

DOCKETED

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Project Title:	Palen Solar Power Project - Compliance
TN #:	202694
Document Title:	Letter Re: Pilot Complaints of Visual Impacts from Ivanpah Solar Electric Generating System, dated March 10, 2014
Description:	Las Vegas McCarran International Airport, Raymond C. Lee and Michael W. Ahrens
Filer:	Alicia Campos
Organization:	California Energy Commission
Submitter Role:	Commission Staff
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LAS VEGAS



McCARRAN INTERNATIONAL AIRPORT

Department of Aviation

ROSEMARY A. VASSILIADIS
DIRECTOR

POSTAL BOX 11005
LAS VEGAS, NEVADA 89111-1005
(702) 261-5211
FAX (702) 597-9553

March 10, 2014

Raymond C. Lee, Field Manager
Michael W. Ahrens, Acting Field Manager
Bureau of Land Management
Needles Field Office
1303 South Highway 95
Needles, CA 92363

Joseph Douglas, Compliance Project Manager
California Energy Commission
Siting, Transportation, and Environmental Protection Division
1516 9th Street
Sacramento, CA 95814

Jennifer Wallens
BrightSource Energy, Inc.
Ivanpah SEGS Site Compliance
100302 Yates Well Road
Nipton, CA 92364

RE: Pilot Complaints of Visual Impacts from Ivanpah Solar Electric Generating System

Dear Mr. Lee, Mr. Ahrens, Mr. Douglas and Ms. Wallens:

As you know, the Clark County Department of Aviation (CCDOA) was actively involved during the environmental review of the Ivanpah Solar Electric Generating System (ISEGS) project because of CCDOA's concerns about glint and glare potentially impacting aeronautical operations from CCDOA facilities, specifically the Jean Sport Aviation Center and the future Ivanpah Airport. In addition, CCDOA provided comments on the draft Heliostat Positioning Plan (HPP) prepared by BrightSource Energy, Inc., in compliance with mitigation measure "TRANS-3," as stipulated in the ISEGS Project Environmental Impact Statement. Among other conditions, the final HPP requires BrightSource to respond to and address any complaints about adverse visual impacts to pilots.

The Aviation Safety Reporting System (ASRS)¹ recently forwarded to CCDOA the ASRS Alert 2013-110/9-5 Numbers 1109473 and 1108698 regarding pilot complaints about glint and glare

¹ The ASRS is a voluntary system created by the U.S. Federal Aviation Administration that collects confidential aviation safety incident/situation reports from pilots, controllers, and others. The ASRS then acts on the information received to identify system deficiencies. ASRS also issues alerting messages to persons in a position to correct the identified deficiencies.



from the ISEGS facility. A copy of this ASRS alert is enclosed. The alert documents an occurrence of the type of aviation hazards that are required to be addressed by the implementation of the HPP.

As a result, CCDOA respectfully requests that BrightSource take the following actions, consistent with its obligations under Section 6.2 of the HPP:

1. Address the complaint(s) as soon as practical and report the results to Bureau of Land Management (BLM) Needles Field Office, California Energy Commission (CEC), CCDOA and the other agencies identified in Section 6.5 of the HPP within 10 days of receipt. ASRS contact information is:

Linda J. Connell, Director
NASA Aviation Safety Reporting System
P.O. Box 189
Moffett Field, California 94035-0189
Linda.J.Connell@nasa.gov
<http://asrs.arc.nasa.gov/>

2. Visit the location of the complaint(s) as soon as possible.
3. Make efforts to observe the glare noted in the complaint by checking the location of the complaint at a similar time of day as noted in the complaint(s).
4. If any glare from any heliostat is observed at the complaint location, take measurements of luminance and irradiance of the glare source using hand-held meters at locations as close as possible to the location identified in the complaint(s).
5. Report the results to the complainant(s) (if known) and to the CEC Compliance Project Manager (CPM), BLM authorized officer, Federal Aviation Administration (FAA), CCDOA, and other relevant agencies identified in Section 6.5 of the HPP.
6. If observations or measurements by monitors indicate a potential glare-related effect above the maximum permissible exposure (MPE), conduct a full monitoring effort as quickly as possible at the appropriate location (whether ground based or aerial).
7. Report the complaint(s) and the subsequent investigation and monitoring results in the ISEGS monthly compliance report.

In addition, CCDOA requests that BrightSource transmit the following to CCDOA:

1. Documentation of the aerial monitoring of potential exposure to pilots that was required during testing of the heliostat positioning system, including visual observation and recording a video image of the site during at least three helicopter flyovers. *See* HPP at § 6.1.2
2. The results of the luminance evaluations as required in Section D.1 of TRANS-4 (i.e., Power Tower Receiver Luminance and Monitoring Plan).



3. The supplemental survey report of the mitigation measures designed to reduce reflectivity of the power towers, as required by Section D.6 of TRANS-4.

CCDOA recommends that BrightSource, in addition to contacting ASRS, coordinate with the Aircraft Owners and Pilots Association (AOPA), Air Line Pilots Association (ALPA), and the Las Vegas Terminal Radar Approach Control Facility (TRACON) to ensure that pilots with concerns know how to, and that they should, contact BrightSource. We have provided initial points of contact with these agencies below:

John Pfeifer
Western Pacific Regional Manager
Aircraft Owners and Pilots Association (AOPA)
PO Box 492728
Redding, CA 96049-2728
(530) 226-7728
(530) 226-5117
john.pfeifer@aopa.org
<http://www.aopa.org>

Steve Jangelis
Airport & Ground Environment, Chairman
Air Line Pilots Association, International
1625 Massachusetts Avenue, NW
Washington, DC 20036
(954) 234-8954
800-424-2470
steve.jangelis@alpa.org
www.alpa.org

Scott French
Air Traffic Manager, Las Vegas TRACON
Federal Aviation Administration
699 Wright Brothers Lane
Las Vegas, NV 89119
(702) 702-262-5900
scott.r.french@faa.gov
www.faa.gov

With regard to this request, we also note that Clark County contact information in the HPP should be updated as follows:

Rosemary A. Vassiliadis, Director of Aviation
Teresa R. Motley, Airport Planning Manager
Clark County Department of Aviation
P.O. Box 11005
Las Vegas, Nevada 89111-1005
(702) 261-5100
teresamo@mccarran.com



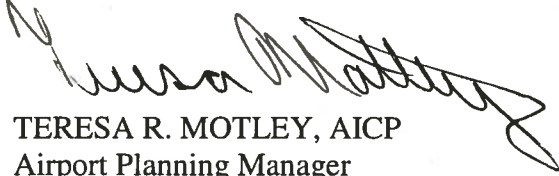
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Finally, although BLM finalized its *Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands* in April 2013, the current HPP does not cite or reference the agency guidance at all. CCDOA recommends that BLM, CEC and BrightSource review the current BLM guidance and incorporate it as appropriate while implementing the adaptive management procedures required in the HPP and Power Tower Receiver Luminance and Monitoring Plan.

Thank you for your swift attention to this matter.

Sincerely,



TERESA R. MOTLEY, AICP
Airport Planning Manager

Encl.

cc: Rosemary A. Vassiliadis
Saeed Bonabian
Dave Kessler, FAA
Robert van Haastert, FAA
Scott French, FAA
Linda J. Connell, NASA
John Pfeifer, AOPA
Steve Jangelis, ALPA



11/1/2013

FOR YOUR INFORMATION

2013-110/9-5

1109473, 1108698

To: FAA (Director of Western Terminal/Enroute Operations)

Info: FAA (AFS-230, AFS-200, AVP-1, AVP-200), A4A, ALPA, AOPA, APA, ASAP, ATSAP, ATSG, CAPA, EAA, IAM, ICASS, IPA, NAFI, NATCA, NBAA, NTSB, RAA, SWAPA, USAPA

From: Linda J. Connell, Director
NASA Aviation Safety Reporting System

Re: Environmental Visual Flight Hazard

We recently received an ASRS report describing a safety concern which may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the enclosed deidentified report.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dennis Doyle at (408) 541-2831 or email at dennis.j.doyle@nasa.gov.



Aviation Safety Reporting System
P.O. Box 189 | Moffett Field, CA | 94035-0189



ACN: 1109473

Time

Date: 201308

Local Time Of Day: 1201-1800

Place

Locale Reference.Airport: BVU.Airport

State Reference: NV

Altitude.MSL.Single Value: 6000

Environment

Flight Conditions: VMC

Aircraft 1

ATC / Advisory.Center: ZLA

Make Model Name: Small Transport

Person 1

Function.Flight Crew: Pilot Flying

ASRS Report Number: 1109473

Events

Anomaly.Inflight Event / Encounter: Other / Unknown

Detector.Person: Flight Crew

Result.General: None Reported / Taken

Narrative 1

During the initial climb after a VFR departure from BVU (Boulder City airport) via GPS to the DAG VOR on an approximately heading of 225 the Co-pilot and I were distracted and momentarily blinded by the sun reflecting off of mirrors at the solar power plant facility located near the CA-NV border near the town of Primm. This solar power plant which I believe is still under construction consists of three massive circular arrays of thousands of mirrors oriented inward toward a central tower. As soon as we cleared the mountains southwest of BVU from 6,000 to 12,000 FT MSL still climbing there were three very bright reflections (one from each solar array) of the sun into the pilots and copilots eyes. The reflection from the northernmost array was the brightest and the largest and grew in size as we flew closer to the facility.

The flight path of our aircraft passed overhead of this facility. At its brightest neither the pilot nor co-pilot could look in that direction due to the intense brightness. From the pilot's seat of my aircraft the brightness was like looking into the sun and it filled about 1/3 of the co-pilots front windshield. In my opinion the reflection from these mirrors was a hazard to flight because for a brief time I could not scan the sky in that direction to look for other aircraft.

Synopsis

A flight crew experienced a very bright, intense light from three solar complexes which interfered with their ability to scan for traffic while climbing westbound between 6,000 and 12,000 feet along J60/V12 southwest of NATEE Intersection.

ACN: 1108698

Time

Date: 201308

Local Time Of Day: 1201-1800

Place

Locale Reference.ATC Facility: ZLA.ARTCC

State Reference: CA

Altitude.MSL.Single Value: 36000

Aircraft 1

ATC / Advisory.Center: ZLA

Make Model Name: Commercial Fixed Wing

Person 1

Function.Air Traffic Control: Enroute

ASRS Report Number: 1108698

Events

Anomaly.ATC Issue: All Types

Anomaly.Inflight Event / Encounter: Other / Unknown

Detector.Person: Flight Crew

Result.General: Physical Injury / Incapacitation

Narrative 1

There is a solar farm south of Las Vegas which is in Sector 6 and Sector 37's airspace. Daily, during the late morning and early afternoon hours we get complaints from pilots of aircraft flying from the northeast to the southwest about the brightness of this solar farm. They usually ask us what it is because they don't know. On this particular morning, an air carrier complained about the brightness and reiterated that it was "nearly blinding." I reported this to Management and was told that they were going to do nothing about it. They then suggested that I tell the pilot to report it through the safety reporting system that they have and to report it myself. I have no idea what can be done about this situation, but being a passenger on an aircraft that flew through this airspace and saw it for myself, I would say that something needs to be done. It is extremely bright and distracting.

Synopsis

ZLA Controller relayed concerns expressed by flight crews overflying a solar farm south of LAS. Flight crews have noted the facility causes nearly blinding reflection.