

## **4.12.5 ELECTRICITY, NATURAL GAS, AND TELECOMMUNICATION SERVICES**

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### **4.12.5.1 INTRODUCTION**

The electricity, natural gas and telecommunications analysis is based on information within the following documents:

- Capitol Utility Specialists, *Creekview Technical Dry Utilities Report*, November 2010
- *City of Roseville General Plan Public Facilities Element*, 2010 as amended
- *PG&E Line 406 and 407 Natural Gas Pipeline Draft EIR*, July 2009 (SCH#2007062091)
- *West Roseville Specific Plan*, February 2004
- *Draft Creekview Specific Plan*, 2010

The documents listed above are available for review during normal business hours at:

**City of Roseville Permit Center**

311 Vernon Street  
Roseville, CA 95678

No comments related to electricity or natural gas were received in response to the NOP.

### **4.12.5.2 ENVIRONMENTAL SETTING**

#### **Electricity Supply**

The City purchases wholesale electrical power from both the Western Area Power Administration (WAPA), which is generated by the federal government's Central Valley Project, and from other members of the Northern California Power Agency (NCPA), a joint powers agency, and distributes it through transmission and distribution lines. In addition, approximately 40 percent of the City's power is generated at the City owned Roseville Energy Park (REP).

The REP is a 166 megawatt natural gas fired power plant that utilizes a state of the art combined cycle gas turbine technology. The REP went into service in October 2007 providing the cleanest fossil-fired energy possible from a facility of its size.

There are two potential public utility providers that could provide electricity to the project area: Pacific Gas and Electric Company (PG&E) and the City of Roseville Electric Department (Roseville Electric). Roseville Electric provides electrical service to customers within the City limits and is anticipated to be the service provider for the project area.

In 2008, the City's annual electrical consumption was approximately 1,303,838 mega-watt hours. By the year 2025, the City's electrical consumption is expected to rise to 1,689,887 mega-watt hours<sup>1</sup>. The peak demand for electricity for the City in July 2008 was approximately 336 megawatts.

Electric demand for the proposed CSP is expected to result in an average demand of 5.6 megavolt amperes (MVA). Peak demand at buildout is estimated at approximately 11.7 MVA.

Revenue sources for the City's utility system include electric rates and direct installation fees. These fees are collected as a condition of approval of development projects.

The City currently encourages energy conservation by providing information regarding rebate programs for energy efficiency investments and education programs for residents and businesses. In recent years, the City has encouraged smart building, through its BEST (Blueprint for Energy Efficiency and Solar Technology) Homes program. BEST Homes bring together integrated rooftop solar electric generation technology, high energy efficiency, water efficiency and shade trees as a standard feature in homes. Through BEST Homes, Roseville Electric is offering new home developers up to \$8,600 in rebates for each participating dwelling unit (plus \$30 per qualifying Shade Tree). The City proposes that up to 20 percent of all new home construction include high energy efficient integrated rooftop solar electric generation technology as a standard feature in homes.

The BEST Homes program allows developers to:

- Offer the next generation in housing today
- Benefit from the City's guaranteed planning and permitting process
- Gain a highly marketable program, while using the program and City of Roseville's logos
- Increased visibility through the Roseville Electric website

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<sup>1</sup> Sierra Vista Specific Plan Final EIR, May 2010.

- Positive environmental impact

The City of Roseville has numerous other programs that encourage energy conservation.

### **Transmission**

#### ***Existing Onsite Electric Facilities***

An overhead PG&E 12 kV three phase electric mainline extends diagonally along the south side of the Project area and following Pleasant Grove Creek. This line serves a mobile home on the southeast portion of the property. The PG&E mainline would remain in service and would be converted to an underground line as CSP is developed.

In addition, a 12 kV line extends south off this line, and follows the future Westbrook Boulevard alignment and serves the O'Brien parcel south of Blue Oaks Boulevard.

#### ***60 kV Transmission***

The 60 kV transmission line will be extended west to serve the CSP area along the north side of Blue Oaks Boulevard. There are two routing options once the 60 kV line reaches the site: 1) Northwest and adjacent to the south side of Pleasant Grove Creek within open space parcel C-54 along an all weather road (bike trail), or 2) West on Blue Oaks Boulevard to Westbrook Boulevard, then north along the east side of Westbrook Boulevard into the site. Whichever option is chosen, the line will extend north to the proposed substation site on the northwest end of Westbrook Drive, south of the proposed open space preserve.

### **Natural Gas**

PG&E has no existing natural gas facilities on or adjacent to the site.

## **4.12.5.3 REGULATORY SETTING**

### **Federal**

The Federal Energy Regulatory Commission regulates the transmission and sale of electricity in interstate commerce, licenses hydroelectric projects, and oversees related environmental matters.

In 2006, the US EPA and Department of Energy co-sponsored the National Action Plan for Energy Efficiency (the Action Plan). The Action Plan presents policy recommendations for creating a sustainable, aggressive national commitment to energy efficiency through gas and electric utilities and partner organizations. Such a commitment could save many billions of dollars on energy bills over the next 10 to 15 years, contribute to energy security and improvement the environment. Roseville Electric has adopted the principles of the Action Plan.

### **State**

The project would need to comply with the California Building Energy Efficiency Standards. Title 24 of the California Code of Regulations was amended in October 2005 to include new energy efficiency standards in response to the state's energy crisis as well as AB 970, the California Energy and Reliability Act of 2000. The goal of these enactments is to improve the energy efficiency of residential and nonresidential buildings, minimize impacts during peak energy use periods, and reduce impacts on overall state energy needs. Implementation of the standards is expected to substantially reduce the growth in electricity and natural gas use.

PG&E's Gas Rule 15 provides policies and procedures for the extension of gas distribution mains necessary to furnish permanent services to customers. It outlines responsibilities for installation and extension of gas lines, as well as financial contributions by project applicants.

### **Local**

The City of Roseville's General Plan includes goals and policies for electricity and gas supply.

**Goal 1:** Maintain a municipal electric utility that provides an efficient, economical, and reliable electric system.

**Goal 2:** Provide electric services to all existing and future Roseville development through the City's electric Utility. The provision of services by another provider may be considered where it is determined that such service is beneficial to the City and its utility customers or the provision of City services is not feasible.

**Goal 3:** Maintain adequate resource reserves consistent with industry standards, sound utility planning, and applicable contracts.

**Goal 4:** Aggressively pursue cost-effective and environmentally safe alternative sources of energy and energy conservation measures.

**Policy 1:** Secure new electric resources and transmission as necessary to meet projected demand levels.

**Policy 2:** Provide improvements to the sub-transmission and distribution system, consistent with facility planning studies, to ensure a reliable source of electricity is maintained.

**Policy 3:** Develop siting and land use compatibility standards for energy facilities.

**Policy 4:** Extend existing resource contracts if found to be in the best interest of the City.

**Policy 5:** Explore the feasibility of the development of and participation in renewable energy resources.

**Policy 6:** Adopt a load/resources management plan, incorporating energy efficiency, conservation, load management, and reliability strategies, identifying program objectives and implementation and monitoring mechanisms.

**Policy 7:** Pursue effective measures to enhance reliability of interconnection of electric utility system to region-wide grid.

**Policy 8:** Pursue reasonable and cost-effective energy efficiency, conservation, and load management programs pertinent to the electric utility system.

**Policy 10:** Require new development to pay a fair share of the cost of new sub-transmission and distribution needed to serve the development and to dedicate sites and easements needed for substations, transmission, sub-transmission, and distribution.

**Policy 11:** Develop and implement public education programs designed to increase the public's awareness of energy issues, including conservation measures and practices

The City of Roseville also has several programs that address energy conservation. Refer to Chapter 4.5, *Climate Change*, for a full description of the City’s energy conservations plans, policies and programs.

A portion of Roseville Electric’s power supply includes renewable energy sources. A mix of wind and biomass, the energy will serve the immediate needs of its 2,000 Green Roseville customers and boost the utility’s renewable energy total from 10 to 14 percent over the next three years. Roseville Electric anticipates entering into more contracts to meet state mandates by increasing the utility’s renewable energy total to 20 percent by 2010.

Roseville Electric requires air conditioners installed in new construction to exceed state energy efficiency requirements. Rebates are available to builders who construct energy efficient homes. The annual goal is 1,000 new homes per year.

**Thresholds of Significance**

For purposes of this EIR, a significant impact would occur if development proposed in the project would do the following:

- Generate demand for electricity or natural gas that exceeds the existing or planned supply or capacity of transmission facilities.

<b>IMPACT 4-12.5-1</b>	<b>INCREASED DEMAND FOR ELECTRICITY</b>	
<b>Applicable Policies and Regulations</b>	CCR Title 20 CCR Title 24 Government Code Section 25000 et seq.	
	<b>CSP</b>	<b>Urban Reserve</b>
<b>Significance with Policies and Regulations</b>	Less Than Significant	Less Than Significant
<b>Mitigation Measures:</b>	None Required	None Required
<b>Significance after Mitigation:</b>	Less Than Significant	Less Than Significant

## CREEKVIEW SPECIFIC PLAN

The development and implementation of the CSP development project would increase the demand for electrical services. As shown in Table 4.12.5-1, the increased demand for electrical service is estimated to average 11.5 megavolt amperes (MVA) peak demand. Roseville Electric has indicated that there are no constraints to providing a reliable energy source to serve the development proposed in the CSP.

**TABLE 4.12.5-1  
ESTIMATED ELECTRIC DEMAND AT BUILDOUT**

Land Use	Units Estimated	Square Feet Estimated	Average Demand (MVA)	Peak Demand
LDR	836		2.27	4.6
MDR	655		1.61	3.3
HDR	520		.90	1.8
Commercial		190,000	0.46	1.2
Elementary School		45,500	0.07	0.3
Public Facilities		4,000	0.12	0.3
<b>Total</b>	<b>2,011</b>	<b>239,500</b>	<b>5.4</b>	<b>11.5</b>

Capitol Utility Specialists, 2010

Roseville Electric currently has no distribution facilities immediately adjacent to the site. The closest existing substation is the Bakki Substation on Blue Oaks Boulevard, west of Fiddyment Road in the West Roseville Specific Plan. The substation is equipped with two 46 MVA banks (92 MVA total) and fourteen mainline 12kV feeder circuits. Some capacity exists at Bakki, and is a function of the pace of construction of Fiddyment Farms and Westpark developments in the West Roseville Specific Plan. Approximately 1,000 units within the CSP are projected to be able to be served until a new substation within the Project area is required. Roseville Electric will monitor circuit loading and start construction on the new substation, so that it is available to meet the demand.

Electric service will initially extend to Creekview along the north side of Blue Oaks Boulevard from the Bakki Substation. Cable for the two 12kV circuits will be extended west from the Bakki Substation to the site. The conduits on the north side of Blue Oaks Boulevard do not connect to

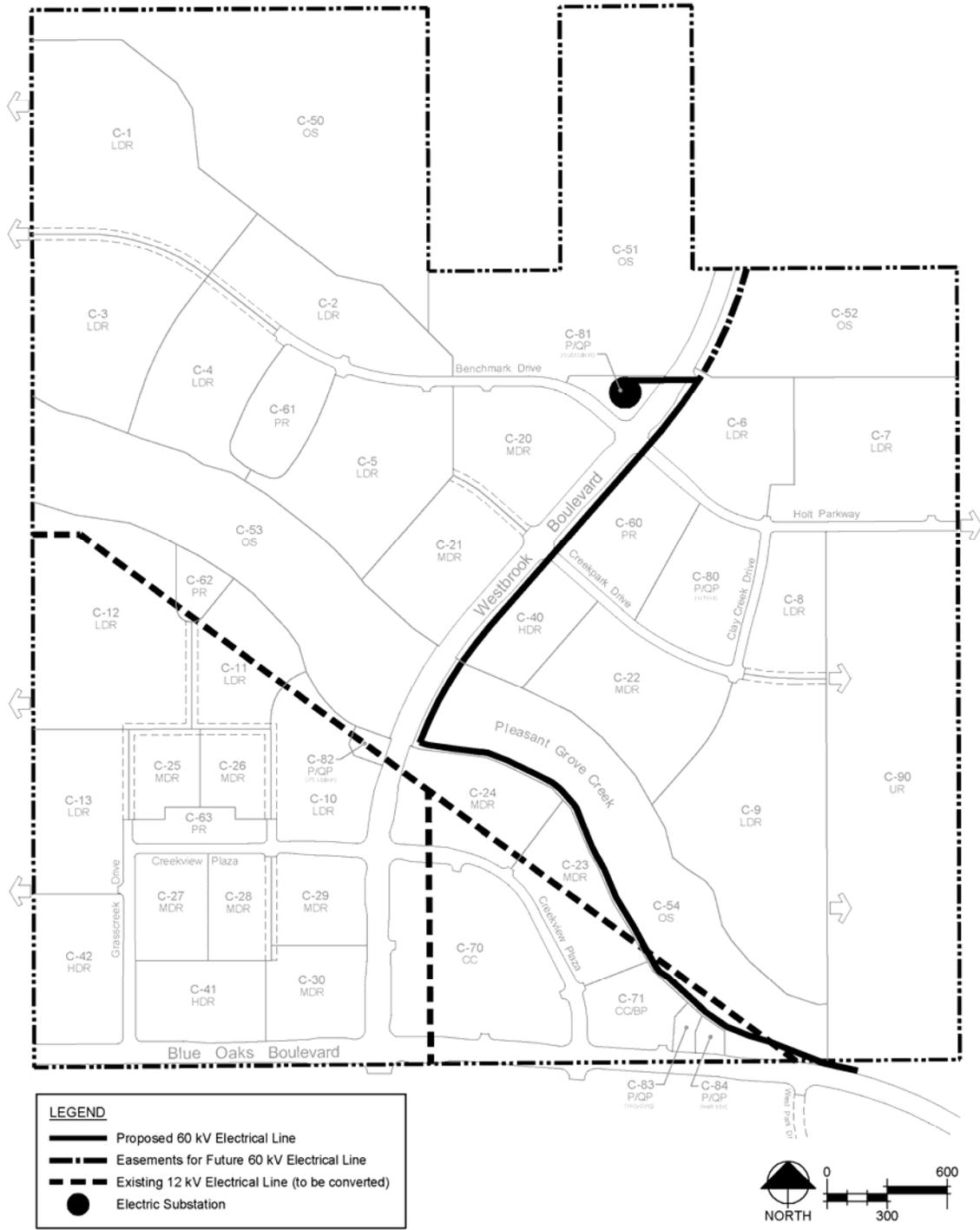
the substation, due to a gap where the future bridge is planned across Pleasant Grove Creek. If the bridge is not completed before Creekview requires service, a temporary overhead line across the creek will be needed. It will be replaced with permanent underground circuits through the new bridge once it's completed.

Each 12KV mainline circuit has a design capacity of about 8 megawatts (mWs) depending on conductor size and other factors, though the circuit is designed to carry only 5 or 6 mWs. This allows for future load growth and provides a high degree of reliability in emergency conditions.

Light wire 12kV circuits will be looped off mainline circuits via pad mounted fuse switches, and will distribute electric service to commercial and residential neighborhoods.

A new 60-kV electric substation is required and is included in the project, as described in Chapter 2, *Project Description* and shown in Figure 4.12.5-1. A 0.9 acre site, located on the northwest corner of Westbrook Boulevard and Benchmark Drive, has been identified in the CSP area to accommodate the electric substation. The substation will have a provision for two 46-MVA banks (92 MVA) and 14 underground 12kV mainline circuits. No water or sewer services would be required at the substation, although the substation will require telephone service. Potential environmental effects that could occur as result of constructing this substation and the transmission system described below are addressed in Section 4.4 (Air Quality), Section 4.6 (Noise), Section 4.8 (Vegetation and Wildlife), Section 4.12 (Public Utilities), Section 4.13 (Hydrology, Water Quality and Groundwater), Section 4.9 (Cultural Resources), Section 4.14 (Aesthetics and Visual Resources), and Chapter 5, (CEQA Considerations).

**FIGURE 4.12.5-1  
ELECTRIC FACILITIES**



The 60-kV overhead transmission line that extends north into the CSP area along the east side of Westbrook Boulevard will loop in and out of the new substation. Roseville Electric's neighborhood substations are typically looped with the 60 kV transmission systems. Mainline circuits (12 kV) from one substation typically interconnect with mainline circuits from neighboring substations. Therefore, the distribution systems emanating from one substation, to some degree, support or back up the distribution systems from neighboring substations.

12 kV light wire circuits will be looped off the mainline circuits via pad mounted switches, and will distribute electric service within the various commercial and residential parcels in the CSP.

Transformers will be placed within the residential neighborhoods and at commercial sites to provide service to individual users. Street lighting will be provided along all public streets as part of the roadway frontage improvements. All electric and street light facilities will be designed and constructed to the City's standards.

While there is currently some excess capacity in the electric distribution system in the vicinity of the CSP area, this capacity would not be enough to serve buildout of the CSP. It will depend, in part, on the pace of construction of the WRSP and the phasing of construction of the CSP. Hence, it is assumed for purposes of this analysis that the CSP electric substation will need to be in place and operational by issuance of the 1,000<sup>th</sup> building permit in the CSP area.

While development of the CSP area will result in increased demand for electricity, the impact is not considered significant. It is anticipated that there will be adequate electricity to serve the project. Because the City has access to 40 percent of its supply from the REP, has an aggressive energy efficiency program, and a substation will be constructed as part of the CSP to provide for adequate distribution, the impact is considered **less than significant**. To the extent that increased electricity usage from the CSP indirectly results in environmental effects due to fossil fuel consumption associated with power plant operation, such effects are addressed in Chapter 4.5, *Climate Change*.

#### URBAN RESERVE

While development has not been proposed for the Urban Reserve area at this time, if development occurs in the future at levels similar to the proposed CSP, it is not anticipated that an

additional substation would be needed to serve the buildout of the Urban Reserve area. Therefore, this impact is considered **less than significant**.

<b>IMPACT 4.12.5-2</b>	<b>INCREASED DEMAND FOR NATURAL GAS</b>	
<b>Applicable Policies and Regulations</b>	PG&E Gas Rules 15 and 16	
	<b>CSP</b>	<b>Urban Reserve</b>
<b>Significance with Policies and Regulations</b>	Less Than Significant	Less Than Significant
<b>Mitigation Measures:</b>	None Required	None Required
<b>Significance after Mitigation:</b>	Less Than Significant	Less Than Significant

#### CREEKVIEW SPECIFIC PLAN

The development of the CSP would increase the demand for natural gas. As shown in Table 4.12.5-2, the increased demand for natural gas is estimated to be approximately 104,911 cubic feet per hour (MCFH).

**TABLE 4.12.5-2  
ESTIMATED NATURAL GAS PEAK DEMAND AT BUILDOUT**

<b>Land Use</b>	<b>Units Estimated</b>	<b>Square Feet Estimated</b>	<b>Total Demand (CFH)</b>
LDR	836		41,800
MDR	655		32,750
HDR	520		26,000
Commercial		190,000	9,500
Elementary School		45,500	2,275
Public Facilities		4,000	200
<b>Total</b>	<b>2,011</b>	<b>239,500</b>	<b>112,525</b>

Capitol Utility Specialists, 2010

An 8-inch diameter high pressure gas main (60 psig Maximum Operating Pressure) is located on Blue Oaks Boulevard and Hayden Parkway, approximately 0.8 miles east of the future Westbrook Boulevard. A PG&E ten-inch diameter steel high pressure natural gas distribution feeder main (DFM) was extended to serve the new REP. It operates at a maximum allowable operating pressure of 500 pounds per square inch gauge. According to PG&E, the average amount of natural gas consumed by a residential unit in the City of Roseville is approximately 150 cubic feet per day (cfm) per unit.<sup>2</sup>

The City's development review process includes a review and comment opportunity for privately owned utility companies, including PG&E, to allow for informed input from each utility company on all development proposals. The input facilitates a detailed review of all projects by service purveyors to assess the potential demands for utility services on a project-by-project basis. The ability of PG&E to provide its services concurrently with each project is evaluated during the development process. Funding for gas service is collected through company billings and developer fees, which fund service extension and infrastructure.

### **Proposed Gas Line**

An 8-inch gas main would be extended west from Hayden Parkway to Westbrook Boulevard within the public utilities easement through the site. Distribution lines and services will extend from the main and will be sized based on anticipated gas loads to the various parcels.

Eight-inch, six-inch and four-inch plastic feeder mains would distribute natural gas through the CSP area, via major roads. Distribution lines and services will extend from the mains and will be sized based on the anticipated gas loads of the various parcels. Residential neighborhoods will likely be sized with two-inch diameter plastic distribution mains and one-half-inch services.

Potential environmental effects that could occur as result of constructing this natural gas distribution system are addressed in Section 4.4 (Air Quality), Section 4.6 (Noise), Section 4.8 (Vegetation and Wildlife), Section 4.12 (Public Utilities), Section 4.13 (Hydrology and Water Quality), Section 4.9 (Cultural and Paleontological Resources), Section 4.14 (Aesthetics and Visual Resources), and Chapter 5, (CEQA Considerations). According to PG&E there is an adequate natural gas supply to serve the CSP area, and the CSP would provide the needed distribution lines into the

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<sup>2</sup> WRSP FEIR, February 2004

project. Therefore, this impact is considered **less than significant**. To the extent that increased natural gas usage contributes to climate change, such effects are addressed in Chapter 4.5, *Climate Change*.

### **URBAN RESERVE**

Future development of the Urban Reserve area is anticipated to result in a demand for natural gas. Like the rest of the CSP, it is anticipated that an adequate natural gas supply would be available, and that distribution and service lines would be extended to the parcels as part of future development. This impact is considered **less than significant**.

## **TELECOMMUNICATIONS**

### **Cable Television and Telephone Services**

#### **Environmental Setting**

Cable television service is provided within the City of Roseville by Comcast. AT&T is the current telephone local exchange carrier. It is expected that Surewest will compete with AT&T to expand its service area, because Surewest is the local telephone provider in Roseville. Surewest, AT&T and Comcast will each be installing fiber backbone systems in the City and proposed project; therefore, the project is assured of an advanced technological infrastructure. All three utilities offer a “triple play” of services (dial tone, video and internet access).

The cable and telephone companies are privately owned and operated. In the 1990's, 80% of households in Roseville had cable service from Jones Intercable. The basic channels, including the City's government access channel, were a primary source of information and entertainment for Roseville residents.

With the availability of the internet and satellite television services, the number of households subscribing to cable (Comcast) or video over DSL (Surewest) has declined to 58% of all households. This percentage has remained consistent even with significant growth in the number of households in Roseville.<sup>3</sup>

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<sup>3</sup> City of Roseville Media Division, May 5, 2009.

Funding for cable and telephone service is collected through company billings and developer fees applied to the extension of infrastructure to new development.

## **CABLE REGULATORY SETTING**

### **Federal and State**

The Digital Infrastructure and Competitiveness Act or DIVCA was passed in 2006. Video providers obtain state franchises rather than local franchises for video services.

### **Local**

The City of Roseville General Plan includes goals and policies for private utilities.

**Goal 1:** Work with privately owned utility companies to ensure adequate service is provided in a timely manner for Roseville customers.

**Policy 1:** Provide for the review and comment of development proposals by non-City-owned utilities.

**Policy 2:** Require the installation of communication and electric lines underground except when infeasible or impractical.

**Policy 3:** Require the provision of necessary utility easements in all new developments.

**Policy 4:** Work with non-City-owned utility providers to ensure that uses and equipment are planned and constructed in a manner consistent with adopted land use policies and design guideline, to the extent feasible.

### **Impacts and Mitigation Measures**

#### **Methods of Analysis**

The demand for cable television and telephone services needed to serve the increased Roseville resident population is anticipated as development of the CSP and Urban Reserve occurs. For this analysis, each dwelling unit is anticipated to require one cable television and one telephone connection. This is a conservative estimate, as residents are increasingly choosing cell phone and

satellite services over land lines. One cable television and telephone connection is also anticipated per gross acre of nonresidential use, excluding parks and open space. While estimates of the additional new cable television and telephone services are calculated, the impact on the service providers is qualitatively discussed.

**Thresholds of Significance**

For purposes of this EIR, a significant impact would occur if development proposed in the project would:

- Generate a demand for cable television and telephone service that requires extension of these facilities in a manner that could adversely affect the environment.

**4.12.5.4 IMPACTS**

<b>IMPACT 4.12.5-3</b>	<b>INCREASED DEMAND ON CABLE TELEVISION AND TELEPHONE SERVICES</b>	
<b>Applicable Policies and Regulations</b>	General Plan Policies for Privately-Owned Utilities	
	<b>CSP</b>	<b>Urban Reserve</b>
<b>Significance with Policies and Regulations</b>	Less Than Significant	Less Than Significant
<b>Mitigation Measures:</b>	None Required	None Required
<b>Significance after Mitigation:</b>	Less Than Significant	Less Than Significant

**CREEKVIEW SPECIFIC PLAN**

Cable television and telephone distribution lines to individual parcels would be extended from existing telecommunications infrastructure adjacent to the CSP area, which will occur as development takes place. The appropriate providers will review delivery of telephone and cable television services to individual projects in the CSP area at the time they are proposed.

The development of the CSP area will create an increased demand for cable television and telephone services. These additional services would be provided by private telecommunications

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companies, and would be funded through developer fees and future customer billing. In addition, the telecommunications companies would be given the opportunity to review and comment on any proposed development requiring new service. All phone and cable lines would be installed in roadway rights-of-way, so there would not be any environmental impacts beyond the construction impacts identified in this EIR. Therefore, the demand for cable television and telephone services is considered a **less than significant** impact.

#### URBAN RESERVE

Future development of the Urban Reserve parcel will create an increased demand for cable television and telephone services. These additional services would be provided by private utility companies and would be funded through developer fees and future customer billings. In addition, the utility companies would be given the opportunity to review and comment on any proposed development requiring new service. All telephone and cable lines would be installed in roadway rights-of-way, so there would not be any environmental impacts beyond the construction impacts identified in this EIR. Therefore, the demand for cable television and telephone services is considered a **less than significant** impact.

#### 4.12.5.5 MITIGATION MEASURES

None required.