## DEPARTMENT OF TRANSPORTATION

DIVISION OF AERONAUTICS – M.S.#40 1120 N STREET P. O. BOX 942873 SACRAMENTO, CA 94273-0001 PHONE (916) 654-4959 FAX (916) 653-9531 TTY 711

June 23, 2008

Mr. John Kessler California Energy Commission 1516 9<sup>th</sup> Street Sacramento, CA 95814-5504

Dear Mr. Kessler:



The California Department of Transportation (Caltrans), Division of Aeronautics (Division), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The Division has technical expertise in the areas of airport operations safety, noise and airport land use compatibility. We are a funding agency for airport projects and we have permit authority for public-use and special-use airports and heliports.

The proposal is for the Victorville 2 Hybrid Power Project (Victorville 2). The project site is located approximately 5,000 feet northeast of the Southern California Logistics Airport (SCLA).

According to page 4.10-15 of the Final Staff Assessment, "Caltrans staff submitted a letter to staff about the existing solar thermal project fly-overs noted earlier and concluded that they had no objections to the proposed project provided..." the project sponsor obtain "No Hazard" determinations from the Federal Aviation Administration (FAA), SCLA does not object, and the proposal comply with CEQA." Please note, the Division's December 11, 2007 letter only addressed the "250-acre solar array and support infrastructure. At the time this letter was written, the Division was unaware that the proposal also included two 145-foot Heat Recovery Steam Generator towers that will generate plumes. We were also unaware of the proposed 140-foot transmission line support towers.

The issue of aviation-related impacts associated with the plumes was discussed in the Final Staff Assessment, however, we remain concerned with the possibility that plumes generated by the plant will adversely affect aircraft navigation. Turbulence associated with plumes could result in possible airframe damage or have a negative effect on aircraft stability during flight. There is also the possible adverse effect of high levels of water vapor, aircraft engine contaminants and icing, restricting visibility.

We advise that, should the proposal be implemented, a study be conducted by the applicant to determine the actual affects of the plumes on aircraft activities.

The transmission line support towers may also require submission of a Notice of Proposed Construction or Alteration (Form 7460-1) Federal Aviation Administration (FAA) in accordance with Federal Aviation Regulation, Part 77 "Objects Affecting Navigable Airspace" and Public Utilities Code,





**DATE** JUN 23 2008

**RECD.** JUN 25 2008

Mr. John Kessler June 23, 2008 Page 2

Section 21659. The FAA Form 7460-1 is available on-line at <a href="https://oeaaa.faa.gov/oeaaa/external/portal.jsp">https://oeaaa.faa.gov/oeaaa/external/portal.jsp</a> and should be submitted electronically to the FAA.

These comments reflect the areas of concern to the Division with respect to airport-related noise and safety impacts and regional airport land use planning issues. We advise you to contact our Caltrans District 8 office concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please call me at (916) 654-5314.

Sincerely,

Original Signed by

SANDY HESNARD Aviation Environmental Specialist

c: SCLA, FAA

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December 11, 2007

Mr. Jim Adams, MA, Planner II Environmental Office, MS 40 California Energy Commission 1516 9<sup>th</sup> Street Sacramento, California 95814-5504

Dear Mr. Adams:

The California Department of Transportation (Caltrans), Division of Aeronautics (Division), reviewed the proposed Victorville 2 Hybrid Power Project (Victorville 2) Site Plan and proposed site on October 4, 2007 with Peter Soderquist, manager of the Southern California Logistics Airport (VCV). We also conducted overflights of two similar existing sites, known as Kramer Junction and Harper Lake, respectively, located between Edwards Air Force Base and Barstow, California.

The Division has technical expertise in the areas of airport operations safety, noise, and airport land use compatibility. We are a funding agency for airport projects, and we have permit authority for public-use and special-use airports and heliports. We offer the following comments:

The proposal is for the construction a 250-acre solar array and support infrastructure near the approach end of Runway 17 at VCV. As part of our review, the Division relies on Federal Aviation Administration (FAA) aeronautical studies to evaluate whether proposed structures near airports are flight hazards. The studies are required by Federal Aviation Regulation (FAR) Part 77, "Objects Affecting Navigable Airspace." FAR Part 77 is a FAA regulation and is available on-line at https://oeaaa.faa.gov/oeaaa/external/portal.jsp. FAR Part 77, does address hazards to flight; however, it does not address other types of hazardous material, features, or affects created by similar projects. Therefore, we conducted overflights, both at low altitude and traffic pattern altitude, to simulate conditions proximate to those that might be found at Victorville 2. At approach altitudes of 200 to 300 feet, we found no unusual turbulence or thermal plume rising from the surface of the solar array. The consistency of the surface at the two existing facilities and the turbulence directly above and downwind of the surfaces was roughly similar to overflight of a smooth water surface. We found the reflections to be somewhat sharper and cleaner than those compared at the same time over water; however, the flash and distraction level appeared to be the same by four observers, in two separate light aircraft. (See enclosed photographs.)

The Division has no objection to the proposed project, based on aircraft operational safety, provided:

 The project sponsor submits a Notice of Proposed Construction or Alteration (Form 7460-1) to the FAA and then obtains a no-hazard determination from the FAA prior to beginning construction. Mr. Jim Adams December 11, 2007 Page 2

- The VCV Airport has no objection to the facility.
- The project is compliant with the provisions of the California Environmental Quality Act.

These comments reflect the areas of concern to the Division with respect to airport safety impacts and regional airport land use planning issues. We advise you to contact our Caltrans District 8 San Bernardino office concerning surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please call me at (916) 654-4565.

Sincerely,

Original signed by

JEFF R. BROWN Aviation Safety Consultant

**Enclosures** 

Peter Soderquist, Airport Manager
John S. Kessler, CEC Project Manager
FAA, AWP-622





"Caltrans improves mobility across California"

