

**CALIFORNIA ENERGY COMMISSION**

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November 19, 2008

To: Renewable Energy Transmission Initiative (RETI) Stakeholder Steering Committee

**Subject: Comments on the Proposed Competitive Renewable Energy Zones**

The Energy Commission staff would like to acknowledge the impressive level of collaboration and cooperation between the RETI stakeholders that has resulted in the draft Phase 1b report. The Energy Commission staff has actively participated in all phases of RETI and appreciates the opportunity to offer comments on the draft Phase 1b report.

The following comments on the proposed Competitive Renewable Energy Zones (CREZs) are based upon the Energy Commission's previous experience in siting both power plants and transmission lines throughout California, and in particular within the southeastern deserts of the state where most of the CREZs are located. The most recent desert project the Commission approved (October 2006) is the 76-mile Blythe transmission line which connects the Western Area Power Administration's Buck Boulevard substation to Metropolitan Water District's Julian Hinds substation. Currently, the Energy Commission is reviewing four solar projects that are all located within proposed CREZs and the Commission could receive another four to seven applications in the next 12 months for large solar thermal power plants.

The large number of pending solar applications and the extraordinary number of leases (80 leases covering over 680,000 acres/1062 square miles) for solar power plants that have been filed with the Bureau of Land Management (BLM) and Governor Schwarzenegger's Executive Order S-14-08 issued on November 17, 2008 create great urgency to designate areas in California for renewable energy projects which are the most appropriate for development taking into consideration proximity to existing transmission infrastructure and load centers; the need to minimize impacts to desert ecosystems and sensitive species; the importance of clustering and concentrating development in a limited number of areas; the need to protect the unique visual resources of the desert; and the importance of preserving the special qualities of remoteness and isolation that are inherent in the appeal of desert landscapes. The Energy Commission staff has conducted numerous field trips in the past two years to many of the areas now identified as potential CREZs as part of our work on generation and transmission applications and potential filings, and to coordinate with various federal and state agencies on resource management issues. In addition, recently the staff conducted two site visits totaling five days and visited approximately one-third of the CREZs in the Mojave and Colorado Deserts to identify potential solar siting issues and concerns including land use, visual aesthetics, construction engineering, and transmission interconnection issues. These site visits confirmed our

belief that additional work in Phase 2, particularly more field reconnaissance, is important before a final decision is made regarding the best CREZs to promote for development. We think it would be beneficial if the various stakeholders, and the Environmental Working Group, in particular, could spend time in the field visiting the CREZs.

We offer the following comments to build upon and improve the work that has been conducted to date before a final “development plan” is proposed by the Stakeholders Steering Committee.

1. CREZs are a starting point. The staff believes a salient issue needs to be recognized and considered by all stakeholders before focusing on CREZ-specific comments. Namely, the CREZs identified by Black & Veatch should be considered a starting point that recognizes there are potentially significant issues that need to be addressed during Phase 2 of the RETI process.
  - **Size of the areas identified for solar development.** With the exception of the Riverside East CREZ, the CREZs as delineated by Black & Veatch may not have the potential for accommodating, in a reasonably concise geographic area, a significant amount of solar generating capacity. Part of the limitation is associated with land ownership issues. This limitation is significant because the more you concentrate development in appropriate areas the more you: reduce the need for transmission infrastructure; lower costs; reduce environmental impacts; and free up the scarce staff resources of government agencies to concentrate on a limited number of areas versus the current situation of 80 projects/leases widely scattered over thousands of square miles.
  - **Number of CREZs.** Reducing the number of CREZs would focus development, as mentioned above, on fewer but more concentrated geographic areas, with the impacts scaled back.
  - **Identify CREZ expansion or additions.** It is important to identify areas that preferably can be added to existing CREZs that can accommodate large scale solar development. This will dramatically reduce the number of areas that need to be developed.
  - **Vacant and disturbed land.** More work needs to be done to identify vacant and disturbed land (e.g. abandoned agricultural land) where development would likely result in far fewer adverse environmental impacts to the state's

flora and fauna. For example, there is a significant amount of vacant and disturbed land in the Fairmont CREZ that could potentially be used for solar power plant development. This should be a factor that determines how CREZs are evaluated.

- **Think outside of the box.** More imagination and a willingness to think unconventionally are needed to ensure we are not overlooking potentially superior sites. For example, the Inyokern CREZ has areas identified north of Lone Pine that could be developed with solar. This is a highly scenic area owned by Los Angeles Department of Water and Power (LADWP). However, a less scenic area south of Lone Pine is Owens Lake, now dry, and subject to severe dust storms. It is the largest single source of PM-10 emissions in the country. The State Lands Commission is the owner of the lake bed and may be interested in solar development, particularly if this would also help reduce particulate emissions. The possibility exists that some of the lake bed could be used as a solar development site. If feasible, this would be a location with reduced biological resource impacts and an area that could accommodate a large amount of generation, reducing the need to develop other areas.

Areas in and around other large playas in the desert, such as Coyote, Cuddeback and Superior (if not precluded by the expansion of Fort Irwin) Dry Lakes, may also offer opportunities for large scale solar development. Finally, many of the CREZs are located on federal land managed by BLM and a few CREZs, such as the San Bernardino – Lucerne CREZ, are located where the State Lands Commission is a major land owner. It is essential that these agencies and BLM in particular, have an adequate opportunity to review and comment on the proposed CREZs. It is also important to note that BLM and the U.S. Department of Energy are in the process of preparing a Solar Programmatic Environmental Impact Statement to guide solar development on BLM lands in six western states, including California. No CREZ proposed on BLM-managed land will be viable without concurrence by the federal government that renewable energy is a compatible use.

2. Land ownership. The development of many of the CREZs may be severely hampered by private land ownership issues, e.g., Tehachapi, Fairmont, Kramer, San Bernardino – Lucerne, Twentynine Palms, and Victorville. The dominant land ownership pattern of the areas indicated as being suitable for solar development in these CREZs may be 40-acre or smaller parcels. This ownership pattern is not attractive to solar developers and is extremely problematic since one or two unwilling sellers can render an area infeasible for development. It is also true that

the zoning of these areas may not be compatible with solar development and could require a change to a county's general land use plan. Zoning and land ownership must be ascertained to understand the probability of whether an area can be suitably developed, including a realistic appraisal of the megawatt potential, and should be a factor in ranking/prioritization.

3. Topographical constraints. Topographical constraints must be considered since this can greatly increase costs and can determine feasibility. Some areas appear infeasible for development, including the site labeled IM2 in the Imperial East CREZ and areas identified in the Twentynine Palms CREZ. It is important to visit any area where topography may preclude successful development to determine its viability.
4. Visual impacts. Visual impacts are a significant environmental issue given the high visual quality of much of the desert and the long distances over which man-made objects may be observed. In addition to protecting the aesthetic attributes of the Mojave and Colorado Deserts, it is also important to preserve less tangible but no less important aspects pertaining to the preservation, whenever possible, of the desert's wild and remote qualities. Areas where these issues must be given a high priority and factored into the ranking of CREZs include the Iron Mountain CREZ, SB 4 and SB 5 of the Pisgah CREZ, and SB 10 and perhaps SB 11 of the San Bernardino – Baker CREZ, as well as the area located south of Interstate 15 approximately 10-15 miles southwest of Baker.
5. Transmission access. Transmission access could be a major impediment to developing the Twentynine Palms CREZ given the significant opposition to the Green Path Transmission Line in the area around Morongo Valley. A line built to access the Twentynine Palms CREZ would presumably follow the same path currently proposed for the Green Path Transmission Line. In addition to transmission access issues, the Twentynine Palms CREZ has land use (numerous scattered residences) and topographical issues. In addition, most of the identified development areas are located in close proximity to Joshua Tree National Park. For all of these reasons Energy Commission staff believes the Twentynine Palms CREZ has significant problems/limitations which should be reflected in its ranking.
6. Eastern Mohave Desert CREZs. Some CREZs in the eastern Mojave Desert (e.g. Needles and Mountain Pass) were not visited during staff's field trips. Notwithstanding our inability to visit these areas, we are concerned about

developing remote and isolated areas that would require significant new transmission infrastructure and would impact previously undisturbed landscapes. Development should be focused in the western Mojave, to the extent feasible, which is closer to the load centers, normally more developed, is botanically less diverse compared to the eastern Mojave, is often less pristine, and generally contains a more robust transmission infrastructure. These issues should be considered in the ranking of CREZs.

7. Boots on the ground. Additional field work is needed to identify areas that have low biological resource value, including vacant and disturbed lands. These lands exist in many of the CREZs including Fairmont, Victorville, Barstow, and Tehachapi. Availability of disturbed land of sufficient size for solar facilities should be an important factor in the ranking/prioritization of CREZs.

The Energy Commission staff, in conformance with Governor Schwarzenegger's Executive Order S-14-08 to raise California's renewable energy goals to 33 percent by 2020, looks forward to continuing our support of RETI by providing input and staff resources as we move into Phase 2 of the process. Please direct any questions on the issues and contents of this comment letter to Chuck Najarian, the Energy Commission's RETI project coordinator, at (916) 654-4079.

Sincerely,

TERRENCE O'BRIEN, Deputy Director  
Siting, Transmission and Environmental Protection Division