Matt Boggs
1540 S. Holly Canyon
Ridgecrest, CA 93555

DOCKET
09-AFC-9
DATE JAN 21 2010
RECD. JAN 21 2010

Eric Solorio
Project Manager
Siting, Transmission and Environmental Protection Division
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814-5504
esolorio@energy.state.ca.us

SUBJ: Comments on Docket Number 09-AFC-9, "(Solar Millennium), Ridgecrest Solar Power Project"

Sir:

I am writing to provide comments on the proposed (Solar Millennium) Ridgecrest Solar Power Project as defined by materials filed with the California Energy Commission and supplemental materials provided at the 5-6 January 2010 public workshop held at Ridgecrest, CA. I have concerns about this project as defined below:

1 WATER. The Indian Wells Valley (where the proposed project is to be located) is in the upper Mojave Desert, and receives less than 5 inches of average equivalent rainfall per year. The aquifer associated with the Valley has been subject to a state of groundwater overdraft since the development of the Valley in the mid-1940s. The availability of groundwater was of sufficient concern initially to the Navy that an intertie pipeline to the Los Angeles Aqueduct was negotiated and installed to provide a source of potable water when development of the naval reservation began in the 1940s.

The Ridgecrest Solar Millennium project proposes to utilize 165 acre-feet of high-quality water per year for maintenance and operations of the facility, plus an additional 1,700 acre-feet of high-quality water for construction (a number that seems incredibly low considering that the project claims to intend to move and grade 7.5 million cubic yards of material; CEC's own estimates[1] project that the value for water required for construction may more realistically approach 6-8,000 acre-feet). Considering the overdrafted nature of the Indian Wells Valley basin, this sort of water use seems capricious and wasteful, and is expected to have significant negative impact on the economy and quality of life for the Valley.

2 CULTURAL RESOURCES. The Solar Millennium documentation is flawed in the review of cultural resources potentially impacted by this project. The analysis of pre-historic and native resources associated with this area overlooks the ties between this area and other significant resource districts, including the Coso District to the north. As an example, the nearby "Terese Petroglyph Site" (CA-KER-6188) is documented in the literature to demonstrate features of the

[1] TN54597, "RIDGECREST SOLAR POWER PROJECT (09-AFC-9) ISSUES IDENTIFICATION REPORT"

Coso petroglyph style, and is believed to be the southernmost extent of the Coso style. Based on this, it seems mandatory to expand the tribal coordination beyond that with the tribes listed in the documentation, and include the tribes generally consulted relative to the Coso District (i.e. Big Pine Paiute Tribe of the Owens Valley, the Bishop Paiute Tribe, the Fort Independence Paiute Tribe, the Lone Pine Paiute-Shoshone Tribe, the Timbisha Shoshone Tribe, the Kern Valley Indian Community, and the Tubatulabals of Kern Valley). My own practical experience associated with exploring the area of the proposed project indicates more substantial pre-historic cultural resources than a few lithic scatters – a detailed study of the project area and its relationship to the surrounding districts of the El Paso/Last Chance Canyon and the Cosos is warranted.

The Solar Millennium analysis of historic cultural resources is also flawed. The analysis does not address the historic summer route of the 1870s Searles Borax Road that passes through the area of the project as it makes its way between Garden City / Searles Junction and Freeman Junction, where it ties into the Midland Trail. This project additionally has the potential to negatively impact the site of Southern Pacific RR Owenyo Branch Siding 14, "Code" siding (misidentified by Solar Millennium's report as "Terese" siding). This site dates from the first half of the 20th Century, and features the remains of both a mineral loading dock to support nearby mines, and also the remains of livestock pens, loading docks, and shearing facility associated with the sheep grazing industry of this area. This latter facility should be documented and further studied, as few if any other similar sites appear to have survived in the region.

In both the case of historic and pre-historic resources, the area of this project has the potential to contain significant cultural resources beyond what is documented by Solar Millennium. At this time, the area of probable effect is insufficiently surveyed and studied at this date to assume a lack of resources and corresponding "no effect" or "no adverse effect". Additionally, further consultations are warranted with the native tribes potentially associated with this site, including those associated with the Coso District to the north.

3 BIOLOGICAL RESOURCES. The Solar Millennium documentation gives short shrift to the biological resources of the project area. This area is host to a fairly large and apparently healthy California Desert Tortoise population at levels higher than areas previously identified as critical habitat. Additional desert species are found in the project area, including the desert gecko. It appears that this area was insufficiently studied as part of the West Mojave Plan, and needs further study with corresponding biological opinion established prior to any further planning or construction activity commences.

4 AIR QUALITY. The disturbance of desert land associated with the grading and movement of 7.5 million cubic yards of material is a concern for air quality associated with dust both during construction, and the operational phases. Given the well-documented presence of Valley Fever (Coccidioidomycosis) spores in the soils of the Indian Wells Valley, this degradation of air quality has effect beyond standard dust control concerns, but also extends to health effects of the Valley's population. The mix of large-scale grading coupled with extensive watering reasonably sets up a veritable "witches' brew" favoring the activation of Valley Fever spores. This project stands to have a negative impact to the quality of life of area residents, a population already

suffering from the negative effects of environmental problems associated with the airborne dust of the Owens Lake playa and Valley Fever.

5 LAND USE. The Solar Millennium documentation identifies that the project area has no history of agricultural use. While it is true that the project area does not have a history of supporting annual or perennial crops, this area does have a long history dating back to at least the 1900s of supporting seasonal sheep grazing, a history that has continued into recent years. This area historically was an important grazing area for herds moving from the Cantil area over the El Paso Mountains on their way north to the Owens Valley. This grazing land use is additionally manifested in the cultural resources associated with Code Siding, as discussed earlier.

6 TECHNICAL. The technical details of the proposed Solar Millennium project appear to be poorly considered or even matched for the proposed site. For example, propane heaters are required to keep the heat transfer fluid above its freezing point (54° F); the project documentation states that use of such heaters are expected for only 100 hours per year to keep above the heat transfer fluid from freezing. This expectation seems unrealistic, considering that the Indian Wells Valley demonstrates 9 months per year that the ambient air temperature demonstrates a minimum temperature below 54 degrees Fahrenheit.

The choice of a concentrating thermal solar system in a region with a severe water shortage seems foolish, even with the use of dry cooling. It is worth comparing this project to another large-scale solar generation project utilizing an alternative technology – the Topaz Solar Farm, under current planning consideration by San Luis Obispo County. This project, using thin-film photo-voltaic panels, is proposed to generate energy densities on the order of 90 kW/acre compared with Solar Millennium's 144 kW/acre (based on peak power generation and total area of disturbance); water usage for Topaz Solar farm is only on the order of 0.150 acre-feet per year in production, compared to Solar Millennium's 165 acre-feet per year in production. Differences in construction water requirements are also similarly marked – Topaz Solar Farm projects the need for a total of 80 acre-feet for construction, compared to Solar Millennium's defined 1,700 acre-feet for construction. Such a comparison in large-scale projects begs the question of if the less-than doubled increase in power yield afforded by a concentrating thermal solar system is worth an increase of water consumption on the order of 4 orders of magnitude in operation, and a minimum of 2 orders of magnitude in construction.

The proposed project does not appear to make sense to implement – it appears to be the wrong project in the wrong place. The project documentation additionally appears to be deficient in its depth and breadth, and requires further analysis and consultation. Based upon my review of the project, I cannot support its implementation – this project should not continue under a "fast track" process as currently defined. While I am supportive of the need and implementation for alternative energy as a national and regional policy, the potential for adverse effects associated with this project to the surrounding community and environment is sufficiently high to deem the project to not be realistic or viable.

Matt Boggs