3.14 Traffic and Transportation

This section contains a description of the environmental setting, regulatory setting, and potential impacts associated with the construction and operation of the proposed project and alternatives with respect to traffic and transportation.

3.14.1 Environmental Setting

This section discusses existing transportation and traffic near the proposed project and alternatives. The proposed project is located in primarily undeveloped and sparsely populated areas within a limited transportation network primarily serviced by Interstate 15 (I-15), which spans California and Nevada. Construction and maintenance vehicles would use I-15 and the surrounding transportation network. Refer to Figure 1-1 for a depiction of the transportation network described below.

3.14.1.1 Regional Setting

Interstate 15

The proposed project would cross I-15 near milepost (MP) 29 at the California/Nevada border. The proposed project would be serviced by I-15, a major north–south divided freeway through San Bernardino County in California and Clark County in Nevada. This highway is a major thoroughfare between Southern California and Las Vegas, Nevada. In Nevada, I-15 serves as the major transportation route between the California-Nevada border (MP 28) and the Las Vegas metropolitan area. This stretch of I-15 varies in width from four to six lanes and has posted speeds of 65 and 75 miles per hour.

State Route 164

State Route (SR) 164 is a state highway in southern Clark County, Nevada, located approximately 5 miles south of the proposed Ivanpah Substation. The route, which is called Nipton Road in California, connects the small unincorporated area of Nipton, California, to U.S. Route 95 in Nevada and I-15 south of Primm, Nevada. The route was formerly designated SR 68.

State Routes 161 and 604

SR 161 runs east–west along Goodsprings Road. It connects Ripley to I-15 at Jean, 5.5 miles from MP 18. SR 604 (Las Vegas Boulevard) runs south from Las Vegas parallel to I-15.

US 95

US 95 in Nevada is approximately 3 miles east of the proposed project (MP 0) and runs north–south. It is a divided highway between Laughlin Junction and Boulder City.

Union Pacific Railroad

In Nevada, I-15 is roughly paralleled by SR 604 (Las Vegas Boulevard) and the Union Pacific Railroad (UPRR) corridor. The UPRR has an approximately 100-foot right-of-way (ROW) with a single track alignment. It runs south from the urbanized area of Las Vegas, roughly paralleling the I-15 corridor, to the Nevada/California state line, where it turns south and runs through Nipton, California. The proposed project crosses the UPRR between MPs 26 and 27. Currently, this corridor is heavily used for freight hauling (Clark County 2008).

Jean Airport

The Jean Airport is located approximately 5 miles north of the proposed project, nearest MP 20. Also known as Jean Sport Aviation Center, it is a public airport mainly used for sports aviation such as gliders and sky diving (AirNav 2009). Jean Airport is owned and operated by the Clark County Department of Aviation.

Southern Nevada Supplemental Airport

The Federal Aviation Administration (FAA) and the BLM are currently preparing an EIS for a proposed Southern Nevada Supplemental Airport (SNSA) to be constructed on approximately 6,000 acres just south of Jean, Nevada (CCDOA 2009). This site is within the 17,000 acre Ivanpah Airport Environs Overlay District, conditionally established per Section (2)(b)(1) of the Ivanpah Valley Airport Public Lands Act of 2000 (Public Law 106–362) and the Clark County Conservation of Public Land and Natural Resources Act of 2002 (Public Law 107–282), pending completion of the EIR, which is intended to ensure compatible land use within airport accident hazard and noise exposure areas by providing for a range of appropriate uses and by prohibiting development of inappropriate or incompatible uses. As currently planned, the proposed SNSA would provide sufficient airport capacity to accommodate future aircraft operations and aviation passenger demand in the Las Vegas Metropolitan Area (CCDOA 2009). The proposed project would be located approximately 0.5 miles (MP 26) from the nearest proposed runway; however, the proposed SNSA is not expected to be operational until 2020—after the scheduled completion of the EITP, which is projected to be operational in 2013.

Public Transportation and Bicycle Paths

No public transit exists in the vicinity of the proposed project. Amtrak serves the corridor via bus only, with service between Las Vegas and Los Angeles. Many private bus companies operate on demand for Primm Valley Golf Club customers, but no established regular schedule exists. There are no bicycle lanes in the proposed project area (SCE 2009).

3.14.1.2 Local Setting

Major Transportation Routes

In total, the proposed project crosses two major and three smaller transportation routes between the Eldorado and Ivanpah substations. Table 3.14-1 lists the location of these intersections by MP.

Table 3.14-1 Transportation Intersections Crossing the Proposed Route

Location (MP)	Intersection
26/27	Union Pacific Railroad
28/29	Lotto Store Road
28/29	East Primm Boulevard
28/29	Fashion Outlet Way
29	I-15 at California/Nevada border

Source: Google Earth 2009

Existing Traffic Volumes

Tables 3.14-2a and 3.14-2b list existing traffic volumes for the locations where the proposed project would cross major transportation routes. In California, volumes of traffic are measured in terms of peak hour estimates for actual vehicles and annual average daily traffic (AADT) for both lanes of travel (ahead [north and west] and back [south and east]).

Table 3.14-2a Traffic Volumes for Major Transportation Routes in Nevada in 2008

Description	AADT
I-15 at the Nevada/California state line	38,000
I-15, 1.5 miles north of SR-604 (Apex Interchange)	24,000
SR-161, Goodsprings Road, 1 mile west of the southbound off-ramp of the Jean Interchange exit (Exit 12)	2,000
US 95, 0.7 miles north of SR-164 (Nipton Road)	8,600
SR 164, Nipton Road, 1.1 miles west of US 95	690

Source: NDOT 2008
Key:
AADT = annual average daily traffic

Table 3.14-2b Traffic Volumes for Major Transportation Routes in California in 2008

Traffic Count Location	**Peak Hour** (south of count location)	**AADT** (south of count location)	**Peak Hour** (north of count location)	**AADT** (north of count location)
I-15 at the Cima Road interchange	5,000	36,000	5,000	36,000
I-15 at Nipton Road	5,000	36,000	5,100	36,500
1-15 at the Yates Well Road interchange	5,100	36,500	5,100	37,000

Source: Caltrans 2008
Key:
AADT = annual average daily traffic

Traffic flow can be calculated using Level of Service (LOS) designations for transportation routes. LOS is a qualitative measure used to describe operational conditions within a traffic system. LOS quantifies the congestion level on a particular roadway or intersection in terms of speed, travel time, and delay. The 2000 Highway Capacity Manual defines LOS designations for roadways or intersections (LOS A to LOS F). LOS A designates the best operating conditions and LOS F the worst. A general description of service levels for various types of facilities is shown in Table 3.14-3.

Table 3.14-3 Level of Service Definitions

Facility Type	Uninterrupted Flow	Interrupted Flow
	Freeways Multi-lane highways Two-lane highways Urban streets	Signalized intersections Unsignalized intersections – Two-way stop control – All-way stop control
Level of Service		
A	Free-flow	Very low delay
B	Stable flow; presence of other users noticeable	Low delay
C	Stable flow; comfort and convenience starts to decline	Acceptable delay
D	High density stable flow	Tolerable delay
E	Unstable flow	Limit of acceptable delay
F	Forced or breakdown flow	Unacceptable delay

Source: TRB 2000

Table 3.14-4 lists the LOSs for the surrounding transportation network in the proposed project area rated LOS D or below.

Table 3.14-4 LOS D or Below for Proposed Project Transportation Network

Caltrans Post Mile/Project MP	LOS	ADT
SBd-15-186.24 / MP 29	D	38,000

Source: Green 2009

Although I-15 operates at LOS C or better most days of the week (Monday through Thursday), northbound 1-15 experiences increased traffic volumes on Friday afternoons because of commuter and tourist traffic from California to Las Vegas, Nevada. On most days, as shown in Tables 3.14-2a and b, I-15 experiences an average daily traffic volume of approximately 38,000 trips. However, on Fridays from approximately noon to 10 p.m., northbound 1-15 experiences an hourly average that ranges from approximately 1,700 to 2,000 trips and operates at LOS D (Green 2009).

Proposed Project Transportation Setting

Transmission Line

The proposed transmission line would start at the existing Eldorado Substation and end at the future Ivanpah Substation location. Seven temporary construction yards and 16 temporary guard structures for highway/road crossings would be required during the construction phase. These crossing locations are the most likely locations for potential impacts to traffic and transportation associated with construction traffic traveling to and from construction yards and the project route. Tables 3.14-5 and 3.14-6 list the location of the project construction yards and guard structures.

Table 3-14.5 Proposed Construction Yard Locations

No.	Location	MP	Distance to ROW (miles)	Area[a] (acres)
1	Eldorado Substation, NV	0	0	9.8
2	Jean, NV	15	11.5	13.6
3	Generating station yard, NV	27	0.4	16.5
4	Primm Valley Casino vacant lot, NV	28	0.1	28.3
5	Whiskey Pete's Casino vacant lot, NV	28	1.1	2.4
6	BrightSource generating station yard, CA[b]	35	0	10+
7	Nipton, CA[c]	N/A	4.7	2.5

Source: SCE 2009
Notes:
[a] Approximate areas based on current design.
[b] Only Construction Yard #6 is located on public (BLM) land.
[C] Construction Yard #7 is proposed for tower retrofit activities.
Key:
MP = milepost
ROW = right-of-way

Table 3.14-6 Proposed Guard Structure Locations

GS #	Location of Guard Structure	Type of Guard Structure
1	West side distribution line between MPs 32 and 33	H-frame
2	East side distribution line between MPs 32 and 33	H-frame
3	South side of Dirt Road near MP 33	Bucket truck
4	North side of Dirt Road, near MP 33, crossing over distribution line	Bucket truck
5	Southbound I-15, west side of highway, near MP 29, south of state line	H-frame w/net
6	Southbound I-15 in center median, near MP 29, south of state line	H-frame w/net

Table 3.14-6 Proposed Guard Structure Locations

GS #	Location of Guard Structure	Type of Guard Structure
7	Northbound I-15 in center median, near MP 29, south of state line	H-frame w/net
8	Northbound I-15, east side of highway, near MP 29, south of state line	H-frame w/net
9	Southwest side of Lotto Store Road, between MPs 28 and 29, at southern edge of outlet mall	H-frame
10	Northeast side of Lotto Store Road, between MPs 28 and 29, at southern edge of outlet mall	H-frame
11	Southwest side of Fashion Outlet Way, between MPs 28 and 29, at eastern edge of outlet mall	H-frame
12	Northeast side of Fashion Outlet Way, between MPs 28 and 29, at eastern edge of outlet mall	H-frame
13	South side of East Primm Boulevard between MPs 28 and 29	H-frame
14	North side of East Primm Boulevard between MPs 28 and 29	H-frame
15	West side of UPRR between MPs 26 and 27	H-frame
16	East side of UPRR between MPs 26 and 27	H-frame

Source: SCE 2009
Key:
GS = Guard structure
MP = Milepost
UPRR = Union Pacific Railroad

Each yard would be used as a reporting location for workers and for vehicle and equipment parking and material storage. The maximum number of workers reporting to any one yard is not expected to exceed approximately 100 workers at any one time. At peak construction, most of the vehicles could occupy the yards listed. Approximately 80 private commuting vehicles would also be parked at the yard. Crews would load materials onto work trucks and drive to the line position being worked. At the end of the day, they would return to the yard in their work vehicles and depart in their private vehicles.

For highway crossings, the applicant would work closely with the applicable jurisdiction to secure the necessary permits to string conductor across the applicable infrastructure. For major roadway crossings, typically one of the following four methods is employed to protect the public:

- Erection of a highway net guard structure system
- Detour of all traffic off a highway at the crossing position
- Implementation of a controlled continuous traffic break while stringing operations are performed
- Strategic placement of special line trucks with extension booms on the highway deck

This analysis assumes that temporary net guard structures would be implemented as the least disruptive to transportation and traffic.

Substations

Eldorado Substation

The Eldorado Substation is an existing substation. Access is provided by US 95 to the east and by SR 165, which feeds into US 95 from the east. The setting is rural and undeveloped.

Ivanpah Substation

The Ivanpah Substation would be a new substation at the south end of the proposed transmission line. Access is provided by I-15 to the east. The closest residences to the proposed Ivanpah Substation site are those at the Desert Oasis Apartment Complex, roughly 6.7 miles to the northeast. Traffic from the Primm Valley Golf Club could use the same I-15 onramps that construction vehicles would use.

3.14.2 Applicable Laws, Regulations, and Standards

The following section provides a summary of federal, state, and local laws, regulations, and standards that govern traffic and transportation in the project area.

3.14.2.1 Federal

BLM Managed Lands

On federal lands managed by the BLM, motorized routes are designated for public use through the managing agency's land use plan or motorized transportation plan. Most of these routes are unmaintained. A few major arterial roadways are maintained and/or paved by the managing agency. Most routes are lightly used and do not have specific policies or regulations governing their use. Additional motorized routes through federal lands may be designated by BLM for commercial or other authorized use or for administrative agency use. These routes are subject to maintenance and other provisions based on the level of use, public safety considerations, and environmental impacts. Non-motorized transportation routes are also designated on public lands. These include equestrian and/or hiking trails that are a primary access means to specific local destinations and/or that are long-distance non-motorized trekking routes.

3.14.2.2 State

California Department of Transportation

The use of California state highways for other than normal transportation purposes may require written authorization from the Department of Transportation (Caltrans). As the department responsible for protecting the public's investment in the state highway system, Caltrans reviews all requests from utility companies desiring to conduct various activities within the ROW. Requests for the ROW ingress are prepared on a Standard Encroachment Permit, which the applicant would obtain (Caltrans 2009).

Nevada Department of Transportation

The Nevada Department of Transportation (NDOT) is responsible for design, construction, maintenance, and operation of the Nevada State Highway System, as well as the portion of the National and Interstate Highway System within the state's boundaries (NDOT 2009).

3.14.2.3 Regional and Local

The San Bernardino County General Plan, Clark County Comprehensive Plan, and Boulder City, Nevada, Master Plan were reviewed for regional and local applicable laws, regulations, and standards in terms of traffic or transportation policies; however, none of these entities' have policies that would be affected by the project. Additionally, the EITP would be constructed in BLM-designated utility corridors, with the exception of a small segment in the Boulder City Conservation Easement as depicted in Figure 3.9-3; therefore, policies in local general and master plans would not be applicable.

3.14.3 Impact Analysis

This section defines the methodology used to evaluate impacts for transportation and traffic, including CEQA impact criteria. The definitions are followed by an analysis of each alternative, including a joint CEQA/NEPA analysis of impacts. At the conclusion of the discussion is a NEPA impact summary statement and CEQA impact determinations. For mitigation measures, refer to Section 3.14.4.

3.14.3.1 NEPA Impact Criteria

The NEPA analysis determines whether direct or indirect effects to transportation and traffic would result from the project, and explains the significance of those effects in the project area (40 CFR 1502.16). Significance is defined by Council on Environmental Quality regulations and requires consideration of the context and intensity of the change that would be introduced by the project (40 CFR 1508.27). Impacts are to be discussed in proportion to their significance (40 CFR 1502.2[b]). To facilitate comparison of alternatives, the significance of environmental changes is described in terms of the temporal scale, spatial extent, and intensity.

3.14.3.2 CEQA Impact Significance Criteria

Under CEQA, the proposed project would have a significant impact if it would:

a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system;

b. Exceed, either individually or cumulatively, an LOS standard established by the local county congestion management agency;

c. Result in inadequate emergency access;

d. Result in inadequate parking capacity;

e. Conflict with adopted policies, plans, or programs supporting alternative transportation;

f. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks; or

g. Result in the closure of a major roadway (arterial or collector classification) to through traffic as a result of construction activities with no suitable or alternative route available.

3.14.3.3 Methodology

Traffic volumes were collected from the Caltrans and NDOT databases for the transportation network affected by the proposed project. The 2000 Highway Capacity Manual and Caltrans Traffic Impact Study Guide were used to determine LOS values. The volume/capacity ratio was calculated and then compared with the LOS levels outlined in the Caltrans Traffic Impact Study Guide. Personal communication with Caltrans for 1-15 LOS was made on December, 8, 2009.

3.14.3.4 Applicant Proposed Measures

The applicant has included the following applicant proposed measures (APMs) related to traffic and transportation:

APM TRA-1: Obtain Permits. If any work requires modifications or activities within local roadway and railroad ROWs, appropriate permits will be obtained prior to the commencement of construction activities, including any necessary local permits and encroachment permits.

APM TRA-2: Traffic Management and Control Plans. Traffic control and other management plans will be prepared where necessary to minimize project impacts on local streets and railroad operations.

APM TRA-3: Minimize Street Use. Construction activities will be designed to minimize work on, or use of, local streets.

3.14.3.5 Proposed Project / Proposed Action

Construction

During construction, traffic conditions in the proposed project area would be adversely impacted in the short term by an increase in traffic due to an influx of construction workers and the delivery of construction equipment, materials, and water to the proposed project area. Construction equipment and materials deliveries would occur throughout the construction period. Construction equipment would include trucks, vans, tractors, trailers, and dozers of various sizes. Up to 190 construction personnel and 204 vehicles would be required for the 18-month construction period. However, only a portion of this total would be used during any single construction phase. Construction equipment would be left overnight on site when feasible or, where overnight onsite storage was infeasible, at the construction yards identified in Table 3.14-5.

To reduce the effects of construction-related deliveries on transportation and traffic along I-15 and SR 164/Nipton Road, APM TRA-2 is proposed, which requires the development of a detailed Traffic Management Plan in consultation with jurisdictional agencies including Caltrans and NDOT. The Traffic Management Plan would include strategies to assure safe and effective passage of through-traffic during construction activities. Because the movement of heavy equipment and materials to various work sites has the potential to cause short-term traffic delays, such activities would occur during off-peak hours to avoid the morning and evening peak vehicular travel times on weekdays, to the extent possible (SCE 2009).

Construction would adversely impact transportation and traffic in the proposed project area where the transmission line would cross a transportation route. Proposed project construction at road crossings identified in Table 3.14-6 would adversely affect vehicle traffic flow at those locations during the construction period. The I-15 crossing at MP 29 would be the most adversely impacted transportation resource, but the H-frame guard structure with net method would be preferred over lane closures. However, in some cases, road crossings could result in detours or periods of one-lane traffic that would cause traffic delays. Detours or road closures could moderately impact traffic flows in localized segments within the transportation network.

To reduce potential congestion associated with construction across transportation routes, the applicant has proposed APM TRA-1, which requires acquisition of encroachment permits and other local permits for work performed within local roadway and railroad ROWs. This APM would require approval from the appropriate jurisdiction (Caltrans or NDOT) and consultation and best management practices (BMPs). Lane closures, if needed, would be identified prior to construction. Detours would be clearly identified and motorists would be adequately notified. APM TRA-3 would also reduce potential adverse effects of construction traffic on local streets, since those streets would be avoided where possible. The Traffic Management Plan (APM TRA-2) would reduce effects of route crossings through implementation of BMPs such as use of flaggers, identification of detours, and communications with stakeholders. Additionally, as outlined in MM TRANS-3, prior to start of construction of the EITP, the applicant will prepare and implement a Traffic Control Plan for the project to address staggering of deliveries on I-15 during peak traffic times.

The applicant would use existing roads and designated routes on federal lands to gain access to the ROW during construction. Refer to Chapter 2 for a general description of anticipated access and maintenance road requirements. Modifications, including grading and/or widening, would be required in order to use some existing roads.

Parking for construction workers would be accommodated on the substation site, within the applicant's ROW, and/or in construction yards. No adverse impact on parking would result from construction of the proposed project.

During the construction phase of the project, helicopters might be used for installation of Tubular Steel Poles (TSPs) and overhead wires. For structures that would be located in terrain that is inaccessible by a crane, helicopters may be used for structure erection. Helicopter use is expected only in the McCullough Pass area and for line stringing. The use of helicopters for the erection of structures would be conducted in accordance with the applicant's specifications and would be similar to methods detailed in the Institute of Electrical and Electronic Engineers

publication 951-1996, Guide to the Assembly and Erection of Metal Transmission Structures, Section 9, Helicopter Methods of Construction. The use of helicopters would be limited to helicopter staging areas near construction locations considered safe locations for landing. To further reduce impacts due to helicopter use, MM TRANS-2 would be implemented. MM TRANS-2 requires the applicant to coordinate with the FAA prior to construction and operation for review and approval of any helicopter flight and safety plans. In addition, MM HAZ-2, which involves coordination with the FAA regarding compatibility with the SNSA, will help reduce potential impacts related to air traffic associated with the future airport.

Operation & Maintenance

The entire proposed transmission line corridor would be patrolled every year. The yearly patrol method would alternate each year between helicopter and truck. In one year, the patrol would be by helicopter and would take approximately 1 day (8 hours) to accomplish. The next year, the patrol would be performed by truck and would take 5 days. These maintenance operations are currently ongoing and would be continued for the proposed project. Therefore, there would be no increase in air or vehicle traffic, and thus, no adverse effect to traffic and transportation during the operation and maintenance phase of the project.

However, starting approximately 15 years after the operational date, maintenance on the proposed line would be expected to increase. Depending on the level of air traffic, there could be air traffic conflicts. As a result, the applicant is required to implement MM TRANS-2, which requires coordination with the FAA regarding a Helicopter Flight Plan and Safety Plan. In addition, MM TRANS-2 specifies that in the event that plans for the SNSA are approved, the applicant will review the plan with the FAA at least 30 days prior to the start of SNSA construction. Implementation of MM TRANS-2 would reduce the impact to minor.

NEPA Summary

The proposed project would result in direct minor adverse traffic impacts due to project construction access along I-15 and SR 164/Nipton Road; however, the impacts would be localized at construction yards and crossing points (MP 29) along the transmission line route and would be short term. Implementation of MM TRANS-1 would minimize potential impacts to I-15 by limiting construction activities so that lane closures did not occur during peak usage times on Fridays from noon to 10 P.M. Additionally, as outlined in MM TRANS-3, prior to start of construction of the EITP, the applicant will prepare and implement a Traffic Control Plan for the project to address staggering of deliveries on I-15 during peak traffic times.

The operation of the transmission line, substation, and telecommunication line would not result in adverse ground traffic impacts. Maintenance activities associated with substations and transmission lines would not require additional vehicles beyond those used for current operations and maintenance procedures; therefore, maintenance would not increase traffic beyond existing LOSs. Operation and maintenance activities would not result in an adverse impact on ground transportation.

Operation and maintenance would require helicopter usage; MM TRANS-2 requires the applicant, in coordination with the FAA, to develop a Helicopter Flight Plan and Safety Plan. Additionally, MM TRANS-2 specifies that in the event that plans for the SNSA are approved, the applicant will review the plan with the FAA at least 30 days prior to the start of SNSA construction. MM TRANS-2 would reduce the project's impact on air traffic to minor.

CEQA Significance Determinations

IMPACT TRANS-1: Traffic Load and Capacity
Less than significant with mitigation

The proposed project would result in less than significant impacts on existing traffic load and capacity, as a limited number of vehicles over a short period would be used for construction. Implementation of APM TRA-1, APM TRA-2,

and MM TRANS-3 would contribute to reduction of impacts associated with construction traffic. Impacts on northbound I-15 during the Friday afternoon commute would be short term and less than significant.

Use of helicopters of during construction and operations could increase the volume of air traffic in the area and potential air traffic conflicts could occur. Potential air traffic conflicts would be reduced to less than significant levels with implementation of a Helicopter Flight Plan and Safety Plan (MM TRANS-2). Because plans for the SNSA have not yet been approved, it is not possible to identify how the EITP would affect the SNSA in terms of air traffic conflicts; however, MM HAZ-2 will be implemented, which would further reduce air traffic conflicts to less than significant by requiring additional consultation with the FAA regarding final project design. For additional discussion about the SNSA, see Chapter 5, "Cumulative Scenario and Impacts."

IMPACT TRANS-2: Level of Service Standard and Lane Closures
Less than significant with mitigation

The proposed project would result in less than significant impacts on existing LOS standards as defined by Caltrans. A limited number of vehicles over a short period would be used for construction. Impacts on northbound I-15 during the Friday afternoon peak hours due to increased number of vehicles on the road would be short term and less than significant. Implementation of APMs TRA-1, TRA-2, and TRA-3 would contribute to reduction of impacts associated with construction traffic.

Though the proposed project does not include plans to close I-15 during construction, one or several lanes of I-15 may be closed to allow for pulling the transmission lines across the highway. Since I-15 experiences operating conditions at LOS D with high density stable flow and the potential for tolerable delay, lane closures during a period of LOS D could result in significant traffic circulation impacts over the short term. The severity of the short-term impact would depend on the number of lanes closed, the duration of the closure, and the LOS conditions at the time of closure. If lane closures were implemented and then sudden, unexpected LOS D conditions were to occur, it is reasonable to assume that drivers could experience significant delay along I-15. Therefore, MM TRANS-1 is required; the applicant will limit construction activities so as not to require lane closures on I-15 from noon to 10 p.m. on Fridays. In addition MM TRANS-3 will address staggering of deliveries on I-15 during peak traffic times.

IMPACT TRANS-3: Emergency Access
Less than significant without mitigation

Emergency response providers near the proposed project area would be notified in advance about the exact location of construction, road or route closure schedules, and location of potential alternate routes, as needed. Implementation of APMs TRA-1, TRA-2, and TRA-3 would contribute to reduction of impacts associated with emergency access. Work would be coordinated with local police and traffic engineers to plan appropriate access alternatives for temporary street closures and traffic disruption, if closures were required.

IMPACT TRANS-4: Result in a Change in Air Traffic Patterns
Less than significant with mitigation

While the proposed project would not impact existing air traffic, use of helicopters of during operation and maintenance procedures could interfere with air traffic associated with the future SNSA. As a result, the applicant is required to implement MM TRANS-2, which requires coordination with the FAA regarding a Helicopter Flight Plan and Safety Plan. In addition, MM TRANS-2 specifies that in the event that plans for the SNSA are approved, the applicant will review the plan with the FAA at least 30 days prior to the start of SNSA construction. With the implementation of MM TRANS-2, potential air traffic conflicts would be reduced to less than significant levels.

NO IMPACT: Result in Inadequate Parking Capacity. The proposed project would have no impact under this criterion because all parking would be contained within existing substations, applicant ROW, and/or construction yards.

NO IMPACT: Conflict with Adopted Policies, Plans, or Programs Supporting Alternative Transportation. The proposed project would have no impact under this criterion because no public transportation exists within the transportation network.

NO IMPACT: Result in the Closure of a Major Roadway to Through Traffic as a Result Of Construction Activities with No Suitable or Alternative Route Available. The proposed project would have no impact under this criterion because the proposed project would not cause the closure of any major roadways.

3.14.3.6 No Project / No Action Alternative

Under the No Project Alternative, there would be no construction of the transmission line, substation, or communication lines, and, therefore, there would be no traffic or transportation impact. Likewise, without the project, there would be no change in the volume of vehicles contributing to traffic during operation of the project. Under the No Project Alternative, there would be no adverse traffic impacts due to project construction or operation along I-15; SRs 161,164, or 604; or US 95. This alternative would result in no impact to traffic or transportation.

3.14.3.7 Transmission Alternative Route A

Transmission Alternative Route A is similar to the proposed route with the exception of an approximately 4-mile segment that would run north and south near MP 2, approximately 0.83 miles from the City of Boulder. Alternative Route A was created to bypass the proposed route segment between MP 1 and MP 7 by heading west and then north to join the existing ROW.

Transmission Alternative Route A would be similar to the proposed project in terms of potential construction traffic impacts at construction yards and guard crossings, traffic load and capacity, LOS standards, and emergency access. Like the proposed project, Transmission Alternative Route A would cause direct minor adverse traffic impacts at construction yards and crossing points (MP 29) along the transmission line route; these impacts would be short term. Impacts associated with construction traffic would be minor and short term and would be reduced by implementation of MM Trans-1. Construction of this alternative would result in a less than significant impact with mitigation on traffic load and capacity and LOS standard, and a less than significant impact without mitigation for emergency access.

Maintenance activities associated with substations and transmission lines would not require additional vehicles and, therefore, would not increase traffic beyond existing LOSs, as current operations and maintenance procedures would be continued. There would be no operational impacts associated with traffic under this alternative.

3.14.3.8 Transmission Alternative Route B

Transmission Alternative Route B is similar to the proposed route except for a segment that runs north and south near MP 2, approximately 0.83 miles from the City of Boulder. Alternative Route B was created to bypass the proposed route segment between MP 1 and MP 2 by heading north and then southwest to join the existing ROW.

In terms of potential construction traffic impacts at construction yards and guard crossings, Transmission Alternative Route B would be similar to the proposed project and Alternative Route A. There would be no operational impacts associated with traffic under this alternative.

3.14.3.9 Transmission Alternative Route C

Transmission Alternative Route C is similar to the proposed project in terms of potential construction traffic impacts at construction yards and guard crossings, traffic load and capacity and LOS standard and emergency access. In terms of potential construction traffic impacts at construction yards and guard crossings, Transmission Alternative Route C would be similar to the proposed project and Alternatives A and B. There would be no operational impacts associated with traffic under this alternative.

3.14.3.10 Transmission Alternative Route D and Subalternative E

In terms of potential construction traffic impacts at construction yards and guard crossings, traffic load and capacity and LOS standard, and emergency access, Transmission Alternative Route D and Subalternative E would be similar to the proposed project and Alternatives A, B, and C. There would be no operational impacts associated with traffic under this alternative.

3.14.3.11 Telecommunication Alternative (Golf Course)

In terms of potential construction traffic impacts at construction yards and guard crossings, traffic load and capacity and LOS standard, and emergency access, the Golf Course Telecommunication Alternative would be similar to the proposed project and Alternatives A, B, C, D, and Subalternative E. There would not be any operational impacts under this alternative.

3.14.3.12 Telecommunication Alternative (Mountain Pass)

In terms of potential construction traffic impacts at construction yards and guard crossings, traffic load and capacity and LOS standard, and emergency access, the Mountain Pass Telecommunication Alternative would be similar to the proposed project and Alternatives A, B, C, D, and Subalternative E and the Golf Course Telecommunication Alternative. There would not be any operational impacts under this alternative.

3.14.4 Mitigation Measures

MM TRANS-1: No Lane Closures on I-15 during Friday Peak Usage. The applicant will limit construction activities on Friday afternoon from noon to 10 p.m. so as not to require lane closures on I-15.

MM TRANS-2: Helicopter Flight Plan and Safety Plan. At least 30 days prior to construction of the project, the applicant will coordinate with the FAA for review and approval of any helicopter flight plans that would take place during construction and operation. The applicant will then provide information to the BLM and the CPUC regarding the intended need and use of helicopters during construction and operation of the project, including the flight and safety plan; the number of days and hours that the helicopter would operate; the type and number of helicopters that would be used; the location, size, and number of staging areas for helicopter take off and landing; and written approval from property owners for use of helicopter staging areas. In the event that plans for the SNSA are approved, the applicant will review the helicopter flight and safety plan with the FAA at least 30 days prior to the start of SNSA construction and resubmit the revised plan to the BLM and the CPUC.

MM TRANS-3: Traffic Control Plan. Prior to start of construction of the EITP, the applicant will prepare and implement a Traffic Control Plan for the project to address staggering of deliveries on I-15 during peak traffic times.

3.14.5 Whole of the Action / Cumulative Action

Below is a brief summary of information related to transportation and traffic in the ISEGS FSA/DEIS (CEC and BLM 2009). This section focuses on differences in the ISEGS setting and methodology compared with the setting and methodology discussed above for the EITP. This section also discloses any additional impacts or mitigation imposed by the CEC for ISEGS.

3.14.5.1 ISEGS Setting

The ISEGS regional and local setting is the same as that described above for the EITP, since the same transportation network would be used for construction and operation traffic. Specifically, I-15 and its ramp terminals (Yates Well Road and Colosseum Road) would be used for ISEGS-related traffic. Table 3.14-7 identifies the existing traffic conditions on these roads and the anticipated traffic conditions if the project were constructed.

Table 3.14-7 ISEGS Intersection LOS Analysis with Project Construction Traffic

Roadway Segment on Main Street	Capacity (vehicles/day)	Existing Volume (vehicles/day)	Existing V/C	Existing LOS	Construction Traffic (vehicles/day)	Volume With Project (vehicles/day)	V/C With Project	LOS With Project
Colosseum Road	3,000	NA	NA	A	243	0.08	NA	A
Yates Well Road	6,000	249	0.04	A	243	492	0.08	A
I-15 NB & SB	72,000	59,690	0.83	C	243	59,933	0.83	C

Sources: CEC and BLM 2009 (Sources of capacity and volume data for Yates Well Road and I-15 are TRB 2000, COSB 2007, and Caltrans 2007a.)
Note:
Volume data for Colosseum Road, a two-lane direct road, is not maintained; however, based on field observation, this road is seldom used and is therefore assumed to operate at LOS A (CEC and BLM 2009).
Key:
LOS= Level of Service
NB = northbound
SB = southbound
V/C = volume-to-capacity ratio

Applicable Laws, Regulations, and Standards

Because EITP and ISEGS would be in different locations, some laws, regulations, and standards listed in Section 3.14.2, "Applicable Laws, Regulations, and Standards," would not apply to ISEGS. Since ISEGS would be developed entirely within California on BLM land, the Nevada regulations associated with the EITP would not apply. However, there are no ISEGS project components or operational features that would trigger laws, regulations, or standards in addition to those required for EITP related to transportation and traffic.

3.14.5.2 ISEGS Methodology

In the ISEGS FSA/DEIS, BLM and CEC staff (Staff) reported on existing conditions and assessed impacts to transportation and traffic. Staff evaluated the potential of the proposed project to increase traffic on the Friday evening commute on I-15. Staff considered compliance with the laws, ordinances, regulations, and standards associated with the project components and location. Staff also considered whether there would be a significant impact under CEQA using the impact criteria listed in 3.14.3.2. In addition, Staff considered two potential additional impacts related to (1) nearby school operations and (2) transportation of hazardous materials. However, since no schools are located within 30 miles of the ISEGS site, the FSA/DEIS did not contain an analysis of impacts to schools. However, the Operation Impacts and Mitigation section of the FSA/DEIS did include an analysis of the impacts of transporting hazardous materials.

3.14.5.3 ISEGS Impacts

The CEC and the BLM have published the impacts discussed below related to transportation and traffic for the ISGES project.

Construction Impacts

All intersections would continue to operate at an acceptable LOS (C or better) in the morning and afternoon peak hours in spite of the addition of construction traffic. Construction traffic would result in a change at the intersection of the I-15 northbound ramps and Yates Well Road from LOS A to LOS B during the afternoon peak hours. However, this change would not be significant because the LOS would still be above level C.

Because northbound I-15 is already highly congested on Friday afternoons (LOS F), and project-related construction traffic would exacerbate congestion in the area of Yates Well Road, project impacts on northbound 1-15 on Fridays would be significant. To limit the proposed project's contribution to existing congestion on northbound I-15 on Friday afternoons, Staff proposed Condition of Certification TRANS-1, which would require development and CEC staff approval of a traffic control plan. The traffic control plan would include methods to substantially reduce the project's impact on I-15 traffic, such as staggering the departure of construction workers from the ISEGS site on Friday afternoons and/or establishing a carpool/vanpool incentive program. Staff believed that with proper implementation of the traffic control plan, project traffic accessing northbound 1-15 from Yates Well Road would be distributed at intervals sufficient to reduce the congestive effect of project traffic along this segment of 1-15 on Friday afternoons during construction to a less-than-significant level (fewer cars would be attempting to merge into congested I-15 traffic from the Yates Well Road on-ramp at any given time).

Operational Impacts

The operational phase of ISEGS would require 90 daily employee commutes, or 180 daily trips. Thirty employees would be required for the day shift. The remaining 60 employees would work on the night shift and would not travel during the peak hours. Thirty operational trips added to 1-15 during peak hours would not create a substantial increase in traffic volume and would not result in a significant impact Monday through Thursday. However, as indicated previously, northbound 1-15 operates at LOS F on Friday afternoons and into the late evening. The same potential impact identified for construction traffic would result during operation, yet be mitigated with Condition of Certification TRANS-1 (Traffic Management Plan).

An operational impact of ISEGS analyzed in the transportation and traffic section relates to glare from heliostats and the power tower receiver, in addition to thermal plumes. A detailed analysis of the potential safety impacts to aviators and motorists concludes that impacts would be less than significant with mitigation measures. This impact analysis is not discussed for the EITP, because it applies to an ISEGS-specific project component not proposed for the EITP.

Decommissioning Impacts

Following the operational life of 50 years, the ISEGS project owner would close and decommission the project. Closure of ISEGS would require a number of worker vehicle trips and haul trips to dismantle and haul project infrastructure from the ISEGS site. While the exact number of vehicle trips is unknown at this point, it is reasonable to assume the number of trips for decommissioning would be similar to that of construction estimates for the project. It is also likely that due to expected growth and development in the project area and in Las Vegas, the LOSs on 1-15 would be lower than they are currently. Therefore, it is reasonable to expect that impacts to the local and regional transportation network would be similar to those related to the construction of ISEGS. However, with implementation of measures similar to those identified in Conditions of Certification TRANS-1 through TRANS-5, impacts would be expected to be less than significant.

3.14.5.4 ISEGS Conditions of Certification / Mitigation Measures

The ISEGS FSA/DEIS recommends that the following Conditions of Certification be required by the CEC and the BLM to lessen impacts to traffic and transportation if the project is approved:

TRANS-1: TRAFFIC CONTROL PLAN. Prior to start of construction of the ISEGS, the project owner will prepare and implement a Traffic Control Plan for ISEGS construction and operation traffic, containing a Traffic Management Plan addressing the movement of workers, vehicles, and materials, including arrival and departure schedules and designated workforce and delivery routes.

TRANS-2: REPAIR OF PUBLIC RIGHT-OF-WAY. The project owner will restore all public roads, easements, and ROWs that have been damaged due to project-related construction activities to original or near-original condition in a timely manner.

TRANS-3: HELIOSTAT POSITIONING PLAN AND MONITORING. The project owner will prepare a Heliostat Positioning Plan identifying potential sensitive receptors and heliostat movements that could result in exposure of these receptors to reflected solar radiation. The project owner will also prepare a Heliostat Operation Plan to avoid human health and safety hazards at locations of sensitive receptors according to defined exposure limits and will prepare a monitoring and reporting plan and update it annually for the first 5 years and then every 2 years for the life of the project.

TRANS-4: VERIFICATION OF POWER TOWER RECEIVER LUMINANCE AND MONITORING. Upon commencement of commercial operation of each of the three ISEGS power plants and at intervals of every 5 years thereafter, the project owner will for each power tower evaluate the intensity of luminance of light reflected from all four sides (north, south, east, and west) of the power tower receivers, as measured from the power plant boundary, nearest road, and distances of 200, 500, 1,000, and 1,500 meters from the power tower receivers.

TRANS-5: POWER TOWER LIGHTING. The project owner will ensure that each power tower is marked and lighted according to the recommendations included in the FAA aeronautical study performed for each tower. Additionally, the project owner will submit FAA Form 7460-2 Part II, Notice of Actual Construction or Alteration, to the FAA within 5 days of completion of construction of the tower to its greatest height.

TRANS-6: FAA NOTIFICATION. Prior to start-up and testing activities of the plant and all related facilities, the project owner will coordinate with the FAA to notify all pilots using the airspace in the vicinity of the ISEGS of potential air hazards from turbulence.

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