

To: CEC Staff

Re: Docket No. 07-AFC-5; Comment on Presiding Member's Proposed Decision on the BrightSource Energy application for the Ivanpah Solar Electric Generating System (ISEGS).

To whom it may concern;

Thank you for the opportunity to submit this formal comment on the PMPD for the Ivanpah Solar Energy Generating System.

My name is Chris Clarke. I am a natural history writer whose work focuses on the Mojave Desert. Throughout much of 2008 I was a resident of the Ivanpah Valley, with a home in Nipton. I work as communications consultant for the Desert Protective Council, based in San Diego, and I am proud to serve as a member of the Board of Directors of the Mojave National Preserve Conservancy (MNPC), which was formed in 2009 to preserve, protect, and promote the unique natural beauty, ecological integrity, and rich cultural history of Mojave National Preserve.

My comments here are strictly my own, and I do not offer them on behalf of the MNPC or its Board, nor on behalf of my employers at the Desert Protective Council. However, it is in part my service as a member of the MNPC Board of Directors that prompts and informs these comments, and I consider their submission to be part of my ethical and fiduciary duty as a member of the MNPC's board.

The proposed Ivanpah Solar Electric Generating Station, a nearly 4,000-acre industrial solar facility that would occupy the bajada east of the Mojave Preserve's Clark Mountain, poses a significant threat to the Preserve's natural beauty and ecological integrity, and thus in my personal opinion stands in direct opposition to the mission of the Mojave National Preserve Conservancy, as well as to that of the Mojave Preserve itself. I urge the California Energy Commission to disregard the Presiding Member's Proposed Decision approving Ivanpah SEGS, and instead to take the time necessary to evaluate the project's true impact on the Ivanpah Valley and surrounding lands, in and out of the Mojave Preserve, pending ARRA funding deadlines notwithstanding.

My concerns include but are in no way limited to:

1) **The health of the Ivanpah Valley's Tortoise Population.** The current proposal calls for the translocation or relocation of all desert tortoises now occupying the project site, consisting of at least 36 individual tortoises. The experience of the

Fort Irwin tortoise relocation in Spring 2008 is chillingly illustrative of the danger such projects pose to the population of this Federally threatened species. As of December 2009: 44.3% of relocated tortoises had died and 17.4 % were missing, with more mortality likely this year. As Dr. Kristen Berry recently testified before your agency in the matter of the tortoise population at the proposed solar generating plant site at Calico, there is little evidence that translocation of tortoises is successful mitigation or minimization of the disruption of projects like the one proposed for Ivanpah. As the tortoise population on the Ivanpah SEGS site is immediately adjacent to the Preserve, any disruption or depletion of that population poses a long-term threat to the health of the Preserve's tortoise population.

Further, by crowding the available habitat in the direction of the Preserve and increasing the likely frequency of agonistic interactions among tortoises, relocation of tortoises upslope and westward of the project site constitutes a direct erosion of the stability and carrying capacity of the Preserve's tortoise habitat.

CEC bears certain specific legal responsibilities under the California Environmental Quality Act and the California Endangered Species Act if it is to issue take permits for the desert tortoise. The agency has not fulfilled those requirements. CalESA requires that impacts of any incidental take be "minimized and fully mitigated"; it is now clear that relocation or translocation of desert tortoises in no way mitigates the loss of habitat. Any plan to translocate tortoises into areas within the boundaries of the Mojave National Preserve must be subject to full, separate review under the provisions of the National Environmental Policy Act. It is uncertain whether the project will include translocation into the Preserve, in part because the entirety of the tortoise mitigation plan is not yet available for public review. The full plan should be made available for review under standard public commenting regulations before the project moves forward.

2) Impact of the project on the Preserve's avian fauna. The project site is frequented by a significant number of bird species of concern resident within the preserve, including but not limited to a golden eagle, burrowing owl, gray vireo, hepatic tanager, and whippoorwill – the last two of which have their entire breeding range in California confined to Clark Mountain. Concentrating solar facilities which focus sunlight on central towers have been shown to pose numerous hazards to birds, primarily involving collisions with reflective surfaces but also including severe burns from flying through the concentrated sunlight. The project's 459-foot towers will bear lighting to warn night-time aviators away from the site: lit towers are a proven threat to night-flying migrating birds, which are disoriented by the lights. The reflective heliostats may appear from a distance to be a pool of water, which may attract birds from a significant distance.

3) Impact of the project on the Preserve's visual resources. By the applicant's own admission the visual impact of the Ivanpah SEGS project would, from some viewpoints, be immitigable. Many such viewpoints are contained within the boundaries of the Mojave National Preserve. The project would include about 179,000 7-foot by 10-foot heliostats on 12-foot pedestals focusing sun light on three 459-foot towers – an imposing and prominent facility in any landscape, much less one with the broad and formerly uninterrupted views found in the southern Ivanpah Valley.

The visual resources section of the PMPD has some troubling and critical deficiencies. The land cover is described consisting "primarily of Mojave Creosote Bush Scrub, including areas of small, young Joshua Trees." There are in fact to my knowledge no Joshua trees on the site of any age, young or old. What the document preparer likely saw were in fact middle-aged to ancient Mojave yucca (*Yucca schidigera*) which abound on the site. A Mojave yucca of stature sufficient to prompt confusion with a Joshua tree is likely to be at least several centuries old. The difference between a field of view containing young Joshua trees and one containing imposingly ancient Mojave yucca is a significant difference, even though the plants at issue may be of approximately the same stature.

The introduction to the Visual Resources section of the PMPD also attempts to downplay the wild character of the Ivanpah Valley by pointing out:

While the project portion of the Ivanpah Valley is visually relatively intact, it is located roughly 30 miles south of the City of Las Vegas, within a visual corridor along Interstate 15 (I-15) that becomes increasingly urbanized and less scenically intact as one progresses northward. The site is located at the outer edge of urban influence of the City of Las Vegas metropolitan area. I-15, which is adjacent to the project site, is the principal travel route for visitors to Las Vegas from southern California.

The information is certainly accurate, but it omits a more salient fact pertaining to the character of the site, a fact that the PMPD only addresses in subsequent sections: the Ivanpah SEGS site is closely surrounded on three sides by wilderness and the Mojave National Preserve. If proximity to a type of landscape is to be the CEC's guide in determining the measure of a project's visual impact, then the logical course would be to rule that the Ivanpah SEGS site, immediately adjacent to wilderness and wilderness-quality land with a burgeoning urban center 30 miles north, *is in fact a crucial visual buffer between the city and the surrounding protected lands.*

Most devastatingly, however, the PMPD fails to make any mention of one of the most significant visual impacts the Ivanpah SEGS project would have: to wit, there is no mention of visual impact to lands within the Mojave National

Preserve outside the Preserve's Clark Mountain section. Though a low outlier of the Ivanpah Range southeast of Wheaton Spring blocks line-of-sight view of the Ivanpah SEGS site from much of the Preserve's portion of the Ivanpah Valley, the site would be clearly visible, especially during clear sunny weather, from a broad stretch of the Preserve. The view of the SEGS site would be unimpeded along the New York Mountains crest from as far south as the head of Fourth of July Canyon, 13 miles into the southern section of the Preserve. From there in a broad band along the western pediment of the New York Mountains, stretching as far down slope in some places as two miles west of the Union Pacific line, the Ivanpah SEGS would be plainly visible due to its glare, a potentially significant intrusion into the viewscape of wilderness-quality land even at distances of more than ten miles. **The area at issue is more than 30 square miles of National Park Lands**, much of it legally protected as the New York Mountains Wilderness, much of the remainder of wilderness quality, with a viewshed unparalleled in the Lower 48 states.

The visual resources within the Mojave National Preserve's portion of the Ivanpah Valley surely deserve full consideration when discussing a permit for a project that may irrevocably alter those resources. The PMPD's failure to address or even mention those resources is a significant flaw in the document, one that should be remedied before the CEC renders a decision on the project.

Thank you again for this opportunity to comment on the Presiding Member's Proposed Decision on the BrightSource Energy application for the Ivanpah Solar Electric Generating System (ISEGS). I reserve the right to submit further comments on this project to the California Energy Commission or to other agencies.

Sincerely,

Chris Clarke
1326 North Vista St. #5
Los Angeles, CA 90046
(213) 254-5382