

VICTORVILLE 2 HYBRID POWER PROJECT (07-AFC-01)
CEC STAFF DATA REQUEST NUMBERS 85-90

Technical Area: Traffic and Transportation

Response Date: July 23, 2007

Data Request 85:

Please discuss the temporary parking lot and staging/laydown area design for both locations noting the following:

- a. Entrance(s)/exit(s) from the existing roadway(s) and circulation patterns, indicating if there is an existing city-approved encroachment permit or if this or any other permit would be needed for these locations; and
- b. Lot preparation required, including road work for encroachments, fencing, and plans (if any) for surfacing.

Response:

In order to accurately describe the temporary parking and laydown, the Applicant must first identify a change to the plan for the main access road to the Project. The AFC states that the main access would be via an extension of Perimeter Road. This extension would be permitted and constructed by the City as part of its separate plans for development at SCLA, as described in the AFC in Section 2 (page 2-37) and in Section 6 (Figures 6.13-3 and 6.13-4).

The City's plans to extend Perimeter Rd may be delayed and thus the plan for the VV2 Project is now to use existing roads as the main access to the site. As shown on the attached Figure DR85-1, the access will be via Adelanto Road (entering to the north off Air Expressway), continuing on Adelanto until it intersects with Colusa Road; then turning east on Colusa, continuing until it intersects with Helendale Road; then turning north on Helendale until the site access road is intersected. This approach will utilize existing roads with no modifications other than to pave the currently unpaved portions of Adelanto Road and Colusa Road just prior to the start of VV2 Project construction. This access plan will result in increased traffic volumes on Adelanto and Colusa Roads. The potential impacts of this change in access routes are being addressed in the traffic impact analysis that is currently in preparation, and which will be provided to the CEC when it is completed.

- a. As shown on AFC Figure 2-4, Victorville 2 Hybrid Power Project Site Plan, there are two areas labeled as Construction Laydown/Parking Areas #1 and #2. Area #1 is just west of Helendale Road and just north of Colusa Road; Area #2 is just south of Colusa Road east of Helendale. It is expected that one entrance/exit will be provided to/from Colusa Road for each Construction Laydown/Parking Area. As needed, permits for access and encroachment will be addressed by the City of Victorville.

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- b. The surface area of the laydown area/parking lot will be covered with gravel in order to provide better load support and prevent soil erosion. A temporary perimeter chain link fence will be provided around the perimeters of both areas to provide security.

Data Request 86:

Please explain how workers would access the project site from the offsite parking and laydown areas including the following:

- a. pedestrian access routes;
- b. If shuttle service would be provided, please indicate times and route(s) of travel.

Response:

- a. Pedestrian access routes will be provided alongside the roadway within the laydown/parking areas. Workers will then be transported by means of a shuttle from the laydown/parking area to the site.
- b. Shuttle service will be provided primarily in the morning and afternoon, scheduled around the start and end of the work day. As needed, additional shuttle service will be provided during the day. The shuttles transporting workers from the laydown/parking areas to the site are expected to exit onto Colusa Road and then travel into the construction site to drop off their passengers. This route will be reversed to transport workers from the work site to the laydown/parking areas.

Data Request 87:

Please discuss the site-specific impacts to intersections and roadway segments that would result during project construction by providing the following:

- a. Identification of road closures, detours, or delays associated with project construction or related road repairs;
- b. Proposed mitigation measures or alternatives to reduce the significance of any potential impacts; and
- c. A table indicating impact by intersection or road segment, estimated timeline, and any permit(s) or consultation required.

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- a. The impacts on roadway segments of transmission line construction are summarized on Table DR 87-1. Although the VV2 Project transmission line will cross over numerous roadway segments along its 21-mile length, no significant VV2 Project-related road closures, detours, or delays are expected. The transmission line route does not cross over the intersections of any roadways, as the various roadway crossings would occur between intersections. No road closures will be required during transmission line construction, but there would be occasional lane restrictions or other relatively brief delays to set guard structures, set safety netting beneath the locations where the conductor stringing over the roadway would occur, etc. Any required permits would be acquired by the transmission line construction contractor near the time when the construction work would occur.
- b. The transmission line construction contractor will provide staff to manage the stringing of conductors across the roads. Typical expected mitigation measures to reduce potential impacts will include appropriate signage alerting the public to construction activities, traffic directional cones, reduced speeds, and restricted lanes as necessary. Guard structures will be installed near the roads, and where required, safety nets will be installed across the road at the time of conductor stringing. Where possible, helicopters would be used to install the pull line that would be used to pull in the main conductors.
- c. Table DR 87-1 indicates the various roadway segments that the VV2 Project transmission line will cross. As noted above, the transmission line route avoids crossing over intersections, and no significant impacts are expected for any of the roadway segments identified below. Any necessary permits for this type of work are routinely obtained by the construction contractor.

Table DR87-1 Transmission Line Impacts by Roadway Segment

No.	Road Name/Feature	Road Segment	Road Closures	Jurisdiction	Timing	Permits
1	Dos Palmas Rd	Yes	No	Victorville	24 hrs	City Crossing Permit
2	Luna Rd	Yes	No	Victorville	24 hrs	City Crossing Permit
3	Topaz Rd	Yes	No	Victorville	24 hrs	City Crossing Permit
4	La Mesa Rd	Yes	No	Victorville	24 hrs	City Crossing Permit
5	LA Power and Light Rd San Ysidro St /	Yes	No	Victorville	24 hrs	City Crossing Permit
6	Northstar	Yes	No	Victorville	24 hrs	City Crossing Permit
7	Bear Valley	Yes	No	Victorville	24 hrs	City Crossing Permit

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Table DR87-1 Transmission Line Impacts by Roadway Segment

8	Los Chappal Dr	Yes	No	Victorville	24 hrs	City Crossing Permit
9	Christa Way	Yes	No	Victorville	24 hrs	City Crossing Permit
10	Sycamore St	Yes	No	Victorville	24 hrs	City Crossing Permit
11	Appleton	Yes	No	Victorville	24 hrs	City Crossing Permit
12	Gabriel	Yes	No	Victorville	24 hrs	City Crossing Permit
13	Michael	Yes	No	Victorville	24 hrs	City Crossing Permit
14	Mesa	Yes	No	Victorville	24 hrs	City Crossing Permit
15	Amargosa	Yes	No	Victorville	24 hrs	City Crossing Permit
16	Interstate 15	Yes	No	Caltrans	24 hrs	Caltrans Crossing Permit
17	Mariposa	Yes	No	Hesperia	24 hrs	City Crossing Permit
18	Mojave St	Yes	No	Hesperia	24 hrs	City Crossing Permit
19	Avenal	Yes	No	Hesperia	24 hrs	City Crossing Permit
20	Live Oak	Yes	No	Hesperia	24 hrs	City Crossing Permit
21	Pyrite	Yes	No	Hesperia	24 hrs	City Crossing Permit
22	Spruce	Yes	No	Hesperia	24 hrs	City Crossing Permit
23	Juniper	Yes	No	Hesperia	24 hrs	City Crossing Permit
24	Main St	Yes	No	Hesperia	24 hrs	City Crossing Permit
25	California State Water Project	No	No	DWR	24 hrs	DWR Crossing Permit
26	Sage St	Yes	No	Hesperia	24 hrs	City Crossing Permit
27	Cactus	Yes	No	Hesperia	24 hrs	City Crossing Permit
28	Mesquite	Yes	No	Hesperia	24 hrs	City Crossing Permit
29	Mission St	Yes	No	Hesperia	24 hrs	City Crossing Permit
30	Ranchero St	Yes	No	Hesperia	24 hrs	City Crossing Permit
31	Cromdale St	Yes	No	Hesperia	24 hrs	City Crossing Permit
32	Maple Ave	Yes	No	Hesperia	24 hrs	City Crossing Permit
33	Farmington	Yes	No	Hesperia	24 hrs	City Crossing Permit
34	Greenwood	Yes	No	Hesperia	24 hrs	City Crossing Permit
35	Tamarisk Ave	Yes	No	Hesperia	24 hrs	City Crossing Permit
36	Topaz Ave	Yes	No	San Bernardino Co.	24 hrs	County Crossing Permit
37	Bandicoot Trail	Yes	No	San Bernardino Co.	24 hrs	County Crossing Permit
38	Whitehaven	Yes	No	San Bernardino Co.	24 hrs	County Crossing Permit
39	Fuente Ave	Yes	No	San Bernardino Co.	24 hrs	County Crossing Permit

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Data Request 88:

Please provide figures indicating flight tracks between 400 – 1,000 feet agl in the area above the proposed project site and within 300 feet of the site boundaries, over a period of 30 consecutive days as follows:

- a. Separate figures for single engine, multi-engine, and helicopter; and
- b. In addition to a single composite figure for all altitude tracks, please include separate track figures for at least three levels between 400 and 1,000 feet agl, preferably 400-600 feet agl, 601-800 feet agl, and 801-1,000 feet agl, or representative altitudes within these parameters.

Response:

Figure DR88-1 shows the Consolidated Flight Tracks for the various kinds of operations at SCLA. This figure is taken from the soon-to-be-completed SCLA Comprehensive Land Use Plan. No figures are available that show flight tracks separately for different kinds of aircraft or for different altitudes. According to SCLA officials, the Consolidated Flight Tracks are the result of interviews with Air Traffic Control (ATC) Tower staff and review of local and regional air traffic control procedures (personal communication, Peter Soderquist, SCLA, July 2007). Consolidated Flight Tracks depict average corridors that lead to and from an airport. Aircraft traffic can be expected over most areas around an airport, with air traffic density generally increasing closer to the airport. These flight tracks were developed to reflect these common patterns and attempt to account for flight dispersion around SCLA. They do not reflect or suggest any given altitude. Aircraft altitude is driven by type of aircraft, the type of approach (or departure) being flown, weather, and Air Traffic Control.

For all arrivals other than those executing a circle-to-land procedure, if overflight of the VV2 Project site were to occur, it would generally be at a minimum altitude of 1,000 feet. This minimum is because the pattern altitude for SCLA is 1,000 feet. It is more likely, however, that an approach to Runway 17 involving a left turn (i.e., coming from the east) to start the base leg of the landing pattern would be executed closer to the end of the runway than normal because the VV2 Project is located one mile east and one mile north of the approach end of Runway 17. Moreover, Runway 17 is nearly three miles long. Aircraft operating under Visual Meteorological Conditions would generally maneuver to land much closer to the airport.

The majority of the SCLA fleet is large, “heavy” air carrier type aircraft. Virtually all of these fly instrument procedures when landing or taking off from the facility. Aircraft departing to the north will continue straight out and not overfly the VV2 Project site. Aircraft arriving

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from the north will be on the final approach of one of the airport's instrument procedures for Runway 17. They will be one mile west of the VV2 site, probably close to that approach's Decision Height (200 feet above ground level [AGL] for the ILS [instrument] approach and 375 feet for the VOR [visual] approach).

Overflight of the VV2 Project at altitudes lower than 1,000 feet AGL would more likely occur during a circle-to-land procedure. The Minimum Descent Altitude (sometime referred to as the minimum circling altitude) is driven by the approach speed of the aircraft, as well as by the elevation of the terrain below. At SCLA, the Minimum Descent Altitude (MDA) is as follows:

- Approach speed of up to 90 knots = 535' AGL with a minimum visibility of 1.0 mile.
- Approach speed of up to 120 knots = 35' AGL with a minimum visibility of 1.0 mile.
- Approach speed of up to 140 knots = 35' AGL with a minimum visibility of 1.5 miles.
- Approach speed of up to 165 knots = 95' AGL with a minimum visibility of 2.25 miles.

MDA's are based on an assumption that the arriving aircraft is established on a precision or non-precision instrument landing approach. At SCLA, both the ILS and the VOR instrument landing approaches are to Runway 17. As noted above, the Decision Heights for these approaches are 200' and 375' AGL respectively. When on final approach to land, aircraft will pass one mile west of the VV2 Project site and probably be at an altitude close to the Decision Height. If the pilot elects to circle-to-land at that time, the aircraft will already be past the VV2 Project and will not overfly it. If the pilot elects to circle-to-land to Runways 35 or 03 prior to reaching Decision Height, that procedure will take the aircraft west, or away from the VV2 Project site.

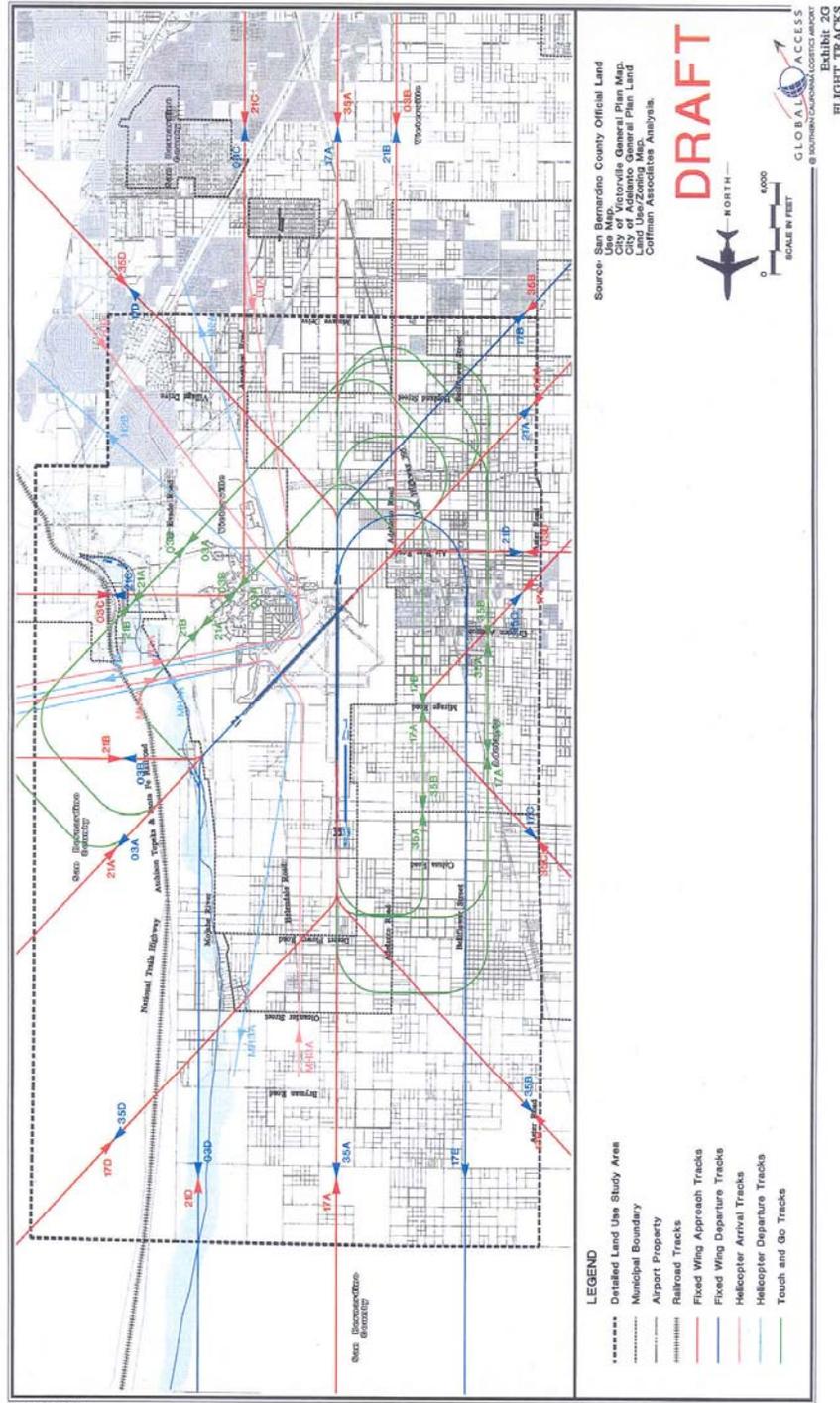
If the pilot elects to circle-to-land to Runway 21 prior to reaching Decision Height, he/she may overfly the VV2 Project. Aircraft height above the ground at that time is unknown. It will be above the altitudes referenced above, and probably higher. Safety of flight rules dictate that aircraft be established on a stabilized approach (i.e., on a stable glide path at the proper speed and altitude) prior to landing. "Safe or deemed necessary" governs a pilot's decision to circle-to-land. While 600 feet AGL is a "legal" minimum, it would not be commonplace. Discussions with Air Traffic Control Tower staff suggest aircraft that circle to land on Runway 21 are generally higher than 600 feet. This is due to the pilot's desire to establish a stabilized approach prior to landing on Runway 21.

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Placeholder pages for Figure DR88-1 as an 11 x 17 foldout.



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Data Request 89:

Please provide the following:

- a. Identify any special procedures, flight patterns, requirements, or restrictions for helicopter operations at SCLA;
- b. A figure or figures depicting designated helicopter flight corridors or departure/arrival routes; and
- c. A discussion of the project's potential impact on helicopter operations originating at the SCLA including:
 - i. Hazards associated with thermal plumes; and
 - ii. Impact avoidance measures.

Response:

a., b., and c.) The U.S. Army maintains a complement of eight UH-60 Blackhawk helicopters at SCLA. In addition, Mercy Air operates two Bell-412 helicopters at SCLA. There are no special procedures, flight corridors or arrival routes for helicopters at SCLA. Helicopter traffic follows the same traffic procedures as fixed wing aircraft. Moreover, SCLA maintains a 24/7 Air Traffic Control Tower. Helicopters that operate to and from the ramp (four miles south of the VV2 Project site) are under positive control.

The thermal plumes from the VV2 Project's Heat Recovery Steam Generators (HRSGs) would only pose a potential hazard to helicopters in the immediate vicinity of the individual stacks. As discussed in the AFC (Section 6.13.3.3), turbulence from the HRSGs is expected exceed the magnitude of naturally occurring thermal turbulence only within 100' horizontally and 300' vertically of the individual stacks. In addition, as discussed above in the response to Data Request 88, normal traffic patterns do not take aircraft over the VV2 Project site.

While they are under the control of the ATC Tower in the vicinity of the airfield, helicopters primarily operate under visual flight rules when not under direct ATC control. Helicopter pilots are trained to avoid hazardous situations, such as would occur if a pilot flew directly over the HRSG stack. In addition, the VV2 Project will be marked on aviation charts once it is built. The combination of direct ATC control when in established landing patterns, pilot awareness and flight safety rules when not under ATC control, and designated hazards on aviation charts constitute sufficient impact avoidance measures to ensure that impacts would be less-than-significant.

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Data Request 90:

Please discuss noise abatement flight restrictions or departure/arrival patterns at SCLA. Provide a figure depicting any designated noise-related flight corridors, restricted areas, or departure/arrival routes.

Response:

There are no noise abatement flight restrictions or departure/arrival patterns at SCLA.