
17.0 OTHER CEQA ANALYSIS

17.0 OTHER CEQA CONSIDERATIONS

This section discusses additional topics statutorily required by the California Environmental Quality Act (CEQA), including growth-inducing impacts, significant irreversible environmental effects, significant and unavoidable environmental effects, and a summary of cumulative effects. In addition, this section provides an analysis of the proposed projects' energy consumption and conservation consistent with CEQA Guidelines Appendix F.

17.1 GROWTH-INDUCING IMPACTS

INTRODUCTION

CEQA Guidelines Section 15126.2(d) requires that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by CEQA Guidelines as:

...the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth...It must not be assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if, for example, a project involved construction of new housing. A project would have indirect growth inducement potential if, for example, it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, a project would indirectly induce growth if, for example, it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. A project facilitating an increased water supply in an area where water service historically limited growth could be considered growth inducing.

The CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans include land use development patterns and growth policies that allow the orderly expansion of development supported by adequate public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

COMPONENTS OF GROWTH

As required by Government Code Section 65300, the Nevada County General Plan is intended to serve as the overall plan for the physical development of the county. While the General Plan does not specifically propose any development projects, it does regulate the location and type of future development and thus controls future county population and economic growth that would result in indirect growth-inducing effects.

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The Alta Sierra and Rough and Ready project sites are designated Neighborhood Commercial (NC), while the Penn Valley project site is designated Community Commercial (CC) in the Nevada County General Plan. Therefore, the Nevada County General Plan assumed that each of the project sites would generate commercial growth.

GROWTH EFFECTS OF THE PROPOSED PROJECTS

Changes in population and employment are not in and of themselves environmental impacts. However, they may result in the need for the construction of new housing, businesses, infrastructure, and services that accommodate increases in population and employment. Following is a discussion of the proposed projects' potential to generate growth in the area and the anticipated effects of such growth.

The proposed projects would not result in the development of any residential uses but would create new employment opportunities in the county. Each project would employ approximately 6 to 10 people. The jobs created would be full- and part-time, would not require specialized skills, and would likely be filled by the existing population. Thus, the projects would not substantially increase employment opportunities such that the county's population would be significantly increased, and no new housing would be required beyond that anticipated by the General Plan.

Historically, Nevada County has had a jobs/housing imbalance, with more households in the county than jobs available for members of the households. The increase in employment opportunities associated with the proposed projects would serve to improve the jobs/housing balance by increasing job opportunities for local residents. Furthermore, because of the type of jobs to be created, it is anticipated that these jobs would be filled by existing area residents. Therefore, the projects are not anticipated to result in the need for the construction of any new housing, businesses, infrastructure, or services to support new growth. The potential impacts of the projects on the physical environment are evaluated in Sections 4.0 through 15.0 of this Draft EIR.

Other Economic-Related Growth

The proposed projects would increase economic activity through the short-term creation of jobs during construction. However, the existing number of residents in the county and other nearby areas who are employed in the construction industry would be sufficient to meet the demand for construction workers that would be generated by the projects. As such, substantial population growth or increases in housing demand in the region as a result of these jobs would not be anticipated.

The proposed projects would also increase demand for public services and utilities. However, as discussed in Section 14.0, Public Services and Utilities, the proposed developments could be served by existing facilities and no new or expanded off-site facilities would be required beyond minor improvements to connect existing facilities. Furthermore, the projects would not extend infrastructure to areas outside the respective project boundaries that are not already served, nor would they provide additional capacity.

17.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

CEQA Sections 21100(b)(2) and 21100.1(a) require that EIRs prepared for the adoption of a plan, policy, or ordinance of a public agency must include a discussion of significant irreversible environmental changes of project implementation. In addition, CEQA Guidelines Section 15126.2(c) describes irreversible environmental changes as:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Development of the project sites would irretrievably commit building materials and energy to the construction and maintenance of the proposed buildings and infrastructure. Renewable, nonrenewable, and limited resources would likely be consumed as part of the development of the proposed projects and would include, but not be limited to, oil, gasoline, lumber, sand and gravel, asphalt, water, steel, and similar materials. In addition, development of the project sites would result in increased demand on public services and utilities.

The project sites are each designated for commercial development in the Nevada County General Plan. Therefore, development of the project sites would be consistent with existing plans and would result in significant irreversible impacts similar to those discussed in the Nevada County General Plan EIR.

17.3 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL EFFECTS

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. In addition, Section 15093(a) of the CEQA Guidelines allows the decision-making agency to determine whether the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. The County can approve the projects with unavoidable adverse impacts if it prepares a Statement of Overriding Considerations setting forth the specific reasons for making such a judgment.

The significant and unavoidable impacts identified in the Draft EIR are:

Alta Sierra Site

- Substantial changes in visual character of the site and surroundings

Rough and Ready Highway Site

- Substantial changes in visual character of the site and surroundings
- Incompatibility with surrounding residential uses

There were no significant and unavoidable impacts identified for the Penn Valley site.

17.4 CUMULATIVE IMPACTS SUMMARY

This discussion summarizes the cumulative impacts associated with the proposed projects that are identified in the environmental issue areas in Sections 4.0 through 15.0 of this Draft EIR. Cumulative impacts are the result of combining the potential effects of the proposed projects with other recently approved, planned, and reasonably foreseeable development projects in the region. The reader is referred to Sections 4.0 through 15.0 for a full discussion of the cumulative impacts of the proposed projects.

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INTRODUCTION

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." *Cumulatively considerable* means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

...the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

- 1) Either:
 - a. A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or
 - b. A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.
- 2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and
- 3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, the lead agency is not required to consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

CUMULATIVE IMPACT APPROACH

The cumulative setting for the proposed projects includes all past, present, and probable future development as identified in the Nevada County General Plan, the Penn Valley Village Center Area Plan, the Grass Valley General Plan, and the Nevada City General Plan.

Table 17.0-1 lists the status of large-scale development projects in western Nevada County. This list of projects was used in the development and analysis of the cumulative settings for the projects. Please note that this list is not intended to be an inclusive list of all projects in the region.

Significance thresholds, unless otherwise specified, are the same for cumulative impacts as project impacts for each environmental topic area described in Sections 4.0 through 15.0.

**TABLE 17.0-1
PROPOSED AND APPROVED PROJECTS IN THE VICINITY OF THE PROPOSED PROJECT SITES**

Project Title	Location	Description	Status
Current Planning (Development)			
Ananda Village Master Plan	San Juan Ridge	Comprehensive Master Plan, rezone, and development agreement to allow phased residential development of 195 units over 706 acres, commercial uses, and other improvements	Project documents currently under review; CEQA review not yet under way
Boca Quarry Mine	Near Hinton	Use permit to expand mining operation and associated reclamation plan	FEIR available for review; Planning Commission hearing in 2013 postponed
Nevada County Solar Project	Various locations	Various solar energy installations	Application under review
Hansen Brothers Greenhorn Creek Mining Expansion	Greenhorn Creek	Use permit to expand sand and gravel mining operation and associated reclamation plan	Revised reclamation plan submitted May 20, 2016; review period ended July 8, 2016
Trees Resort at Darkhorse	Near Lake of the Pines	Create 14 new single-family residential lots and 64 new resort townhomes; improvements to golf course buildings	Project documents currently under review; CEQA review not yet under way
Spears Final Map	Penn Valley	Subdivide 117.3 acres into 11 residential lots	MND public review period ended May 16, 2016
Yuba River Charter School	Grass Valley	New K through 8 elementary school	MND approved in 2015
Players Pizza	Penn Valley	Convert existing automotive shop to a 1,350 square foot restaurant	Approved
Spenceville Road Bar	Penn Valley	2,270 square foot bar	Approved
Wildwood Ridge Estates	Penn Valley	372 unit residential development	Approved
Sierra Terrace	Grass Valley	Residential development	Approved
Makiah Woods	Grass Valley	Residential development	Approved
Loma Rica	Grass Valley	Large mixed use development	Approved
Gold Country Village	Grass Valley	Senior housing facility	Approved
Wolf Creek Village	Grass Valley	Residential development	Approved

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Project Title	Location	Description	Status
Berriman Ranch	Grass Valley	Residential development	Approved
314 Railroad Avenue	Grass Valley	Office development	Approved
Ridge Meadows	Grass Valley	Residential development	Approved
Ridge Village	Grass Valley	Residential development	Approved
Village at South Auburn	Grass Valley	Mixed use development	Approved
Milco 3	Grass Valley	Light industrial development	Approved
Victoria Grove	Grass Valley	Residential development	Approved
Twin Cities Church	Grass Valley	Church expansion	Approved
Forest Springs Mobile Home Park	Alta Sierra	Residential development	Approved
Advance Planning (Long-Range Plans and Recreation)			
Soda Springs Area Plan	Soda Springs	Long-term guidance for Donner Summit area	Draft Area Plan public review ongoing
Housing Element Rezone Program Implementation	Countywide	General Plan amendments and rezoning for 18 parcels to accommodate future development of high-density housing	Final EIR certified October 2015; project partially approved

Source: Nevada County 2016; LSC Transportation Consultants, Inc. 2014

CUMULATIVE IMPACTS

As described above, cumulative impacts are two or more effects that, when combined, are considerable or compound other environmental effects. The analysis presented in the technical sections of this Draft EIR (Sections 4.0 through 15.0) determined that all cumulative impacts can be mitigated to less than cumulatively considerable, except for the contribution of the Alta Sierra and the Rough and Ready Highway projects' contribution changes in the existing visual character in the county.

17.5 ENERGY CONSERVATION

INTRODUCTION

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the California Legislature adopted Assembly Bill (AB) 1575, which created the California Energy Commission (CEC). The CEC's statutory mission is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines.

CEQA Guidelines Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed projects would not result in the wasteful, inefficient, and unnecessary consumption of energy and therefore would not create a significant impact relative to energy resources.

BACKGROUND

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximate amounts of energy contained in common energy sources are as follows:

Energy Source	BTUs
Gasoline	124,340 per gallon
Diesel Fuel	137,380 per gallon
Compressed Natural Gas	22,453 per pound
Electricity	3,414 per kilowatt-hour

Sources: USDOE 2014

Total energy usage in California was 7,826 trillion BTUs in 2010, which equates to an average of 209.6 million BTUs per capita. Of California's total energy usage, the breakdown by sector is 38.7 percent transportation, 24.4 percent industrial, 18.6 percent commercial, and 18.3 percent residential. The primary sources of California's energy are natural gas (31 percent) and motor gasoline (21 percent). Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use (EIA 2014).

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Given the nature of the proposed projects, the following discussion focuses on the sources of energy that are most relevant to the projects—electricity and natural gas for the proposed commercial operations, and transportation fuel for vehicle trips associated with the projects.

Current Energy Use

The Alta Sierra and Penn Valley project sites are currently undeveloped and do not consume any energy. The Rough and Ready Highway project site contains a small commercial structure currently occupied by a jewelry sales and repair business. This structure consumes a negligible amount of energy.

APPLICABLE REGULATIONS

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the US Department of Transportation, the US Department of Energy, and the US Environmental Protection Agency (EPA) are three agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through the establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the state level, the California Public Utilities Commission (CPUC) and the California Energy Commission are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards. California is exempt under federal law from setting state fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and state energy-related laws and plans are discussed below.

FEDERAL

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the United States would meet certain fuel economy goals. Through this act, Congress established the first fuel economy standards for on-road motor vehicles in the country. Pursuant to the act, the National Highway Traffic and Safety Administration, which is part of the US Department of Transportation, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. The Corporate Average Fuel Economy (CAFE) program, which is administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer, based on city and highway fuel economy test results and vehicle sales. On the basis of the information generated under the CAFE program, the US Department of Transportation is authorized to assess penalties for noncompliance. In the course of its more than 30-year history, this regulatory program has resulted in vastly improved fuel economy throughout the nation's vehicle fleet.

Intermodal Surface Transportation Efficiency Act

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of intermodal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that metropolitan planning organizations (MPOs) were required to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values which were to guide transportation decisions in that metropolitan area. The planning process for specific projects would then address these policies. Another requirement was to consider the consistency of transportation planning with federal, state, and local energy goals. Through these requirements, energy consumption was expected to become a decision criterion, along with cost and other values that determine the best transportation solution.

Transportation Equity Act for the 21st Century

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds on the initiatives established in the ISTEA legislation discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of intelligent transportation systems, to help improve operations and management of transportation systems and vehicle safety.

STATE

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators, encouraging urban designs that reduce vehicle miles traveled, and accommodating pedestrian and bicycle access.

Title 24, Energy Efficiency Standards

The California Energy Code (Title 24, Part 6, of the California Code of Regulations, California's Energy Efficiency Standards for Residential and Nonresidential Buildings) establishes energy conservation standards for all new and renovated commercial and residential buildings constructed in California. The provisions of the California Energy Code apply to the building envelope, space-conditioning systems, and water-heating and lighting systems of buildings and appliances; they also guide construction techniques to maximize energy conservation. Minimum efficiency standards are given for a variety of building elements, including appliances, water and space heating and cooling equipment, and insulation for doors, pipes, walls, and ceilings. The CEC adopted the 2005 changes to the Building Efficiency Standards, which emphasized saving energy during peak periods and seasons, and improving the quality of installation of energy efficiency measures. It is estimated that implementation of the 2005 Title 24 standards has resulted

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in an increased energy savings of 8.5 percent relative to the previous Title 24 standards. Compliance with Title 24 standards is verified and enforced through the local building permit process. The 2008 Title 24 Standards, which had an effective date beginning August 1, 2009, include added provisions that require, for example, "cool roofs" on commercial buildings; increased efficiency in heating, ventilating, and air conditioning systems; and increased use of skylights and more efficient lighting systems. California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2013 standards continue to improve upon the previous standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2013 standards went into effect on July 1, 2014.

LOCAL

Nevada County General Plan

The following is a list of relevant goals and policies from the General Plan Housing Element.

- | | |
|-----------------|--|
| Goal EC-8.2 | To the extent feasible, encourage the reduction of greenhouse gas emissions during the design phase of construction projects. |
| Policy EC-8.6.2 | Support appropriate neighborhood-serving commercial activities in residential areas that would reduce vehicle miles traveled, such as small pedestrian-oriented grocery stores and childcare centers. The uses should serve the needs of the immediate residential neighborhood and not draw significant trade from outside the neighborhood, not disrupt or detract from the livability of the surrounding neighborhood, and be designed in keeping with the established residential character of the area. |
| Policy EC-8.6.3 | Promote infill within existing residential neighborhoods and intensify land uses consistent with existing neighborhood or commercial district patterns in developed areas currently served by municipal services. |
| Policy EC-8.6.8 | Encourage residents and developers to increase energy conservation and improve energy efficiency. Support education programs that promote energy conservation and energy efficiency. Support project applicants in incorporating cost-effective energy efficiency that exceeds State standards. |

CEQA GUIDELINES

CEQA Guidelines Appendix F requires that EIRs contain a discussion of the potential energy impacts of a project with an emphasis on reducing the wasteful, inefficient, or unnecessary consumption of energy. CEQA Guidelines Appendix F further states that the means of achieving the goal of energy conservation include the following:

- Decreasing overall per capita energy consumption.
- Decreasing reliance on fossil fuels such as coal, natural gas, and oil.
- Increasing reliance on renewable energy sources.

PROJECT ENERGY CONSUMPTION AND CONSERVATION

As described previously, the proposed projects would introduce energy usage on sites that are currently undeveloped or vacant and thus use no energy. The projects would consume energy in both the short term during construction and in the long term during operation.

Construction Phase

During construction, the projects would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials, such as lumber and glass.

Energy Consumed by Construction Vehicles and Equipment

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site grading, paving, and construction and would be temporary in nature. Fuel use calculations for the proposed projects are provided in **Appendix 17.0**. Fuel use associated with construction activities was based on estimated equipment assumptions, as well as vehicle trips identified in the California Emissions Estimator Model (CalEEMod) computer modeling conducted for the projects (see Section 5.0, Air Quality). Construction of the Alta Sierra project would consume approximately 13,103 gallons of diesel fuel; Penn Valley, approximately 14,384 gallons; and Rough and Ready Highway approximately 8,473 gallons. In total, construction of all three projects would use approximately 35,960 gallons of diesel fuel for an estimated total of approximately 5.0 billion BTUs.

Bound Energy Contained in Construction Materials

Construction of the proposed projects would require large amounts of construction materials such as concrete, asphalt, steel, lumber, and glass, which require energy to acquire, manufacture, process, and transport. Given high fuel prices, contractors and owners have a strong financial incentive to use recycled materials and products originating from nearby sources in order to reduce the costs of transportation. Furthermore, it is reasonable to assume that production of building materials would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business. Therefore, it is expected that materials used in construction would not involve the wasteful, inefficient, or unnecessary consumption of energy.

Operational Phase

The operational phase of the proposed projects would consume energy for multiple purposes including, but not limited to, building heating and cooling, water heating, lighting, and electronics. Electricity and natural gas usage calculations for the proposed projects are provided in **Appendix 17.0-A**. In total, operation of all three projects would use approximately 76.7 million BTUs each year. Several companies provide natural gas (propane) to users in Nevada County, so a single source cannot be referenced. Pacific Gas and Electric (PG&E) provides electric services in Nevada County. Approximately one-half of the electricity PG&E delivers is a combination of both renewable and greenhouse gas-free resources. In order to achieve its goal to provide 33 percent of energy from renewable resources by the end of 2020, PG&E has begun investing in the following clean energy resources: solar, wind, geothermal, biomass, small hydro, renewable energy from third parties, and renewable projects that are PG&E-owned. In an effort to harness solar power, PG&E has added more than 100 megawatts (MW) of new solar generation, with three PG&E-owned and -operated facilities in Fresno County. Additionally, the utility company has

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invested in new conventional generation facilities, notably the Contra Costa County Gateway Generating Station, the Colusa Generating Station, and the Humboldt Bay Generating Station.

PG&E's power mix delivered in 2012 included:

- Non-emitting nuclear generation (21 percent)
- Large hydroelectric facilities (11 percent)
- Eligible renewable resources, such as wind, geothermal, biomass, solar and small hydroelectric (19 percent)
- Natural gas/other (27 percent)
- Unspecified power (21 percent). This electricity is not traceable to specific sources by any auditable contract trail.

In 2015, PG&E's power mix included:

- Non-emitting nuclear generation (23 percent; increased 2 percent from 2012)
- Large hydroelectric facilities (6 percent; decreased 5 percent from 2012)
- Eligible renewable resources (30 percent; increased 11 percent from 2012)
- Natural gas/other (25 percent; decreased 2 percent from 2012)
- Unspecified power (17 percent; decreased 5 percent from 2012)

PG&E estimates that it is on target to achieve its 33 percent renewable energy resources goal in the upcoming 3 years.

Energy would also be consumed during each vehicle trip associated with the proposed developments. Transportation energy is discussed separately below.

Energy Conservation during Operation

Each of the projects would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage, and it is assumed that incorporation of Title 24 Energy Efficiency Standards ensures the projects will not result in the inefficient, wasteful, or unnecessary consumption of energy.

Transportation

Transportation Energy Consumption and Conservation

Vehicle trips associated with the proposed projects would result in the consumption of an estimated 171 gallons of gasoline daily, or 62,415 gallons annually, and 1.3 gallons of diesel fuel daily, or 475 gallons annually (CARB 2011). Therefore, the proposed projects would annually consume an estimated 7.8 billion BTUs of energy for transportation purposes.

While these trips would be new trips to the project sites, as noted above, the vehicle fleet is subject to the federal Energy Policy and Conservation Act, which regulates fuel efficiency for

automobiles. Therefore, fuel use by automobiles traveling to and from the projects would improve as the vehicle fleet improves and would not be considered wasteful or inefficient.

CONCLUSION

In summary, operation of the proposed projects would result in the consumption of electricity and natural gas for project operation. Additional BTUs of gasoline and diesel fuels would be consumed during construction and for auto trips of employees and customers of the proposed developments. However, compliance with Title 24 and continuous improvements in vehicle fleet fuel efficiency, as required under federal law, would reduce project energy consumption. Therefore, although the projects would result in the consumption of energy from multiple sources, they would not result in a significant impact to energy resources, as they would not use energy in an inefficient, wasteful, or unnecessary manner. It is also important to note that the projects would consist of development in areas that are currently developed and would avoid unnecessary energy usage from development of less accessible areas of the county that would involve energy consumption from the extension of public services and utilities where they do not currently exist.

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