5.6 ENERGY

This section describes existing conditions and potential impacts on energy as a result of construction, operation, and maintenance of the project, and concludes that potential impacts would be less than significant. The proposed project's potential effects on energy were evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines.

5.6.1 Environmental Setting

5.6.1.1 Existing Energy Use

The project involves the installation of an underground fiber optic network to improve the quality of rural broadband in northeast California and would not replace or upgrade an existing facility or infrastructure. The project's main energy consumption would be from transportation fuels used during construction. Operation of the project would consume minor amounts of energy, and maintenance would be on an as-needed basis and would consume negligible amounts of energy, chiefly from the use of maintenance vehicles traveling to and from any repair sites.

Transportation accounted for nearly 40 percent of California's total energy consumption in 2017 (U.S. Energy Information Administration 2020). In 2018, California consumed 15.5 billion gallons of gasoline and 3.1 billion gallons of diesel fuel (CEC 2020). Petroleum-based fuels currently account for more than 90 percent of California's transportation fuel use (CEC 2016). However, the state is now developing strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and greenhouse gases (GHGs) from the transportation sector, and reduce vehicle miles travelled. The California Energy Commission (CEC) has developed plans and policies to expand the infrastructure of alternative fuel refueling stations to encourage the use and reliability of alternatively fueled vehicles. (CEC 2007).

5.6.2 Regulatory Setting

5.6.2.1 Federal

Corporate Average Fuel Economy Standards

First established by Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards aim to reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and EPA jointly administer CAFE standards. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for the following: 1) technological feasibility; 2) economic practicality; 3) effect of other standards on fuel economy; and 4) need for the nation to conserve energy (NHTSA 2010).

Fuel efficiency standards for medium- and heavy-duty trucks were jointly developed by EPA and NHTSA. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and

vans, and vocational vehicles for model years 2014 through 2018 and resulted in a reduction of fuel consumption from 6 to 23 percent less than the 2010 baseline, depending on the vehicle type (EPA 2011). EPA and NHTSA also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type (EPA 2016).

5.6.2.2 State

Air Toxic Control Measure

In 2004, CARB initially approved an ATCM to implement idling restrictions of diesel-fueled commercial motor vehicles operating in California (13 CCR Section 2485) (CARB 2005). The ATCM applies to diesel-fueled commercial vehicles with a gross vehicle rating greater than 10,000 pounds. The ATCM would limit idling times of these vehicle's primary engine to no more than 5 minutes. Although the ATCM's intent was to reduce DPM, this measure would also reduce fuel consumption.

5.6.2.3 Local

Policies and programs for reducing consumption or increasing energy efficiency have not been established by counties within the project area.

5.6.3 Impact Questions

Would the project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local energy plan for renewable energy or energy efficiency?	☐	☐	☒	☐
c) Would the project add capacity for the purpose of serving a non-renewable energy resource?	☐	☐	☐	☒

5.6.4 Impact Analysis

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact. Construction of the project would result in energy consumption from the use of heavy-duty construction equipment and heavy-duty trucks and worker vehicles commuting to and from the project. The project would use electricity during construction to provide temporary power for

lighting at staging areas and would not result in a substantial increase of electricity demand. Electricity consumption would be temporary over the construction duration and would be considered negligible over the long-term. Energy consumption from project operations would be negligible. Project operations would include maintenance activities that would be on an as-needed basis, therefore operational energy consumption would have no impacts.

The construction phasing and equipment assumptions used in generating air quality and GHG impacts were used to generate energy use estimates. It was assumed that off-road equipment mobile sources would primarily be diesel-fueled. Table 5.6-1 shows the project's total diesel fuel consumption during construction. Details of the energy calculations are provided in Appendix B.

Table 5.6-1: Project Construction Fuel Consumption

Source	Fuel Consumption (gallons)
Off-road Equipment	159,384
Heavy Duty Trucks	20,257
Worker Vehicles	14,134
Project Total	**193,775**
2018 Diesel Fuel Data for Lassen County[1]	2,083,333
Percentage of County	**9.3%**

1. Diesel is adjusted to account for retail (48 percent) and non-retail (52 percent) diesel sales.

Source: CEC 2020

The project would span across three counties; however, specific fuel data was only available for Lassen County; thus, the analysis conservatively assumed that all diesel fuel would be consumed from Lassen County supply. As shown in Table 5.6-1, the amount of diesel fuel consumed by the project would not represent a substantial fraction of the available diesel fuel supply in Lassen County. Furthermore, the project would comply with the state's anti-idling and emissions regulations, which would result in a more efficient use of diesel fuel consumption. Based on this, the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources.

b) Conflict with or obstruct a state or local energy plan for renewable energy or energy efficiency?

Less Than Significant. The project would comply with CARB's ATCM and reduce fuel consumption during idling events. The project would not conflict with or obstruct a state or local energy plan for renewable energy or energy efficiency; therefore, impacts would be less than significant.

c) Would the project add capacity for the purpose of serving a non-renewable energy resource?

No Impact. The project would install an underground fiber optic telecommunications line and would not add capacity for the purpose of serving a non-renewable energy resources; therefore, the project would have no impact.

Energy

5.6.5 Draft Environmental Measures

There are no applicable environmental measures for energy.