May 22, 2010

California Energy Commission
Attn: Docket No. 09-AFC-9
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

Re: (Solar Millennium) Ridgecrest Solar Power Project (09-AFC-9)

Dear Docket Clerk:

Enclosed for filing with the California Energy Commission is the original of "Intervenor Desert Tortoise Council Comments to the California Energy Commission on the 'Staff Assessment And Draft Environmental Impact Statement And Draft California Desert Conservation Area Plan,' (Solar Millennium) Ridgecrest Solar Power Project (09-AFC-9)" submitted to CEC Project Manager Eric Solorio on May 21, 2010 via email and U.S. mail.

Sincerely,

Sidney Silliman, Ph.D.
Chair, Ecosystems Advisory Committee
Desert Tortoise Council
1225 Adriana Way
Upland, CA 91784
(909) 946-5027

STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

In the Matter of:

The Application for Certification of the (Solar Millennium) Ridgecrest Solar Power Project

Docket Number 09-AFC-9

INTERVENOR DESERT TORTOISE COUNCIL COMMENTS TO THE CALIFORNIA ENERGY COMMISSION ON THE "STAFF ASSESSMENT AND DRAFT ENVIRONMENTAL IMPACT STATEMENT AND DRAFT CALIFORNIA DESERT CONSERVATION AREA PLAN," (SOLAR MILLENNIUM) RIDGECREST SOLAR POWER PROJECT (09-AFC-9)

May 21, 2010

Desert Tortoise Council
Sidney Silliman
1225 Adriana Way
Upland, California 91784
(909) 946-5027
gssilliman@csupomona.edu

May 21, 2010

Via Email and U.S. Mail

Eric Solorio
Siting Project Manager
California Energy Commission
1516 Ninth Street, MS–15
Sacramento, California, 95814

Re: "Staff Assessment and Draft Environmental Impact Statement and Draft California Desert Conservation Area Plan," (Solar Millennium) Ridgecrest Solar Power Project (09-AFC-9)

Dear Mr. Solorio:

The Desert Tortoise Council welcomes the opportunity to comment on the "Staff Assessment and Draft Environmental Impact Statement and Draft California Desert Conservation Area Plan" (SA/DEIS) for the proposed Ridgecrest Solar Power Project in Kern County.

The Desert Tortoise Council is a private, non-profit organization made up of hundreds of professionals and lay-persons who share a common fascination with wild desert tortoises and a commitment to advancing the public's understanding of them. Established in 1976 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the goal of the Council is to assure the perpetual survival of viable populations of desert tortoise within suitable areas of its historical range. Accordingly, our comments will focus on the potential impacts of the Ridgecrest Solar Power Project (Ridgecrest SPP) to Mojave desert tortoise habitat and the tortoise population on the proposed site. Yet we are concerned with the layer of problems that Ridgecrest SPP poses for all species of wildlife found on the site, especially the potential and significant impacts to the Mohave Ground Squirrel (MGS). In addition, we believe that the concerns of the community must be taken in account in any California Energy Commission (CEC) decision on whether to certify the Solar Millennium application and in any Bureau of Land Management (BLM) decision on whether to issue a right-of-way and amend the California Desert Conservation Area Plan.

We concur with the conclusions of CEC Staff that the proposed Ridgecrest SPP would result in substantial impacts to biological resources, that these significant impacts cannot be fully mitigated, and that is more to appropriate preserve and protect the site as habitat for the desert tortoise and the MGS (BLM and CEC 2010, C.2-120).

First, we agree with CEC Staff in the "Land Use, Recreation, and Wilderness" section of the SA/DEIS that Ridgecrest SPP will have significant and immitigable impacts to existing natural resource use with the loss of desert tortoise habitat, the loss of designated MGS Conservation Area acreage, and the loss of migratory access (BLM and CEC 2010, C.5-1). While Staff

somewhat qualifies its conclusion on this point, we assert that these impacts to Land Use will be more or less permanent because desert lands recover very slowly. Robert Webb explains that -- depending on the assumptions of the model -- "the extrapolated amount of time for complete or 90% recovery of compacted [desert] soils ranges from 80 to 120 years for course-grained soils…." He adds that severely disturbed sites "may require as little as a century or as long as several thousand years for full recovery of species composition" (2009). By way of illustration, Wilshire, Nielson and Hazlett report that "severely compacted soils at 29 of 31 abandoned military bases and mining town sites have not recovered even after 91 years without human occupation" and recovery of plants and animal species "is likely to take much longer, on the order of a millennium" (2008, 305).

Second, we believe that the potential impacts of Ridgecrest SPP to biological resources cannot be reduced to less than significant levels because the acreage provides especially valuable habitat for the conservation and recovery of the Federal- and State-listed Mojave desert tortoise. The soil types at the Ridgecrest SPP site allow tortoises to construct good burrows, permit the growth of plant cover that protect juvenile tortoises from predators, and nourish the growth of plants that desert tortoises eat. The Creosote Ring Sub Chapter of the California Native Plant Society reports that eight of the top ten plant species preferred by the adult tortoises and ten of the sixteen plant species preferred by juvenile tortoises grow within the possible disturbance area (2010). The number of juvenile tortoises surveyed in 2009 is evidence that this is uniquely valuable habitat as it supports a reproducing population of desert tortoises and provides food and protection for juveniles. While the proposed site is not within a Wildlife Management Area (DWMA), the *Desert Tortoise Recovery Plan* states: "Habitat outside DWMAs may provide corridors for genetic exchange and dispersal of desert tortoises among DWMAs" (1994, 60). Valleys are especially valuable for species connectivity and, in this respect, the Ridgecrest SPP site provides a corridor for genetic exchange and dispersal among tortoise populations at the northern edge of their range in California.

The Mojave Desert Tortoise was listed as a "threatened species" under the Federal Endangered Species Act in 1990 because of the precipitous decline in desert tortoise numbers due to human-caused mortality and the destruction and fragmentation of desert tortoise habitat. Siting Ridgecrest SPP on occupied desert tortoise habitat would contribute directly to the continued decline of the Mojave desert tortoise. Given that desert tortoise populations have been extirpated or almost extirpated from large portions of the western and northern parts of their geographical range in California, it is reasonable that this valuable habitat be protected for desert tortoise conservation rather than for energy generation.

Nor do we believe that the impacts of Ridgecrest SPP can be reduced to less than significant levels. The southern portion of the project would eliminate a segment of the MGS Conservation Area established by the West Mojave Plan of 2006, an Area, ironically, established as mitigation for human impacts to other MGS habitat. Given the difficulty of trapping MGS and the absence of a MGS translocation protocol, siting Ridgecrest SPP even as modified will likely result in the complete loss of the squirrels resident south of Brown Road. There must be a limit to human take of habitat if the MGS is ever to be removed from the threatened species list in California.

Philip Leitner clearly identifies the core populations of the MGS in his "Current Status of the

Mohave Ground Squirrel" (2008) and it is evident from his maps that the proposed geographical location of the Ridgecrest SPP site is the likely and best habitat for connectivity with the MGS population at Coso/Olancha and for connectivity between the Dixie Wash and the Highway 395 populations. Even the modified Ridgecrest SPP would reduce the habitat for MGS connectivity to two small slivers west of the project and down El Paso Wash. These are not sufficient areas for MGS to live, reproduce and disperse. Furthermore, the lights and maintenance activities in and around Ridgecrest SPP – to say nothing of the seasonal flow of waters – are likely to reduce the quality of the El Paso Wash as habitat

Third, the concentration of desert tortoises at the proposed site relative to the historic decline in tortoise populations and the lower tortoise densities in nearby areas underscores the conclusion that biological impacts cannot be fully mitigated.

Since the early 1970s, biologists have recorded the decline of desert tortoise populations through out much of their range (Desert Tortoise Recovery Team 1994, 2). Where there were once one-hundred or more tortoises per square kilometer in areas of the tortoise's historic range, the *Range-Wide Monitoring of the Mojave Population of the Desert Tortoise: 2007 Annual Report* (USFWS 2009, 38-39) documents that densities today in monitored areas of the Desert Tortoise Recovery Units are less than 15 tortoises per square kilometer, and the average density of all but one Recovery Unit is less than 6. Furthermore, the *Range-Wide Monitoring Report* documents the continued decline in population densities; ranging from a 9 percent decline in the Northeastern Recovery Unit to a 58 percent decline in the Northern Colorado Recovery Unit between 2005 and 2007. Whether we use a figure of 9.8 tortoises per square kilometer (BLM and CEC 2010, C.2-19) or a density of 8.1 tortoises per square kilometer as calculated by Alice Karl (2010), the adult desert tortoise density at the site is significantly greater than the average density of 4.7 desert tortoise per square kilometer within the West Mojave Recovery (USFWS 2009, 38-39). The importance of the desert tortoise population at the proposed site and the necessity of protecting it is further supported by scientific evidence that the population density there is comparatively higher than in nearby areas. The reported densities within the nearby Fremont-Kramer DWMA are reported to be 5.3 to 7.6 desert tortoises per kilometer (BLM and CEC 2010, C.2-19). Kristin Berry and Kevin Keith (2008) report estimated population densities in the western portion of Red Rock Canyon State Park to be between 2.7 and 3.57 tortoises per square kilometer.

Protecting this tortoise population – part of the West Mojave Desert Tortoise Recovery Unit -- will contribute to ensuring the genetic diversity of the Mojave desert tortoise. The West Mojave Recovery Unit is one of six Recovery Units designated in the *Desert Tortoise Recovery Plan* (1994). These populations were appropriately identified based on genetics, behavior, ecology, geographic isolation, and morphology. Since the *Recovery Plan* was published, a number of studies have compared tortoises between different Recovery Units and confirmed biological differences among the populations. Most recently, "*A Genetic Assessment of the Recovery Units for the Mojave Population of the Desert Tortoise*..." (Murphy, et al. 2007) presents new evidence that desert tortoises in the Recovery Units constitute distinct populations, confirming the validity of the 1994 Plan's six Recovery Units. Each of these evolutionary significant population units faces a distinct suite of past and ongoing impacts to tortoises and supporting habitat, and each

Unit must be protected for its genetic diversity. The Murphy study identifies, as well, at least three genetically diverse desert tortoise populations within the West Mojave Recovery Unit.

The CEC and the BLM Government should not be sanquine that Ridgecrest tortoises might be "protected" by translocating or relocating the animals to another area. Translocation of desert tortoises is a salvage operation fraught with risks for the animals.

Moving desert tortoises from their home ranges could increase the incidence of disease among the tortoises resident on and adjacent to the Ridgecrest site. The *Draft Revised Recovery Plan for the Mojave Population of the Desert Tortoise* recognizes that the translocation of tortoises from one site to another can introduce *Mycoplasma* that may invade host populations and cause a significant die-off among otherwise healthy tortoises (2008, 156). Not fully testing animals that are to be "relocated" (moved less than 5 kilometers) could result in the introduction of diseases into otherwise healthy populations. And not testing the host populations within the 5 kilometer range could result in the introduction of healthy tortoise from the project site into a population that is diseased (Silliman 2010). Moving the tortoises from the construction site will almost certainly lead to the death of some percentage of the animals. Timothy Gowan and Kristin Berry (2010) report a mortality rate of 44 percent among a sample of 158 tortoises translocated from Fort Irwin's Southern Expansion Area in the Spring of 2008. Dr. Berry reported at the May 3, 2010 CEC workshop on the Ridgecrest SPP that the death rate among that sample of desert tortoises is nearly 61 percent. Obviously, high mortality rates conflict with the objective of the *Desert Tortoise Recovery Plan* to conserve and recover the Mojave desert tortoise. Moving animals from their home ranges carries too high a risk of mortalities. That risk cannot be justified given the valuable habitat and the large concentration of desert tortoises at the site.

In sum, based on our assessment of the project's potential impacts to biological resources, the Desert Tortoise Council recommends the No Project/No Action Alternative with respect to Solar Millennium's application for certification. This is the environmentally preferred alternative as it would preserve the area for the conservation and recovery of the threatened Mojave desert tortoise and the threatened Mohave Ground Squirrel. Previously disturbed lands are more suitable to energy generation than the proposed Ridgecrest SPP site and California can meet its renewable energy goals by siting solar thermal power plants on those sites.

As an added note, in a democratic political system such as ours, it is incumbent upon governmental officials to be responsive to the citizenry. We urge, therefore, that CEC give careful and full consideration to the issues raised by numerous members of the Ridgecrest and Inyokern communities. We share their concern for the threat to the community posed by Valley Fever from construction disturbance of soils, the potential impacts to the Indian Wells Valley aquifer, and impacts to cultural resources. It is essential that the CEC consider these concerns and shape the certification decision accordingly rather than merely acknowledging them. After all, the proposed site is located within their community and Ridgecrest SPP will affect their lives for decades.

Thank you for the opportunity to comment on the SA/DEIS. Please contact me by telephone at (909) 946-5027, by e-mail at gssilliman@csupomona.edu, or by U.S. mail at the address below if you wish clarification of these comments.

Sincerely,

Sidney Silliman, Ph.D.
Desert Tortoise Council
1225 Adriana Way
Upland, CA 91784

References

Berry, Kristin H. and Kevin Keith. "Status Of The Desert Tortoise In Red Rock Canyon State Park." *California Department of Fish and Game* 94, no. 2 (2008): 98-118.

Creosote Ring Sub Chapter, Bristlecone Chapter, California Native Plant Society. "April 17, 2010 Field Trip to Proposed Sites for Solar Power Plant Proposed by Solar Millennium, near Ridgecrest, California." 2010.

Desert Tortoise Recovery Team, U.S. Fish and Wildlife Service. *Desert Tortoise (Mojave Population) Recovery Plan*. Portland: U.S. Fish and Wildlife Service, 1994.

Gowan, Timothy and Kristin H. Berry. "Health, Behavior and Survival of 158 Tortoises Translocated from Fort Irwin: Year 2." Abstracts. Thirty-Fifth Annual Meeting And Symposium. The Desert Tortoise Council. DoubleTree Hotel, Ontario, CA. February 25–28, 2010.

Karl, Alice E. "Ridgecrest Solar Power Project. Analysis of Populations and Species Impacts to the Desert Tortoise Due To The Siting Of This Project In Its Current Location." April 7, 2010.

Leitner, Philip. "Current Status of the Mohave Ground Squirrel." *Transactions Of The Western Section Of The Wildlife Society* 44 (2008): 11-29.

Murphy, R.W., K. H. Berry, T. Edwards, and A.M. McLuckie. "A Genetic Assessment of Recovery Units for the Mojave Population of the Desert Tortoise, *Gopherus Agassizi*." *Chelonian Conservation and Biology* 6, no. 2 (2007): 229-251.

Silliman, Sidney, Desert Tortoise Council. "Letter to Janet Eubanks, Bureau of Land Management Project Manager, and Eric Solorio, California Energy Commission Project Manager, Re: (Solar Millennium) Ridgecrest Solar Power Project (09-AFC-9). 'Draft Ridgecrest Solar Power Project Desert Tortoise Clearance And Relocation/Translocation Plan. Attachment DR-BI0-54'" (April 19, 2010).

U.S. Bureau of Land Management and California Energy Commission. *Staff Assessment and Draft Environmental Impact Statement and Draft California Desert Conservation Area Plan Amendment. Application For Certification (09-AFC-9)*. Kern County. March 2010.

U.S. Fish and Wildlife Service. *Draft Revised Recovery Plan for the Mojave Population of the Desert Tortoise (Gopherus agassizii)*. U.S. Fish and Wildlife Service, California and Nevada Region, Sacramento, California. 2008.

U. S. Fish and Wildlife Service. *Range-Wide Monitoring of the Mojave Population of the Desert Tortoise: 2007 Annual Report*. Reno, Nevada: Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, 2009.

Webb, Robert H. "Disturbance, Vulnerability, and Recoverability of Soils and Vegetation in the Mojave Desert." Presentation at the Southern California Botanists 35th Annual Symposium "Desert Botany: Bounty or Bust," California State University, Fullerton, October 17, 2009.

Wilshire, Howard G., Jane E. Nielson, and Richard W. Hazlett. *The American West At Risk: Science, Myths, and Politics of Land Abuse and Recovery*. New York: Oxford University Press, 2008.

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION
For the *RIDGECREST SOLAR POWER PROJECT*

Docket No. 09-AFC-9

PROOF OF SERVICE
(Revised 5/12/2010)

APPLICANT
Billy Owens
Director, Project Development
Solar Millenium
1625 Shattuck Avenue, Suite 270
Berkeley, CA 94709-1161
owens@solarmillennium.com

Alice Harron
Senior Director, Project Development
1625 Shattuck Avenue, Suite 270
Berkeley, CA 94709-1161
harron@solarmillennium.com

Elizabeth Copley
AECOM Project Manager
2101 Webster Street, Suite 1900
Oakland, CA 94612
elizabeth.copley@aecom.com

Scott Galati
Galati/Blek, LLP
455 Capitol Mall, Suite 350
Sacramento, CA 95814
sgalati@gb-llp.com

Peter Weiner
Matthew Sanders
Paul, Hastings, Janofsky & Walker LLP
55 2nd Street, Suite 2400-3441
San Francisco, CA 94105
peterweiner@paulhastings.com
matthewsanders@paulhastings.com

INTERVENORS
California Unions for Reliable Energy (CURE)
Tanya A. Gulesserian
Elizabeth Klebaner
Marc D. Joseph
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
tgulesserian@adamsbroadwell.com
eklebaner@adamsbroadwell.com

Desert Tortoise Council
Sidney Silliman
1225 Adriana Way
Upland, CA 91784
gssilliman@csupomona.edu

Basin and Range Watch
Laura Cunningham & Kevin Emmerich
P.O. Box 70
Beatty, NV 89003
bluerockiguana@hughes.net

Western Watersheds Project
Michael J. Connor, Ph.D.
California Director
P.O. Box 2364
Reseda, CA 91337-2364
mjconnor@westernwatersheds.org

*Kerncrest Audubon Society
Terri Middlemiss & Dan Burnett
P.O. Box 984
Ridgecrest, CA 93556
catbird4@earthlink.net
imdanburnett@verizon.net

*Center for Biological Diversity
Ileene Anderson
Public Lands Desert Director
PMB 447, 8033 Sunset Boulevard
Los Angeles, CA 90046
ianderson@biologicaldiversity.org

*Center for Biological Diversity
Lisa T. Belenky, Senior Attorney
351 California Street, Suite 600
San Francisco, CA 94104
lbelenky@biologicaldiversity.org

INTERESTED AGENCIES
California ISO
E-mail Preferred
e-recipient@caiso.com

Janet Eubanks, Project Manager,
U.S. Department of the Interior
Bureau of Land Management
California Desert District
22835 Calle San Juan de los Lagos
Moreno Valley, California 92553
Janet_Eubanks@ca.blm.gov

ENERGY COMMISSION
JAMES D. BOYD
Vice Chair and Presiding Member
jboyd@energy.state.ca.us

ANTHONY EGGERT
Commissioner and Associate Member
aeggert@energy.state.ca.us

Kourtney Vaccaro
Hearing Officer
kvaccaro@energy.state,ca.us

Eric Solorio
Project Manager
esolorio@energy.state.ca.us

Tim Olson

Advisor to Commissioner Boyd
tolson@energy.state.ca.us

Jared Babula
Staff Counsel
jbabula@energy.state.ca.us

Jennifer Jennings
Public Adviser
publicadviser@energy.state.ca.us

DECLARATION OF SERVICE

I, Sidney Silliman, declare that on, May 22, 2010, I served and filed copies of the attached "Tortoise Council Comments to the CEC on the SA/DEIS, Ridgecrest Solar Power Project," dated May 21, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [http://www.energy.ca.gov/sitingcases/solar_millennium_ridgecrest].

The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

For service to all other parties:

XX sent electronically to all email addresses on the Proof of Service list;

_____ by personal delivery;

XX___ by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses NOT marked "email preferred."

AND

For filing with the Energy Commission:

XX __ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (preferred method);

OR

____depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 09-AFC-9
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

G. Sidney Silliman