MBCA

morongo basin conservation association

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April 29, 2019

County of San Bernardino, Land Use Services Department
Tom Nievez, Contract Planner
385 N. Arrowhead Avenue, First Floor
San Bernardino, CA 92415 Tom.Nievez@lus.sbcounty.gov

RE: Daggett Solar Power Facility, Draft Environmental Impact Report (DEIR)

Dear Mr. Nievez,

The Morongo Basin Conservation Association takes this opportunity to comment on the proposed 3,500-acres (5.5 square miles) Daggett Solar Power Project (Project), intended to produce 650 MWs of RPS qualified solar power, located in the Mojave River Valley, aka Silver Valley, within the communities of Daggett and Newberry Springs. Our comments will demonstrate that if this Project is approved, the communities will lose their character and value, the natural and scenic values of their landscape and tourism economy, their air-quality (already a problem), and important components of the biological resources in the region.
The approved RECE "*emphasizes community-oriented renewable energy (CORE). Our ideal is local production primarily for local consumption*." [1] This Project is the opposite of that goal.
Please reference the MBCA Scoping comments of April 26, 2018.

Project Objectives (DEIR 2-2)

1. Assist the State in achieving or exceeding its Renewable Portfolio Standards (RPS) goals.

Comment: The California Public Utilities Commission (CPUC) reports that RPS targets are surpassed. *The* Investor Owned Utilities (*IOUs)* ***have already surpassed the 2017 annual RPS percentage target of 27 percent. The three large IOUs are forecasted to continue to have excess procurement for the next six years. The IOUs may choose to apply excess renewable electricity procured in prior years to meet their RPS requirements in future compliance periods. Alternatively, they may sell renewable energy credits associated with the excess procurement to other load-serving entities, such as CCAs or ESPs.*** [2] (bold added) See Basin and Range Watch Comments pages 2-3.

[1] RECE, April 2017, Intentions of this Element. Page 1
[2] 2018 California Renewable Portfolio Standards Annual Report. Page 3
http://cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-Electricity_and_Natural_Gas/Renewables%20Portfolio%20Standard%20Annual%20Report%202018.pdf

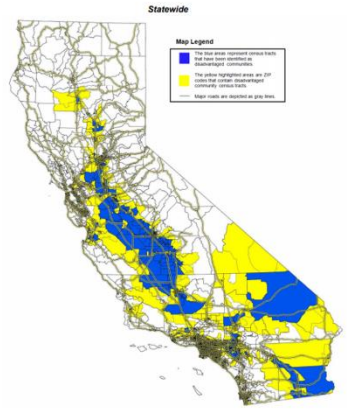
2. Produce and transmit electricity at a competitive cost.

Comment: 'competitive cost' is based on the economies of scale and low land costs in the desert. Transmission cost are on the shoulders of the rate payer.

7. Develop a solar power generation facility in San Bernardino County, which would support the economy by investing in the local communities, creating local construction jobs, and increasing tax and fee revenue to the County.

Comment: The local economy will not benefit from the power the Project produces.

- The solar generated power will be transmitted out of state or over the mountains through high fire zones. The transmission costs will be borne by the rate payers.
- Construction workers will be sourced from communities further away. The Final EIR (FEIR) must report the number of permanent on-site jobs created.
- Improved value of industrial solar is not taxed. Meager utility tax is the only revenue stream from industrial solar. The improved value of parcels will be lost to SB County.
- Surrounding residences will lose the value of their homes along with their viewshed to a forest of 20-foot-high solar panels.



- Economic and Environmental Injustice

Undesirable industry tends to be located in poor, often minority neighborhoods.

With industrialization the numerous residents of the economically disadvantaged communities of Daggett and Newberry Springs will lose their air-quality, property values, and their quality of life. To regain these values, they have no other choice but to move away, which most are not financially equipped to do. What we have is

Privatization of Benefits and Socialization of Impacts

Blue – Census tracts identified as disadvantaged communities
Yellow – Contain ZIP codes with disadvantaged communities

DEIR Environmental Impacts

Aesthetics and Visual Resources

The DEIR finds that the Project while industrializing 5.5 square miles - a significant chunk of the Mojave River Valley, aka Silver Valley - with hundreds of thousands of rotating 20' high panels

(a) would not have an adverse effect on the scenic vista;

(b) would not substantially damage scenic resources within a County Scenic Route (National Trails Highway, Route 66);

(c) would not substantially degrade the existing visual character or quality of the site and its surroundings;

(d) would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; (see Avian Resources page 16 this letter)

(e) would not result in cumulative aesthetic impacts.

The DEIR includes the following analysis in its analysis of Viewers Responses.

The 100 rural residences within 0.5-mile radius of the project are familiar with the landscape and "*will be sensitive to changes in the landscape".* (DEIR 3.1-4).

Sensitive to Changes in the Landscape. This 'evaluation' cannot be serious, but is presented as such. The rural residents, generally between 5 and 6 feet tall, will be looking through (not over) an enveloping forest of metal trackers supporting a string of 20' high glass-like panels. Will they be *sensitive to changes in the landscape*? No. They will be devastated. Their viewshed will be completely industrialized and, based on experience, enveloped in sand and dust, which will be discussed later.

In Appendix B-1. Visual Impact Assessment, the DEIR provides visualizations of the proposed project components to convince the Decision Makers and Stakeholders that the viewshed is not threatened. Examples below.

Figure A1. Typical Solar Array Layout

From Appendix B1, Appendix A Typical Projects Components:

Figure A1. Typical Solar Array Layout

Comment
The photo shows the solar panels slightly angled getting ready for sunrise. There is no way to know how tall the panels are or the size of the field. This example is deceptive rather than informative.

Figure A2. Typical Tracker Panel Configuration

Figure A2. Typical Tracker Panel Configuration

Comment
The image shows a man in a hard hat standing in front of a field of solar panels with mountains in the background. His hard hat just tops the panels that are only slightly angled. He appears taller than the trackers/panels. However, the Daggett solar panels will reach 20 feet into the air. Like Figure A1, Figure A2 is clearly deceptive.

DAGGETT SOLAR PROJECT – Figure 2 "KOP2" (Appendix B1, Visual Simulations Page C-4)
Analysis by Jack Unger, Newberry CSD Director

This is the DEIR photo supposedly showing the view from Interstate 40. In fact, as the DEIR admits, it's actually a view from the westbound "ONRAMP" to I-40. Based on this photo, the DEIR claims that "the project would result in a moderately low change to views from I-40". Figure 2 points put the lie to this DEIR claim.

1. This "onramp" photo is from a vantage point that is substantially lower than the actual view from I-40 itself. Look at the height of the barbed wire fence posts (circled). You can see that the photo was taken from a vantage point only a few feet higher than the 3-foot-tall fence posts.

2. The photo is taken with a wide-angle lens which makes the foreground look much larger and the background, along with the proposed solar plant, much smaller. Look at the line in the right margin. This is even with the position of Route 66 (National Trails Highway) which is visible as a white line in the distance. In fact, Route 66 is only 4/10s of a mile from the KOP2 location where this photo was taken. Yet the impression from this wide-angle photo is that Route 66 (and the simulated solar installation beyond) is a long, long distance away. In fact, the actual distance from Route 66 to the I-40 looks longer than the distance from Route 66 to the Calico Mountains beyond which are about 5 miles away.

Bottom line. The DEIR and this (and, by the way, a number of other) DEIR photo(s) give the false impression that the solar project's impact on the viewshed is almost negligible when in fact the viewshed degradation would be very considerable, at least from this Highway 40 "key observation point 2" (KOP2) vantage point.

Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date: August 28, 2017
District: Barstow
Resource Area:
Activity (program): N/A

SECTION A. PROJECT INFORMATION

1. Project Name: Daggett Solar Farm
2. Key Observation Point: #1
3. VRM Class: Unclassified
4. Location: Township 9 N, Range 1 E, Section 31, Yermo
5. Location

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat to undulating terrian	sparse and irregular	linear and angular
LINE	diffuse edge	weak and irregular	weak and broken
COLOR	light tans to dark brown and orange	light green	grey and white
TEXTURE	gradational	patchy	medium

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	flat to undalating	sparse and irregular	linear and angular
LINE	diffuse edge	weak irregular	weak and broken
COLOR	light tans to dark brown and orange	light green	grey and white
TEXTURE	gradational	patchy	medium

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1) Strong	Moderate	Weak	None	VEGETATION (2) Strong	Moderate	Weak	None	STRUCTURES (3) Strong	Moderate	Weak	None
Form			X				X				X	
Line				X				X			X	
Color			X				X					X
Texture			X				X					X

2. Does project design meet visual resource management objectives? ☐ Yes ☐ No (Explain on reverse side)

3. Additional mitigating measures recommended ☐ Yes ☐ No (Explain on reverse side)

Evaluator's Names: Genevieve Munsey, Kolton Kammer, Clint Meyer
Date: September 15, 2017

Rel. 8-30
1/17/86

D-3

BLM Visual Contrast Rating (VCR) Worksheet
(Appendix B1, Appendix D. Field Forms - #1)

Rating system

Section B Characteristic Landscape Description
compares the
form, line, color, and **texture**
of the **land and vegetation with** the **structures**.

Section C
Proposed Activity Description
Same comparisons

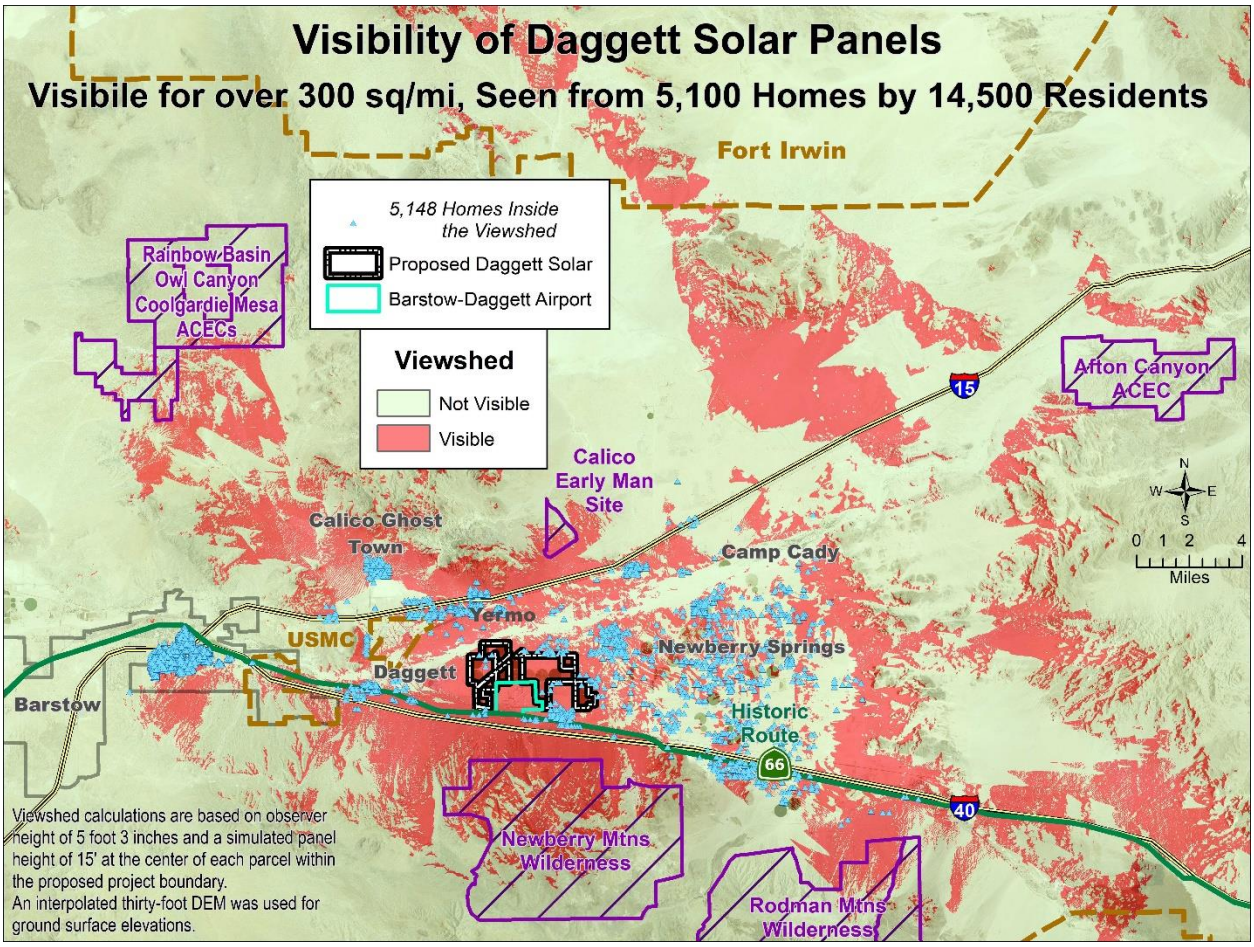
Section D
Degree of Contrast among the Features

This rating system determines the visual differences or similarities between the natural landscape and vegetation, and the industrial solar structures (activity). None or slight differences only,

Comment
How would the VCR Worksheet analyze the picture to the left?

This photograph shows the 150-acres Cascade Solar structure near Joshua Tree Dry Lake in Joshua Tree. There is no problem distinguishing the landscape from the activity. The differences win out. The Black-throated Sparrow may find it more difficult. *Is that a lake where I can get a drink and snag a few insects?*

Photo 1
Credit: Deborah Bollinger



This Visibility of Daggett Solar Panels
The Visibility map above was prepared by Brian Hammer, Professional Data/GIS analyst and Adjunct Professor, Victor Valley Community College, AG and Natural Resource Department.

The Daggett Solar Project will be a visible new source of light and glare from surrounding communities and elevations including the Newberry Mountains and Rodman Mountains Wilderness Areas, the Afton Canyon Area if Critical Environmental Concern (ACEC) (within Mojave Trails National Monument), Calico Early Man Site, Calico Ghost Town, and Rainbow Basin, Owl Canyon, and Coolgardie Mesa ACECs.

The average annual daily traffic on the I-15 at Yermo Road is approximately 43,000 vehicles (Caltrans 2016a). The average annual daily traffic on I-40 at A Street is 14,400 vehicles (Caltrans 2016a). (DEIR 3.1-5)

Comment:
Bottom Line: If approved, the Daggett Solar Energy Project is in violation of the 2013 Solar Ordinance No. 4213, adopted into the SB CO Development Code Chapter 84.29 Renewable Energy Generation Facilities.

From the Ordinance – Sections bolded to emphasize the incompatibility of this Project with promises made to the communities and residents.
SECTION 1. The Board of Supervisors of the County of San Bernardino finds that:

(a) The County of San Bernardino **desires to protect the character and value of communities and neighborhoods, and the natural and scenic values of the landscape within the County, from increased impacts of new commercial solar energy generation facilities,** while providing safe and

reliable renewable energy to assist California and its investor-owned utilities in meeting the State's Renewable Portfolio Standards and its goals for reduction of greenhouse gas emissions.

(b) In protecting natural and scenic values of the landscape, **the County recognizes not only the substantial intrinsic value of the desert's natural and scenic setting, but also the importance of this setting for the quality of life of area residents and the economic value it creates for the area's tourism industry.**

(c) The County desires **to guide new commercial solar energy generation facilities to areas that can accommodate such facilities with fewer human and environmental resource conflicts**.

(d) In order to provide reasonable opportunities for commercial solar energy development and simultaneously protect communities, neighborhoods, and the natural and scenic values of the landscape, **it is the intent of the County to focus new commercial solar energy development in areas that are both (1) less desirable for the development of communities, neighborhoods and rural residential use and (2) less environmentally sensitive.**

From the Development Code

84.29.035 Required Findings for Approval of a Commercial Solar Energy Facility.

(a) In order to approve a commercial solar energy generation facility, the Planning Commission shall, in addition to making the findings required under Section 85.06.040(a) of the San Bernardino County Development Code**, determine that the location of the proposed commercial solar energy facility is appropriate in relation to the desirability and future development of communities, neighborhoods, and rural residential uses, and will not lead to loss of the scenic desert qualities that are key to maintaining a vibrant desert tourist economy by making each of the findings of fact in subdivision** (c).

(c) The finding of fact shall include the following:

(1) The proposed commercial solar energy generation facility is either (A) **sufficiently separated from existing communities and existing/developing rural residential areas so as to avoid adverse effects**, or (B) of a **sufficiently small size,** provided with adequate setbacks, designed to be lower profile than otherwise permitted, and sufficiently screened from public view so as to not adversely affect the desirability and future development of communities, neighborhoods, and rural residential use.

This project will:

(a) Have adverse and cumulative effects on the scenic vista and resources including Historic Route 66 (National Trails Highway), a County Scenic Highway

(b) Compromise the desert tourist economy**.** In 2015 there were over half a million (589,156) visitors to the Mojave National Preserve that spent over 33-million dollars in communities near the park. That would be our High Desert Communities. That spending supported 486 jobs in the local area and had a cumulative benefit to the local economy of over 42-million dollars.[3] And that was before the dedication of the Mojave Trails National Monument with the Lavic Lake Volcanic Fields and Amboy Crater, areas of interest adjacent to I-40 east of Newberry Springs and Ludlow.

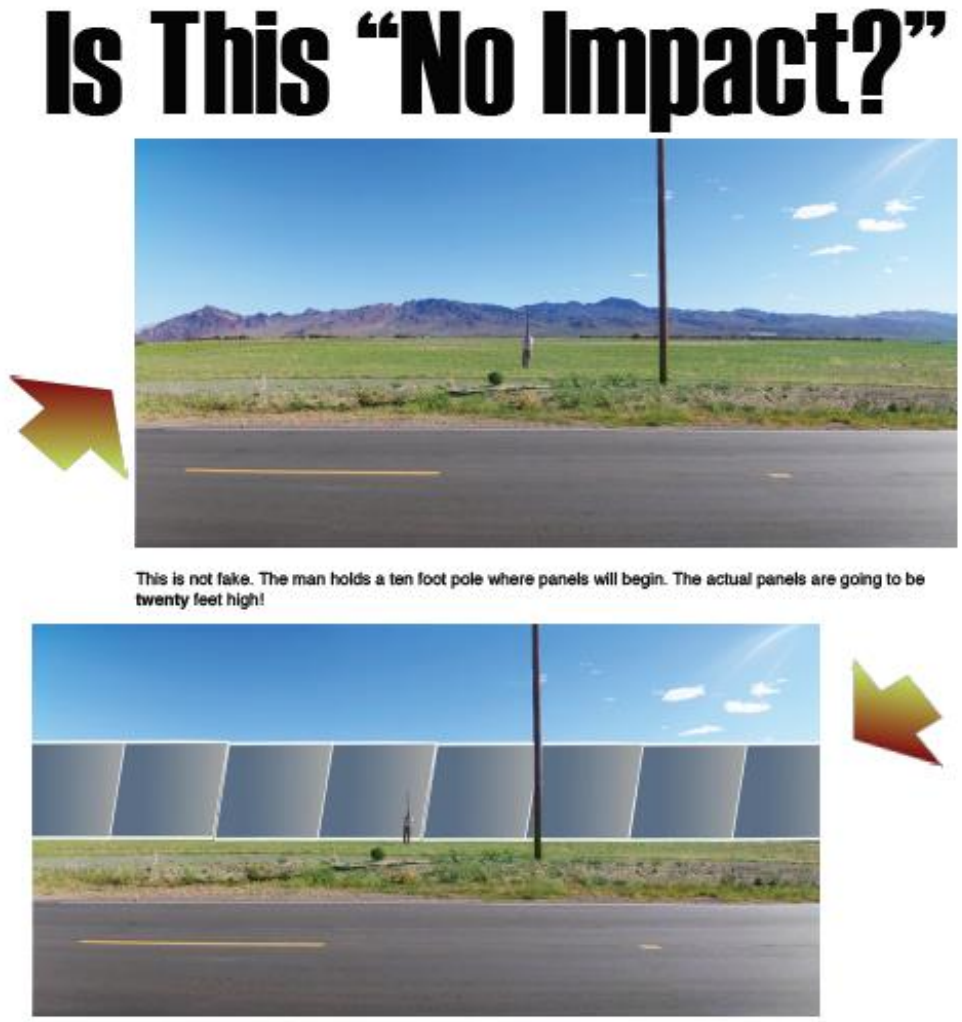
(c) Financial stress and health issues

Homes adjacent to industrial solar sites are severely devalued and have failed to sell. Silver Valley would be affected by this phenomenon. Financial stress causes physical and emotional health issues.[4] For most people their homes are their largest asset and biggest investment. The sudden loss of equity would leave

[3] https://www.nps.gov/moja/learn/news/tourism-to-mojave-national-preserve-creates-nearly-43-million-in-economic-benefits-in-2015.htm

[4] Predictors of responses to stress among families coping with poverty-related stress Journal Anxiety, Stress, & Coping. An International Journal Volume 25, 2012 - Issue 3

residents adjacent to the proposed Project site unable to secure loans at pre-project values and would affect residents' ability (should they choose) to sell their homes thereby inducing financial stress and potential health issues.



Credit: Vickie Paulsen

The visual effects of this Project, at the configured size of approximately 3,500 acres with 20-feet high solar panels, are not mitigatable by fencing, paint, or setbacks.

If approved, this Project must have Findings of Overriding Consideration that the benefits outweigh the environmental effects that cannot be mitigated must accompany an approval by the Planning Commission and Board of Supervisors.

Air-Quality (AQ)

Blowing sand and dust in the Mojave River Valley is a constant topic for all those who live downwind in the area. Photos 2 and 3 below demonstrate the severity of the problem under current meteorological conditions. Rainfall in the area[5] does not alleviate the problem of blowing sand and dust.

[5] http://ceorange.ucanr.edu/about/weather/?weather=station&station=234

Photo 2: Credit: Robert Berkman. 4/6/2018 at 4:29 PM Looking North toward Daggett Airport.
The sand blow begins within the footprint of the Project**. Rainfall from Jan. through March 2018 was 0.6".**

Photo 3: Credit Robert Berkman, 4/9/2019 at 1:58 PM Looking North along Condor St. approximately 1/2 mile east of the Project boundary. **Rainfall from Jan. through March 2019 was 2.87 inches.**

As expressed in the MBCA Scoping Comments experience has shown that the MDAWMD Fugitive Dust Control Rule 403.2, adopted in 1996 for the Mojave Desert Planning Area is not up to the task of taming dust blows over large graded areas in sand transport paths. The Rule was adopted when the projects were smaller in size; i.e. construction/demolition activity; heavily traveled publicly maintained unpaved Roads; and weed suppression activity. Local residents know that applications of water have little to no effect on the eolian sand in the Mojave River Valley. See Photos 3 & 4 above and not rainfall/year.

The Project "site preparations would consist of clearing, grubbing, scarifying, recompacting, and grading to level the site and remove any mounds or holes that remain from previous land use." (DEIR Page 2-13) In total the project would grade 5,900,000 square yards which means any of the original plants including the creosote and saltbush in the undisturbed areas (about one-half of the project acreage) would be gone and the holding value of their roots with their living layer of microscopic algae, fungus, and bacteria which cement the soil surface together would be gone. [6], [7]

The clip below was taken from Google Earth centered on the Project site and shows an agricultural field on the left and undisturbed desert on the right. A goodly portion of this project is undisturbed. Creosote rings are clearly visible in this area and many could easily pass the 10 feet or more in diameter test, putting some zeros in their age. These ancients have not been analyzed, a requirement under the 2007 General Plan and Development Code.

The Final EIR must evaluate the creosote rings within the Project area and follow the Development Code.

D/CO 1.3 Require retention of existing native vegetation for new development projects, particularly Joshua trees, Mojave yuccas and **creosote rings**, and other species protected by the Development Code and other regulations.

Creosote Rings

[6] Allen ME, Jenerette CD, Santiago LS, (2013) Carbon Balance in California Deserts: Impacts of Widespread Solar Power Generation. California Energy Commission Publication Number (CEC-500-2013-063. https://www.energy.ca.gov/2014publications/CEC-500-2014-063/CEC-500-2014-063.pdf

[7] Robin Kobaly, The Desert Under Our Feet. (March 2019) Desert Report. http://www.desertreport.org/

See Development Code 88.01.060 Desert Native Plant Protection

Air Quality (AQ) Impact 3.3-1

Finding: AQ Impact 3.3-1The project is potentially significant and unavoidable during construction because it will obstruct implementation of the applicable air quality plan. Mitigations AIR-1, AIR-2

Finding: AQ Impact 3.3-1 The project is potentially significant and unavoidable during construction because it will violate air quality standards and contribute substantially to an existing air quality violation. Mitigations AIR-1, AIR-2

Finding: AQ impact 3.3-3 The project is potentially significant and unavoidable during construction because it will expose sensitive receptors to substantial pollutant concentrations. Mitigation AIR-3

Finding: AQ impact 3.3-5 The project is potentially significant and unavoidable during construction because the project will result in cumulative impacts related to air quality. Mitigations AIR-1, AIR-2, AIR-3

Comments

MBCA disagrees with these findings. The air quality impacts are significant and unavoidable during construction, operation, and following decommissioning and restoration.

> During construction there will be "*clearing, grubbing, scarifying, recompacting, and grading to level the site and remove any mounds or holes that remain from previous land use… The following is a general estimate of the project's required grading by phase: Phase 1: 1,753,000 cubic yards; Phase 2: 1,888,000 cubic yards; Phase 3: 1,726,000 cubic yards; and gen-tie: 533,000 cubic yards.*"(Page 2-13)
>
> AND
>
> "*The conclusion that Potential health impacts resulting from construction emissions from the project would be minimal. First, construction activities are temporary and the emissions from construction activities would end once construction of the project is complete."* (Page 3.3-22)

Once the native plants and agriculture areas are gone it is the nature of sand transport paths to blow unless stabilized. Following construction PM10 and PM2.5 particulates will continue to blow through the valley. Please see Photos 2 and 3 on page 9 for the baseline conditions. The potential health impacts are a permanent problem unless and until the soils are stabilized.

The Project has no accurate baseline air quality data for PM10 and PM2.5

All calculations of the amounts of PM10 and PM2.5 that will be released during construction, operations, decommissioning and restoration are based on the Victorville monitoring station. Victorville is west of the Project. The wind disturbing the soils comes from the west, and, this shouldn't need saying, the PM10 and 2.5 blow eastward, away from the monitoring station. The MDAQMD is aware of this and has begun locating PurpleAir monitors in Newberry Springs. PurpleAir readings are continuous and a map is available on line. https://www.purpleair.com/map#14/34.83806/-116.68231

However, the monitors have not been up for long and the results can not be used for regulating.

In addition, we find no mention that monitors will be located on site during construction, operations, decommissioning, and restoration. No monitors, no data.

Any increase in particulate matter has been linked to severe health issues and higher mortality rates. This increase is seen even if these PM levels are below currently acceptable limits.[8]

Silica Dust

Grading of the proposed Daggett Solar site will expose all adjacent residents, construction workers and down-wind residents to potentially life-threatening silica exposure. In dry conditions hazardous exposer to silica dust can occur from grading and earth moving.[9] It only takes a very small amount of the very fine respirable silica dust to create a health hazard. Recognizing that very small, respirable silica particles are hazardous, OSHA regulation 29 CFR 1926.55(a). Inhaling crystalline silica can lead to serious, sometimes fatal illnesses including silicosis, lung cancer, tuberculosis (in those with silicosis), and chronic obstructive pulmonary disease (COPD).[10]

Valley Fever

The DEIR dismisses the concern for Valley Fever. However, there is a known association of cases of coccidioidomycosis during PV solar construction in desert environments.[11] In the Antelope Valley and other areas of California, solar farms have already created a Valley Fever problem.[12] The cumulative extent of the Daggett Project soil grading along with construction of the proposed Projects in Lucerne Valley could become the open door for this serious disease. Rather than dismissal, caution and real concern is warranted.

Mojave River as a Source of Dust

Per Newberry Springs resident Robert Shaw's DEIR comments (April 29, 2019)

> *" In reading the DEIR it seems very apparent to many of the residents in this community that the consultant hired by you is neither familiar with or schooled in the parameters involved in this proposed project. One good example is that the consultants have declared the Mojave River as insignificant with respect to the peroration of airborne particulate matter. Where in fact the Mojave River bed hasn't seen surface water in many years and is actually a gross source of PM2.5 in and around the communities referenced by the DEIR."*

MBCA requests that the FEIR show reference and application of the research by Julie Laity - Aeolian Destabilization along the Mojave River, California: Linkages Among Fluvial Groundwater and Aeolian Systems[13] in its conclusions.

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[8] Shi L, Zanobetti A, Kloog I, Coull BA, Koutrakis P, Melly SJ, Schwartz JD. 2016. Low-concentration PM2.5 and mortality: estimating acute and chronic effects in a population-based study. Environ Health Perspect 124:46–52; http://dx.doi.org/10.1289/ehp.1409111

[9] Control of Silica Dust in Construction OSHA Fact Sheet, OSHA3937 www.osha.gov%2FPublications%2FOSHA3937 .pdf

[10] silica-safe.org http://www.silica-safe.org/ask-a-question/faq#question4 http://www.silica-safe.org/know-the-hazard/why-is-silica-hazardous

[11] Coccidioidomycosis among Workers Constructing Solar Power Farms, California, USA, 2011–2014 Jason A. Wilken et al Nov 2015 CDC Emerging Infectious Diseases Volume 21, Number 11—November 2015

[12] 3 http://articles.latimes.com/2013/apr/30/local/la-me-solar-fever-20130501 http://www.newyorker.com/magazine/2014/01/20/death-dust

[13] Julie Laity (2003) Aeolian Destabilization Along the Mojave River, Mojave Desert, California: Linkages Among Fluvial, Groundwater, and Aeolian Systems, Physical Geography, 24:3, 196-221
To link to this article: https://doi.org/10.2747/0272-3646.24.3.196

Sensitive Receptors

Every resident east of the Project is a sensitive receptor when calculating the long-term health effects of increased PM10 and PM2.5 resulting for the construction, operations, decommissioning and restoration. The DEIR does not mention the sensitive 113 students attending Silver Valley Elementary School on Newberry Springs Road, directly east of the Project.

Comment

The Final EIR should inform the decision makers and stakeholders that if the CUPS are approved by the Commissioners and Supervisors, Clearway Energy will proceed with construction of this Project despite the lack of air quality baseline data or on- site monitors in place to track air quality throughout the life of the project through restoration. See the notice below.

The DEIR Dust Control Technical Memorandum Appendix D-2 page 3, footnote 1 "*San Bernardino County is in the process of issuing a Conditional Use Permit for Project #201700679, the Daggett Solar Project. "*

*"106. Dust Control – **Operation. Prior to final inspection**, the Applicant shall develop an Operational Dust Control Plan that shall be approved and implemented prior to energization of the solar facility. The Operational Dust Control Plan shall include Dust Control Strategies sufficient to ensure that areas within the Project site shall not generate visible fugitive dust (as defined in Mojave Desert Air Quality Management District's [MDAQMD's] Rule 403.2) such that dust remains visible in the atmosphere beyond the property boundary. During high wind events, Dust Control Strategies shall be implemented so as to minimize the Project site's contribution to visible fugitive dust beyond that observed at the upwind boundary."*

Cart before the Horse: The Stakeholders in line to lose the most from this project have not seen the Dust Control Plan which the County LUS has apparently approved. It should be clear from these comments that the ***Prior to final inspection*** timing is too late!

The Decision Makers and breathing Stakeholders have also not seen a restoration plan that has a promise of working. The Technical Memorandum Attachment 3, Draft Standard Vegetation – Revegetation Management Details is disappointing. It speaks of *managing the existing site vegetation*, which we have already noted will be cleared, grubbed, scarified, recompacted, and graded to level the site. The project will grade, in total, 5,700,000 cubic yards of earth. There will be nothing left of the existing site vegetation.

The seed mixture to replenish the seedbanks includes annual spring blooming species and short-lived perennials. The restorers will use hydromulching and hand broadcasting to distribute the seeds. No irrigation will be used after the initial watering unless there are some long dry periods. It seems clear that professional desert restoration ecologists were not consulted when constructing this plan. The selected Spring annual plants represent those that are so abundant during a Super Bloom year. When was the last time in living memory that such abundance was seen? For many, like this writer, it has been decades if at all. It is usual to see some but not all present and not in numbers to prevent eolian erosion. The eolian erosion, long term, is prevented by shrubs such as creosote and saltbush and galleta grass that have developed the underground mycorrhiza colonies. The plan has no provision for developing a rich healthy soil which can take centuries. The restoration plan as detailed will not prevent eolian erosion.

Comment

No grading permits should be issued with out public review of the Dust Control Plan to include site management during operation, decommissioning, and restoration. Too much is at stake to let this slip through the usual bureaucratic cracked channels.

The Project should not be permitted without a requirement for an on-site meteorological station and dust monitors on the west and east sides of the Project.

Soiling – Dust on PV panels affecting power loss
An on-site meteorological station and dust monitors are also needed to study and measure the seasonal trends of soiling on PV panels. Soiling strongly depends on the conditions at a specific location and the power loss can be substantial. Soiling will also determine the cleaning methods and frequency which are dependent on water availability.

SOILING LOSSES: INTRODUCTION AND EFFECTS ON SOLAR MODULE[14]
The solar module in order to produce power requires direct irradiance (meaning that this light is directly coming from the sun).However, other than internal factors (such as refractive index of glass, refractive index of EVA, composition of glass, etc.) there are various external factors as well which affect the amount of irradiance entering the solar module. One such factor is soiling and the loss of power associated with such factor is known as soiling loss. Soiling refers to accumulation of soil, dust particles, etc. on the solar module. This soil accumulation hampers the solar irradiance to pass into the solar module. This primarily leads to reduction of power output from the solar module. This reduced power output may remain till the module is cleaned which may not be soon enough. The end result of soiling is that it leads to loss of money if not tackled properly. With a market where payback and economics are important, one cannot afford to lose money. Now with scheduling and forecasting regulations in place, the effect on plant owner would be two pronged i.e. first they would lose money due to reduced energy generation and secondly, they would have to pay deviation charges for the reduced generation (compared to what was forecasted/scheduled). Hence it is important to understand the factors effecting soiling, the factors that necessitate cleaning cycle and key takeaways. This article hence aims to educate its readers on the above matter.

Biological Resources

MBCA is in receipt of the comments submitted by the Desert Tortoise Council (DTC) on April 26, 2019 and is in complete agreement. We, therefore, include by reference the DTC comments.

3.4-4 The DEIR finds the Project will not significantly interfere with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. No impact would occur from this Project.

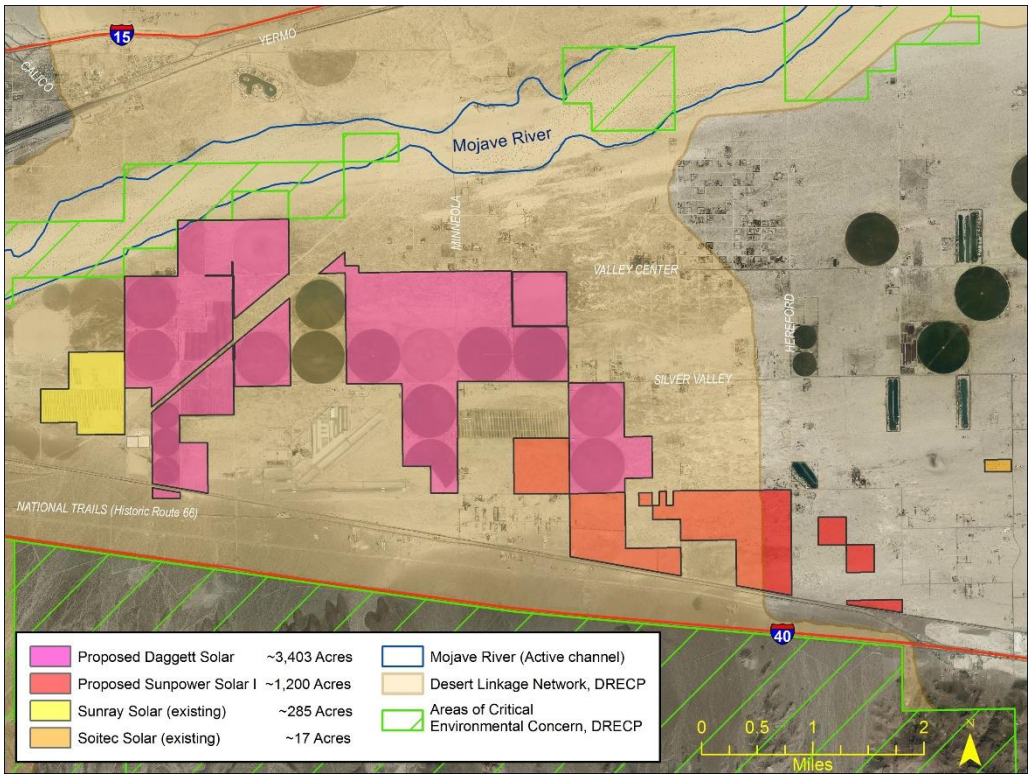
Comments

The justification provided in the DEIR for No Significant Impact is an opinion piece that is not supported by scientific data from the California Department of Fish and Wildlife or the U.S. Fish and Wildlife. The Daggett Solar Project blocks a significant portion of the passage land between the BLM ACEC to the south and link north across the Mojave River through Fort Irwin and to China Lake.

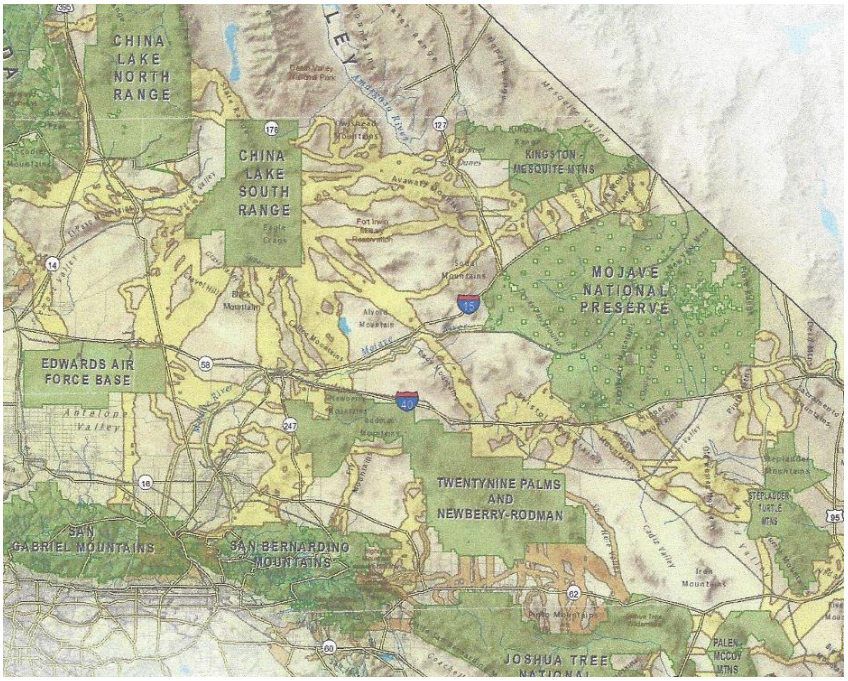
The Final EIR must analyze the linkage design as it supports both passage and live-in areas related to the Project. It is important to work with the military bases since they have a requirement not to become islands of biodiversity. This requirement is supported by the linkage design. Below are two

[14] https://www.waaree.com/soiling-losses-introduction-and-effects

maps showing the location of the project in the California Desert Linkage Network and the linkage network as it relates to the California Desert.



Desert Linkage Network adopted by the DRECP



Clip from Figure 33 A Linkage Network for the California Desert
A project of SC Wildlands supported by the BLM. http://www.scwildlands.org/

Avian Resources

This 5.5 square mile Project would create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. This is known as the 'lake effect'.

The MBCA includes by reference the lengthy data rich comments [15]on bird deaths in desert PV projects provided by Kevin Emmerich co-founder of the non-profit Basin and Range Watch.

We add data here from eBird, an online database of bird distribution and abundance provided by Cornell Lab of Ornithology. Available: http://www.ebird.org. The benefit of the eBird data is that we can see the range of bird species that fly over the Project area day and night and further investigate species number by season, should we want. In Emmerich's comments we read (page 6) that one report on avian mortality in three unnamed solar projects was 1.7 birds/acre/year. It is worth knowing the possibility that avian mortality at Daggett project could reach the same 6,000 birds/year as the three unnamed projects.

This map shows 7 bird hotspots surrounding the Daggett Solar Project. Data retrieved from the hotspots is provided in the table below. Each area is identified by location, total number of bird species seen at that location, the number of reports uploaded that contribute to the number of species, and the date the data was accessed for this report.

#	Location	# of Species	# of Checklists	Date Accessed
1	Afton Canyon	143	77	April 29, 2019
2	Piute Road Dairy	125	131	April 29, 2019
3	Newberry Springs Vicinity	143	76	April 29, 2019
4	Daggett Evaporation Ponds (may now be dry)	152	286	April 29, 2019
5	Tees & Trees	155	206	April 29, 2019
6	Barstow WTP	161	137	April 29, 2019

[15] Basin and Range Watch comments April 29, 2019

7	Barstow Comm. College	105	175	April 29, 2019

Noise

Noise will be generated from the solar panel tracking motors, inverters, and the eddy current hum associated SCE intertie substation. The resulting noise will easily carry across Silver Valley.[16]

Heat Island Effect

The EIR dismisses the heat island effect. However, it has been found that PV power plants induce a 'heat island' (PVHI) effect, much like the increase in ambient temperatures relative to wildlands generates an Urban Heat Island effect in cities. Temperatures over a PV plant were regularly 3-4° C warmer than wildlands at night. [17]

MBCA appreciates this opportunity to comment on the Daggett Solar Project DEIR. We do feel that the time allotted to comment was seriously short because of the length and number of documents that had to be at least scanned to get a complete picture of construction activities, impacts, and mitigation measures. The Stakeholder went into this with limited background because the important Scoping process did not provide an Initial Study.

Our comments have been enriched by the thoughts and efforts of residents from
Newberry Springs:
Robert Berkman
Vickie Paulsen and her artist daughter
Jack Unger
Robert Shaw
Ted Stimpfel
And community members that attended a study session on this Project

Lucerne Valley and beyond:
Brian Hammer – map maker and researcher who has had the time to read and sign on to these comments
Chuck Bell
Ken Lair
Robin Kobaly

Organizations:
Desert Tortoise Council – Ed LaRue
Basin and Range Watch – Kevin Emmerich

[16] As an example of solar site noise issues: Appendix F. Noise Assessment Campo Verde Solar County of Imperial. ftp://ftp.co.imperial.ca.us/icpds/eir/campo-verde-solara/33appf-noise-study.pdf.

[17] Greg A. Barron-Galord, Rebecca L. Minor, Nathan A. Allen, Alex D. Cronin, Adria E. Brooks & Mitchell A. Pavao-Zuckerman. The Photovoltaic heat Island Effect: Larger solar power plants increase local temperatures. Scientific Reports 6. Article number: 36070 (2016) 13 October 2016.

Sincerely

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Member Morongo Basin Municipal Advisory Council

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