

5.11 TRAFFIC AND TRANSPORTATION

This section assesses the potential impacts to the transportation system due to activities associated with the construction and operation of the Genesis Solar Energy Project (the Project). The section addresses applicable Laws, Ordinances, Regulations, and Standards (LORS); describes the existing transportation system (vehicular, rail, and air) and current traffic conditions; evaluates potential Project impacts; and identifies mitigation measures as needed.

5.11.1 Affected Environment

5.11.1.1 Regional Setting

Regional access is provided to the Project and Blythe (the nearest city) by Interstate 10 (I-10), as shown in Figure 5.11-1. I-10 is the southernmost east-west, coast-to-coast Interstate Highway in the United States. It stretches from the Pacific Ocean in Santa Monica, California to Jacksonville, Florida. I-10 will be the primary transportation link for the Project to Blythe, as well as the greater Los Angeles area to the west. I-10 is a four lane, limited access, divided freeway in the Project area. East of Blythe, a primary north-south arterial is U.S. Route 95, which extends from the Canadian border in Idaho, to the Mexican border near Yuma, Arizona. U.S. Route 95 is a two lane, undivided arterial north of Blythe. California State Route 78 (SR-78) is primarily an east-west highway that runs from Oceanside, California to Blythe. SR-78 passes through the Salton Sea area before it turns north to terminate in Blythe. SR-78 is a two lane, undivided arterial south of Blythe. The Project site is located about four miles north of I-10, and approximately 25 miles west of the western boundary of Blythe. The site is to be linked to I-10 by a new access road extending north and west from the current Wiley's Well Road intersection on I-10 (see Figure 5.11-2).

5.11.1.2 Site Location and Road Access

The Project site is located in a remote section of Riverside County, about four miles north of I-10, and approximately 25 miles west of Blythe. Regional access to the area is limited to I-10. There is very little circulation in the surrounding area other than I-10, mostly consisting of off-road vehicle trails. A new access road will be built to connect the site to Wiley's Well Road, about five miles east of the Project. Wiley's Well Road is a two-lane arterial which runs south to the Chuckawalla Valley and Ironwood State Prison complex. A California Department of Transportation (Caltrans) rest area is located at Wiley's Well Road north of I-10. All vehicular traffic approaching the site will use I-10.

5.11.1.3 Truck Routes, Weight, and Road Limitations

Caltrans, in the California Vehicle Code (Sections 35550 to 35559), specifies the weight and load limitations for major access routes into the Project area. Caltrans weight and load limitations for highways apply to State and local roadways. Therefore, they apply to SR-78.

Use of the roadways is subject to the California Vehicle Code and vehicles without special permits are required to be a maximum of 60 feet long with a gross vehicle weight limitation of 80,000 pounds. A semi-truck (tractor and semi-trailer) can have a maximum length of 65 feet. A set of doubles (tractor and two trailers) can have a maximum length of 75 feet.

According to the California Highway Patrol (CHP), I-10 and US-95 are part of the national highway network. Therefore, any legal truck can use these roads, even though they may exceed the California length limitation of 65 feet. California weight, load, and size restrictions will apply to SR-78 and other local roadways in the Palo Verde Valley. Therefore, the two California Vehicle Codes cited above will

apply to these roads. Provisions of the California Vehicle Codes, which apply to the Project, are provided as follows:

General Provisions:

- The code identifies the maximum gross-weight imposed upon State highways – the wheels on any axle of a vehicle cannot exceed 20,000 pounds. The gross-weight upon any one wheel or wheels supporting one end of a vehicle's axle and resting upon the roadway cannot exceed 10,500 pounds.
- The code provides the maximum wheel load as the lesser of the load limit established by the tire manufacturer or a load of 620 pounds per lateral inch of the tire width as determined by the manufacturer's rated tire width.

Vehicles with Trailers or Semi-trailers:

- The code states the maximum gross-weight imposed upon State highways by the trailer or semi-trailer wheels on any one axle of a vehicle cannot exceed 18,000 pounds.
- The gross-weight upon any one wheel or wheels supporting one end of a trailer or semi-trailer axle and resting upon the roadway cannot exceed 9,500 pounds. The exception to this rule is that the maximum gross-weight imposed upon state highways by the wheels on any front steering axle of a vehicle cannot exceed 12,500 pounds.
- According to 2007 data available from the Caltrans website, truck traffic on I-10 at the SR-78 interchange is approximately 39 percent of the daily roadway traffic. This represents a daily average of 9,400 trucks. Approximately 83 percent of these trucks have over two axles.

5.11.1.4 Roadway Operating Characteristics

Existing daily traffic volumes on roadways providing access to the Project site are summarized below. The volumes are from Caltrans and represent Year 2008 Average Annual Daily Traffic (AADT) volumes or the annual average of 24-hour volumes. I-10 currently accommodates an AADT of approximately 24,600 vehicles west of Wiley's Well Road and 27,000 east of Wiley's Well Road. SR-78 currently accommodates an AADT of approximately 2,900 vehicles south of I-10. US-95 currently accommodates an AADT of approximately 3,500 vehicles north of I-10.

Use of the roadways is subject to the California Vehicle Code and vehicles without special permits are required to be a maximum of 60 feet long with a gross vehicle weight limitation of 80,000 pounds. A semi-truck (tractor and semi-trailer) can have a maximum length of 65 feet. A set of doubles (tractor and two trailers) can have a maximum length of 75 feet.

Existing and future roadway operations have been characterized using a peak hour Level of Service (LOS) analysis; LOS provides a standardized means of describing a roadway's or an intersection's operation by relating traffic volumes to facility capacity. As shown in Table 5.11-1, LOS ranges from A to F with LOS A representing the best conditions (free flow) and LOS F representing the worst (most congested) conditions.

Table 5.11-1. Level of Service Description for Roadway Sections

Level of Service	Interpretation	Nominal Range Volume to Capacity Ratio
A	Low volumes; primarily free-flow operations. Density is low and vehicles can freely maneuver within the traffic stream. Drivers can maintain their desired speeds with little or no delay.	0.00-0.60
B	Stable flow with potential for some restriction of operating speeds due to traffic conditions. Maneuvering is only slightly restricted. The stopped delays are not bothersome, and drivers are not subject to appreciable tension.	0.61-0.70
C	Stable operations; however, the ability to maneuver is more restricted by the increase in traffic volumes. Relatively satisfactory operating speeds prevail, but adverse signed coordination or longer queues cause delays.	0.71-0.80
D	Approaching unstable traffic flow, where small increases in volumes could cause substantial delays. Most drivers are restricted in their ability to maneuver and in their selection of travel speeds. Comfort and convenience are low but tolerable.	0.81-0.90
E	Operations characterized by significant approach delays and average travel speeds of one-half to one-third free-flow speed.	0.91-1.00
F	Forced flow operations with high approach delays at critical signalized intersections. Speeds are reduced substantially, and stoppages may occur for short or long periods of time because of downstream congestion.	Not Meaningful

Source: Transportation Research Board, 1985, 2000

Peak hour traffic volumes on roadways for existing and potentially accommodating Project-related traffic in Baseline Year 2012 are summarized in Table 5.11-2, with approximate capacities and LOS. The LOS presented is based on existing ratios of traffic volumes to vehicle capacity. The Baseline Year 2012 traffic volumes reflect continued growth in the surrounding area commensurate with 2004 to 2008 levels. Year 2012 is when the Project is expected to generate peak amounts of construction-related traffic and the associated worst-case traffic related impacts.

Table 5.11-2 shows that most roadways in the Project vicinity currently operate at LOS A (free flow). The table also shows that roadways are forecast to operate at similar, primarily free flowing conditions under Baseline Year 2012 conditions, which assume continued growth in traffic volumes consistent with growth rates experienced between 2004 and 2008 in the Project area.

Table 5.11-2. Baseline Peak Hour Roadway Traffic Volumes, Design Capacities, and Levels of Service (Without the Project)

Roadway/Segment	Existing Conditions ¹				Year 2012 Conditions ²			
	Travel Lanes	Volume	Capacity ³	LOS	Travel Lanes	Volume	Capacity ³	LOS
West on I-10 at Corn Springs Road	4	2,800	6,800	A	2	3,350	6,800	A
West on I-10 at Ford Dry Lake Interchange	4	2,800	6,800	A	4	3,350	6,800	A
West on I-10 at Wiley's Well Road	4	2,800	6,800	A	2	3,350	6,800	A
East on I-10 at Wiley's Well Road	4	3,050	6,800	A	4	3,700	6,800	A
East on I-10 at Mesa Drive	4	2,950	6,800	A	4	3,400	6,800	A
South on SR-78 at the I-10 Interchange	2	290	2,000	A	4	290	2,000	A
North on US-95 at Hobsonway (near I-10 Interchange)	2	380	2,000	A	4	450	2,000	A

¹ Caltrans, 2008.

² Year 2008 traffic volumes expanded to Year 2012 (estimated construction completion) at historical rates from Year 2004 to 2008 (3.4-8.6 percent/year depending on location).

³ Approximate two-way capacity in vehicles per hour.

As described earlier, the roadway network serving the Project site is effectively limited to the State highway network. In the Project vicinity, 2007 Caltrans traffic counts on I-10 show approximately 39 percent of the traffic stream consists of trucks.

5.11.1.5 Safety

There are no roadway features that have been identified as potentially being a safety hazard in the Project vicinity. I-10 is fully improved to expressway status with two lanes in each direction separated by a raised median. Access is controlled and limited in the area. Access to the Project site will be by the new access road which will connect with I-10 at Wiley's Well Road. The nearest access points to I-10 from Wiley's Well Road are the Ford Dry Lake Exit (five miles west) and Mesa Drive exit (10 miles east).

5.11.1.6 Rail and Bus Transportation

Blythe was served in rail by the Arizona and California Railroad (ARZC) which has suspended service in the Blythe branch because of the quality of the tracks. The ARZC operates tracks between Cadiz, California in the Mojave Desert and Phoenix, Arizona.

The nearest sidings for offloading materials or equipment would be Vidal, California or Parker, Arizona. Both locations are approximately 30 miles from Blythe. One of these locations may be utilized during the Project construction for the delivery of several pieces of major power generation equipment, which will then be transported by truck to the Project site.

Regional transit service is provided in the Project area. The nearest public transit is provided by the Palo Verde Valley Transit Agency's Red Route 3, which provides express service from Blythe to the prison facilities on Wiley's Well Road south of I-10 on weekdays.

5.11.1.7 Bicycle and Pedestrian Circulation

Currently there are no bicycle or pedestrian facilities in the Project vicinity. Bicycle and pedestrian circulation is limited to shoulders of rural highway and county roads but is not allowed on freeways.

5.11.1.8 Airport Operations

One airport (Blythe) is located in the general vicinity of the Project site, located at 11710 West Hobsonway approximately 15 miles east of the Project site. The airport is open to the public and averages 69 flights per day. The airport has two runways, which are 6,580 and 5,800 feet long, respectively. Blythe Airport does not have a traffic control tower, so no formal air traffic control services are available. There are no commercial passenger flights operating out of this airport.

The Quail Military Operations Area is located north of Blythe Airport. The Abel Military Operations Area is located southwest of Blythe Airport. The Project is not located within any restricted military areas.

5.11.2 Environmental Impacts

This section discusses the potential impacts of the Project on traffic and transportation.

5.11.2.1 Evaluation Methodology and Significance Criteria

For purposes of this evaluation, impacts are considered significant if the Project would:

- Cause an increase in vehicular traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- Reduce a roadway segment or intersection LOS below acceptable levels, as defined below:
 - Riverside County's county-wide target LOS on County roads and State highways is LOS C. The threshold of significance is that a significant project-related impact occurs if the addition of project-generated trips causes a roadway segment or intersection operating at LOS C or better to degrade to LOS D or worse.
 - The Riverside County Congestion Management Program (CMP) states that when a roadway or intersection currently operating at an LOS E or better degrades to LOS F, a LOS deficiency plan must be prepared.

5.11.2.2 Construction Phase Impacts

Construction of the Project would be completed over an approximately 37-month period. The Project construction work force will peak during Month 23 at approximately 1,093 workers per day and average approximately 652 workers over the course of construction. Construction of the access road is expected to require a crew of less than 25 workers during peak periods; construction of the transmission line is expected to require a limited crew with less than 35 workers during peak periods; and construction of the gas pipeline is forecast to require less than 50 workers during peak periods. The access road, transmission line, and gas line construction schedules will not coincide with the peak of plant site construction employment when Phase 1 and Phase 2 construction overlap.

A worst-case scenario, where all workers commute in autos with only one occupant per vehicle, yields a peak trip generation of approximately 1,093 inbound trips during the morning peak period and another 1,093 outbound trips during the evening peak hour. There would be a peak of 1,093 one-way worker commute trips per day and an average of 652 one-way trips per day. Construction is also forecasted to generate an average of approximately 15 to 20 one-way, truck trips per day with a peak of approximately 50 to 75 truck trips per day; the peak truck travel would be during plant site foundation construction and would not coincide with the peak on-site worker commute time frame (Month 23).

A temporary parking area of approximately nine acres would be required for construction personnel parking (assuming 350 square feet per vehicle), with additional area required for the staging/laydown of equipment, materials, and supplies. The Project will include on-site laydown and parking areas during construction, which will be relocated around the Project site as construction progresses.

It is anticipated the Project construction workforce will be drawn from the surrounding local and regional area, including a limited number from the greater Los Angeles Basin and the greater Phoenix, Arizona area (Figure 5.11-3). Project construction traffic from Los Angeles, Desert Center, and Palm Springs is expected to follow I-10 east to the Project site. Project construction traffic from Blythe and the Phoenix area will follow I-10 to the west. Traffic approaching from either Yuma, Arizona or Parker, Arizona will follow SR-95 north or south as appropriate and then I-10 west to the Project site. The majority of the Project construction workforce is expected to come from or at least be temporarily housed in the local area (e.g. Blythe and Parker, Arizona).

Table 5.11-3 summarizes existing plus Project construction-related peak hour traffic volumes on roadways in the surrounding area. As shown in Table 5.11-3, particularly in comparison to existing conditions without the Project (Table 5.11-2), Project construction-related increases in traffic will be limited. Project impacts would be limited to I-10 and will only cause a minimal degradation of existing peak hour LOS and thus would not have significant impacts on existing roadway operations. Traffic from Blythe along I-10 east of the Project would have degradation from LOS A to LOS B. All other roadways are forecast to continue operating at their existing without-Project LOS during peak construction when 1,093 workers are commuting to and from the site daily.

Table 5.11-3. Peak Hour Roadway Traffic Volumes, Design Capacities, and Levels of Service (With Project Related Traffic)

Roadway/Segment	Year 2012 Conditions with Project Construction Traffic ¹				Year 2012 Conditions with Project Operations Traffic ²			
	Travel Lanes	Volume	Capacity ³	LOS	Travel Lanes	Volume	Capacity ³	LOS
I-10 at Corn Springs Road, West of the Project Site	4	3,623	6,800	A	4	3,367	6,800	A
I-10 at Ford Dry Lake Interchange, West of the Project Site	4	3,623	6,800	A	4	3,367	6,800	A
I-10 at Wiley's Well Road, West of the Project Access	4	3,623	6,800	A	4	3,367	6,800	A
I-10 at Wiley's Well Road, East of the Project Site	4	4,520	6,800	B	4	3,750	6,800	A
I-10 at Mesa Drive East of the Project Site	4	4,2200	6,800	B	4	3,412	6,800	A
SR-78 at the I-10 Interchange, South of Blythe	2	495	2,000	A	2	302	2,000	A
US-95 at Hobsonway, North of Blythe	2	655	2,000	A	2	462	2,000	A
¹ Assumes Month 23 peak construction traffic levels with 1,093 workers (25% traveling from west of the Project site, 75% from east of the Project site, along I-10). ² Assumes normal future Project operations with total work force of 66 employees. ³ Two-way capacity in vehicles per hour.								

Project construction will involve transport to the site of several pieces of equipment that exceed roadway load or size limits and will require special permits for on-road transport. Oversized equipment includes the steam turbine generator and main transformers. These items will likely be shipped by rail to Vidal, California and then transported by truck to the Project site. The equipment would be transported via multi-axle trucks along US Highway 95 to I-10 to the Project site. The maximum allowable load without a special permit is 80,000 pounds. Transport of this equipment will likely require the use of a truck and trailer with multiple axles, advance and trailing warning vehicles,

and possibly police control in Blythe. The moving contractor will be required to file for and obtain a permit from Caltrans following the determination of the size of the truck and configuration of the axles.

The Project site access will be provided via a new access road extending north and west from I-10 and the Wiley's Well Road Interchange in the southern area of the plant site.

A majority of the construction workers are expected to be arriving from the east on I-10 (approximately 75 percent). Peak crew levels are forecast to require upwards of 1,093 members. Using the worst-case assumption of only one person per vehicle for the entire work force, having over 1,093 vehicles arrive at the Project site in the morning and depart in the evening would exceed the capacity of the existing roadway configuration at the plant site access road intersection with I-10 at the Wiley's Well Road Interchange. During the morning peak period, the arrival of upwards of 1,093 workers would be expected to cause queues to back down the highway. I-10 has two lanes in each direction, so there should still be traffic flow in the left lane despite the additional volume. Conversely, during the evening peak hour, queues would develop back onto the site as departing workers attempt to access I-10.

Overall, transportation impacts associated with construction of the Project should not be significant for the following reasons:

- Construction workers commuting to and from the plant site have mainly two routes to the site, along I-10 from the east or west. I-10 is a 4-lane highway currently operating at a very low LOS A. Because of the low current traffic volumes, all affected roadways are forecast to continue operating well, based on volume to capacity ratios forecast for Baseline Year 2012 conditions, even during the peak period of the Project construction activity when the workforce exceeds 1,093 construction workers.
- A number of measures are suggested for consideration to mitigate potential safety and capacity related impacts. These include:
 - Staggered construction employee work schedules and encouraging contractor employee carpooling and/or busing to reduce the arrival and departure of workers.
 - Accepting deliveries outside of peak worker hours.
 - Coordinate shifting construction worker schedules so as not to conflict with peak prison worker traffic at the Wiley's Well Road Interchange.
- The requirements to obtain special permits to move oversize or overweight materials and equipment to and from the site would ensure use of proper vehicles, scheduling, routes, and escorts to minimize impacts.
- No bike lanes are currently present in the Project area that could be impacted by construction traffic.
- The Project will not impact public transit, rail, or airport operations.

5.11.2.3 Operation Phase Impacts

The Project operations will generate small amounts of vehicular traffic. The Project operations phase workforce is estimated at approximately 40 to 50 workers, who will cover operations on a 24 x 7 basis (*i.e.*, peak hour weekday traffic will be less than 50 vehicles even if every employee commutes alone in their own vehicle). Existing-plus-Project operations traffic volumes and the resulting LOS on select

roadways in the Project vicinity are summarized in Table 5.11-3. As shown, Project operations will not alter existing roadway LOS and will not have significant impacts on roadway operations.

The Project operations will also involve truck traffic for the delivery of materials and supplies, as well as other purposes such as the off-site shipment of wastes. Approximately 38 truck trips per month are expected, with an average of between one and two truck trips per day including off-site shipments (e.g. solid waste) and deliveries of materials and supplies. These volumes would not affect LOS on roadways in the Project vicinity.

Project truck travel will include approximately 15 deliveries per month of hazardous materials. Section 5.12, Hazardous Materials Handling, describes the types and estimated quantities of hazardous materials to be transported to or from the Project. It is expected that hazardous materials shipments will utilize I-10 to access the Project site from the east or west. Hazardous materials shipments will comply with applicable regulations in terms of route selection, operator training and qualifications, etc.

As discussed in Section 5.7, Land Use, there is little potential for foreseeable future development in the Project vicinity. The surrounding land uses have minimal potential for future traffic generation.

Transportation impacts associated with operation of the Project would not be significant for the following reasons:

- The Project will generate a maximum of 132 one-way employee commute trips per day spread over a 24-hour period. As indicated in Tables 5.11-2 and 5.11-3, surrounding roadways are generally expected to operate well below capacity. The addition of this traffic volume to the existing roadway network will not alter existing or future roadway operating characteristics (LOS).
- Truck travel and other non-employee site visits will be very small and will typically occur during non-peak periods.
- Project design will not impact the ability to provide bike lanes in the future and the Project traffic levels would not have significant adverse impacts on bike lanes that might be developed.

5.11.2.4 Potential Impacts on Aircraft Operations

This section addresses the potential impacts of the Project operations on aircraft operations in the Project vicinity. Blythe Airport is the only aircraft facility in the Project vicinity. The Project operations potentially could cause concern regarding aircraft flight operations in a number of ways, as listed below and discussed individually further below:

The Project facility structures (e.g. transmission towers or cooling tower) conceivably could produce a hazard to low flying aircraft if the structures extend into restricted airspace.

- The Project transmission lines or facility control systems' use of specific electronic frequencies potentially could cause concerns regarding interference with aircraft communications or avionics.
- The solar collector mirrors might be considered a potential source of glare, resulting in visual distraction to pilots.

Structure Height and Potential Air Space Obstruction

The maximum structure height for the Project facilities is approximately 110 feet (a small number of the transmission structures will be 110 feet, while most will be less than 80 feet; the tallest solar plant structure will be the steam turbine generator at 55 feet). Considering the remoteness of the Project site from the nearest civilian airport (ten miles), the Project would not conflict with civilian aircraft operations.

Transmission Line Interference Potential

Transmission line interference affecting aircraft communications or avionics would be considered a hazard to aircraft operations. Transmission line-related radiofrequency interference (RFI) is one of the indirect effects of transmission line operation and is produced by the physical interactions of line electric fields. Such interference is due to the radio noise produced by the action of the electric fields on the surface of the energized conductor. The process involved is known as corona discharge and can occur within gaps between the conductor and insulators or metal fittings. Since the level of interference depends on factors such as line voltage, distance from the line to the receiving device, orientation of the antenna, signal level, line configuration, and weather conditions, maximum interference levels are not specified as design criteria for modern transmission lines.

The level of RFI that occurs usually depends on the magnitude of the electric fields involved and the distance from the line. The potential for such impacts is, therefore, minimized by reducing the line electric fields and locating the line away from inhabited areas. The Project transmission line would be built and maintained in keeping with standard practices that minimize surface irregularities and discontinuities. Moreover, the potential for such corona-related interference is usually of concern for lines of 345 kV and above, and not the Project 230 kV line. There is currently no available information to suggest that such issues have arisen from the operation of existing transmission lines in the general Project vicinity. Because only approximately 10 miles of new transmission line are needed for the Project, it is reasonable to assume no adverse affects would be generated by the Project.

Impacts on aviation safety would be less than significant.

Solar Array Visual Distraction Potential

The Project will use solar thermal equipment comprised of arrays of parabolic trough mirrors. Each solar collector mirror is parabolic in shape and focuses the sun's energy on the glass-encased metal receiver tube containing the heat transfer fluid, thus limiting the potential for stray reflections. The receiver tube may glow as the reflected sun rays enter the collector. The reflections from the curved surface of the receiver tube are greatly diminished in intensity from those that would be associated with a reflection of the sun in a mirror. These reflections are similar to the reflections one would observe from a body of water with waves on it if the viewer is in the right spot. The glow could be observed by a pilot if the aircraft were positioned at the right angle above the array, but it would not be a bright source of glare.

The Solar Electric Generating Station (SEGS) power plants in the Mojave Desert at Harper Lake and Kramer Junction have been operating since the 1980s and provide a reference for the issue of potential glare impacts to pilots. In the nearly 20 years that the SEGS facilities have been in operation, glare has not been reported as a distraction to pilots. As an additional data point, on October 4, 2007, Caltrans Aeronautics and CEC staff flew over the Kramer Junction and Harper Lake solar thermal facilities during a sunny mid-morning at about 1,500 feet above ground level and no glare was observed, although from a distance of four miles the solar facility appeared to be a lake or pond and reflected some sunlight (CEC, 2007).

Given this history of aircraft operations in the vicinity of nearby existing solar thermal power plants and no recorded aviation safety issues, it is not expected that the Project solar array will cause adverse effects on aviation operations in the Project vicinity.

5.11.3 Mitigation Measures

As the plans for the Project progress, Genesis Solar LLC will meet with Caltrans to discuss any necessary or suggested modifications to the Wiley's Well interchange prior to the construction phase. Although no significant adverse traffic or transportation impacts are expected during Project construction or operation, the following measures are proposed to minimize potential adverse but non-significant impacts during Project construction. No mitigation measures are required or proposed during Project operations.

- TR-1:** The Project owner will develop and implement a construction phase Traffic Management Plan (TMP) in consultation with Caltrans and Riverside County for the roadway network potentially affected by construction activities at the plant site and off-site linear facilities.
- TR-2:** The Project owner will conduct construction activities in accordance with Caltrans and other applicable limitations on vehicle sizes and weights, Construction Excavation Permits obtained from Riverside County, Encroachment Permits from Caltrans, as well as permits and licenses from the California Highway Patrol and Caltrans for the transport of hazardous substances.

5.11.4 Significant Unavoidable Adverse Impacts

There are no significant unavoidable adverse impacts for traffic or transport.

5.11.5 Cumulative Impacts

Table 5.11-2 includes Baseline Year 2012 peak hour traffic forecasts for major roadways in the Project vicinity. These forecasts assume continued development and growth in traffic volumes consistent with growth rates experienced on I-10 in the Project vicinity between 2004 and 2008. Table 5.11-3 shows Baseline Year 2012 peak hour traffic forecasts plus traffic that would be generated by operation of the Project. A comparison of Table 5.11-3 to the without-Project Baseline Year 2012 conditions in Table 5.11-2 shows the Project would not contribute significantly to potential cumulative impacts on roadways in the vicinity. Because of low current traffic volumes, significant cumulative traffic effects would not occur when also considering traffic volumes associated with construction of the Blythe Energy Project Transmission Line (BEPTL).

5.11.6 Applicable Laws, Ordinances, Regulations, and Standards (LORS)

The Project will comply with all applicable LORS pertaining to traffic and transportation. Table 5.11-4 and the following text sections summarize Federal, State, and local LORS that apply to traffic and transportation.

Table 5.11-4. LORS Applicable to Traffic and Transportation

LORS	Applicability	Where Discussed in AFC
Federal:		
Title 49, Code of Federal Regulations (CFR), Subtitle B, Parts 171-173, 177-178, 350-359, 397.9, and Appendices A-G	Addresses safety considerations for the transport of goods, materials, and substances. Governs the transportation of hazardous materials including types of materials and the marking of the transportation vehicles.	Section 5.11.6.1
Title 14 CFR, Aeronautics and Space, Chapter I, FAA-DOT, Part 77	Establishes standards for determining obstructions in navigable air space and sets forth notification of Federal Aviation Administration (FAA) requirements when there is any change.	Section 5.11.6.1
Title 14, CFR Part 77, "Objects Affecting the Navigable Air Space"	Describes the criteria used to determine the need for a FAA "Notice of Proposed Construction or Alteration" in cases of potential obstruction hazards.	Section 5.11.6.1
FAA Advisory Circular No. 70/7460-1G, "Proposed Construction and/or Alteration of Objects that May Affect the Navigation Space"	Addresses the need to file the "Notice of Proposed Construction or Alteration" (Form 7460) with the FAA in cases of potential for an obstruction hazard.	Section 5.11.6.1
Title 47 CFR, Section 15.2524, Federal Communications Commission (FCC)	Prohibits operation of devices that can interfere with radio-frequency communication.	Section 5.11.6.1
State:		
California Vehicle Code Section 35780; California Streets and Highways Code, Sections 660-711; 21 CCR 1411.1-1411.6, Section 31300, 31303 <i>et seq.</i> , Section 32105	Requires permits for any load exceeding Caltrans weight, length, or width standards for public roadways. Requires the transportation of hazardous materials be on State or interstate highways that offer the shortest overall transit time possible. Requires shippers of inhalation hazard or explosive materials to apply for a Hazardous Material Transportation License and obtain routes approved for material shipping.	Section 5.11.6.2

Table 5.11-4. LORS Applicable to Traffic and Transportation

LORS	Applicability	Where Discussed in AFC
California Streets and Highways Code, Sections 117-660-711	Requires permits from Caltrans for any roadway encroachment during truck transportation and delivery.	Section 5.11.6.2
California Government Code Sections 65352, 65940, and 65944.	Requires evaluation of compatibility with military activities for any land use proposal located near a military installation or airspace.	Section 5.11.6.2
CEC staff, Radio Interference and Television Interference (RI-TV) Criteria (Kern River Cogeneration) Project 82-AFC-2, Final Decision, Compliance Plan 13-7	Prescribes the CEC's RI-TV mitigation requirements, developed and adopted by the CEC in past siting cases.	Section 5.11.6.2
Local:		
County of Riverside General Plan Circulation Element	Specifies long-term planning goals and procedures for transportation infrastructure system quality; standards and procedures for air transportation; and transportation safety in Riverside County.	Section 5.11.6.3

5.11.6.1 Federal Authorities and Administering Agencies

Federal laws and regulations that could apply to this Project include the following:

- Title 49 CFR, Subtitle B, Chapter I, Part 172, Hazardous Materials Regulations, addresses the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- Title 49 CFR, Subtitle B, Chapter I, Parts 171-173, and 177-178 contain national safety standards for the transport of goods, materials, and substances over public highways; and proper handling and storage of hazardous materials during transportation.
- Title 49 CFR, Subtitle B, Chapter III, Parts 350–399 Motor Carrier Safety Regulations address safety considerations for the transport of goods, materials, and substances over public highways.
- Hazardous Materials Transportation Act of 1974, Title 49 CFR Subtitle B, Chapter III, Part 397.9 directs the Federal Department of Transportation to establish criteria and regulations for the safe interstate transportation of hazardous materials.
- Title 14 CFR Regulations, Aeronautics and Space, Federal Aviation Administration, Department of Transportation, Chapter I, Part 77 establishes standards for determining obstructions in navigable air space and sets forth notification requirements to the FAA when there is a change in land use that would involve the development of any structures over 200 feet above ground level.

Notification is also required if the obstruction is less than the specified height and is located within restricted air space in the approach to airports.

5.11.6.2 State Authorities and Administering Agencies

State laws that could apply to the Project include the following:

- California Vehicle Code Division 1, Section 353 defines hazardous materials.
- California Vehicle Code Division 13, Chapter 5, Article 1 Hazardous Materials, Sections 31303 *et seq.* address the transportation of hazardous materials, the routes used, and restrictions thereon.
- California Vehicle Code Division 14, Transportation of Explosives, Sections 31600-31309 regulates the transportation of explosive materials.
- California Vehicle Code Division 14.1, Transportation of Hazardous Materials, Sections 32000-32053 regulate the licensing of carriers of hazardous materials including noticing requirements.
- California Vehicle Code Division 14.3, Sections 32100-32109 establish special requirements for the transportation of inhalation hazards and poisonous gases.
- California Vehicle Code Division 14.7 Flammable and Combustible Liquids, Sections 34000 *et seq.* address the transportation of flammable and combustible liquids over public roads and highways.
- California Vehicle Code Division 14.8 Safety Regulations, Sections 34500, 34501, 34501.3, 34502-7, and 34510-11 address the safe operation of vehicles, including those that are used for the transportation of hazardous materials.
- California Vehicle Code Division 2 Administration, Chapter 2.5, Article 1, Sections 2500-2505 and 2531-2532 address the issuance of licenses by the Commissioner of the California Highway Patrol for the transportation of hazardous materials.
- California Vehicle Code Division 6 Driver's Licenses, Division 6, Chapter 1, Article 3 Sections 12804-12804.5; Chapter 2, Article 3, Section 13369; and Chapter 7 Article 6, Sections 15275-15278 address the licensing of drivers and the classification of licenses required for the operation of particular types of vehicles, and require certificates permitting operation of vehicles transporting hazardous materials.
- California Vehicle Code Division 15 Size, Weight, and Load, Chapter 5, Article 6 Section 35780 states overload approvals from the State Department of Transportation (Caltrans) are required for transportation of oversized or excessive loads over State highways.
- California Streets and Highways Code Sections 117, 660-711 require an encroachment permit from Caltrans for facilities that require construction, maintenance, or repairs on or across State highways.
- California Streets and Highways Code Sections 660, 670, 1450, and 1460 *et seq.* regulate right-of-way encroachment and the granting of permits for encroachment on State and county roads.

5.11.6.3 Local Authorities and Administering Agencies

Applicable local LORS include the following:

- Riverside County General Plan Circulation Element Policy C2.1 sets a County Policy objective of maintaining a LOS C on county maintained roads and conventional State highways.

- Riverside County General Plan Circulation Element Policy C2.1 allows an exception for LOS D in Community Development areas, only at intersections of any combination of Secondary Highways, Major Highways, Arterials, Urban Arterials, Expressways, conventional State highways, or freeway ramp intersections.

5.11.7 Involved Agencies and Agency Contacts

Table 5.11-5 identifies agency contacts for traffic and transportation issues associated with the Project.

Table 5.11-5. Agencies and Agency Contacts

Agency Contact	Phone	Permit/Issue
Majeed Farshad Permit Engineer County of Riverside Transportation Department 38686 El Cerrito Road Palm Desert, CA 92211	(760) 863-8267	<ul style="list-style-type: none"> Encroachment Permit for work in the County Right of Way Permits for Oversize Loads on County Roadways
CALTRANS, District 8 464 West 4th Street San Bernardino, CA 92401	(909) 383-4631	<ul style="list-style-type: none"> Encroachment Permit for work in Caltrans' Right of Way Permits for Oversize Loads on State Highways
California DMV 1310 North Waterman Avenue San Bernardino, CA 92404 Or : San Bernardino CDL Office 110 West Central Avenue San Bernardino, CA 92408	(800) 777-0133	<ul style="list-style-type: none"> Licenses for Transport of Hazardous Materials and Wastes
CHP, Blythe 430 South Broadway Blythe, CA 92225	(760) 922-6141	<ul style="list-style-type: none"> Approved Routes for Transport of Hazardous Materials and Wastes

5.11.8 Permits Required and Permit Schedule

Table 5.11-6 identifies the required traffic and transportation permits and permit schedule.

Table 5.11-6. Required and Permit Schedule

Permit/Approval Required	Due Date
Riverside County Encroachment Permit (for work in County Rights of way)	Submit plans showing work at least 14 working days prior to construction work in public ROW.
Riverside County Oversize Load Permit	Apply at least 5 working days prior to oversize load on County roadways.
Caltrans Encroachment Permit	Ongoing consultation; obtain permit prior to start of construction activities.
Caltrans Oversize Load Permit	Apply at least 7 working days prior to oversize load on State highways.

5.11.9 References

California Department of Transportation (Caltrans), 1996. Traffic Manual.

California Energy Commission (CEC), 2007. Preliminary Staff Assessment: Victorville 2 Hybrid Power Project Application for Certification (07-AFC-1). November.

Caltrans, 2007. Annual Average Daily Truck Traffic on the California State Highway System.

Caltrans, 2008. Traffic Volumes on California State Highways.

Riverside County, 2004. Riverside County Airport Land Use Compatibility Plan Policy Document, Appendix I, Countywide Airspace Usage (December 2004).

Riverside County, 2007. Riverside County Congestion Management Program, Riverside County Transportation Commission. (December 12, 2007).

Riverside County, 2008., County of Riverside General Plan, Circulation Element, 2008.

Transportation Research Board, 1985, 1994, 1997, 2000. Highway Capacity Manual, Special Report 209, Washington D.C.