

# COMMITTEE ON NATURAL RESOURCES

## SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES

U.S. House of Representatives

“Energy Development on Federal Lands: The Road to Consensus”

University of California Riverside, Palm Desert Graduate Center

75090 Frank Sinatra Drive

Palm Desert, California 92211

May 11, 2009

Comments of Palm Desert Councilman

Jim Ferguson

Good Morning Chairman Costa and Members of the Subcommittee on Energy and Mineral Resources:

My name is Jim Ferguson and, for the past 13 years, I have been a Councilman in the City of Palm Desert – having served twice as its Mayor. I am also Chairman of the Coachella Valley Mountains Conservancy, a State agency of California having land holdings within the Santa Rosa and San Jacinto Mountains National Monument. As we sit here today, we are located in the center of the Coachella valley – a region made up of 9 cities, 4 Native American tribes and the County of Riverside. We number approximately ½ million residents and represent one of the hottest per capita places in America.

Collectively, we recently enacted one of the most forward reaching habitat conservation plans in the country reflecting our high priority on the preservation of the natural resources with which we have been blessed. The Bureau of Land Management has committed to manage its lands within this protected consistent with this Plan area as part of the federal, state and local partnership to conserve local ecosystems

Rather than solely focusing on large-scale solar developments on public and private lands, we enthusiastically embrace solar technology in both the residential and rural areas of our community. In order to fulfill energy, environmental, climate change and economic development goals, we need it all!

In the residential sector our support is in the form of distributed generation and energy conservation/efficiency. Working in a groundbreaking partnership both our electric and natural gas service utilities, Palm Desert has taken the lead and committed itself to a 30% in overall city-wide

reduction in its electrical load over a five year period. And we are well on our way, with about 1/3 of our savings attained to date. This is achieved primarily through increased energy efficiency and residential rooftop solar systems – supported by incentives and financed by the City for the homeowner at a reasonable interest rate for both. The City earns a fair rate of interest, the property owner immediately adds equity and energy savings to his residential investment, and our major utilities are better able to manage demand response during peak periods.

This program started with the simple premise that it is less expensive to conserve energy off of our grid, than it was to buy out-of-state power or permit new power generating facilities in California. To put this into better perspective, if all of California could simply conserve 20% of its energy consumption through efficiency and solar at home, it would be the energy equivalent of having ten (10) new nuclear generating facilities, or twenty (20) new gas fired plants in this State. This is roughly the energy we could expect from drilling in the Alaska Wildlife National Refuge -- and what a better option!

The “Palm Desert Energy Independence Program” has proven itself extraordinarily successful. It shows that more aggressive approaches to energy efficiency and renewable energy financing make sense and can get us on a path to energy sustainability and security. We salute efficiency and renewable gains thus far and call on dramatically increased activity. When environmental, economic development, and national security values are factored into the cost-benefit equation, energy efficiency and renewable energy – on all scales – makes tremendous sense. It is our energy future and we support prompt responsible action as soon as possible.

One of the most exciting opportunities to promote renewable power development is a so called “Feed-in-Tariff.” The model has proven so successful in Europe, where Germany became the World leader in both solar energy and wind energy in a few years. It’s time that America enacts a Federal feed-in-tariff program to reap similar gains. The Federal Energy Regulatory Commission could direct each state to develop feed-in-tariff prices that give investors a reasonable and predictable return for twenty (20) years.

At the household level, the feed-in-tariff is quite simple. Homeowners are paid a fair price for their excess solar and other “green” generated capacity. Germany and Spain have both instituted aggressive models and Spain now expects to have 100 Giga watts of solar capacity (100 nuclear facilities) by 2020.

The point is, before we march off to disturb federal soils and disrupt their native habitat, there is much we can do through ever-more aggressive energy efficiency – throughout our society – and the deployment of safe, clean, renewable generation, distributed throughout our communities and close to its end use.

We also support commercial development of solar generation facilities in rural areas: however, that is not unqualified support. We appreciate President Obama’s direction to develop renewable sources of energy on federal land and Secretary Salazar’s aggressive approach in addressing that directive. Frankly, I see no other way for us to meet the carbon reduction mandates of the International

Conference of Parties that crafted the Kyoto Protocol, that was endorsed by the United States in Bali in 2007 and that will meet in Bali, and that will meet in Copenhagen later this year without increased efficiency, renewable energy and particularly solar production. California has also set a 33% renewable portfolio standard mandate for 2020 at a time when solar energy only factors approximately 1% into our state's energy mix. It is highly unlikely any of our utilities will meet their interim target by 2010 – just next year!

Since the turn of the last century, our Government has classified federal lands for various uses – predominantly conservation and preservation. Our new mandate for solar development should not be undertaken in a blanket, rushed approach. Unquestionably there are public lands which may be appropriate for solar development. These should be identified and cultivated. Similarly, there are lands which have previously been identified for cultural, biological and other purposes which must also be respected. In my opinion, the dual responsibility of cultivation of renewable resources and the preservation and conservation of cultural and biological resources is the main task before this Subcommittee. In that regard, I would like to share some of the thoughts of a consortium of environmental groups who have been working to develop a consensus approach to the issue.

## **I. INTRODUCTION**

The California Desert is a unique and special environment, as recognized by the Federal Land Policy Management Act in establishing the California Desert Conservation Area. The vast landscape is home to diverse biological communities, cultural sites, scenic and wild places, and other valuable areas. The desert lands also sequester carbon in the fragile desert crust, providing an important benefit in the effort to reduce carbon emissions in our state. These lands also are attractive for renewable energy projects, and have fueled a rush by companies to file applications on public lands for potential projects. The need to find alternatives to carbon based energy is great. In California, we are moving forward to meet a Renewable Portfolio Standard of 33% by 2020, a goal which is widely supported as necessary to address climate change.

We appreciate Subcommittee's leadership on the dual issues of natural resource conservation and renewable energy development in the California Desert and we are committed to working with her and all stakeholders to develop solutions.

We support providing legislative protection for both the Catellus lands acquired for conservation purposes and other park and wilderness quality lands that have been identified throughout the California Deserts. We also believe that protection of these lands is a continuation of, and builds upon, the conservation work begun many years ago in the California Deserts.

The protection of the Catellus lands and other wilderness and conservation lands should not be considered as mitigation for allowing for the development of renewable energy on other public lands in the California desert. Working to responsibly site renewable energy is not a quid pro quo for the protection of other lands. The siting of renewable energy projects in the California desert needs to be addressed separately from any conservation lands proposal.

As detailed below, we believe that the siting of renewable energy projects in the California Desert can be done in a way that can benefit local communities while reducing the level of impact to the fragile desert ecosystems. For example, new renewable energy projects should not fuel sprawl, but should be clustered in appropriate locations, reducing the carbon footprint. And, we must ensure that future siting of renewable energy projects is conducted in a way that protects resilient habitat, which will provide room for species to adapt to climate change.

This memo sets forth a two-phased approach that addresses short-term needs with a process to identify pilot project areas and expedite siting in those areas, and also provides for a long-term plan to ensure sustainability of the desert environment. This memo also includes recommendations on how to incentivize development of renewable energy projects on private lands so that public lands do not bear the entire burden of renewable energy generation. Finally, this memo details a mapping process undertaken by the NGOs to produce a map of areas (public and private) identified as having a high potential for suitable solar energy development. To be clear, however, this map is not a definitive representation of what are considered thoroughly vetted development zones and does not address wind energy siting, biomass or geothermal. Instead, this map is an illustration of what could result from the recommended short-term, pilot project area process.

## **II. TWO-PHASED PLANNING APPROACH**

There are a large number of renewable energy projects proposed in the California Desert that potentially threaten the very lands that many, including Senator Feinstein, have worked hard to protect. The Bureau of Land Management (BLM) right of way process for evaluating these projects is not working - it is very time consuming and is not well suited to the task. Staffing shortages at BLM and other permitting agencies create additional problems.

In order to meet our pressing need for clean energy in an environmentally responsible manner, we recommend that the siting of solar renewable energy projects in California take place in a two-phased process. The first phase would address short-term needs to bring solar renewable power online to meet California's RPS goals, and the second phase would consist of a longer-term, comprehensive desert planning process. Both initiatives must move forward simultaneously.

### **A. Phase One: Expedite progress by avoiding conflict.**

#### Pilot Project Areas

We recommend an accelerated short-term exercise to designate a limited number of "pilot project areas" without undermining existing environmental laws. This effort should evaluate public and private lands to identify areas appropriate for development and screen out lands that are inappropriate for development. Please see Attachment 1 for a list of criteria for lands that are suitable and unsuitable for development and Attachment 3 for the preliminary map.

To initiate this phase, we recommend that state and federal agencies work with stakeholders to identify pilot project areas sufficient to produce enough MW to meet half of the net short as defined by the California Energy Commission. This number should be calculated in conjunction with energy conservation, energy efficiency, projects on private lands, and distributed generation efforts.

The BLM must focus its resources on project applications within the pilot project areas. While the BLM is currently utilizing the tool of “right of way” applications, we do not believe that this administrative tool is suitable for solar renewable energy projects particularly because such projects completely destroy habitat values on site. The BLM must be able to use its authority to deny project applications in the pilot project areas (as they do elsewhere) if the project impacts are deemed significant and un-mitigable. The pilot project areas should be considered as feasible alternative sites for project applications currently in the environmental review process.

Pilot projects can test or identify a number of important components of solar renewable energy siting, development and operations where more research and/or information is needed including:

- Ways to create a “race to the top” for generators in terms of environmental performance.
  - Attachment 2 provides additional conditions that can be placed on renewable project applications to encourage more environmentally responsible project proposals
- Environmental impacts of different and emerging energy production technologies
  - Impacts will vary project to project.
  - Pilot projects should be used to establish BMPs for compiling conservation baseline prior to initiation of development.
- Technology-specific on site mitigation measures for different solar technologies.
  - Environmental impacts will vary from technology to technology
- Technology-specific BMPs for operations (e.g. methods to minimize water use for cleaning, wastewater disposal/reclamation practices, ways to ensure wildlife movement corridors, measures to minimize adverse hydrological impacts both on- and off-site and appropriate types of fencing, etc).
- Robustness of, and gaps in, land use criteria
- Federal, state and local agency needs for additional staff and decision support tools to enable their participation in a cooperative siting process for additional renewable energy development.
- Ability of BLM and state agencies to work together across land ownerships
- Ways to expedite permitting, such as coordinated, simultaneous, multi- agency environmental review.
- Clustering development sites to minimize transmission/interconnection needs.
- Presumed environmental benefits of clustering near existing infrastructure (e.g. waste water capture and reuse, adjacency to existing developments, support of local economies “green jobs”, shared workplace transit for energy facility workers).
- Measures of the disturbance that results from solar development, including the change of vegetation and change of species found at and in the vicinity of the site.

- Methods for scaling up the research and analysis to measure the physical and biological changes at the ecosystem-level as a result of development. For example, studies should measure soil disturbance and its relationship to air quality in the deserts. Ecosystem scale analysis could also be particularly important for species that have a large range (e.g., bighorn sheep).

#### Mitigation

Impacts to resources in pilot project areas should be fully mitigated to satisfy both federal and state requirements.

#### Disturbed Lands in Pilot Projects (please see Attachment 1, Section A for definition)

Disturbed lands should be prioritized for inclusion in pilot project areas. It is anticipated that mechanically disturbed lands support minimal or reduced sensitive biological, archaeological, paleontological and hydrological resources, due to the high level of disturbance they have experienced. Therefore, by design, it is unlikely that sensitive resources would be encountered on site. However, compliance with all applicable environmental laws will be necessary.

We suggest the following measures to help expedite the process for solar plants on Disturbed Pilot Project Lands:

- A rapid assessment to determine whether sensitive species are present despite the disturbance;
- A maximum of a single season of appropriately timed surveys will be required; or
- If sensitive species are presumed or detected onsite, mitigation will be required, preferably using predetermined habitat acquisition and mitigation ratios which may also include an option of a fixed percent of mitigation through appropriately scaled payments into an established mitigation bank (if available) or other fund to pool resources for large-scale conservation land acquisition or mitigation projects such as tortoise fencing along major roads and bighorn sheep corridors/overpasses.

#### Undisturbed Pilot Project Lands

Before undisturbed lands are included in pilot projects, they must be evaluated in order to establish that they have low resource conflicts potential despite the fact that they are undisturbed (i.e. lands which support a high level of ecological functioning). Undisturbed areas that are adjacent to existing mechanically disturbed lands should be favored over areas that are not.

It is anticipated that undisturbed lands in pilot project areas will support reduced or minimal sensitive biological, archaeological, paleontological, visual and hydrological resources, based on the best current available resource information and their adjacency to disturbed lands. While it is possible that sensitive resources could be encountered on site, these sites will experience a conversion from natural function ecosystems to industrialization, and therefore all environmental laws are applicable.

Key issues to be addressed in mitigation for projects on undisturbed Pilot Project lands include:

- A minimum of a single season of appropriately timed surveys will be required;
- If no sensitive or rare resources are encountered , impacts to these lands will be mitigated at a [specified] ratio, as appropriate; for federally protected species including but not limited to the desert tortoise, clearance surveys must be still be done;
- If surveys encounter sensitive or rare resources, additional surveys may be required in order to accurately characterize those resources. Based on the type of resources encountered, appropriate mitigations for sensitive resources on these undisturbed lands would be developed in coordination with local, State and federal agencies.

### Mitigation Measures

Mitigation measures for solar projects on undisturbed lands in the Pilot Project Areas should include:

- Acquisition of private lands that provide replacement habitat (“compensation lands”)
- Enhanced conservation management of specified public lands:
  - For example, mitigation mechanisms identified in the CDCA Plan as amended including construction and maintenance of fencing near roads, buy outs of permits on grazing a allotments revegation of closed routes, etc.
- Enhancement of compensation lands.
  - Similar to enhancement of management of public lands the mitigation for private conservation lands could include funding fencing of the acquired lands or needed restoration.
- Managing compensation lands as conservation lands in the CDCA.
  - Any compensation lands transferred to BLM shall be permanently segregated or withdrawn from use under the mining and land laws.

Development of mitigation packages will be done in coordination with state, federal and local resource agencies.

### **B. Interim Guidance**

The BLM must provide interim guidance for prioritizing project applications while the long term planning process is underway. The BLM should issue an Instruction Memorandum that details the criteria to be used to establish priorities for processing applications. These criteria must be designed to identify those applications which minimize both harm to the natural values of undisturbed public lands and the likelihood of controversy with the public and local communities. Such criteria must include:

- Avoiding lands with conservation values (see Attachment 1, Section B)
- Prioritizing degraded lands and lands adjacent to degraded lands (see Attachment 1, Section B)
- Proximity to load centers

- Proximity to existing population centers including workforce housing
- Proximity to existing transmission and infrastructure;
- Availability of sufficient water without causing significant impacts to conservation values (primarily for cleaning – no “wet cooled” projects in the desert unless the water used is reclaimed water from close by municipalities.);
- Demonstrated secure funding;
- Additional “points” for prioritizing projects for those that make commitments to reduce demand through energy efficiency projects in population centers or create positive local benefits through distributed generation projects

**C. Phase Two: Develop comprehensive, strategic, management plan for all types of renewable energy development that protects desert resources and secures long term protection of biologically important areas.**

The long-term phase of the process should include direction to the BLM to engage in a landscape level analysis for siting of all types of renewable energy development in the California Desert. This process should be coordinated with state and local agencies across the region in order to develop a comprehensive plan that addresses private as well as public lands. The plan should also establish requirements for enhanced management that will ensure long term conservation of desert biodiversity.

Desert Blueprint

A comprehensive, strategic planning process for renewable energy development in the desert is needed to address the multiple land uses and values in the desert, including conservation, recreation, tourism, cultural sites, military testing and training, local economic development, and transportation infrastructure, as well as renewable energy. Federal and state agencies must work together in a transparent public process to develop a common “blueprint” for the desert. This “blueprint” should include well-defined, measurable standards, developed via public involvement processes (e.g. habitat condition and/or population-level objectives). It should also employ science-based analytical tools to evaluate compliance with the standards (e.g. population viability assessment). It should also provide consistent implementation of science-based analysis and decision-making (i.e. dedicated funding for monitoring and science-based adaptive management processes).

The “blueprint” should reflect the best science available and specifically assess:

- Direct and indirect cumulative impacts
- Rare, sensitive, threatened and endangered species and wildlife corridor needs
- Climate change adaptation needs
- Carbon sequestration value of intact habitat
- Ecological process needs
- Ecological thresholds /limits for development
- Maintenance of hydrology in these arid environments



California's Natural Community Conservation Plan (NCCP) coupled with the federal Habitat Conservation Plan (HCP) process may be able to provide an appropriate framework for this coordination, but federal legislative language would be required to ensure federal agencies' engagement. The strategic planning process must also provide meaningful opportunities for public participation by a broad array of stakeholders.

#### Renewable Energy Development Zones

A primary goal of the comprehensive planning process will be to guide development of renewable energy projects to appropriate areas to provide certainty, minimize conflicts, and facilitate environmentally responsible siting. Directing development towards appropriate areas must include the following steps:

- Identification of the MW contribution expected to be generated by the lands covered by the plan in conjunction with contributions from other renewable energy sources (e.g. energy conservation, energy efficient, distributed generation, and renewable energy from other parts of the state).
- Designation of federal renewable energy zones for renewable development (please see Attachment 1 for land use criteria)
  - Lessons learned from pilot projects should inform the designation of additional renewable energy zones
- Rating of designated areas based on greatest energy resource value and least environmental conflict and phasing of development accordingly
- Requiring existing and new applicants to locate projects in identified renewable energy zones in appropriate phases

The BLM should establish a competitive application process going forward that is designed to encourage a "race to the top" among generators. This process would provide incentives for generators to put forward the most environmentally responsible project proposals, both in terms of siting and project impacts on the ground. Lessons learned from the pilot project areas should also inform the processing of applications. Among other strategies, technology-specific BMPs for solar development will set high performance standards for developers. (Please see Attachment 2 for a list of additional conditions that could be placed on renewable energy applications to create a more competitive application process).

#### Strategic Desert Conservation

Long term protection of biologically important lands is a critical component of the long term planning process. The blueprint process must:

- Identify specific public lands with high resource values that require additional conservation designations (outside of the mitigation process).
- Identify additional lands for acquisition by public agencies.

## Mitigation

All impacts of renewable energy projects must be fully mitigated. The blueprint effort can be a framework for developing a strategic mitigation process which generates more robust and effective mitigation over the long term than can be achieved on a project by project basis.

Strategic long-term mitigation planning must address the following:

- Incorporation of biodiversity sustainability/viability indicators
- Long term stewardship and funding of stewardship of mitigation lands
- Mechanisms for ensuring conservation is prioritized on public lands
- Opportunities for pooling mitigation funds for larger scale land acquisitions of properties identified in the desert blueprint process and managing those compensation lands for the benefit of the lost and impacted resources.
- Expanding legal requirements for mitigation as impacts of renewable energy projects are documented.
- 

### **III. INCENTIVES FOR PRIVATE LAND DEVELOPMENT FOR RENEWABLE ENERGY PROJECTS**

#### **A. Identify funding and/or incentives for land aggregation:**

- Federal zero-interest loans for aggregators of private lands for solar energy development (with sidebars to exclude speculators).
- Capital gains tax exemptions for those purchasing private land for solar energy development.
- Subsidies (such as partial or full closing costs).
- State and federal tax breaks (capital gains, tax credits etc.).

#### **B. Create mechanisms to reward generators for locating on disturbed areas:**

- Federal zero-interest loans for solar energy infrastructure development on private lands (with sidebars).
- Capital gains tax exemptions for developers on private lands.
- State and federal tax breaks (capital gains, tax credits etc.).
- Regulatory advantages (such as expedited review and interconnection preferences at the state and federal level).
- Simplifying and minimizing mitigation for development on disturbed land
- Accelerated environmental review of solar facilities on disturbed private lands. For example, there could be local incentives for accelerating local permitting.
- Accelerated depreciation of solar infrastructure on private lands.

#### **C. Foster community benefits by siting on private lands:**

- Create federal redevelopment or enterprise zones (e.g., Imperial County's Economic Development Corporation, <http://www.ivedc.com/?pid=2>). Or, create a state economic development zone or a county Energy Element to a General Plan or a redevelopment area.
- Provide payments in lieu of taxes or revenue sharing for local governments to compensate for

lost tax revenues due to lower solar assessments.

- Create state and federal tax breaks (capital gains, tax credits etc.) for landowners who develop their lands with renewable energy projects.
- Provide federal financing modeled after AB 811 (<http://www.ab811.org/>).
- For landowners, make them eligible for a portion of the Investment Tax Credit that currently goes to producers.
- For landowners, tax the rental profits at a lower rate than regular income if the profits are from solar producers using the land.

**D. What are the attributes to qualify for a solar energy zone?**

- Adequate insolation (average hours of sunlight); if a value is used, it should be set to include such areas as west San Joaquin Valley.
- Proximity to transmission.
- Degraded biological, scenic and cultural values, especially previously graded lands, fragmented land, or land exposed to edge effects, etc.
- Avoidance of “core” natural areas.
- Avoid incentivizing small isolated solar farms in relatively pristine natural areas

**III. OVERVIEW OF MAPPING OF POTENTIAL PILOT PROJECT AREAS FOR RENEWABLE ENERGY DEVELOPMENT IN THE CALIFORNIA DESERTS**

In response to Senator Feinstein’s request to identify public lands that are appropriate for renewable energy development, we have used the criteria, set forth in this memorandum, to identify potential areas for renewable energy pilot projects. This mapping exercise clearly demonstrates the potential availability of acreage for renewable projects on public lands. Similarly, an initial mapping exercise has also identified significant acreage of private disturbed lands that are likely appropriate for renewable energy development.

It is important to note that the NGOs involved in this exercise are not specifically endorsing the identified pilot project areas as “go zones” for development. Nor do we support legislative designation of renewable energy zones.

Instead, it is our strong belief that the state and federal government agencies, working with stakeholders, will be able to conduct an accelerated short-term exercise to quickly identify renewable energy pilot project areas. We also believe that it will be possible to gain broad consensus on a number of areas for development. The NGOs involved in this effort are willing to collaborate with the state and federal agencies to identify renewable energy pilot project areas as part of a larger planning effort that includes both a short-term and a long-term process for comprehensive planning, as described above in this memorandum.

The potential pilot project areas in the attached map were identified based on the criteria contained in this memorandum. Particular consideration was given to the following factors:

1. Protecting the core of pristine desert lands, which provides the following benefits:
  - a. Areas are located in proximity to existing population centers
  - b. Areas are located in proximity to existing transmission and infrastructure.
  - c. Areas are located in the vicinity of homes and services for the workforce that will be required
  - d. Reduction of greenhouse gas emissions related to necessary travel of workforce to these facilities
  - e. Opportunities for economic stimulus are created for population centers in need of jobs
  - f. Areas will not create small cities to support facility operation in remote desert locations
  
2. Avoidance of lands with known ecological and biological values, and known cultural values, based on site visits and database queries. Lands are not underrepresented in other public lands conservation areas.
  
3. Prioritization of public lands and lands adjacent to degraded public and private lands (as defined above), for the following reasons:
  - a. Lands adjacent to degraded lands typically have lower biological value due to the edge effect of disturbed lands.
  - b. Locating pilot projects adjacent to private disturbed lands allows for expansion of the renewable energy development and clustering of renewable energy projects over larger areas.
  - c. Locations have the potential to attract projects from siting in core habitat areas.
  
4. This mapping exercise was conducted in one week with a relatively small team of ecologists, biologists and conservation professionals. The first step was to identify to a number of potential pilot project areas based on firsthand knowledge of the landscape, a GIS evaluation, and biological and cultural database queries. The second step was to refine these initial pilot project areas through site visits. In one week, the group identified public lands that are potentially appropriate for renewable energy development. Our conclusion from this mapping exercise is it is possible to site pilot areas for renewable facilities in a manner that minimizes impact to the desert ecosystems and we are ready to collaborate in finding those areas.

In conclusion, I would strongly recommend the Subcommittee look at maximizing energy efficiency, Conservation and distributed generation (rooftop solar) with s a federal feed-in-tariff to stimulate this activity, prior with commercial solar developments as outlined above.

Thank you for your time this morning.