3.16 Transportation and Traffic

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
16.	**TRANSPORTATION AND TRAFFIC— Would the project:**				
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c)	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?	☐	☐	☒	☐
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e)	Result in inadequate emergency access?	☐	☐	☒	☐
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

3.16.1 Environmental Setting

Roadway Network

The backbone of the regional transportation system in the Project area is U.S. Highway 50 (U.S. 50), which is a major east-west route of the U.S. Highway System that carries traffic from West Sacramento, California (west of the Project area), to points east. This roadway would be used to access the Project area during construction and operation. The local transportation system in the Project area includes roads maintained by El Dorado County and the City of Folsom. **Table 3.16-1** summarizes the characteristics of the relevant regional and local roadways in the Project area.

Existing Roadway Levels of Service

Level of service (LOS) is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers, in terms of factors such as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience and safety. There are six levels of operational service, given letter designations from LOS A to LOS F, with LOS A representing the best operating conditions (free-flow) and LOS F the worst (severely congested flow with high delays). The ratio of a road's traffic volume to its capacity is

TABLE 3.16-1
SUMMARY OF STUDY AREA ROADWAY CHARACTERISTICS

Roadway	Jurisdiction	Classification	No. of Lanes	Daily Traffic Volume	Peak-Hour Traffic Volume	Physical Relationship to Power Line
U.S. 50 (at Scott Road / East Bidwell Street)	Caltrans	Interstate	6	90,000	8,600	Access Road
U.S. 50 (at Latrobe Road)	Caltrans	Interstate	7	90,000	8,600	Access Road
U.S. 50 (at Bass Lake Road)	Caltrans	Interstate	5	70,000	7,000	Access Road
U.S. 50 (at Cambridge Road)	Caltrans	Interstate	4	63,000	5,700	Access Road
U.S. 50 (at Cameron Park Drive)	Caltrans	Interstate	4	63,000	5,900	Overhead Crossing
U.S. 50 (at South Shingle Springs Road)	Caltrans	Interstate	4	63,000	5,900	Access Road
East Bidwell Street	City of Folsom	N/A	4	N/A	N/A	Overhead Crossing
Broadstone Parkway	City of Folsom	N/A	4	N/A	N/A	Overhead Crossing
Empire Ranch Road	City of Folsom	N/A	4	N/A	N/A	Overhead Crossing
Bass Lake Road	El Dorado County	Rural Minor Arterial / Urban Collector	2	N/A	N/A	Overhead Crossing
Cambridge Road	El Dorado County	Rural Minor Arterial / Urban Collector	2	N/A	N/A	Overhead Crossing
Cameron Park Road	El Dorado County	Urban Minor Arterial	2	N/A	N/A	Overhead Crossing
South Shingle Springs Road	El Dorado County	Urban Minor Arterial	2	N/A	N/A	Access Road
Durock Road	El Dorado County	Rural Minor Arterial / Urban Collector	2	N/A	N/A	Overhead Crossing

SOURCES: Caltrans, 2012 Traffic Volumes on the California State Highway System, 2013; and El Dorado County Transportation Commission, El Dorado County Regional Transportation Plan 2010-2030, November 2010.

computed, and the resulting volume/capacity (v/c) ratio is assigned an LOS grade, indicative of traffic conditions (see **Table 3.16-2** for the range of v/c ratios for each LOS, and **Table 3.16-3** for existing levels of service on U.S. 50).

TABLE 3.16-2
DEFINITIONS OF FREEWAY LEVELS OF SERVICE (LOS)

LOS	V/C Ratio	Traffic Flow Characteristics
A	0.00 – 0.30	Free flow; negligible delays
B	0.31 – 0.50	Stable operations; minimal delays
C	0.51 – 0.71	Stable operations; acceptable delays
D	0.72 – 0.89	Approaching unstable operations; queue develop rapidly, but no excessive delays
E	0.90 – 1.00	Unstable operations; substantial delays
F	>1.00	Forced flow; jammed conditions

SOURCE: Transportation Research Board, 2000 Highway Capacity Manual

TABLE 3.16-3
EXISTING PEAK-HOUR LEVELS OF SERVICE (LOS) ON U.S. 50

Roadway	Traffic Volume	Design Capacity[a]	V/C Ratio	LOS
U.S. 50 (at Scott Road / East Bidwell Street)	8,600	11,400	0.75	D
U.S. 50 (at Latrobe Road)	8,600	13,300	0.65	C
U.S. 50 (at Bass Lake Road)	7,000	9,500	0.74	D
U.S. 50 (at Cambridge Road)	5,700	7,600	0.75	D
U.S. 50 (at Cameron Park Drive)	5,900	7,600	0.77	D
U.S. 50 (at South Shingle Springs Road)	5,900	7,600	0.77	D

a Design Capacity = 1,900 vehicles per hour per lane times the number of lanes (see Table 3.16-1)

SOURCES: Caltrans, *2012 Traffic Volumes on the California State Highway System*, 2013; and PG&E, *Missouri Flat – Gold Hill 115 kV Power Line Reconductoring Project Proponent's Environmental Assessment*, August 2013.

Bicycle Facilities

Bikeways are typically classified as Class I, Class II, or Class III facilities, as defined by the State in Streets and Highway Code Section 890.4. Class I bikeways are bike paths with exclusive right-of-way for use by bicyclists or pedestrians. Class II bikeways are bike lanes striped with the paved areas of roadways and established for the preferential use of bicycles, while Class III bikeways are signed bike routes that allow bicycles to share streets or sidewalks with vehicles or pedestrians.

El Dorado County

The *El Dorado County Bicycle Transportation Plan* describes the bikeways in unincorporated El Dorado County (EDCTC, 2010b). Several bikeways are in the Project area, including two Class II routes in unincorporated El Dorado County that cross the Project alignment.

City of Folsom

The *City of Folsom Bikeway Master Plan* describes the existing bikeways in the City of Folsom (City of Folsom, 2013a). Several bikeways are in the Project area, including five Class I routes, five Class II routes, and one Class III route that either cross or are directly adjacent to the Project alignment.

Air Traffic Facilities

One airport—Cameron Airpark, owned by the Cameron Park Airport District—is located in the Project area. It is accessed via Cameron Park Drive, about 1.5 miles north of U.S. 50. Based on statistics collected for the 12-month period ending June 30, 2011 (the most recent 12-month period for which data is available), there were 96 single engine aircraft and 10 multi-engine aircraft based at Cameron Airpark (SkyVector, 2014). Annual operations, on average, included 25,272 general aircraft local operations, 10,000 general aircraft itinerant operations, and 764 annual air taxi operations (SkyVector, 2014). Helicopter parking is not authorized, and no helicopters are based there (Id.). The helicopter that may be used by the Project would likely be stationed at Sacramento Mather Airport, a public-use airport located approximately 12 miles southwest of the proposed tower modification or at Auburn Airport, a public-use airport located approximately 20 miles north of the proposed tower modification.

Public Transit and Rail Services

El Dorado Transit operates four local bus routes, serving western El Dorado County (El Dorado Transit, 2014). The Cameron Park Route crosses the Project alignment and uses some of the Project area access roads, including U.S. 50 and Cameron Park Drive. El Dorado Transit also provides commuter service from El Dorado County to downtown Sacramento. Six park-and-ride locations are within El Dorado County, along the commuter bus route.

The City of Folsom offers fixed line bus service (Folsom Stage Line) that runs Monday through Friday in the City of Folsom, as well as light rail service to the City of Sacramento, from Historic Folsom Light Rail Station to Sacramento Valley Station (City of Folsom, 2014). Fixed-line Routes 10 and 20 cross the Project alignment and use various Project area access roads, including East Bidwell Street and Broadstone Parkway.

3.16.2 Regulatory Setting

Federal

The U.S. Department of Transportation (DOT) is the administering agency for the following regulations:

- Title 49 Code of Federal Regulations (CFR) Sections 171 through 177 (49 CFR 171–177), which govern the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of transportation vehicles.

- Title 49 CFR 350–399 and Appendices A through G, Federal Motor Carrier Safety Regulations, which address safety considerations for the transport of goods, materials, and substances over public highways.

- Title 49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, which directs DOT to establish criteria and regulations for the safe transportation of hazardous materials.

State

California Department of Transportation (Caltrans) owns the rights-of-way for state highways, including any on- and off-ramps that provide access to the Project area. Any Project-related work within the state rights-of-way requires a ministerial Encroachment Permit from Caltrans.

Caltrans is also the administrating agency for regulations related to traffic safety, including the licensing of drivers, oversized (weight and load) vehicle limitations, transportation of hazardous and combustible materials, and the safe operation of vehicles.

Local

El Dorado County

The *El Dorado County Regional Transportation Plan* identifies LOS standards for the county system. The El Dorado County standard for is LOS D, except in Community Regions, defined in the General Plan as areas which are appropriate for the highest intensity of self-sustaining compact urban-type development or suburban type development within the county, where the standard is LOS E (EDCTC, 2010a).

The *El Dorado County Bicycle Transportation Plan* includes development of a bicycle transportation system that provides a network of on- and off-street bikeways throughout western El Dorado County. The plan also supports alternative modes of transportation aside from driving, and it allows bike commuters to bypass vehicle congestion (EDCTC, 2010b). The Park-and-Ride Facilities Master Plan for El Dorado County identifies the policies, actions, and financing needed to guarantee adequate parking capacity to support the El Dorado County Transit Authority's commuter bus service, carpooling, vanpooling and other forms of shared-rides (EDCTC, 2007).

City of Folsom

The *City of Folsom General Plan* identifies a goal of achieving at least an LOS C throughout the city (Policy 17.8) and seeks to maintain this goal by regularly updating the Folsom Area Traffic Study (City of Folsom, 1988). The City of Folsom supports alternative transportation through the *City of Folsom Bikeway Master Plan* (City of Folsom, 2007).

3.16.3 Applicant Proposed Measures

The Project would include the following APMs, which PG&E has designed to address potential impacts that it anticipated could result from the Project.

APM TRA-1: Air Transit and Neighborhood Coordination

PG&E would implement the following protocols that pertain to helicopter use during construction and air traffic:

- PG&E would comply with all applicable FAA regulations regarding air traffic within 2 miles of the Project alignment.
- PG&E's helicopter operator would coordinate all Project helicopter operations with the local airport before and during Project construction.
- PG&E does not anticipate that residents would be required to temporarily vacate their homes or businesses. In the unlikely event that final construction plans require otherwise, PG&E would coordinate with potentially affected residents or businesses to minimize the duration of the necessary work and any resultant inconvenience.

APM TRA-2: Temporary Traffic Controls

PG&E would obtain all necessary transportation and/or encroachment permits, including those for the U.S. 50 crossings and transport of oversized loads and certain materials, and would comply with permit requirements designed to prevent excessive congestion or traffic hazards during temporary lane closures. PG&E would develop lane closure/width reduction or traffic diversion plans as required by the encroachment permits. Construction activities that are in, along, or cross local roadways would follow best management practices and/or local jurisdictional encroachment permit requirements, to minimize impacts to traffic and transportation in the Project area.

3.16.4 Environmental Impacts and Mitigation Measures

a) Whether the Project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit: *LESS THAN SIGNIFICANT.*

Most construction activities would occur within PG&E's existing transmission rights-of-way and would not be performed in regional or local roadways. Crossing structures would be installed where the Project alignment crosses over major roads, such as U.S. 50, to allow traffic to safely use the road while PG&E removes the existing conductor and pulls the new conductor into place. Temporary road closures also could be required at various locations (e.g., Platt Circle during the relocation of the existing distribution line from overhead to underground) to ensure public safety. Operation of Class I and Class II bike routes and public transit routes in the Project area may be temporarily affected when sections of the line are being reconductored at road overhead crossings (listed in Table 3.16-1). However, PG&E proposes to implement temporary traffic controls that are designed to prevent excessive congestion or traffic hazards (APM TRA-2), which would minimize impacts to traffic flow (including bicyclists and public transit) in the affected areas.

The anticipated temporary and short-term construction-related traffic impacts would be related to truck routes and access routes in the Project area. The roadways that potentially would be affected

by construction-related traffic are listed in Table 3.16-1, and shown on the Detailed Alignment figures for the Project (see Figures 2-2 through 2-8 in *Section 2, Project Description*). On a typical work day, approximately 15 to 20 construction workers would be at the day's work sites, with up to 45 daily workers at any time, associated with the variety of work activities that may occur concurrently. Transport vehicles (e.g., crew-cab trucks and half-ton pickups) would be used to transport personnel to work sites (anticipated to carry 2 to 4 workers per vehicle). Construction materials would be delivered using line trucks and staged near existing structures. In addition, construction equipment would be brought to the work sites by trucks, but those truck trips would not be a daily occurrence, but rather would be delivered and staged in the Project work area, and then removed when it is no longer needed. The number of daily truck trips generated by Project construction would vary depending on the type and location of construction activities on each day. However, the typical number of truck trips is estimated to range from 12 to 75 trucks (i.e., 24 to 150 one-way trips) per day, with an average of approximately 35 trucks (70 one-way trips) per day.

The above-described construction-generated traffic would be temporary and therefore would not result in long-term degradation in operating conditions on area roadways. Project-generated truck trips would be spread over the course of the work day, and construction workers would commute to and from the worksite primarily before or after peak traffic hours. Project-generated traffic (trucks and worker vehicles) would increase the daily traffic volume on U.S. 50 by no more than about 0.5 percent, which would not be substantial relative to existing traffic conditions, and Project traffic would not significantly disrupt daily traffic flow. While the increase in traffic volume on local roads would be noticeable, there would be sufficient carrying capacity on those roads to accommodate the added traffic during the construction period. The primary impact from construction truck traffic would be a temporary and intermittent reduction of roadway capacities due to the slower movements of trucks compared to passenger vehicles. Drivers could experience delays if they were traveling behind a construction truck. Construction-related traffic would not conflict with any traffic plans, ordinances, or policies that establish measures of effectiveness for the performance of the circulation system. Therefore, the impact would be less than significant.

No changes to existing operation and maintenance activities are anticipated with Project implementation. That is, existing power lines are inspected yearly (ground inspection every other year), or as needed when driven by an event or incident, such as an emergency, and those inspections would not change from existing conditions with Project implementation. The Project would result in less conductor breakage from corrosion and brittleness, thereby fewer events or incidents that require emergency responses and inspections. Therefore, there would be no impact under Project operation and maintenance.

b) Whether the Project would conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways: *NO IMPACT*.

The Project is located in El Dorado County and the City of Folsom. Both cities have established LOS standards, and El Dorado County has a congestion management plan (CMP) that is intended to monitor and address long-term traffic impacts due to future development and that do not apply to temporary impacts associated with construction projects. Project construction would be

transitory in nature and effects on traffic flow on area roadways would be temporary. Furthermore, the Project's upgraded power lines would require no change to existing operation and maintenance activities. Therefore, the Project would not generate new long-term traffic, and consideration of LOS impacts on CMP roadways or local roadways during operation of the Project components is not applicable, and is not discussed further in this section.

c) Whether the Project would 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: *LESS THAN SIGNIFICANT.*

Construction-related helicopter use along the Project alignment would increase existing air traffic temporarily (during the 20-month construction period) and intermittently (i.e., a maximum of up to 5 days of operation, 6 hours of operation per day, and 4 landings/take-offs per day) between Sacramento Mather Airport or Auburn Airport and the potential helicopter landing zone shown on Figure 2-3. This minor increase in air traffic levels would not result in substantial safety risks because there is no evidence of existing air traffic congestion that would be exacerbated by the Project to a point where safety would be affected.

Project-related helicopter use would create a new air traffic pattern by adding flights to new destinations; however, there would be few trips total, and no flight would be longer than approximately 20 miles. This minor change in the location of air traffic would not result in substantial safety risks to other pilots because it is not commonly shared airspace. It also would not result in substantial safety risks to people on the ground. Helicopters that are carrying equipment or construction materials would not pass over major highways, and they would pass near, but not directly over, a limited area containing habitable structures.

One existing lattice steel tower (about 800 feet northwest of the intersection of Broadstone Parkway and Empire Ranch Road) is located in a seasonal pond that contains standing water for much of the year. To avoid impacts to this aquatic resource, this tower is anticipated to be accessed using a helicopter to complete tower reinforcement work and transport personnel and materials. To accommodate use of a helicopter, a helicopter landing zone has been identified approximately 560 feet southeast of the intersection of Montridge Way and Wilson Boulevard in an undeveloped area of El Dorado County. However, the exact location and footprint would depend on conditions on the ground and would not be determined until just prior to construction. In accordance with APM TRA-1, PG&E's helicopter operator would follow protocols regarding air traffic and would coordinate with the local airport during all construction-related helicopter operations. Therefore, the impact associated with changes in air traffic patterns would be less than significant.

Further, as described in *Section 3.16.1, Environmental Setting*, there is one airport near the Project area: Cameron Airpark is located approximately 1.5 miles north of U.S. 50. The construction, operation and maintenance of Project infrastructure, including pole heights of up to 30 feet higher than existing poles, would not interfere with existing air traffic, and so would not result in substantial safety risks to pilots flying into and out of Cameron Airpark, because the increase would be negligible compared to the existing pole heights, and because the new poles would not be tall enough to affect runway activities, including take off, approach, or landing. Therefore, the impact associated with increased or changed air traffic patterns in the vicinity of

Cameron Airpark would be less than significant. However, as indicated in *Section 3.8, Hazards and Hazardous Materials*, Mitigation Measure 3.8-1 would require that PG&E submit Project plans to the Federal Aviation Administration for review and approval in accordance with Federal Aviation Regulation Part 77.

d) Whether the Project would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment): *LESS THAN SIGNIFICANT.*

Project construction would not alter any public roadways or intersections, including access roads to power lines, towers or poles, and substations, nor would it introduce incompatible uses to the Project area. Some existing access roads may be reestablished as part of the construction activities, as necessary; however, these roads have been previously used for maintenance activities for the existing power lines. One new spur road, which would be graded and graveled, would be established to access one pole north of the intersection of Finders Way and Saratoga Way in El Dorado Hills. Any road closures that would occur on private and county roads would be temporary, consistent with applicable regulations, and would be coordinated with the County or property owner(s); APM TRA-2 (implementation of temporary traffic controls designed to prevent increased traffic hazards) would ensure that potential impacts would be less than significant.

e) Whether the Project would result in inadequate emergency access: *LESS THAN SIGNIFICANT.*

Emergency access routes would be maintained throughout Project construction and operation and maintenance. Construction vehicles would access Project construction areas by using existing paved, dirt, and/or gravel roads and overland travel routes. In addition, as described above, a helicopter would be used to access one tower. Construction vehicles and equipment needed at the pull sites are expected to be staged or parked within Project area rights-of-way, approved temporary construction easements, or alongside access roads. Any road closures would be temporary, would be coordinated with Caltrans and/or local jurisdictions, and access for emergency vehicles would be maintained at all times. APM TRA-2 (implementation of temporary traffic controls designed to ensure coordination with appropriate jurisdictions to maintain access for emergency vehicles) would ensure that potential impacts would be less than significant.

f) Whether the Project would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities: NO IMPACT.

The Project would not directly or indirectly eliminate alternative transportation corridors or facilities (e.g., bicycle lanes, bus routes/stops, pedestrian pathways, etc.). In addition, the Project would not include changes in policies or programs that support modes of alternative transportation. Therefore, the Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. As a result, the Project would result in no impact related to this criterion f).

References

California Department of Transportation (Caltrans). 2013. *2012 Traffic Volumes on the California State Highway System*.

City of Folsom. 1988. *City of Folsom General Plan (22.0 Transportation and Circulation Element)*. Adopted October 31, 1988.

City of Folsom. 2007. *City of Folsom Bikeway Master Plan.* Available: http://www.folsom.ca.us/depts/parks n recreation/bike trails/bikeway master plan.asp. Accessed March 12, 2014.

City of Folsom. 2014. City of Folsom Transit Division. [http://www.folsom.ca.us/depts/public_works/transit_division.asp]. Accessed March 12, 2014.

El Dorado County Transportation Commission (EDCTC). 2007. *El Dorado County Park-and-Ride Facilities Master Plan*.

El Dorado County Transportation Commission (EDCTC). 2010a. *El Dorado County Regional Transportation Plan 2010–2030*.

El Dorado County Transportation Commission (EDCTC). 2010b. *El Dorado County Bicycle Transportation Plan*. [http://www.ectc.org/3/CountyBikePlan2010.html. Accessed March 12, 2014].

El Dorado Transit. 2014. El Dorado Transit. [http://www.eldoradotransit.com. Accessed March 12, 2014].

SkyVector, 2014. Cameron Airpark Airport. Official FAA data effective May 29, 2014. [https://skyvector.com/airport/O61/Cameron-Airpark-Airport]. Accessed June 6, 2014.

Transportation Research Board. 2000. *Highway Capacity Manual*.