



# California Wind Energy Association

December 5, 2007

Steve Church  
Research Division  
California Air Resources Board  
1001 I Street, PO Box 2815  
Sacramento, CA 95812

Via email: [schurch@arb.ca.gov](mailto:schurch@arb.ca.gov)

Re: Comments on November 15, 2007, ETAAC Discussion Draft

Dear Mr. Church,

The California Wind Energy Association (CalWEA) is a non-profit corporation supported by over 20 members of the wind energy industry including turbine manufacturers, project developers and owners, support contractors, and others. CalWEA has represented its members in California's policy forums since 2000. CalWEA supported the passage of AB 32, and has cosponsored a proposal made in the Scoping Plan process. We are pleased to continue participating in the ARB's AB 32 implementation process. To that end, we offer these thoughts on the ETAAC Discussion Draft, released November 15, 2007, beginning with a description of our general perspective, which will provide a backdrop for our more specific comments, concerns and factual corrections regarding the document.

## A. Summary of Comments

- The greatest obstacles to achieving California's 2010 RPS goals are a lack of transmission infrastructure and land use obstacles. By far the most important steps that California can take to overcome these obstacles and foster continued investment in renewable energy project and technology development are to (a) establish in law RPS targets for the 2010-2020 timeframe and (b) encourage reform of the generation interconnection and transmission planning processes, which are under the jurisdiction of the California Independent System Operator. These points do not come through in the Discussion Draft.
- The "Competitive Renewable Energy Zone" (CREZ) concept should be re-envisioned as a multi-agency roundtable/facilitation effort, rather than a "master planning" effort. The concept as presented in the document is insufficiently described, with insufficient consideration paid to the various related complexities. We are quite concerned that it

could have the opposite of the intended effect, i.e., it could slow down already slow transmission and project permitting processes. It would be far more productive to focus on remedying flaws in existing processes through the relevant jurisdictional channels.

- Renewable energy RD&D activities should be carefully selected to complement, and not distort, the significant private market activity that is responding and will continue to respond to significant renewable energy markets created by the state. The state should use funds from auction revenues to bolster its existing publicly accountable RD&D mechanisms and institutions; the goal of additional resources for these institutions should be to improve the caliber of the staff and the research that they oversee. Creating new R&D entities would be inefficient; public accountability is important.
- Substantial research is necessary to provide a better scientific understanding of any significant impacts to birds and bats from wind projects, and to improve the ability to predict and mitigate any such impacts.
- A number of inaccurate statements and associated recommendations regarding the RPS policy and the further development of wind energy should be corrected.

#### **B. CalWEA's General Perspective on Renewable Energy Policy Issues**

- **California should rely primarily on market-based policies to achieve its renewable energy development goals.** The large market created by California's Renewables Portfolio Standard (RPS) has succeeded in drawing a tremendous amount of renewable energy development activity to the state which, in turn, has drawn a significant amount of capital investment to the renewable energy sector both in California and the U.S.<sup>1</sup> Competing developers and technologies are fulfilling the objective of the RPS concept: to foster market competition to produce the projects and technologies with the greatest value, least cost, and greatest potential for timely development. California should build upon this success and use it as the primary means of promoting the commercial development of renewables and of fostering private investment in the development of promising technologies. A market-driven approach to renewables will minimize the costs of achieving GHG goals.
- **The greatest obstacles to achieving California's existing 2010 RPS goals are a lack of transmission infrastructure and land use obstacles.** These obstacles can be addressed most effectively by direct involvement at the relevant agencies, e.g., at the FERC, California Independent System Operator (CAISO), federal land-use agencies and branches of the military.

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<sup>1</sup> State RPS requirements adopted over the past decade have spurred substantial investment in U.S. and global turbine and component manufacturing plants, development activities, and technology R&D.

- **California should immediately establish higher renewable energy goals.** By far the single most important thing that California can do to overcome these obstacles is to set RPS targets for the 2010-2020 timeframe. Establishing these targets in law is necessary to support continued development activity in the state, and to enable the CAISO and CPUC to plan for and build the necessary transmission infrastructure, which requires a firm state policy – embodied in statute – and at least several years’ lead time. For this reason, CalWEA, together with the Union of Concerned Scientists, submitted a 33%-by-2020 RPS proposal to the ARB in its Scoping Plan process.<sup>2</sup> This point is entirely missing in the Discussion Draft.

## **C. Comments on Specific Recommendations in the Discussion Draft**

### **1. California Carbon Trust / Promote Clean Energy Innovation and Commercialization**

The Discussion Draft suggests the creation of a California Carbon Trust, supported by allowance revenues, (in part) to encourage research, development and demonstration efforts, and separately supports “clean energy innovation and commercialization efforts *today* to ensure that critical innovations are available to contribute to GHG reductions in future years.” The Discussion Draft suggests that a new entity be created to coordinate these efforts.

CalWEA has no objection to such a Trust, but advises that any renewable energy RD&D activities be carefully selected to complement, and not distort, the private market activity which will respond to significant renewable energy markets created by the state. Rather than creating a new entity in this area, the ETAAC should consider recommending that the state use additional funds to bolster its existing RD&D mechanisms and institutions, such as the CEC’s PIER program, seeking to add to and improve the caliber of the staff and the research that they oversee. Any new entity should be publicly accountable.

### **2. Competitive Renewable Energy Zones**

The Discussion Draft promotes a policy to identify and assess Competitive Renewable Energy Zones (CREZs) in the state, and to develop a coordinated strategy among various state and federal agencies and other stakeholders to facilitate new generation build-out in these zones as well as supportive transmission infrastructure. The Draft also recommends that the policy be coupled with a streamlined siting, environmental review and permitting process that is coordinated between local, state and federal agencies in a “master plan” format. In addition, the report recommends that CARB also “investigate the pro-active financing of transmission expansion into high resource areas, as a means of accelerating new renewable generation and overcoming the “chicken-or-egg” problem.”

CalWEA has significant concerns about this approach. Such a process, as the Discussion Draft notes, has already begun as the California Renewable Energy Transmission Initiative (RETI). RETI can

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<sup>2</sup> See <http://www.arb.ca.gov/cc/scopingplan/submittals/electricity/electricity.htm>.

play a useful role in transmission planning by providing the CAISO, U.S. DOE and CEC with helpful information about renewable resource areas in and adjacent to California; such information can assist these agencies in fulfilling the various transmission planning responsibilities with which they are charged. It could also play a very important informal role in encouraging federal land use agencies to place a higher priority on making land available for renewable energy and on processing applications for such use (a goal that is not mentioned). This is a facilitation role, rather than a planning role.

CalWEA does not believe that it would be possible for a multi-agency, multi-stakeholder CREZ process to resolve the transmission or land-use barriers facing wind energy development in a “master planning” capacity. Indeed, CalWEA is seriously concerned that such a process would hinder, rather than accelerate, progress.

With regard to transmission planning, attempts to prioritize CREZs are likely to be much less successful than (a) relying on the market to identify and develop the most promising renewable energy projects in any number of areas, and (b) implementing badly needed reforms of the CAISO generator interconnection process. (See “Wind Industry Expectations from RETI,” submitted in the RETI process by the RETI wind industry representative to RETI on November 19, 2007, appended here for reference.) Moreover, a process of “prioritizing” renewable energy zones would be directly at odds with FERC’s “open access” transmission rules and the RPS statute and its implementing regulations, all of which rest on market principles rather than on administratively determined outcomes. Finally, we are concerned that a “master planning” effort would be very likely to get bogged down in excessive “process” and controversy. The controversy would stem from the fact that the results of an administrative process could compete with the competitive market process in determining which projects and project areas should be developed first.

We feel similarly with regard to the proposed multi-agency permitting process involving the CPUC, CEC, California Department of Fish and Game, Regional Water Quality Control Board, Bureau of Land Management, Fish & Wildlife Service, National Park Service, Army Corps of Engineers, and Department of Defense land managers. It would be very helpful to hold roundtable discussions with these various agencies to underscore the importance of opening up federal multi-use lands in California for renewable energy development and of accelerating the federal lands permitting process. However, it will not be productive to try to involve all or even a portion of these agencies in making joint decisions regarding permitting. Such a process would in fact add a very slow additional process layer to what is already a very difficult and lengthy permitting process. If the idea advances, it should be with the goal of reducing the total number of permitting layers. It must be recognized, however, that accomplishing that goal would require extensive and controversial changes to state and federal law. The existence of an entity without formal authority would carry the risk that each individual agency will wait for the “blessing” of the multi-agency entity, which is likely to be inconsistent with the regulations governing each agency’s actions.

We have a few additional comments on and corrections to particular statements made in regard to the CREZ recommendation:

- This statement, “CEC and BLM have created a coordinated siting process” is true only with regard to solar projects. Wind projects are not subject to the CEC’s siting jurisdiction.
- Regarding this statement – “The transition to this [CREZ] policy will take time, effort and a lot of coordination and communication. It is a paradigm shift in the planning, resource development and permitting processes” – as indicated above, it must be recognized that any such “paradigm shift” would have to be accompanied by state and federal law changes that would enable fundamental changes in transmission, renewable energy, and land-use policies. It would be far more productive, instead, to focus on remedying flaws in existing processes through the relevant jurisdictional channels.

- Regarding these statements –

“Developing and delivering renewable electricity winds up being a ‘chicken and egg’ issue because renewable and transmission development are inextricably linked. One does not happen without the other, yet financing and constructing one without the other is not quite possible without certain government sponsored guarantees” and

“CARB should also investigate the pro-active financing of transmission expansion into high resource areas, as a means of accelerating new renewable generation”

– the document should recognize that this problem has already been addressed in state policy. Specifically, as part of the RPS statute (PU Code Sec. 399.25), the legislature enabled the CPUC to provide cost recovery assurances to utilities that volunteer to finance transmission lines that are “necessary to facilitate” the state’s RPS goals. The CPUC has interpreted that statute more narrowly than it needed to do, but it still provides the tool necessary to break the “chicken and egg” situation. The CPUC has already applied it to the Tehachapi Transmission Plan, which will provide transmission access to the vast wind resource area southwest of Bakersfield over the next two to five years.

In addition, the FERC has reduced the risks associated with utility financing of transmission lines needed to provide access to independent generators by waiving the so-called “abandoned plant” rule in certain circumstances,<sup>3</sup> and more recently has eliminated the risk to a utility that finances non-network transmission upgrades necessary to interconnect

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<sup>3</sup> See “FERC Order on Petition for Declaratory Order,” Commission Determination, order F. (112 FERC 61,014).

multiple “location constrained” generators.<sup>4</sup> In short, the tools to overcome the chicken-and-egg problem are already at hand.

### **3. Comments on Energy Sector Legislative and Regulatory “To Do” List**

We offer the following comments on certain items in Chapter 5, Section V, “*Table 2 Immediate Horizon Legislative ‘To Do’ List*”.

**Item 6 - Authorize and implement development policy and plans for Competitive Renewable Energy Zones.** As indicated above, CalWEA does not support the CREZ concept as outlined. The document does not indicate what policy changes would be necessary to authorize a multi-agency CREZ entity to take the envisioned actions, but the changes required would be substantial and far-reaching and thus would not be easily or quickly made. The ETAAC should fully consider the implications of this proposal before adopting it.

**Item 7 -- Provide property tax abatements for renewable energy projects.** CalWEA strongly supports tax relief for all renewable energy projects. Strong global demand exists for wind turbines and other renewable energy equipment. Reducing the cost of project development in California will, by increasing the profitability of investment, increase the chance that limited equipment will be directed to California. More fundamentally, property tax relief for renewables is a matter of fundamental fairness as property taxes effectively tax the “fuel-related” portion of renewable energy capital investment, whereas fossil fuels are not taxed. Parity requires reducing taxes on renewable energy project capital. We note that Appendix IV-K discusses such tax relief only in association with concentrated solar thermal projects, but the same facts and principles apply to wind and other capital-intensive renewable technologies.

**Item 11 -- Revisit pricing structure of renewable portfolio standard and either modify or eliminate to simplify the structure.** This issue is discussed only briefly in Appendix IV-K; erroneous statements are made, and the point is not well supported. The following comments respond to particular statements in Appendix IV-K:

The CPUC sets a market price referent (MPR) each year that is based on the cost of a proxy combined cycle natural-gas fired power plant. No other values are included in this proxy calculation, such as avoidance of GHG emissions or other environmental attributes. ... the current MPR and RPS pricing process is still too complicated. The issue of how to best determine the market price for carbon free energy is still up for debate. The ETAAC energy subgroup recommends that the State revisit the structure of RPS pricing and determine how the structure could be simplified.

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<sup>4</sup> *Cal. Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,061 (2007).

In fact, the MPR does reflect the cost of abating the air quality and GHG impacts associated with a gas plant. The MPR reflects the cost of a gas plant that must meet California air quality standards for criteria pollutants in the districts in which they are located, including offsets for their residual emissions as required by the local air pollution control district.<sup>5</sup> The GHG values adopted initially for the 2007 MPR, meant to reflect real costs associated with the implementation of AB 32, will be fully revisited when the CPUC establishes the 2008 MPR. The process of establishing the MPR -- a process in which CalWEA has been fully engaged -- is not "too complicated" and has been relatively non-controversial.

It is important to note that the purpose of the MPR is not to capture the benefits of renewables -- it is to capture the direct costs of the power that would otherwise be purchased. In structuring the RPS in 2002, the legislature was aiming to achieve the RPS goal within costs that ratepayers would be indifferent to, plus a defined additional amount of money that effectively represents the legislature's judgment regarding the value of renewables beyond the "avoided" cost. The fact that California is achieving its 20% RPS goal through competitive processes at a cost to ratepayers that, for most RPS contracts, is less than or equal to fossil-fuel options is very positive. California is achieving a significant penetration of renewable generation and reducing rates compared to the non-renewable alternative. If it turns out that the state cannot meet higher RPS goals within the existing cost constraint, then the legislature can determine whether to authorize greater "above market" costs. This is an issue best addressed head on, instead of attempting to quantify the other environmental attributes of renewables, a process which, in the end, comes down to a value judgment best made by the Legislature, with the advice of the ARB.

#### **4. Comments on Appendix IV**

##### **a. Section B - Wind Power Section**

This section would benefit from a better and more thorough understanding of the issues associated with wind energy. Here we address a few of the points that were made.

Re: "View shed issues are typically an issue when wind development projects are proposed next to or near protected land -- such as a nature reserve -- or near a recreation area." Objections to wind projects based on visual impact are not limited to protected lands. If California is serious about developing renewable resources, the legislature should consider limiting the ability of project opponents to stop wind and other renewables projects under CEQA based on visual impacts.

Re: "The *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development* is in the final drafting stages at the CEC and represents the most thorough survey of the science and the best way to address wildlife concerns." The CEC recognizes that the state-of-the-science required to effectively predict and mitigate potential avian and bat mortality associated with

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<sup>5</sup> The MPR is based on two actual plants, one in the Central Valley and one in San Diego County.

proposed wind projects is in the early stages of development and that substantial additional scientific work is necessary before wildlife impacts can be accurately predicted.<sup>6</sup> It is essential that the state of the science be improved, and that state wind-wildlife guidelines rest on a solid scientific foundation. CalWEA and the CEC are engaged in efforts to improve the state of the science, but greater state support of such research is needed.

**b. Sections B and G – Wind Power and Energy Storage**

These statements are made in these sections:

“A problem can arise under minimum load conditions, especially when this generation exceeds the supply and demand balance. Shifting demand to off peak and/or creating energy storage is an effective way of addressing this issue.”

“Energy Storage is the key to California achieving higher penetrations of variable output renewable energy such as solar and wind power in California’s supply portfolio. Other types of renewables – such as geothermal and biomass – are base load resources and therefore do not require storage.”

As noted in recent studies by the Energy Commission and the CAISO, there are a number of other, lower-cost means of minimizing the potential for over-generation conditions than creating new energy storage. Moreover, the Energy Commission study concluded that the California grid has the technical capability to include 20 percent intermittent generation under a 33 percent renewables goal without the need for significant new storage or other resources to accommodate the variability of these renewables.<sup>7</sup> This point should be clearly made by the ETAAC. If and when storage is added, it would be to increase the overall flexibility of the entire electric system – storage can help to accommodate not only intermittent renewables, but also fluctuating loads and baseload nuclear and renewable resources which, like wind, also deliver during low-demand periods.

Thank you for considering our views. Please contact me if I you have any questions.

Sincerely,



Nancy Rader  
Executive Director

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<sup>6</sup> See, e.g., Letter from Kelly Birkinshaw (Program Manager for the CEC’s PIER Environmental Area) to Stakeholders regarding the development of a research roadmap to support avian and bat siting guidelines (January 10, 2007).

<sup>7</sup> California Energy Commission, “Intermittency Analysis Project” (CEC-500-2007-081), July 2007.

*(Attachment to CalWEA Comments on ETAAC Discussion Draft)*

## **Wind Industry Expectations from RETI**

Submitted by RETI Wind Representative Dariush Shirmohammadi  
11/19/2007

The wind industry believes that RETI can play a useful role in transmission planning by providing the CAISO, DOE and CEC with helpful information about renewable resource areas in and adjacent to California. This information can help inform the efforts of ISO and DOE/CEC to plan the transmission system within California and to plan corridors that interconnect with surrounding states.

RETI may also encourage cooperation and consensus between all transmission owners in California, and assist the CAISO in planning a transmission system in response to LSE obligations to comply with California's RPS requirements. To the extent that signed interconnection agreements (IAs) for renewable resource facilities do not achieve the state's goals, RETI analyses can also guide CAISO's transmission planning efforts.

However, RETI should not attempt to precisely prioritize CREZs in California based on their benefits and costs, due to the lack of accurate underlying data. Many factors determine the cost of proposed projects, and many of those are highly confidential. Developers will not reveal specific cost information about their projects in development. Moreover, no one can accurately forecast the cost of renewable technologies over the next decade, which will be affected by technology advancements, economies of manufacturing, and global supply/demand.

This lack of accurate underlying data will have the following implications:

1. **CREZs should be ranked based on a band of B/C values**, not individually based on a single Benefit/Cost (B/C) number; moreover, these bands will be accurate only on an order-of-magnitude basis. For example, all CREZs with B/C ratio of 1.5 to 2.0 would probably need to be grouped in one band and those with B/C of 1.0 to 1.5 in another band. Such a banding practice effectively eliminates the significance of including the transmission costs, which are expected to be around five percent (5%) of the total project cost, in B/C evaluation.
2. **It may be more economic to develop the least-cost renewable projects in a number of renewable resource areas**, rather than to fully develop one or two "priority" CREZs.
3. **Ranking CREZs by relative band values would be inconsistent with FERC's open access tariffs and orders** – for example, awarding transmission access to generators in the "1.5-2.0" band over those in the lower "0.5-1.0" band. This would also be inconsistent with the competitive LSE resource selection process under the CPUC RPS rules.

In short, RETI should not attempt to supplant the experience, judgment, and detailed investigation that project developers have expended in selecting their project sites. Rather, California should rely on the competitive process, both at the LSE level and at the ISO interconnection level, and we strongly object to any connection between CREZ designation and transmission-line permitting.

Finally, initiatives such as the CAISO's Location-Constrained Resources Interconnection Facilities (LCRIF) policy and CPUC/CEC's RETI seem to be mainly reactions to severe problems with the CAISO's Large Generator Interconnection (LGI) methodology and procedures. However, these initiatives will not themselves solve the ISO LGI problems. Instead, the LGI problem needs to be resolved first, and then initiatives such as LCRIF and RETI should be vigorously pursued. In fact, the wind industry is very concerned about the risk that the RETI process will divert the resources and, more importantly, the attention needed to solve California's immediate LGI problems. Hence, while this useful exercise should continue, it should by no means interfere with parallel efforts to correct the interconnection process, which should then lead to the more effective transmission planning process for California leading to access to the state's most promising renewable resource projects.