

Testimony of Carl A. Zichella
Director of Western Renewable Programs
Sierra Club
Before the Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
May 11, 2009

Mr., Chairman, members of the committee, my name is Carl Zichella. I am the Sierra Club's director of western renewable programs. My responsibilities include working to facilitate environmentally responsible renewable energy and related transmission siting in the western United States. I am an environmental stakeholder in the State of California's Renewable Energy Transmission Initiative (RETI) and the Western Governor's Association's Western Renewable Energy Zone (WREZ) processes. I am also a steering committee member for the Energy Future Coalition's renewable energy transmission project. I have worked for the Sierra Club for nearly 22 years and have worked on energy issues throughout my 25 year career in environmental advocacy. I am testifying today on behalf of the Sierra Club's 1.3 million members and supporters in the United States and Canada.

Global Warming threatens our people and natural environment in ways we have never before experienced. According to the Intergovernmental Panel on Climate Change (IPCC) the next century could see increases in temperature – four degrees Celsius – equivalent to the total increase experienced on Earth since the end of the last Ice Age 10,000 years ago. The effects on human life and the natural world will be enormous.

To prevent this calamity all nations heavily dependent on fossil fuels will have to dramatically shift the way they fuel their economies to renewable energy sources, including solar energy. We need to bring renewable energy up to scale and we need to do so as rapidly as we can responsibly manage.

That does not mean we need to do it by short-circuiting environmental protections. On the contrary, we need to take great care to undertake the development we need with circumspection because if we are to move quickly we need to gain the public's support and trust that environmental values will not be unnecessarily trampled. If we fail to do this our efforts will be controversial and our progress will be slow.

It is to our great advantage that our solar energy resources are arguably the best in the world in terms of quality and location. Not only do we have some of the very highest quality solar resource on the planet in California and neighboring states, that resource is closer to load than any other comparable resource area in the world, 200 miles or less generally from the major load centers. This means that we can be selective about

Testimony of Carl Zichella

May 11, 2009

Page 2

siting. We do not have to trample protected areas and threaten already-imperiled wildlife.

Solar energy, like all energy sources regardless of fuel type, has impacts. We need to make sure that we are taking appropriate precautions to address and mitigate these as we move forward to develop large-scale projects. Most of the solar energy companies I am aware of are responsible developers who are making every honest effort to identify the environmental impacts of their proposed projects and are willing to do appropriate mitigation for their anticipated effects. There are some honest disagreements about this, as we would expect, but I believe we can, by working together with federal and state regulators and with the generators as partners, unlock the vast potential of this resource in a time frame to help meet President Obama's goals of reducing greenhouse gas emissions nationally by 80% by the middle of this century, and increasing the use of renewable sources of electricity nationally by 25% by 2025.

What do we need to do to accomplish our solar energy goals and greenhouse gas reduction needs? There are a number of principles we can follow that can help guide our efforts in the most expeditious manner. Some of these are contemplated in federal legislation. Others are being implemented by federal agencies under the direction of the Executive branch. Still others could be implemented administratively under existing authorities should the agencies be so directed by the President.

Some will take state action, and indeed a critical element of success will be coordination with state agencies and governments. For example, transmission line development, perhaps the largest obstacle for large-scale renewable energy development, will require close cooperation and perhaps new planning and siting relationships with the states to accomplish. Efforts to simply preempt states would likely face bitter and entrenched – as well as unnecessary – opposition and would be in my judgment likely to fail. There is a balance here that threads this needle of respective authorities and we will need to find it. Suggestions made by Senators Reid and Bingaman to share authorities with the states provide two pathways to solving this problem.

Principles for a “road to consensus” for solar energy development

- 1 Land that has already been disturbed should be preferred for development. Whether in private or public ownership, land that has already been developed for industrial, agricultural, or other intensive human uses is generally superior to “greenfield” sites in terms of minimizing environmental degradation. Redevelopment of disturbed sites offers opportunities to improve lands that may not otherwise be reclaimed, but it is imperative to consider and address the effects of renewable energy development, both positive and negative, on

minority and low income populations. In the California, Nevada and Arizona deserts we need to intensively focus on identifying these sites and making them available for renewable energy development.

- 2 Identify and establish incentives for parcelized private lands in good resource areas. Some areas of disturbed lands are already large enough to accommodate solar development. These include abandoned farmlands, unofficial OHV recreational areas, and abandoned mine sites to name a few. But many of the very best areas for solar development are presently very difficult to develop. These are areas typically near desert communities which were subdivided and sold as vacation or second home developments 50-60 years ago. They have excellent solar values and are closer to consumer load than more remote and less degraded sites on public lands. Some of these areas were badly damaged as developers bladed roads for subdivisions across them. The large number of owners (sometimes in the hundreds or more) makes aggregating these parcels difficult to impossible for developers who believe negotiating with more than 20 owners per each two square mile project area is not feasible. It is too difficult and takes too long. But abandoning these sites is an affront to desert conservationists who correctly insist that we need to make the best use of disturbed sites before using sites that are undisturbed, especially on the public lands. The Sierra Club believes that with the proper incentives, these sites can be unlocked.

Four types of incentives are needed. Some are federal, some are state, and some are local. These incentives should be applied to aggregating properties within recognized areas of high potential that could be within designated solar energy development or "enterprise" zones to ensure that the resources have best and fastest effect. These zones could be adopted by state action and once designated be eligible for federal incentives.

- a. Incentives for landowners to sell – Many landowners in these areas are unable to develop their parcels for residential development due to insufficient water resources. A combination of federal and state tax breaks – such as capital gains tax exemptions and tax credits--would help, as would a subsidy for closing costs.
- b. Incentives for "Aggregators" – As developers find aggregating parcels daunting, it would be necessary to incentivize private parties to take this on. Tax breaks similar to those provided for landowners might suffice.
- c. Incentives for generators to locate – Generators who may have invested significant resources to investigate projects elsewhere would be persuaded to instead locate in these areas instead if they knew that their

projects could proceed more expeditiously. By providing expedited state reviews and licenses –combining mitigation and habitat conservation planning in these areas, not cutting corners on normal review but recognizing that these disturbed sites will have fewer conflicts – generators would be more able to quickly break ground, take advantage of tax incentives and meet contractual obligations to California utilities striving to meet the state’s renewable portfolio standard goals. This idea closely parallels the Governor’s executive order in California. This will require close cooperation with federal and state wildlife management agencies.

- d. Incentives for Counties to zone for solar – Because solar developers enjoy a lower property tax rate in California there is more incentive for counties to hold land for other forms of development rather than zone land for solar. Only one county in California has an energy element to its general plan: Imperial County. The state should require such elements and work with the Congress to tie eligibility for federal or state payment in lieu of taxes that could apply to Counties that zone for solar and work to aggregate parcelized lands of high renewable energy resource value into usable sites. Decertification of expired subdivisions might be one qualifying activity Counties could use.

3 Bureau of Land Management should not accept Right of Way (ROW) Applications on lands that cannot be developed for environmental reasons – The BLM is considering changing the way ROW applications are handled away from accepting every ROW application and only rejecting proposed projects after plans of development are completed. This is a very positive step that should be encouraged. Some of the areas applied for are not developable due to wildlife and land conservation conflicts, and requiring plans of development for all is wasteful both financially and in terms of agency staffing. BLM is considering designating areas suitable for development (on their most disturbed sites) and then beginning to reject and discourage ROW applications in sensitive areas. If implemented this will help enormously. They could begin by rejecting ROW applications in sensitive lands immediately.

4 Do both long and short term renewable energy planning on public lands – We need to both get as much development started in the right places we can manage as expeditiously as possible and plan for the longer term. The approach mentioned above is fine for the short term. But we also need a more circumspect approach for future solar siting that can unfold over a longer time frame. The resource is rich enough that we have the ability to site solar projects more carefully once the first rank of disturbed lands has been identified and put

into use.

- 5 Establish incentives for generators to locate on disturbed sites on public lands – As with the private lands case already presented, generators who may be displaced on other less-disturbed sites would be more likely to locate on disturbed lands if they knew they would have a clearer path through the environmental review and licensing processes. Accomplishing this would mean joint state and federal habitat conservation planning and mitigation work, combined with programmatic environmental review that would allow for Environmental Assessments as opposed to EIRs. BLM is currently exploring ways to do this with the States of California, Nevada and Arizona and perhaps others.
- 6 Be willing to innovate in transmission infrastructure – Infrastructure installed to facilitate solar development will be with us for a half century or more. Many local objections to transmission needed for solar development stem from degraded viewsheds for local residents. Many resource areas on public lands have stunning views that enhance fragile local economies. It is in both our short term and long term interest to be open to using technologies that are less intrusive, such as undergrounding of lines with superconducting materials and technologies, despite the fact that they may be somewhat more expensive. This may require a new rule from FERC, and Executive Order from the President or congressional action to approve higher levels of cost recovery, perhaps applied across parts of the entire interconnection, to enable transmission line sponsors, whether independent or load serving entities, to consider employing them as a part of their projects in uninhabited areas.
- 7 Require and fund agency cooperation to shorten environmental reviews, increase review quality – Trans-agency cooperation is essential to accomplishing a successful solar energy build-out. Without it, projects will struggle as sequential reviews lengthen consideration timelines and delay needed projects. We will need agencies such as DOD to be part of the plan in terms of both making areas available for development as they are beginning to do, and participating in remediation and mitigation efforts. Other agencies needed to play a central role include the Federal Energy Regulatory Commission and the land management and research agencies of the Departments of Energy, Agriculture and Interior.

In summary, by siting projects on the most disturbed lands we can identify on both public and private lands; by providing strategically crafted incentives to open up lands suitable for development but constrained by parcelization; by encouraging innovation both in terms of technology and cost recovery; and by careful coordination with the

Testimony of Carl Zichella

May 11, 2009

Page 6

states and mandatory coordination between and among federal agencies we can expeditiously unlock the vast potential of the southwest's solar energy potential.

Thank you for your consideration of this testimony.