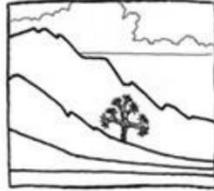


Scoping Comment B1 – Basin and Range Watch



Basin and Range Watch

August 28th, 2016

To: Bureau of Land Management
Palm Springs - South Coast Field Office
1201 Bird Center Drive
Palm Springs, California 92262

Subject: Comments on the (scoping?) of the proposed Palen Solar Power Project

Sent by email to: Jennifer Whyte, project manager, jwhyte@blm.gov

Basin and Range Watch is a 501(c)(3) non-profit working to conserve the deserts of Nevada and California and to educate the public about the diversity of life, culture, and history of the ecosystems and wild lands of the desert. Federal and many state agencies are seeking to open up millions of acres of unspoiled habitat and public land in our region to energy development. Our goal is to identify the problems of energy sprawl and find solutions that will preserve our natural ecosystems, open spaces, and quality of life for local communities. We support energy efficiency, better rooftop solar policy, and distributed generation/storage alternatives, as well as local, state and national planning for wise energy and land use following the principles of conservation biology. We have visited the site of the Palen Solar Project. We have been involved in this one from the beginning when it was first proposed as a parabolic trough plant by now bankrupt Solar Millennium.

As an introduction, we will say that the continuing changes to this project and converting it to photovoltaic have not eliminated major conflicts involving hydrology, biological resources, cultural resources, visual resources, air quality and alternatives.

NEPA Process, Environmental Impact Statement, Scoping and Public Meetings:

The BLM has eliminated the entire scoping process for this next incarnation of this project. BLM held two public meetings and told everybody before that there would be no court reporter and that comments would not be recorded. But BLM employees were taking notes. BLM was not clear about what this meeting was and how serious they would even take public comments. Will these written comments go on any kind of record? BLM could not tell us this at the meeting. Plus, EDF, the project applicant, would not answer basic questions about the layout of their project and wildlife mitigation.

At the meeting in June, we asked the BLM why there would be no scoping period for the new configuration. They told us it was because they fully reviewed the photovoltaic alternative in previous reviews. While we did not think that was an accurate statement, we did double check.

The Final EIS for the Palen Solar Power Project (CACA 48810) came out around 2014. This was for a power tower and the BLM **eliminated the photovoltaic alternative from detailed analysis**. In the Alternatives section, Chapter 1 – 2, it states that the photovoltaic alternative was eliminated from a detailed analysis *“because it would not reduce major impacts of the project facility due to the extent of land and access roads required as well as the more extensive grading and stormwater management system required. Due to its requirement for a nearly flat site, it would require similar grading as the project, with similar air emissions and erosion potential.”* Page 2.32 in Chapter 1-2:

http://www.blm.gov/style/medialib/blm/ca/pdf/palmsprings/Palen_Solar_Power_Project.Par.34234.File.dat/Vol1_Palen%20PA-FEIS_1exsum_ch1-2.pdf

Because the BLM has officially stated that the photovoltaic alternative was “Considered but Eliminated from Detailed Analysis” (Page 2.27), we believe it is not accurate for the BLM to claim they fully analyzed the photovoltaic alternative at their public meeting last June.

A photovoltaic project is very different from a concentrated solar thermal project. The orientation of the panels could cause different surface hydrology flooding patterns.

The design, placement and shape of the panels on a large scale could affect sand transport differently from previous designs.

A photovoltaic project can have very big visual impacts that are not quite the same as a power tower and should be analyzed.

At the public meeting, the BLM said that additional important cultural sites were found on the project site. The cultural significance of this project site is well known by local tribes.

The Palen Solar Project should not be streamlined for approval because it is surrounded by a Solar Energy Zone. The Solar Energy Zones were approved in 2012 and the Palen Project dates back to 2009. Since the BLM grandfathered projects outside of Solar Energy Zones that pre date the Solar PEIS out of the variance process, the Palen Project should be grandfathered to exclude any Solar Energy Zone streamlining.

We would like to request that this project start over from the beginning with a full scoping period complete with two public meetings. Even though we requested it, BLM would not hold a public meeting in Blythe, California, close to where most of the Native Americans live. Please have a scoping meeting in Blythe.

Purpose and Need Statement:

The Purpose and Need Statement should include a need to protect cultural, biological, hydrological, visual, and air quality. The Purpose and Need Statement should also include a need to protect the resources on this site and in Chuckwalla Valley by examining the Distributed Generation and Brownfield alternatives.

The Council on Environmental Quality recently issued guidelines on August 1st, 2016 that urges Federal Agencies to consider the impact of a proposed project on climate change. The memorandum urges federal agencies to consider the project's GHG emissions. This should be factored in as the "construction carbon footprint". A distributed generation alternative should be considered as having much less of an impact on the climate. The amount of CO2 sequestration lost in bulldozing the site for construction should also be considered. How much caliche and organic matter will be removed? Please calculate the amount of CO2 released by all of this construction. The guidance document can be viewed here:

https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf

EDF has published this statement for their Purpose and Need in their Plan of Development:

"The Energy Policy Act of 2005 (EPA 05 or EPA 05), Section 211 of which states: "It is the sense of the Congress that the Secretary of the Interior should, before the end of the 10-year period beginning on the date of enactment of this Act, seek to have approved non-hydropower renewable energy projects located on public lands with a generation capacity of at least 10,000 megawatts of electricity."

We have far exceeded 10,000 MW of approved renewable energy on public lands. We are even past the 20,000 MW landmark. It is time to move the energy where it has fewer impacts.

While Section 103(c) of the Federal Land Policy and Management Act (FLPMA) of 1976 states that public lands are to be managed for multiple uses that take into account the long-term needs of future generations for renewable and non-renewable resources, there is nothing in FLPMA that states the need for renewable and non-renewable resources trumps the responsibility to protect natural, cultural and visual resources from unnecessary harm. Equally, there is nothing specific in FLPMA that points out that the project site targeted for the project needs to be developed. In fact, FLPMA stresses preservation of important resources as pointed out in Section 8 in the FLPMA Declaration of Policy: "the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use".

Alternatives:

Under NEPA, BLM must consider alternatives outside of the jurisdiction of the lead agency.

The BLM can justify selecting a No Action Alternative for the Palen Solar Project by looking at alternatives that could provide an equally productive solar energy project without having impacts on cultural and biological resources.

The alternatives include:

Distributed Generation:

“Rooftop solar panels could meet three-quarters of California's electricity needs and about 40 percent of the country's electricity needs, according to a new study from the National Renewable Energy Laboratory.

Researchers at the federally funded lab, which is based in Colorado, had estimated in 2008 that rooftop solar could generate 800 terawatt-hours of electricity per year, supplying about 21 percent of the country's current electricity demand. Now they've upped their estimate to 39 percent, in an analysis sure to be embraced by clean-energy advocates who see solar power as critical to fighting climate change.” Reference:

<http://www.desertsun.com/story/tech/science/energy/2016/03/28/study-california-could-get-74-power-rooftop-solar/82360288/>

The Draft Environmental Impact Statement should consider an alternative that utilizes degraded brownfields and distributed generation. Under the National Environmental Policy Act, agencies are required to consider alternatives outside of their jurisdiction. A no large-scale energy alternative can be justified with The California Energy Efficiency Strategic Plan (CEESP). This plan already exists as California state law and it can be fully implemented now. For more background see www.basinandrangewatch.org/DRECP-CEESP-Alternative.html It is a state plan that prioritizes implementing rooftop solar and energy efficiency prior to developing large-scale, remote solar and wind projects.

Fifteen million acres of brownfields have been identified in the US by the Environmental Protection Agency. Brownfeilds can be good places for solar energy. See here: <https://www.epa.gov/brownfields>

Environmental Consequences

Air Quality:

Dust control in hot, arid climates is very problematic. The removal of established vegetation, biological soil crusts and centuries old desert pavement creates opportunities for dust to be airborne every time the wind blows. Not only does fugitive dust create problems for visual and biological resources, it creates issues for public health as well.

Coccidioidomycosis (Valley Fever) is a common issue that impacts desert communities when dust is stirred up.

According to the Center for Disease Control in 2010 there were over 16,000 reported cases of Valley Fever (i.e. coccidioidomycosis), the majority of which were located in Arizona and California (Accessed by Internet, July 3 2012 at:

<http://www.cdc.gov/fungal/coccidioidomycosis/statistics.html>.

In San Luis Obispo County, 28 workers were sent home with Valley fever: Epidemiologists are investigating an outbreak of valley fever that has sickened 28 workers at two large solar-power construction sites in San Luis Obispo County: <http://articles.latimes.com/2013/may/01/local/la-me-ln-valley-fever-solar-sites-20130501>

Biological Resources

Mojave fringe-toed lizards

As the below maps show, the new configuration of the project still has issues with obstruction of sand transport that will maintain habitat for Mojave fringe-toed lizards as well as other dune species. More fragile sand habitat would be destroyed and the size of the project will interrupt sand transport as concluded by the CEC in 2010. Since the last biological surveys were conducted, things have changed in California. California is suffering from a historic drought and many species have been impacted.

A photovoltaic project could potentially block sand transport even more so than the heliostat design.

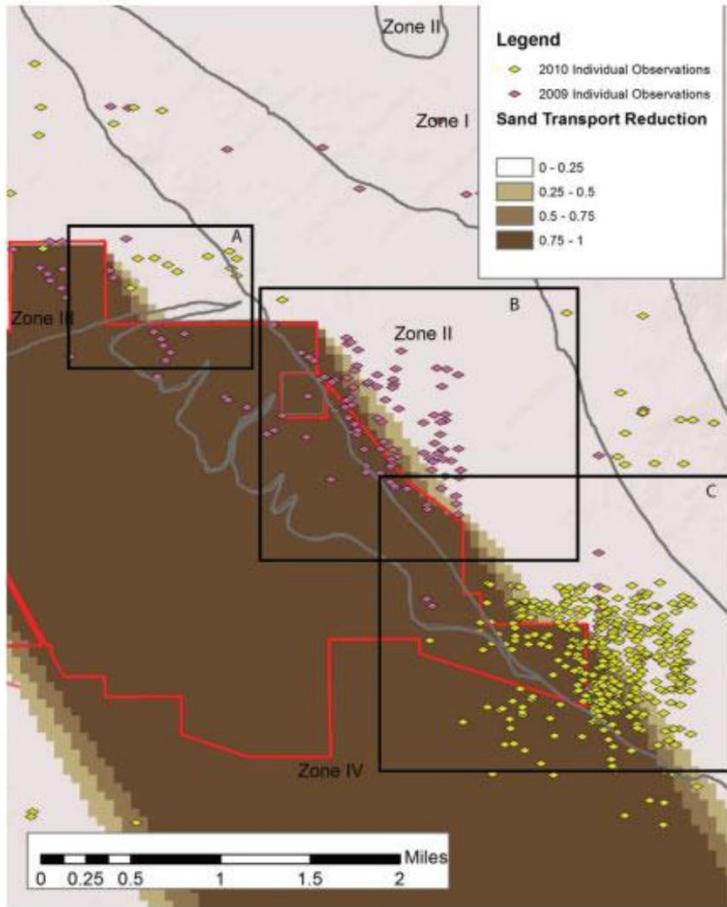


Fig. 8. Close up of pattern of sand transport reduction, with sites of Mojave Fringe Toed Lizard observations included. Areas of Figures 9-11 indicated as A,B,C. Location of Mojave Fringe Toed Lizard observations in 2009 and 2010 indicated by diamonds.

^Old configuration of Palen Solar Tower.



^Updated 2016 EDF plan, still blocks sand transport

Mojave fringe-toed lizards occupy specialized desert dune habitats that are as rare as wetlands. The Chuckwalla Valley populations are healthy and genetically unique, but are losing much of their habitat due to large-scale solar development. Please consider that this whole area has been targeted for this kind of development and the cumulative loss of dune habitats and the endemic life they support is significant.

Development will also spread invasive weeds in this area. There are already problems with Sahara mustard and Russian thistle in this region. Effects of the spread of these non-natives to surrounding sand areas like the Desert Lily Preserve could be significant.

Avian Mortality/Lake Effect

There are some updated numbers that confirm there are significant numbers of bird mortalities found at solar projects. Photovoltaic projects are turning in many of these numbers. Since the projects are very large, these numbers only likely represent a smaller percentage of what is actually taking place.

Updated information about avian-solar interactions by US Fish and Wildlife Service shows this is a concern. Solar projects can have significant impacts to sensitive species, and those listed under the federal Endangered Species Act.

Data reported and gathered from seven solar projects in the southern California desert and arid grassland habitats from 2012 through April 2016 show that 183 bird species have been killed at solar projects, a number that rises with new information. 3,545 individual birds were reported dead at solar projects, from a mix of incidental finds and systematic surveys (Dietsch 2016). This is likely an underestimate.

Birds that are of concern have been found dead at solar projects, and may be impacted by the Palen Solar Project, including these Birds of Conservation Concern:

- Federal Endangered/Threatened – Yuma Ridgeway's (Clapper) Rail, Willow Flycatcher, and Yellow-billed Cuckoo.
- Birds of Conservation Concern – Western Grebe, Horned and Eared Grebes, American White Pelican, Burrowing Owl, and Calliope Hummingbird.

Each of these Birds of Conservation Concern has been found in or in the vicinity of Chuckwalla Valley as migrants, permanent residents (in the case of the burrowing owl). Polarized light may attract birds to photovoltaic solar projects as they mistake the panels for water. US Fish and Wildlife Service says many of these birds of conservation concern may be at risk.

(Dietsch, Thomas. May 2016. Update on Solar-Avian Interactions in Southern California. Migratory Bird Division US Fish and Wildlife Service. Presentation given at CWG Public Meeting Sacramento, CA)

The approved Blythe Solar Power Project is a 4,000 acre PV facility near the Colorado River near Blythe, California built by First Solar.

At a hearing for the California Energy Commission, there were interveners. LABORERS' INTERNATIONAL UNION OF NORTH AMERICA had biologist Shawn Smallwood estimate a number of birds that would be killed for one of the Interveners to the project. He estimated that over 2,100 birds would be killed per year by the 4,000 acre Blythe Solar Power Project. The estimate can be viewed here:

http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-06C/TN201152_20131108T155000_Testimony_of_K_Shawn_Smallwood_PhD.pdf

A study like this should be conducted for the Palen Solar Project.

Desert Kit Fox: This species saw an outbreak of K9 distemper, possibly due to the poor mitigation for the close by Genesis Solar Project. This should be considered as a major potential impact from the Palen Solar Project.

Groundwater and floods:

Altering the drainage at such a large scale will impact groundwater and cause flooding in unexpected places.

Large solar and wind developers often underestimate the amount of water needed for these projects. We know that the Topaz Project (built by First Solar) in San Luis Obispo County used so much water, that local residents are reporting increased salinity in their wells. The Desert Sunlight Project (built by First Solar) in Riverside County, California requested to use an additional 50 acre feet of water after making their own wells run dry. The BLM granted this request. As it turns out, they have depleted a non-rechargeable fossil water aquifer. The United States Geological Survey conducted a groundwater study for the Chuckwalla Valley region in 2012 including the area around Desert Center. The conclusion was that no tritium was detected in the water supply. Most of the rechargeable aquifers in the desert southwest are slightly contaminated with tritium due to past nuclear tests and it can be detected in modern groundwater tests. If an aquifer is tritium free, it indicates that no recharge has taken place in 50 years (prior to nuke tests). The USGS Groundwater Ambient Monitoring Analyzing can be referenced here: <http://pubs.usgs.gov/ds/659/>

Cultural Resources

From the beginning, Native Americans representing Colorado River Tribes have been opposing the project. They have not wanted mitigation, money or any compensation for the project. The region is part of their traditional values. We learned that the June meeting that and additional significant site was discovered recently near the proposed project site.

Nearly all of the sites recorded in the area as prehistoric have been described as having potential for subsurface manifestation. In addition to their individual research potential properties, the distribution of many of these sites in conjunction with other prehistoric sites recorded between Desert Center and Blythe may provide links between vestiges of the Coco-Maricopa trail system as well as clues to activities associated with transportation along that route. As such, these sites could be considered as part of a complex archaeological district that would include evidence of trade, travel, interaction among the several cultural groups associated with the area (Cahuilla, Chemehuevi, Mojave, Serrano), resource

exploitation along travel routes, seasonality of habitation, and trail spurs between the primary coastal-interior route and the springs and associated rock art sites in the bordering mountain ranges.

Nextera's mitigation for cultural resources destruction for the Genesis Project has been a wake up call. They destroyed an entire cultural village on Ford Dry Lake.

Burial sites, bones and a whole village site were destroyed because Nextera did not do adequate enough surveys. This is not acceptable.

The BLM will need to consult with the Cahuilla, Chemehuevi, Mojave, and Serrano nations to address their concerns. Many of these people feel the entire region is a "cultural site" including the view-scape, the water and the biological resources.

Visual Resources:

While a photovoltaic project is not a power tower, it still can have a massive visual impact. The project would convert about 5 square miles of desert into a blue blotch of solar panels visible from lands with many BLM VRM classifications. If thin-film PV panels are used, they can still glare as seen in the below photo of the recently completed 2,500 acres Silver State South Project in Nevada. The Palen Project would be highly visible from adjacent wilderness areas and Joshua Tree National Park. Because of this, BLM should evaluate the visual resource impacts from Class I or Class II VRM standards.



^ Glare seen from the Silver State South Solar Project, Nevada. Seen from Highway 15

Class I and Class II are defined as:

- **Class I Objective:** To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention

Class II Objective: To retain the existing character of the landscape. The level of change to the characteristic landscape should be low.

Conclusion: The Palen Solar Project is far too large to be built without impacts. Mitigation will not compensate for the damage that will happen. We believe that a photovoltaic alternative will have enough impacts for this project to justify a full Environmental Impact Statement.

Thank you,

Kevin Emmerich
Laura Cunningham
Basin and Range Watch
P.O. Box 70
Beatty, Nevada 89003

Scoping Comment B2 – National Parks Conservation Association



September 1, 2016

Jennifer Whyte, Project Manager
 Palm Springs BLM Southcoast Field Office
 1201 Bird Center Drive
 Palm Springs, CA 92262

RE- Palen Photovoltaic Solar Project Scoping Comments

Dear Jennifer Whyte:

National Parks Conservation Association thanks the Bureau of Land Management's (BLM) Southcoast Field Office for the opportunity to provide scoping comments for the Palen Photovoltaic Solar Project.

National Parks Conservation Association is the leading voice of the national parks and is dedicated to their preservation for present and future generations. We advocate on behalf of one million members and supporters nationwide, including over 120,000 in the state of California. NPCA's Joshua Tree and Mojave Field Offices work to safeguard the spectacular ecological, historical and recreational resources of Joshua Tree National Park, Mojave National Preserve and Death Valley National Park.

Introduction

This letter provides scoping comments for the Palen Photovoltaic Solar Project (Palen Project), which is currently owned by San Diego based renewable energy company EDF. The Palen Project has a long history and prior to its current iteration, the California Energy Commission (CEC) previously approved, and the BLM previously prepared, a Final Environmental Impact Statement for a previous version of this project that used solar thermal trough technology.

EDF Renewable Energy now proposes to construct and operate the Palen Project as a 500 megawatt solar photovoltaic electric generating facility on the same 4,200-acre project site previously analyzed by the BLM and approved by the CEC. The project is located in eastern Riverside County north of the I-10 Interstate, approximately 10 miles east of the community of Desert Center and less than 8 miles from the boundary of Joshua Tree National Park. Because EDF has proposed a change in renewable energy technology for the project, the BLM is currently preparing a Supplemental Environmental Impact Statement.

Introduction

National Parks Conservation Association has been intimately involved in analyzing and commenting on renewable energy projects in the California desert since 2008. We believe we must invest in a renewable energy future to help buffer us from the worst impacts of climate change and help make our nation energy independent, but must do so in a manner that protects our national parks and other protected public lands.

NPCA maintains that renewable energy policy has evolved since 2008 and that communities throughout the desert, organizations, chambers of commerce, businesses and stakeholders demand and expect a higher standard for renewable energy projects- one that protects community resources, iconic species, Native American cultural and spiritual sites, wildlife corridors, water resources and special places like Joshua Tree National Park. We contend that early mistakes in siting renewable energy projects- in environmentally sensitive locations- can and should be avoided. We know more now and we must integrate that knowledge into the siting of thoughtful, responsible renewable energy projects that support state and federal energy goals, but don't harm the very environmental resources, wildlife and national parks we seek to protect. While the Palen Project's change in technology from solar thermal to photovoltaic is an improvement, it does not fundamentally address its inappropriate proximity to Joshua Tree National Park, harm to wildlife, damage to Native American cultural and spiritual sites or the widespread stakeholder opposition that has developed as a result of the location, as well as the view that the project is fundamentally not in the public's interest.

Scoping Issues to be Analyzed in Supplemental DRAFT EIS

The BLM NEPA Handbook states that, “Scoping is the process by which the BLM solicits internal and external input on the issues, impacts, and potential alternatives that will be addressed in an EIS or EA as well as the extent to which those issues and impacts will be analyzed in the NEPA document¹.” The following issues, cumulative impacts and potential alternatives should be analyzed fully in the DRAFT EIS because there is ample evidence that they would have a cause and effect relationship with any proposed action or alternatives on a variety of resources; are relevant to BLM policy, regulation and natural resource law; are amenable to scientific analysis; could have detrimental effects on the environment or social conditions and finally that such an analysis may lead to strong mitigation measures².

Moreover, an analysis of these issues is merited because they meet the required criteria in the BLM handbook which states that issues should be analyzed if 1) Analysis of the issue is needed to make a reasoned choice between alternatives 2) The issue is associated with a significant direct, indirect or cumulative impact³.

Avian Impacts

Argonne National Laboratory’s report, “A Review of Avian Monitoring and Mitigation at Existing Utility-Scale Solar Facilities cites two types of direct bird related deaths at solar facilities: 1)Collision related fatalities 2)Solar flux related fatalities, the second only occurring at solar thermal renewable energy developments⁴. The report goes on to say that location and size, as well as proximity to migratory pathways, wetlands and riparian vegetation impact the number of bird deaths at solar facilities⁵. Additionally glare and polarized light may attract insects which lure birds to their deaths and it has been hypothesized that the “Lake Effect”- the reflection of solar arrays appears to birds to be the reflection of a lake- also attracts birds which perish when they collide with the panels⁶. The BLM 2013 Supplemental EIS for the PSEGS states that the environmental consequences to special status and migratory birds and golden eagle include collisions with infrastructure 4-21-7 and 4-21-8⁷. The Palen Project lies underneath the Pacific Flyway and could impact the 250 bird species that utilize Joshua Tree National Park, migratory species and special status, threatened and endangered species.

Avian Issues to be Analyzed Include the following:

- How would special status and migratory birds be affected by the proposed Palen Project and its variety of alternatives?
- How would bald and golden eagles be affected by the proposed Palen Project and its variety of alternatives?
- How would federally and stated threatened and endangered species be impacted by the Palen Project and its variety of alternatives?
- What are the cumulative impacts of past, current and foreseeable future projects, considering projects within a 50 mile range and the California desert district on all avian species within the Colorado Desert, the California Desert District and the state of California?
- How does the solar technology being proposed for the project compare with other available current technologies in terms of avian mortality? Please investigate a range of alternative technologies in alternatives for the project including rooftop solar in the built environment and smaller community based footprints.
- How does the impact to birds, given the proposed technology and location, compare with the proposed project or one of its alternatives at a variety of other locations that might result in fewer impacts to birds? Please provide a thorough and comprehensive, research based analysis of distributed solar in the built environment; private lands; lands the Environmental Protection Agency has identified as disturbed and degraded, but suitable for renewable energy; public lands that are not proximal to a national park, wilderness area or ACEC?

¹BLM National Environmental Policy Act Handbook-H-1790-1, p. 41

² ibid

³ ibid

⁴A Review of Avian Monitoring and Mitigation Information at Existing Utility Scale Solar Facilities. 2015. Argonne National Laboratory and National Renewable Energy Laboratory, p. 11. Available online at http://www.evs.anl.gov/downloads/ANL-EVS_15-2.pdf

⁵ ibid

⁶ ibid

⁷Palen Solar Electric Generating System Draft Supplemental EIS. 2013. Bureau of Land Management, p.4-21-7 and 4-21-8.

Fringe Toed Lizard and Desert Tortoise

- The BLM's Supplemental Draft EIS for the PSEGS acknowledges that Sand Transport Corridors and potential fringe toed lizard habitat could be impacted in the project area⁸. Impacts to tortoises include the direct destruction of tortoise habitat. It also acknowledges that tortoise connectivity could be obstructed and gene flow impeded in three wildlife management areas that serve as corridors adjacent to the development: Big Maria Mountains, Palen Ford and the Desert Wildlife Management Continuity⁹.
- How would desert tortoise and fringe toed lizard be affected by the proposed Palen Project and its variety of alternatives?
- How would the current configuration of the project directly and indirectly impact onsite, adjacent and nearby sand transport corridors?
- How would construction and operations of the Palen Project and the associated power lines directly and indirectly impact populations of ravens preying on desert tortoise? What would be the resulting impact to local and regional tortoise populations.
- Given the number of past, current and foreseeable projects within a 50 mile radius of the proposed Palen Project, what are the cumulative direct and indirect impacts to fringe toed lizard and desert tortoise?

Air Quality

- Joshua Tree National Park is a Class I Airshed under the Environmental Protection Agency's Regional Haze Rule. Given that rule is currently under revision, what will be the known impacts of the disturbance of desert soil and creation of fugitive dust on Joshua Tree National Park and the Coachella Valley?
- Considering past, current and foreseeable development projects that have the potential to diminish air quality through construction or operations within a 50 mile radius, what are the cumulative impacts of the proposed Palen Project and other developments on Joshua Tree National Park, the Coachella Valley and the South Coast Air Quality Management District?

Cultural Resources

- Significant cultural and historic resources have been identified on the proposed project site and in the surrounding area. One concern is that the impact of the proposed project may only consider the impact to specific historic, cultural and Native American Spiritual sites, rather than consider the overall impact of the proposed project on cultural landscapes and landscapes that have been identified as Native American Tribes as having religious, cultural, historical or spiritual significance.
- Please provide a thorough and comprehensive analysis of how the proposed project indirectly and directly affects archaeological, historical, cultural and spiritual sites, as well as landscapes that have religious or cultural significance to Native American Tribes- not merely considering individually significant sites, but their relation to the overall historical, cultural, spiritual or religiously significant landscape.
- What is the cumulative impact of past, current and foreseeable development projects within a 50 mile radius on landscapes that are significant to Native American Tribes, the history of military operations, Westward expansion and mining?

Water Resources

- What are the direct, indirect and cumulative impacts of the proposed Palen Project and past, present and foreseeable development projects within 1) a 50 mile radius 2) a 100 mile radius 3) the Mojave and Colorado Desert on groundwater resources, recharge to the Colorado River; associated and connected groundwater basins and watersheds; Joshua Tree National Park; seeps and springs and geologic activity such as subsidence?
- While the project proponent has provided an estimate of the amount of groundwater they will use during operations and construction, please develop a table and analysis of permitted and operating projects within the California desert and the amount of water they predicted they would use versus their actual water use. Please

⁸ Palen Solar Electric Generating System Draft Supplemental EIS, p.4-21-7

⁹ Ibid, 4-21-2

evaluate and analyze the Palen Project's estimate of water use and construction and operations within that context.

Visual Resources

- The proposed Palen Project site is located less than 8 miles away from Joshua Tree National Park's federally designated wilderness.
- What direct, indirect and cumulative impacts will the proposed Palen Project have on scenic vistas within Joshua Tree National Park. Please analyze the impact on visual resources from the perspective of the value and characteristics of wilderness, rather than analyzing the significance of the visual impacts determined by how many visitors there are to remote wilderness areas.

Proposed Alternatives

- Are there a variety of alternatives that analyze and consider the following:
- Alternative renewable energy technologies that would be less harmful to visual resources, wildlife and cultural resources?
- Alternative locations that consider development on disturbed EPA lands, private lands and other public lands that are not proximal to a national park, wilderness area or BLM ACEC?
- A "No Action" Alternative that considers that benefits of distributed solar in the built environment?

In closing NPCA thanks the Bureau of Land Management for the opportunity to raise issues to be analyzed in the Supplemental DRAFT EIS for the proposed Palen Project.

Sincerely,

Seth Shteir, Program Manager
National Parks Conservation Association
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