CENTER *for* BIOLOGICAL DIVERSITY *Because life is good.*

*protecting and restoring natural ecosystems and imperiled species through science, education, policy, and environmental law*

***via email and USPS***

January 3, 2011

Mike Monasmith
Siting, Transmission and Environmental Protection (STEP) Division
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814
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**RE: Comments Power Plant Siting Lessons Learned - Docket # 10-SIT-OII-1**

Dear Mr. Monasmith,

On behalf of the 315,000 members, staff and on-line activist of the Center for Biological Diversity ("Center"), we are pleased to submit these comments on "lessons learned" in order to improve the siting of power plants, and specifically solar power plants under the California Energy Commission (the Commission)'s jurisdiction.

The development of renewable energy is a critical component of efforts to reduce greenhouse gas emissions, avoid the worst consequences of global warming, and to assist California in meeting emission reductions set by AB 32 and Executive Orders S-03-05 and S-21-09. The Center for Biological Diversity (the "Center") strongly supports the development of renewable energy production, and the generation of electricity from solar power, in particular. However, like any project, proposed solar power projects should be thoughtfully planned to minimize impacts to the environment. In particular, renewable energy projects should avoid impacts to sensitive species and habitats, and should be sited in proximity to the areas of electricity end-use in order to reduce the need for extensive new transmission corridors and lines and the efficiency loss associated with extended energy transmission. Only by maintaining the highest environmental standards with regard to local impacts, and effects on species and habitat, can renewable energy production be truly sustainable.

The Center has intervened in four projects to date through the California Energy Commission process, and has provided comments on numerous other projects that have been before the Commission over the last several years. From our experience before the Commission, we offer the following comments which, if considered and adopted, will significantly improve the process of siting these industrial scale solar facilities and eliminate or greatly reduce the environmental conflicts:



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- The Commission has not seriously engaged or considered scale issues. The technology inherent in the large-scale solar projects that the Commission has reviewed and in some cases permitted has been proposed at an industrial scale that requires significant amounts of acreage (thousands of acres). Several of the proposed technologies have no proven "track-record" at the proposed industrial scale of the applications. At a minimum, the Commission must consider reasonable phasing of these technologies through the permitting process.

- Early on in the process and before the Application for Certification is filed, the Commissioners must make site visits and walk the entirety of the proposed site. While we recognize that most of the "fast-track" sites are not easily accessible and are proposed to cover thousands of acres, it is inadequate for the decisionmakers to just look at the proposed project from a road or from the inside of a vehicle. Because so many of the proposed and permitted project sites are on undisturbed land that lack vehicular access and cover large acreage, the projects automatically set up conflicts with rare, threatened and endangered species and their habitats. The Commissioners must experience the expanse of each project and how the project affects the on-site and surrounding landscape in order to make more defensible decisions.

- Compliance needs to be transparent to the public. All reports and plans submitted should be made available to the public on the web or (similar to the dockets system) a list should be provided on the web and documents provided by request within 48 hours. Much of the mitigation for project impacts relies on plans that are incomplete or non-existent at the time of permitting, where the public has little recourse to track of outcome of the final plan, much less its implementation.

- The Commission must have a mechanism to deny projects in inappropriate places early in the process. For example the Ridgecrest Solar Power Project is clearly located in a biologically irreplaceable area, based on the best available science, and the Commission's staff has recommended denial of the project. Yet the Commission has agreed to have the project applicant spend millions of dollars on additional biological studies that still do little to "downgrade" the biological significance of the site, regardless of the outcome. While the Center supports gathering additional information on site resources, when a site is inappropriate the Commission should be able to deny a project early.

- Workshops and hearings must take place in the local community: At least half or more of the workshops and hearings should be in the local community and not in Sacramento. For example, the workshops in Ridgecrest on the Ridgecrest Solar Power Project had great turnout and participation by local concerned citizens. While we appreciate technologies like WebEx and the Commission's use of them, they do not replace the value of having local workshops and hearings.

- The Commission must ensure financial viability of the companies and not allow permits to become a tradable commodity that does not lead to renewable energy being built in a timely way and as analyzed by the Commission. For example, Tessera's Calico project that was

approved by the Commission on 10/28/10 was recently sold to K Road Power who intends to develop a PV facility. (see Attachment 1).

- The Commission must pay more attention to the intervenors' experts and not dismiss their concerns. For example on the Ivanpah Solar Electric Generating System, Drs. Michael Connor and Ronald Marlow both raised the issue of undercounting tortoises in the record repeatedly. Unfortunately, the Commission totally ignored the issue. The facts now show that the intervenors' experts were right. (see Attachment 2). Some issues, for example rare insects, were completely ignored by the Commission despite expert witness testimony.

- The Commission needs to end all hearings by 7pm at the latest and more realistically schedule time at hearings for each issue so that experts are not kept waiting all day. Several of the evidentiary hearings started at 9 a.m. and continued well into the night or early morning hours. This type of schedule is not only unrealistic but unreasonable and could easily be addressed by more thoughtful scheduling.

- The Commission must clarify which document or documents are being issued for public comment as a CEQA equivalent. This will ensure robust public notice for review and comment and that comments are appropriately responded to in writing by the Commission. It was not always clear which documents were part of the CEQA equivalent process and which were not.

- To comply with CEQA information must be provided to show that impacts have been identified and analyzed. In several instances, "agreements" were reached with the project applicant and staff on issues "offline" at the evidentiary hearings. However, these new "agreements" did not have an opportunity for public review or input. The public has a right to know the impacts and to engage with the process. There has been no "over analysis" (as stated by some applicants), in fact there has typically been a significant *under-analysis* of issues to date.

- The whole process for the "fast-track" solar projects was unnecessarily rushed. This rushing resulted in numerous problems for the projects. For example, certain botanical surveys (late summer/early fall rare plant surveys) were simply not conducted, so the impacts to the species could not be identified, any avoidance was dismissed, and a convoluted mitigation strategy was put in place. Simply doing the surveys as required for an adequate CEQA analysis would have improved these projects particularly with regards to avoidance options. Another issue that arose from the unreasonable environmental review schedule was misidentification of the impacted resources, and the need for very last minute changes to the impact analysis, minimization and avoidance measures, which the public did not have time for a thorough review. Lastly, the rushed process completely failed to look at alternative sites that would have fewer impacts. The ability to identify project sites with fewer resource conflicts is much preferable to the need for increased mitigation, which substantially increased the cost of mitigation for the first set of projects. The Commission needs to do better at looking at alternatives sites and alternatives layouts from early in the process.

- The Commission must recognize and incorporate the recommendations of the DRECP's Independent Science Advisors (ISA) report in all future decisions. While this final document was not available for the most recent "fast-track" projects, it is a wealth of information on desert environs and offers good counsel for impact – focusing heavily on avoidance, which involves appropriate siting.

The following comments are based on our experiences as intervenors on site specific projects. If these projects had been properly sited to begin with, as discussed above, many of the issues would simply not have arisen. We strongly urge the Commission to carefully consider appropriate siting very early in the process so impacts are avoided or, at a minimum, minimized.

- The Commission must recognize essential wildlife connectivity issues. It can not, as it has in the past, simply assume that mitigation ratios adequately mitigate impacts to these corridors. In most cases mitigation lands were not even identified, so it was impossible to evaluate if, in fact, the mitigation lands would actually mitigate for the impacted wildlife movement/connectivity. The Commission and the public must have all of the facts before them in order to be able to evaluate the effectiveness of mitigation.

- The Commission must recognize the importance of unique genetic taxa where it has been identified within California and mitigate appropriately. For example, desert tortoise recovery units, which each harbor unique genetics for tortoise, have been well recognized by scientists for over a decade. However, the Commission failed to abide by the best available science and allowed for impacts to occur in one recovery unit to be mitigated in a different recovery unit.

- The Commission must retain expert staff consistently for all projects. For example, desert tortoise experts were retained for the Ridgecrest and Calico projects, but other projects that also impacted desert tortoise did not have these experts available.

- The Commission must require mitigation that will unequivocally mitigate the impacts from the project. For example, "nested" mitigation assumes that mitigation acquisition for one species will serve mitigation needs for other species. This assumption may not be adequate for all of the impacted species. An example of where this strategy breaks down is foraging habitat for raptors or habitat for rare plants may not be mitigated by acquisition of tortoise habitat, if in fact the acquired desert tortoise habitat does not actually contain habitat for the impacted rare plants or may already be foraging habitat for a different raptor territory. Another example involves one project's impact the foraging and connectivity habitat for bighorn sheep. Instead of "replacement" habitat, the Commission allowed a guzzler for bighorn to be constructed in the nearby mountains. No studies were ever presented to show that an additional guzzler was necessary in the area. Nor would water in a guzzler replace forage or affect connectivity.

- The Commission must rely on proven mitigation strategies that actually mitigate impacts particularly over the long term. For example, relying on on-site rare plant refuges – the "halos" around rare plant individuals or populations – is an unproven minimization/

mitigation measure. In fact, the best available science points to the fact that this level of fragmentation will likely result in elimination of these plants over the long-term.

- The Commission must provide consistent alternatives analysis. For example, the Ridgecrest staff assessment looked at a private lands alternative quite thoroughly, but all other "fast-track" projects eliminated private lands projects from a comprehensive analysis.

- The Commission must require coordinated monitoring of impacts to wildlife from project technologies where science has not been previously available. While the commission allowed projects to move forward where few/no studies had been done on the potential impacts to wildlife, no substantive requirement was put in place to actually monitor those potential impacts. Not studying the impacts will not make the impacts any less, and in fact, that type of information is essential to evaluate the impacts of future projects. For example, monitoring the impacts from powertowers and the "zone of death" on migratory routes of birds and insect flight periods.

The Center looks forward to having the Commission thoughtfully consider and adopt the "lessons learned" as presented above. The essential transition to renewable energy from fossil fuels does not have to destroy essential habitat for desert species.

Please feel free to contact me with any questions at ianderson@biologicaldiversity.org or 323-654-5943.

Sincerely,

Ileene Anderson
Biologist/Public Lands Desert Director
Center for Biological Diversity

ATTACHMENT 1.

http://blogs.reuters.com/environment/2010/12/29/tessera-sells-calico-solar-project-to-k-road-power/

# Environment Forum

## Global environmental challenges

# Tessera sells Calico solar project to K Road Power

Dec 29, 2010 13:26 EST
Calico | K Road Power | Tessera Solar

NTR's Tessera Solar has sold its 663.5-megawatt Calico solar power project to K Road Power less than a week after utility Southern California Edison canceled a long-standing contract to buy electricity from the power plant that was to be built in the Mojave Desert.

Terms of the sale were not disclosed.

The deal is the latest twist for Calico, which nine weeks ago won approval from California and federal regulators after being put on a fast track so as to qualify for then-expiring tax incentives for renewable energy projects.

Tessera also received the green light for its 709-megawatt Imperial Valley solar power plant but had not secured the financing to build the $4.6 billion pair of projects.

K Road said a subsidiary, K Road Sun, will replace Tessera's SunCatcher Stirling dish technology with photovoltaic panels for a 750-megawatt phase of the project but will use the solar dishes in a second, 100-megawatt phase.

The parent company, based in New York City, is run by William V. Kriegel, a former chief executive of Sithe Energies, a power developer.

"We are excited to move the Calico Solar Project into a financeable position," Gerrit Nicholas, K Road's managing partner, said in a statement.

But the road ahead could be a long one for K Road.

The sale, the loss of the Southern California Edison power purchase agreement and the reconfiguration of the project likely means K Road's plans will need to undergo further environmental review by the California Energy Commission and the United States Bureau of Land Management, which is leasing the land for Calico.

"K Road is in ongoing discussions with both and while they will have to have some of the permits amended, K Road is optimistic that will happen," Anton Nicholas, a K Road spokesman, said in an e-mail.

Regulators had insisted the project be reduced from the planned 850 megawatts to 663.6 megawatts to reduce the impact on the desert landscape and protected wildlife.

Nicholas said Calico is K Road's first publicly announced solar project.

On Monday, a Native American organization and other plaintiffs filed a lawsuit in United States District Court in San Diego alleging that the federal government failed to adequately consider the environmental and cultural impact of six large-scale solar projects, including Calico and Imperial Valley. In a statement, Tessera said it is continuing efforts to obtain financing to build the Imperial Valley project.

Earlier this month, a federal judge issued a preliminary injunction barring the start of construction until a suit filed by the Quechan Native American tribe could be heard. The Quechan contend the federal government failed to adequately consult the tribe about the impact of the project on their ancestral lands.

*(Photo: Todd Woody)*

http://www.signonsandiego.com/news/2010/dec/29/sister-plant-to-imperial-valley-solar-farm-sold/

# Sister plant to Imperial Valley Solar farm sold

By Onell R. Soto UNION-TRIBUNE

Originally published December 29, 2010 at 11:48 a.m., updated December 29, 2010 at 12:16 p.m.

Courtesy/ Tessera Solar

This photo illustration by Tessera Solar shows how the Stirling dishes would look if built.

**More**

- Read NTR's press release: NTR's Calico Solar Project Sold With Mixed Solar Technology to Be Deployed
- Read K Road's press release: K Road Power acquires 850 MW Calico Solar project

The Irish conglomerate developing a huge solar farm to supply San Diego Gas & Electric with power announced Wednesday it has sold a sister plant to a San Diego firm.

NTR said it has sold the Calico Solar project in San Bernardino County for an undisclosed amount to K Road Sun.

“We are excited to move the Calico Solar Project into a financeable position, and we look forward to developing, constructing, and operating one of the world’s largest solar projects," K Road Managing Partner Gerrit Nicholas said in a statement.

The impact of the sale on the SDG&E project is unclear.

The move comes just days after Southern California Edison announced it had pulled out of a deal to buy power from the 663-megawatt Calico solar farm.

The project is a sister project to Imperial Valley Solar, a 709-megawatt farm which is under contract to SDG&E.

An NTR subsidiary, Tessera Solar, developed both projects with plans to use mirrored dishes called SunCathcers to be built by another subsidiary, Stirling Energy Systems.

NTR chief executive Jim Barry said the company has put off deployment of the dishes.

“Following the recent decision to delay the original deployment schedule of SunCatchers, the Tessera Solar team moved quickly to both monetise the value of the project and to ensure that it will deliver its full potential of solar power in the near-term,” Barry said.

K Road plans to use photovoltaic panels for the bulk of power production at Calico because they're cheaper and have fewer environmental impacts, said William Kriegel, K Road's chief executive.

He said the company would look to use the Stirling dishes for part of the project when a new version is developed later. Stirling dishes use the sun's heat to drive lawnmower-sized engines.

Calico is approved for 663 megawatts, but K Road wants it to make 850 megawatts.

Each megawatt is enough power for about 650 homes.

It's unknown what impact the sale will have on development of the Imperial Valley project, or whether a similar sale is in the works.

SDG&E says its deal with Tessera Solar remains in place.

Construction of Imperial Valley Solar is on hold because of legal and financial problems.

A San Diego federal judge has issued an injunction against the project at the request of the Quechan Indian tribe, which said it was not properly consulted.

Tessera said earlier this month that it was having trouble finding investors to put money into the $2 billion project, and construction can't go forward until it finds some.

Federal approvals of both projects were also challenged in a lawsuit filed this week by American Indian and environmental activists.

ATTACHMENT 2.

http://www.pe.com/localnews/stories/PE_News_Local_D_solar20.294293c.html

# S.B. COUNTY: More tortoises than expected at solar site

10:01 PM PDT on Tuesday, October 19, 2010

By DAVID DANELSKI
The Press-Enterprise

The number of desert tortoises living in the path of the nation's first large-scale solar energy project on public land is proving to be more than expected.

Since the BrightSource Energy Co. broke ground Oct. 8 in northeast San Bernardino County, wildlife biologists walking ahead of heavy construction equipment on a small portion of the project site have found 17 tortoises, according to a company consultant.

Federal biologists say they are surprised by the early numbers, because the U.S. Fish and Wildlife Service estimated that 32 tortoises live in the entire 5.6-square-mile site. This estimate was used to support the conclusion that the development would not cause significant harm to the reptiles, a threatened species.

Further environmental analysis may be required if tortoise numbers are far higher than expected -- possibly leading to delays or changes in the project.

BrightSource spokesman Adam Eventov said the company is monitoring the tortoise situation closely.

"At this point, it's a snapshot," Eventov said. "It's too early to know how many will be moved until we spend more time in the field."

The project, in the Ivanpah Valley near Primm, Nev., is favored by the Obama and Schwarzenegger administrations because it will provide clean electricity for as many as 140,000 homes and help reduce global warming.

Biologists expected the whole solar site to have some 32 tortoises, but 17 have already been found one just one small portion of the land.

## *Opponents*

Some environmental groups oppose the development and say renewable energy projects should be built on former farms and other land that doesn't have value as wildlife habitat.

The Ivanpah Valley is proving to be better habitat than previously believed.

Surveys commissioned by BrightSource in 2007 and 2008 found only 16 tortoises within the entire 5.6 square miles, and company officials have said only a small number of tortoises would be affected.

The surveys, done by the Colorado-based CH2M Hill engineering and environmental consulting firm, were later were used by Fish and Wildlife to estimate that 32 tortoises lived in the project's footprint. The higher number took into account tortoises that may have been in underground burrows during the counts.

Based on the estimate of 32 animals, Fish and Wildlife found that the development would not "impede the survival or recovery of the desert tortoises in a measurable manner," a conclusion required for BrightSource to move forward.

The finding, called a biological opinion, will become void if more than 38 tortoises have to be relocated, said Brian Croft, a Fish and Wildlife senior biologist. If that occurs, a new analysis will be required to determine whether the project puts the species in jeopardy. A jeopardy finding could delay or limit the development.

Biologists working for BrightSource so far have focused on a swath being cleared for fencing around the southern third of the solar development. Tortoises found in the way are outfitted with radio transmitters for tracking before being placed outside the fence.

The 17 animals already found will not count toward the total, because they can be moved a short distance to safety, Croft said. Tortoises found in the interior of the site, farther from the fence, will have to be relocated.

Those tortoises will be held in pens for the winter and then moved to the base of the Clark Mountains northwest of the project property.

Mercy Vaughn, a lead biologist under contract to BrightSource, said various factors could have contributed to the low tortoise counts in 2007 and 2008. Among other possibilities, those surveys were done during drier weather and in spring when males are less active, she said.

## *Tally expected to rise*

Larry LaPre, a wildlife biologist for the U.S. Bureau of Land Management, which oversees the area leased to the Oakland-based solar developer, said he was surprised by the early numbers and expects the tortoise count to go up.

Other biologists said the century-old creosote bushes that dominate the valley provide shade for tortoises and harbor plants the animals eat during the spring.

Environmentalists have filed a petition asking the California Energy Commission to withdraw its approval of the project. They contend the tortoises in the Ivanpah Valley have unique genetics that have allowed them to adapt to higher-altitude habitat. That trait is expected the help the species survive global warming, said Beatty, Nev., resident Kevin Emmerich, of Basin and Range Watch.

The commission is scheduled to consider the petition on Tuesday.

Reach David Danelski at 951-368-9471 or ddanelski@PE.com