserve design, and management guidelines for the DRECP. Different renewable technologies present different environmental considerations. Areas that are biologically unsuitable for one type of renewable technology may be suitable for another. This is particularly the case with regard to solar and wind energy projects, as demonstrated below.

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1. **Why wind is different.**

Wind is a scarce resource in California. Achieving a diverse energy portfolio is an important part of California's renewable energy policy. Unlike solar energy, wind is a relatively scarce resource in California. Much of the best wind in California is located within the boundaries of the DRECP. The wind speeds map attached to this letter – drawn from Slide 6 of the CEERT presentation made to the Science Panel on April 22nd – illustrates this point. We request that the Science Panel closely review this map during its deliberations, with attention to the fact that utility-scale wind generation requires wind speeds of at least 6.0 meters per second at 80 meters to be feasible.

Wind development has a small footprint. Wind projects are frequently very large, oftentimes encompassing thousands of acres. However, they frequently permanently disturb less than 3 percent of their project area during operations, with an additional temporary disturbance of approximately 2 percent during construction. And, with careful attention to concerns and details, we believe we can design projects within more sensitive areas of the DRECP that will disturb no more than 3 percent of the project area during construction and less than 1-1/2 percent post-construction. As a result, wind projects can be designed within the DRECP that permanently disturb less than 100 acres per square mile (640 acres) or approximately 0.5-1.0 acres per MW of electricity generated, compared to 3-9 acres per MW of electricity generated by a solar facility (See Slide 12 of the NREL presentation made to the Science Panel on April 22nd). Throughout the life of a wind project (often 30 years), up to 97 percent of its site remains undisturbed and potentially available for conservation. Maps depicting the boundaries of wind projects frequently do not convey this important distinction.

Wind development has a unique capacity for avoiding sensitive natural resources. Because wind development disturbs a very small portion of a given project site, developers often have a substantial margin within the site to avoid sensitive natural resources. The presence of sensitive natural resources need not prohibit a well sited wind project.

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2. **Renewable energy study areas and conservation opportunity areas should differentiate between wind development and solar development.**

The REAT Study Areas and REAT Conservation Opportunity Areas (depicted in the March 23, 2010 REAT Starting-Point Map Narrative) fail to distinguish wind development from solar development. Painting with such a broad brush fails to properly balance the state's conservation and renewable energy goals.

Wind resources and solar resources do not always exist in the same area. However, the REAT Study Area boundaries appear to be based primarily on the location of solar resources. They consequently fail to pay sufficient attention to the location of developable wind resource areas like those depicted in the wind map attached to this letter.

In addition, while purportedly developed for both wind and solar energy, based "solely on biological sensitivity data," the REAT Study Areas also fail to consider the different environmental impacts of wind and solar energy. As discussed above, wind development's small footprint and high avoidance capacity can substantially reduce its potential to adversely impact the biological resources of a given area. From a biological standpoint, some areas that are inappropriate for solar development may be appropriate for wind development. We therefore request that the Science Panel consider expansion of the REAT Study Area boundaries into developable wind resource areas (6.0 meters per second and greater) where properly sited wind projects are unlikely to adversely impact sensitive natural resources.

The REAT Conservation Opportunity Areas should similarly distinguish wind development from solar development on the basis of wind's small footprint and avoidance capacity. Although it does not restrict uses on biological grounds, California's Williamson Act draws an important analogy in this respect. Generally speaking, wind energy projects can be deemed Williamson Act compatible but solar energy projects cannot. This is because some agricultural operations can continue within a wind project site but not within a solar project site. We are of the opinion that, with appropriate siting and mitigation, the same could be said of wind projects with regard to many sensitive natural resources.

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3. **Summary.**

In answering question 4(b) posed by REAT, we ask that the Science Panel first examine in detail the different biological resources impacts posed by wind and solar energy development, and then develop separate resource boundaries for each industry.

Thank you once again for the opportunity to comment. We look forward to working with REAT and other stakeholders to ensure that the DRECP achieves California's renewable energy and conservation goals.

Sincerely,

Michelle C. Huysman

Michelle C. Huysman
Vice President
Oak Creek Energy Systems, Inc.

Enclosure
Wind Speed Map

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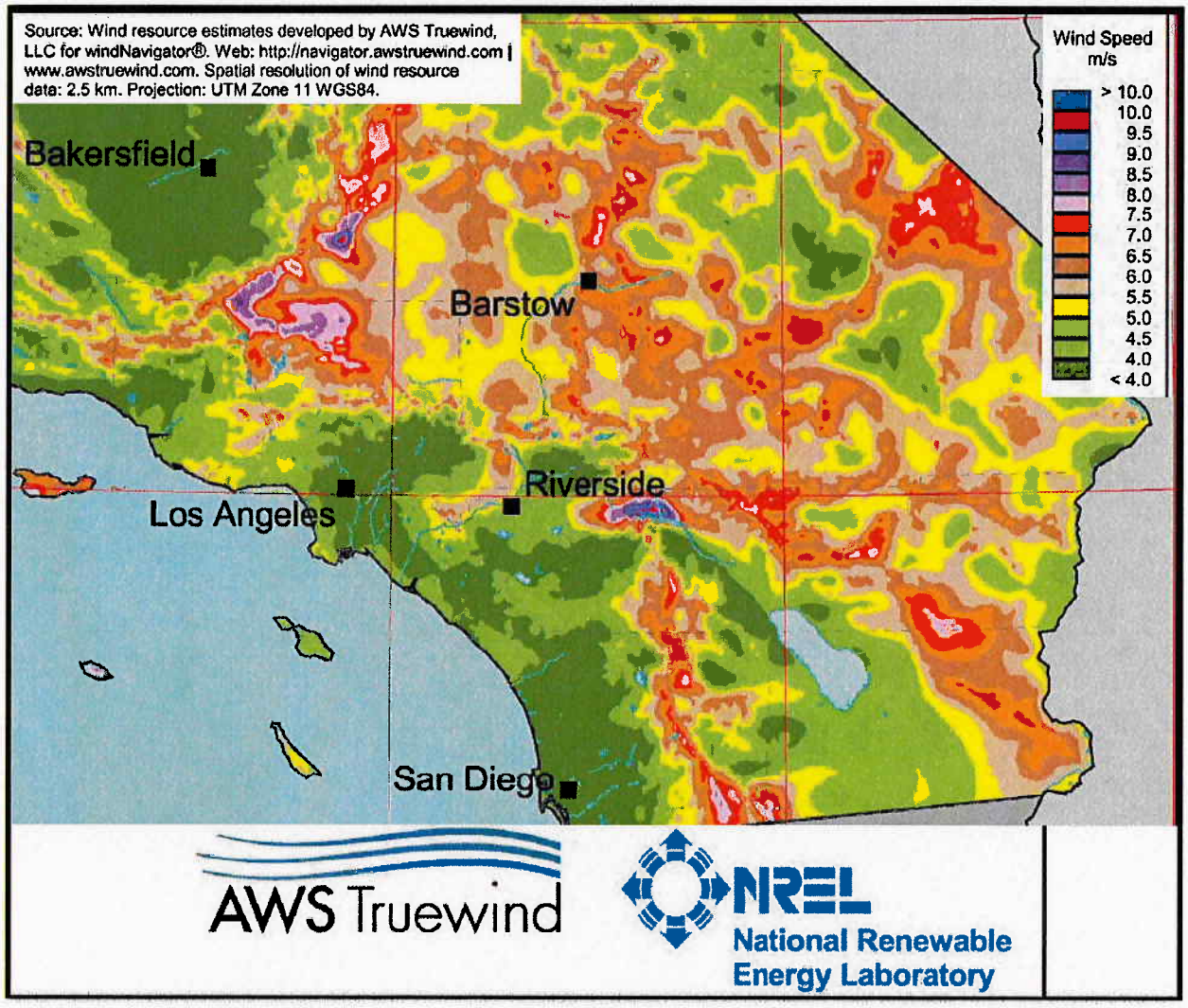
Wind Speed Map
(From CEERT April 22 Presentation to Science Panel, Slide 6)