

1.0 Introduction

Southern California Edison (SCE, or the applicant) has filed separate applications with the California Public Utilities Commission (CPUC) to construct the following projects:

- Valley-Ivyglen 115-kilovolt (kV) Subtransmission Line Project (proposed Valley-Ivyglen Project)
- Alberhill System Project (proposed Alberhill Project)

The CPUC is the lead agency under the California Environmental Quality Act (CEQA) for review of SCE's proposed projects and has prepared this Environmental Impact Report (EIR) pursuant to CEQA.

On January 16, 2007, the applicant filed an application (A.07-01-031) and Proponent's Environmental Assessment (PEA) with the CPUC for a Permit to Construct the Valley-Ivyglen 115-kV Subtransmission Line. On April 30, 2007, the applicant filed an application (A.07-04-028) and PEA with the CPUC for a Permit to Construct the Fogarty Substation. By a CPUC ruling dated June 7, 2007, the Valley-Ivyglen 115-kV Subtransmission Line and the Fogarty Substation Project applications were consolidated into a single proceeding for CEQA analysis. The CPUC deemed the applications complete on December 21, 2007. The Draft EIR for the Valley-Ivyglen Subtransmission Line and Fogarty Substation Project (original Valley-Ivyglen Draft EIR; CPUC 2009) analyzed the environmental impacts of the construction, operation, and maintenance of a new approximately 25-mile-long subtransmission line—the Valley-Ivyglen 115-kV Subtransmission Line—and a new substation (Fogarty Substation). On May 25, 2010, the CPUC released the Final EIR for the project. On August 12, 2010, the CPUC filed Decision 10-08-009, which certified the EIR and granted the applicant a Permit to Construct the Environmentally Superior Alternative with overriding considerations for the significant and unavoidable impacts that would occur on air quality (including impacts from greenhouse gases), land use, and visual resources as defined in the EIR (CPUC 2009, 2010).

The applicant filed a Petition for Modification (PFM) of CPUC Decision 10-08-009 (CPUC 2010) granting SCE a Permit to Construct the Valley-Ivyglen Subtransmission Line and Fogarty Substation Project on April 2, 2013 (SCE 2013) and an amended Petition for Modification on May 23, 2014 (SCE 2014). As a result, SCE's application (A.07-01-031) for the proposed Valley-Ivyglen Project was reopened. The CPUC deemed the PFM application complete on April 28, 2015, and determined that an EIR would be prepared to evaluate the proposed modifications pursuant to CEQA. On March 26, 2014, the applicant filed a Motion to Bifurcate the Fogarty Substation Project from the Valley-Ivyglen Project, which was approved by the CPUC on August 28, 2014, thereby separating the Valley-Ivyglen Project from the Fogarty Substation Project. This document does not evaluate activities associated with the construction or operation of Fogarty Substation.¹ In addition, the telecommunications installations at Valley, Elsinore, and Ivyglen substations approved by CPUC Decision 10-08-009 have already been completed by the applicant (per Notice to Proceed #2 for the Fogarty Substation Construction) and are not considered in this document.

¹ SCE's application for a Permit to Construct Fogarty Substation (A.07-04-028) was also approved by CPUC Decision 10-08-009. Construction of Fogarty Substation started in February 2011 and was substantially completed by January 2012. The applicant proposed minor modifications to complete construction of the substation in 2014, which were evaluated separate from this document in an Addendum to the Final EIR for the Valley-Ivyglen Subtransmission Line and Fogarty Substation Project (CPUC 2014).

1 The proposed Valley-Ivyglen Project would involve the construction of a new, single-circuit 115-kV
2 subtransmission line² and fiber optic line. The alignment of the proposed Valley-Ivyglen 115-kV line, as
3 modified, would generally follow the route approved in 2010 by CPUC Decision 10-08-009. Proposed
4 modifications include installation of the subtransmission and fiber optic lines on the proposed overhead
5 structures and underground in some areas along the 27-mile-long route; installation of new 115-kV
6 switching and protective equipment at both Valley and Ivyglen Substations; new disturbance areas and
7 increase in the overall area of disturbance; and use of helicopters, blasting, and other new construction
8 methods. Refer to Section 2.3.1 in Chapter 2.0, “Project Description,” for a complete description of the
9 proposed modifications.

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11 SCE filed an application (A.09-09-022) and PEA with the CPUC on September 30, 2009, for a
12 Certificate of Public Convenience and Necessity (CPCN) to construct the proposed Alberhill Project.³
13 The applicant filed an amendment to the application on March 15, 2010 (Application A.09-09-022,
14 amended) and filed amended sections of the PEA on April 11, 2011. The application and PEA (SCE
15 2011) were deemed complete on May 26, 2011. The amended sections of the PEA proposed
16 modifications to the two 500-kV transmission line alignments included in the original PEA. The
17 proposed Alberhill Project would include a new 500/115-kilovolt (kV) substation (Alberhill Substation),
18 two new 500-kV transmission lines, new and modified 115-kV subtransmission lines, and
19 telecommunications system installations. Refer to Section 2.3.2 in Chapter 2, “Project Description,” for a
20 complete description of the proposed project.

21
22 The CPUC has determined that it would be in the public’s best interest to consolidate the CEQA analyses
23 for the proposed Alberhill CPCN and the Valley-Ivyglen PFM into a single CEQA document because
24 components of the proposed Valley-Ivyglen Project are required for construction of the proposed
25 Alberhill Project,⁴ and the construction periods for the two projects would overlap.

26
27 It is anticipated the construction period for the proposed Valley-Ivyglen Project would begin in Fall 2016
28 and would end in fall or winter of 2018. It is anticipated the construction period for the proposed
29 Alberhill Project would begin in spring 2017 and would end in summer of 2019. The proposed Valley-
30 Ivyglen 115-kV Subtransmission Line would connect to the proposed Alberhill Substation to create the
31 Valley-Alberhill 115-kV Subtransmission Line and Alberhill-Ivyglen 115-kV Subtransmission Line.

32 33 **1.1 Purpose of the Proposed Projects**

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35 The proposed projects would serve the cities of Lake Elsinore, Canyon Lake, Perris, Menifee, Murrieta,
36 Murrieta Hot Springs, Temecula, and Wildomar and other cities and unincorporated areas in Riverside
37 County. New construction and modifications to existing systems would occur in the cities of Lake
38 Elsinore, Menifee, Perris, Wildomar, and unincorporated areas of Riverside County.

² *Transmission lines* are designed to operate at or above 200 kV (CPUC 1995). For the purposes of this document,
the term *subtransmission line* refers to powerlines designed to operate at between 50 kV and 200 kV.

³ The applicant filed an amendment to their initial application on March 15, 2010 (A.09-09-022) to change the
application for a Permit to Construct to an application for a CPCN. Refer to the proposed project website to
access the initial and amended applications at:

<http://www.cpuc.ca.gov/Environment/info/ene/alberhill/Alberhill.html>.

⁴ 115-kV components of the proposed Alberhill and Valley-Ivyglen projects would be constructed within the same
right-of-way (ROW) for approximately 6.5 miles. Within this ROW, 115-kV conductor required for the proposed
Alberhill Project would be installed on the 115-kV structures constructed as part of the proposed Valley-Ivyglen
Project.

1 **1.1.1 Valley-Ivyglen Project**
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3 The purpose of the proposed Valley-Ivyglen Project is to ameliorate reliability concerns associated with
4 the existing single 115-kV subtransmission line that serves Fogarty and Ivyglen substations as well as to
5 eliminate the potential for 115-kV system overloads resulting from the loss of a 115-kV element within
6 the *Electrical Needs Area*⁵ (Figure 1-1). The proposed Valley-Ivyglen 115-kV Subtransmission Line
7 would relieve loads on the existing Fogarty-Ivyglen 115-kV Subtransmission Line and provide a second
8 source of power to Ivyglen Substation by creating a second 115-kV connection between Valley
9 Substation and Ivyglen Substation. Operational flexibility would be improved by increasing the
10 applicant's ability to transfer load between 115-kV substations within the Electrical Needs Area. The
11 applicant's ability to provide safe and reliable electrical service within the Electrical Needs Area would
12 also be enhanced. In addition, the proposed Valley-Ivyglen 115-kV Subtransmission Line would enhance
13 the proposed Alberhill 115-kV System's (Figure 1-1) ability to provide service to 115-kV facilities
14 within the proposed system as planned by the applicant.
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16 **1.1.2 Alberhill System Project**
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18 The purpose of the proposed Alberhill Project is to relieve projected electrical demand that would exceed
19 the operating limit of the two load-serving Valley South 115-kV System 500/115-kV transformers by
20 constructing a new 500/115-kV substation (i.e., Alberhill Substation) within the *Electrical Needs Area*⁶
21 (Figure 1-1). The proposed Alberhill Substation would allow for the provision of safe and reliable
22 electrical service pursuant to North American Electric Reliability Corporation (NERC) and Western
23 Electricity Coordinating Council (WECC) standards. System ties between a new 115-kV System (i.e., the
24 proposed Alberhill 115-kV System served by the proposed Alberhill Substation) and the Valley South
25 115-kV System would be maintained such that either of these systems could be used to provide
26 electricity in place of the other during maintenance, during emergency events, or to relieve other
27 operational issues on one of the systems.
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29 **1.1.3 Background Information**
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31 The purpose of the proposed Alberhill Project is tied to electrical demand planning for the Valley-South
32 115-kV System (Figure 1-1), and the purpose of the proposed Valley-Ivyglen Project is tied to electrical
33 demand planning specific to the existing Valley-Elsinore-Fogarty 115-kV Subtransmission Line and
34 Ivyglen Substation. The existing Valley-Elsinore-Fogarty 115-kV Subtransmission Line extends
35 between the applicant's Valley and Ivyglen substations within the Valley-South 115-kV System.
36

⁵ The Electrical Needs Area for the proposed Valley-Ivyglen Project as defined in the original Valley-Ivyglen Draft EIR (CPUC 2009) is an area located within the proposed Alberhill 115-kV System (Figure 1-1) that would include most of the applicant's service area within the cities of Lake Elsinore and Canyon Lake and sections of the applicant's service areas within the cities of Wildomar, Murrieta, and Menifee and unincorporated Riverside County.

⁶ The applicant defines the term *Electrical Needs Area* as an area in which an electrical inadequacy exists or is forecast. The Electrical Needs Area for the proposed Alberhill Project is the service area of the Valley South 115-kV System (Figure 1-1).

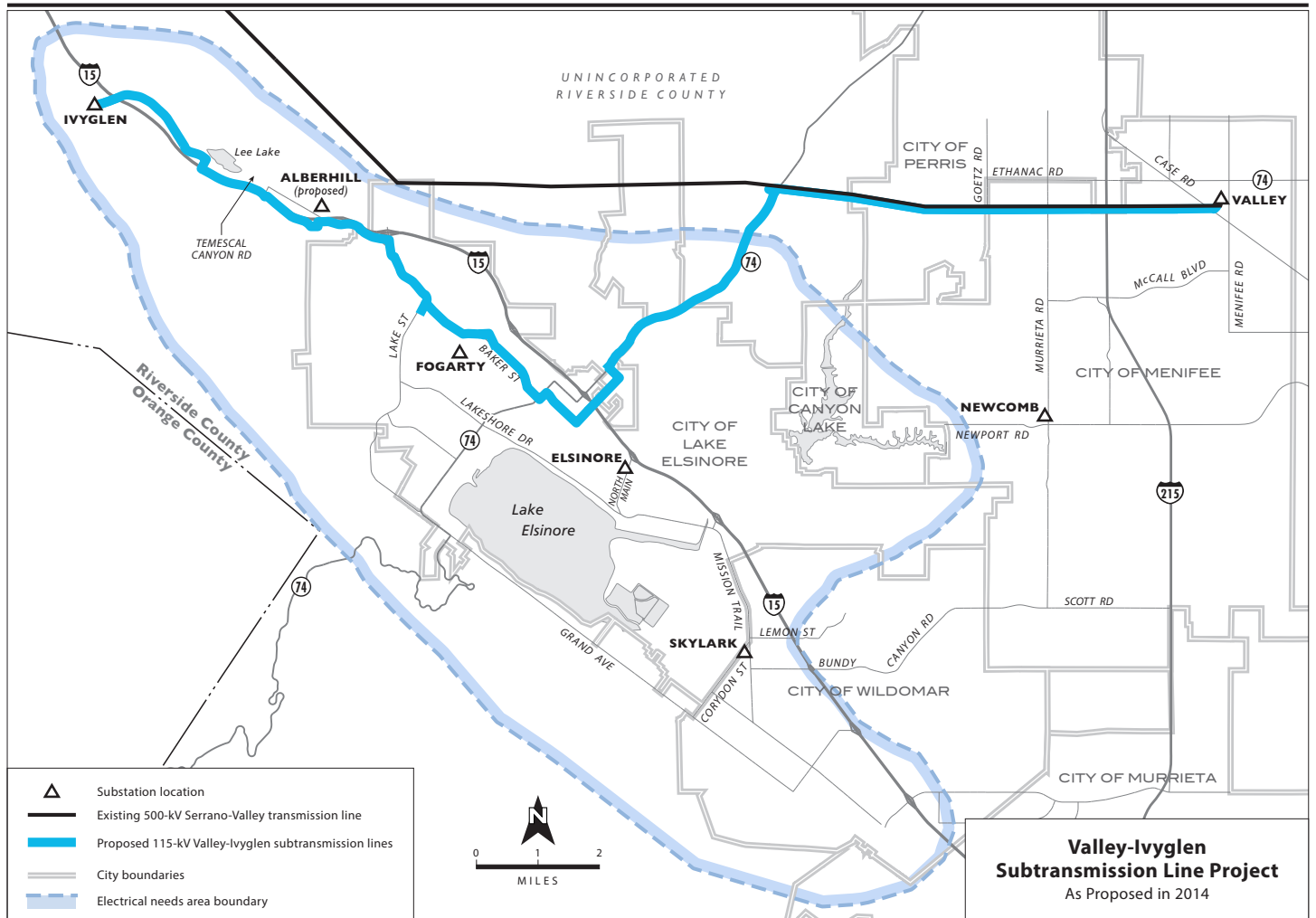
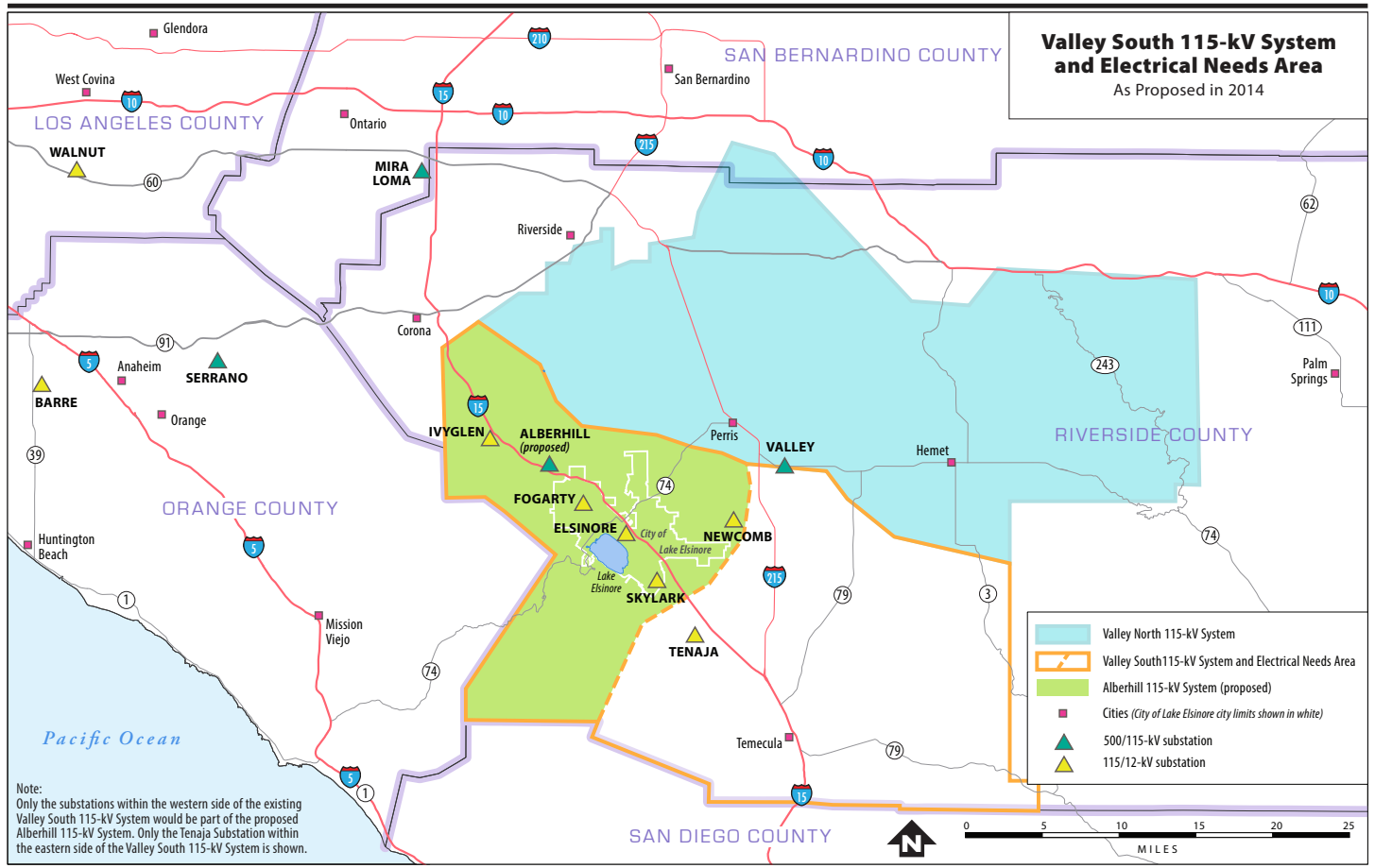


Figure 1-1 Electrical Needs Areas of the Proposed Projects

1 **1.1.1.1 Electrical Demand Planning**
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3 The applicant’s electrical demand planning processes help ensure that necessary system facilities are
4 developed in time to meet projected electrical demand. The planning process begins with the
5 development of a peak electrical demand forecast for each substation. Peak electrical demand forecasts
6 are developed using historical and forecast population, urbanization, meteorological, and economic data.
7 The applicant’s forecasts are based on annual forecasts prepared by the California Energy Commission.
8 Peak electrical demand forecasts account for residential, commercial, and industrial developments that
9 are planned or under construction, as well as historical growth trends in the area.

10
11 The forecast data are compared against electrical system *operating limits*—the amount of electrical load
12 that can be served by equipment. Operating limits are established by the applicant to ensure that capacity
13 and system operational flexibility are maintained to safely and reliably meet projected peak electrical
14 demands during periods of extreme heat, under both normal and abnormal conditions. For planning
15 associated with the entire Valley South 115-kV System, the applicant projects peak electrical demand for
16 a *1-in-5-year heat storm*. The applicant defines a 1-in-5-year heat storm as a period during which the
17 temperature exceeds the average peak temperature by 4 degrees Fahrenheit. During a 1-in-10-year heat
18 storm, the 10-year average peak temperature would be higher. The applicant applies the 1-in-10-year heat
19 storm temperature to planning for 115-kV subtransmission lines within the Valley–South 115-kV
20 System, such as the Valley–Elsinore–Fogarty–Ivyglen 115-kV Subtransmission Line.

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22 **1.1.1.2 About Valley Substation and the Valley South 115-kV System**
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24 Valley Substation, located in Romoland, California, is the only 500/115-kV substation serving electrical
25 demand in the San Jacinto Region of southwestern Riverside County, an area encompassing roughly
26 1,260 square miles and serving approximately 325,000 metered customers. The Valley Substation
27 transforms voltage from 500 kV to 115 kV using four 560-megavolt-ampere (MVA) transformers. In
28 2004, the Valley 115-kV System was split into two separate systems: the Valley North 115-kV System
29 and the Valley South 115-kV System (Figure 1-1). Each system is served by two 560-MVA transformers.
30 The two 115-kV systems are served from the same 500-kV sources but are not connected at the 115-kV
31 level. The maximum amount of electrical load that can be served by the Valley South 115-kV System is
32 limited to the amount of electrical power that the two Valley South 115-kV System transformers can
33 serve before exceeding their operating limits.

34
35 The Valley North 115-kV System consists of 10 distribution-level substations, and the Valley South 115-
36 kV System consists of 14 distribution-level substations.⁷ The applicant recently added three 115/12-kV
37 substations to the Valley South 115-kV System (Fogarty Substation, Triton Substation, and Tenaja
38 Substation). A stand-by spare 500/115-kV transformer was installed at the Valley Substation in 2011; the
39 spare transformer provides back-up transformer capacity in the event of transformer failure at Valley
40 Substation. The stand-by transformer would be the fifth transformer to be installed at Valley Substation,
41 but only the other four existing transformers are intended to be load-carrying transformers. The applicant
42 has indicated that:

- 43
- 44 • The spare transformer would be installed to comply with the applicant’s internal *Transmission*
45 *Planning Criteria and Guidelines*. These guidelines state that all 500/115-kV substations have an
46 onsite three-phase spare transformer available for use in the event of transformer failure. If
47 electrical demand exceeds the operating limits of the existing equipment of the Valley South

⁷ Additional substations are also proposed for addition to the Valley North 115-kV System as part of other projects proposed by the applicant.

1 115-kV System prior to when the proposed Alberhill Project is operational, the spare transformer
2 will be temporarily put into service as a contingency plan.

- 3 • The guidelines also specify that electrical transmission and subtransmission systems must have
4 sufficient capacity to maintain reliable and adequate service to customers. System reliability
5 must be maintained under normal conditions when all facilities are in service, as well as under
6 abnormal conditions during equipment or line failures, maintenance outages, or outages that
7 cannot be predicted or controlled that are caused by weather or other events.

8 **1.1.1.3 Applicability of Transmission Planning Standards to the Proposed Projects**

9
10 The 500-kV transmission components of Valley Substation are subject to NERC and WECC planning
11 standards. The 500-kV components connect the substation to the region’s bulk electrical grid, which is
12 managed by the California Independent System Operator (CAISO). The CAISO adheres to WECC
13 planning standards, and WECC is one of the eight regional electric reliability councils under NERC. The
14 500-kV components of the proposed Alberhill Substation would also be subject to NERC and WECC
15 planning standards.

16
17 The 115-kV components of Valley Substation and the Valley South 115-kV System are not subject to
18 NERC or WECC planning standards because they are not managed by the CAISO or deemed part of the
19 region’s bulk electric grid. Therefore, these components are subject only to the applicant’s *Transmission*
20 *Planning Criteria and Guidelines*, which are based on the NERC and WECC planning standards.
21 Similarly, the 115-kV components of the proposed projects would not be managed by the CAISO
22 because they are not designed to be part of the region’s bulk electric grid. Therefore, it is expected that
23 these components would only be subject to the applicant’s *Transmission Planning Criteria and*
24 *Guidelines*.

25 26 **1.1.1.4 Projected Valley South 115-kV System Demand**

27
28 During its planning processes for Valley Substation, the applicant identified growth in electrical demand
29 in the Valley South 115-kV System service area from 2005 through 2007. Despite a decrease in 2008, the
30 applicant forecasts that demand will continue to grow through 2022 (Table 1-1).

31
32 The recorded peak demand in 2012 was 928 MVA. The City of Lake Elsinore grew by 9.5 percent from
33 2010 through 2014 (California Department of Finance 2014). Population projections for 2010 through
34 2035 indicate that the City of Lake Elsinore’s population will increase by approximately 80 percent and
35 that the population of unincorporated Riverside County will more than double (SCAG 2012; USCB
36 2010).

37
38 Based on the increase in electrical demand from 2008 through 2012 and data that indicate continued
39 growth in the County of Riverside, the applicant determined that electrical demand will continue to
40 increase through 2023. The applicant forecasts that peak electrical demand for a 1-in-5 year heat storm
41 could increase to 1,144 MVA by 2019, exceeding the operating limit of the two Valley South 500/115-
42 kV transformers (Table 1-1). The applicant’s forecast for peak electrical demand indicates that there will
43 be a need to reduce demand on the two transformers that serve the Valley South 115-kV System by
44 summer 2019.

Table 1-1 Recorded and Projected Peak Demand in Megavolt Amperes for the Valley South 115-kV System (2005 to 2024)

Recorded Peak Demand (2005 to 2009)	2005	2006	2007	2008	2009
Operating Limit	1,119	1,119	1,119	1,119	1,119
Recorded Peak Demand	753	853	909	787	829
Projected Peak Demand, 1-in-5 Year Heat Storm	807	885	1038	1062	1057
Recorded Peak Demand (2010 to 2014)	2010	2011	2012	2013	2014
Operating Limit	1,119	1,119	1,119	1,119	1,119
Recorded Peak Demand	894	924	928	897	925
Projected Peak Demand, 1-in-5 Year Heat Storm	968	1014	1027	1020	1,055
Projected Peak Demand (2015 to 2019)	2015	2016	2017	2018	2019
Operating Limit	1,119	1,119	1,119	1,119	1,119
Projected Peak Demand, 1-in-5 Year Heat Storm	1,045	1,066	1,090	1,119	1,144 ^(a)
Projected Peak Demand (2020 to 2024)	2020	2021	2022	2023	2024
Operating Limit	1,119	1,119	1,119	1,119	1,119
Projected Peak Demand, 1-in-5 Year Heat Storm	1,169	1,193	1,219	1,244	1,269

Source: SCE 2014

Key: kV = kilovolt

Note: ^(a) Projected demand for a 1-in-5 year heat storm exceeds operating limit of Valley South 115-kV System.

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Operational Flexibility

To avoid exceeding the operating limit of the two Valley South 500/115-kV transformers, the applicant considered whether electrical load from the Valley South 115-kV System could be transferred, but could not identify a system to accept the load. Because the Valley South 115-kV System is not tied to another 115-kV system, electrical load cannot be transferred between Valley South and a comparable system. The availability of other electrical systems in proximity to the Valley South 115-kV System is limited because of geographic boundaries and the applicant’s service boundaries. The applicant finds that its inability to transfer load from the Valley South 115-kV System to another 115-kV system limits the operational flexibility of the Valley South 115-kV System, which increases the potential for electrical service interruptions in the event that a component of the Valley South 115-kV System malfunctions (e.g., the operating limit of a 500/115-kV transformer is exceeded).

1.1.1.5 Projected Demand on the Valley–Elsinore–Fogarty 115-kV Subtransmission Line

During its planning processes for the Valley South 115-kV System, the applicant determined that electrical demand on the Valley–Elsinore segment of the Valley–Elsinore–Fogarty 115-kV Subtransmission Line could exceed operating limits during a 1-in-10 year heat storm by 2016 (Table 1-2).⁸ As of 2008 and through the planning horizon, the operating limit could also be exceeded should an N-1 emergency condition occur (see N-1 definition in Table 1-2).

⁸ The original Valley–Ivyglen Project Draft and Final EIRs (CPUC 2009, 2010) presented the applicant’s projected electrical demand for the existing Valley–Elsinore–Ivyglen 115-kV Subtransmission Line because Fogarty Substation had not been constructed. In this document, the existing lines between Valley Substation and Ivyglen Substation is now referred to as the Valley–Elsinore–Fogarty and Fogarty–Ivyglen 115-kV Subtransmission Lines. For the applicant’s projection provided for this document, only the Valley–Elsinore–Fogarty segment of the line was identified.

Table 1-2 Recorded and Projected Peak Demand in Megavolt Amperes for the Valley–Elsinore–Fogarty 115-kV Line (2008 to 2024)

Recorded and Projected Peak Demand (2008 to 2010)	2008	2009	2010
Planned Maximum Operating Limit	184	184	184
Recorded Peak Demand	146	149	168
Projected Peak Demand (1-in-10 year heat storm) ^(a)	191	189	169
Planned Maximum Emergency Operating Limit (N-1 condition) ^(b)	248	248	248
Projected N-1 Loading	284	281	252
Recorded and Projected Peak Demand (2011 to 2013)	2011	2012	2013
Planned Maximum Operating Limit	184	184	184
Recorded Peak Demand	167	163	159
Projected Peak Demand (1-in-10 year heat storm) ^(a)	180	191	173
Planned Maximum Emergency Operating Limit (N-1 condition) ^(b)	248	248	248
Projected N-1 Loading	268	284	258
Projected Peak Demand (2014 to 2016)	2014	2015	2016
Planned Maximum Operating Limit	184	184	184
Recorded Peak Demand	163	–	–
Projected Peak Demand (1-in-10 year heat storm)	179	183	187 ^(c)
Planned Maximum Emergency Operating Limit (N-1 condition) ^(b)	248	248	248
Projected N-1 Loading	266	275	292
Projected Peak Demand (2017 to 2019)	2017	2018	2019
Planned Maximum Operating Limit	184	184	184
Projected Peak Demand (1-in-10 year heat storm)	191	196	201
Planned Maximum Emergency Operating Limit (N-1 condition) ^(b)	248	248	248
Projected N-1 Loading	294	297	305
Projected Peak Demand (2020 to 2022)	2020	2021	2022
Planned Maximum Operating Limit	184	184	184
Projected Peak Demand (1-in-10 year heat storm)	203	205	206
Planned Maximum Emergency Operating Limit (N-1 condition) ^(b)	248	248	248
Projected N-1 Loading	307	309	312
Projected Peak Demand (2023 to 2024)	2023	2024	
Planned Maximum Operating Limit	184	184	
Projected Peak Demand (1-in-10 year heat storm)	208	209	
Planned Maximum Emergency Operating Limit (N-1 condition) ^(b)	248	248	
Projected N-1 Loading	313	315	

Sources: SCE 2014

Key: CPUC = California Public Utilities Commission, kV = kilovolt, SCE = Southern California Edison

Notes:

- ^(a) The Projected Peak Demand and Projected N-1 Loading values prior to 2013 are the same as those provided in the original Valley–Ivyglen Final EIR (CPUC 2010). They were the applicant’s projections for future years at the time they were produced. Projected peak demand values from 2015 through 2024 reflect the latest applicant forecasts submitted to the CPUC.
- ^(b) For the purpose of documenting recorded and projected demand on the Valley–Elsinore–Fogarty 115-kV Line, an N-1 condition refers to the loss of a single subtransmission element (e.g., a subtransmission line or transformer). Demand on the Valley–Elsinore–Fogarty 115-kV Line would temporarily increase until the N-1 condition is corrected.
- ^(c) Projected demand for a 1-in-10 year heat storm exceeds the Valley–Elsinore–Fogarty 115-kV line’s operating limit.

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1.2 Objectives of the Proposed Projects

1.2.1 Objectives of the Proposed Valley-Ivyglen Project

The CPUC developed the following three objectives of the proposed Valley-Ivyglen Project to reflect the purpose of the project as described in the PMR and applicant responses to the CPUC's requests for further information (SCE 2011). The objectives were developed with consideration of the objectives presented in the PEA (SCE 2007, page 1-5). The objectives, as defined by the CPUC, were used as a basis for the development of a reasonable range of alternatives pursuant to CEQA (Chapter 3, "Description of Alternatives"). The basic objectives of the proposed Valley-Ivyglen Project are to:

- Serve projected electrical demand requirements in the Electrical Needs Area (ENA);
- Increase electrical reliability to ENA by providing a direct connection between the Applicant's Valley 500/115-kV Substation and Ivyglen 115/12-kV Substation; and
- Improve operational and maintenance flexibility on subtransmission lines without interruption of service.

Projected electrical demand requirements in the Electrical Needs Area for the Valley-Ivyglen Project as defined in the original Draft EIR (CPUC 2009) was presented by the applicant in terms of projected demand on the existing Valley-Elsinore-Fogarty-Ivyglen 115-kV Subtransmission Line (Table 1-2).

1.2.1.1 Applicant's Stated Objectives of the Proposed Valley-Ivyglen Project

The applicant identified the following objectives of the proposed Valley-Ivyglen Project in its PEA (SCE 2007, page 1-5). The analysis presented in this document, however, applies only the three objectives defined by the CPUC, above.

- Serve projected electrical demand requirements in the Electrical Needs Area beginning in 2009;
- Provide a direct connection between the applicant's Valley 500/115-kV Substation and Ivyglen 115/12-kV Substation;
- Increase system reliability by locating a second 115-kV subtransmission line within the Electrical Needs Area;
- Improve operational and maintenance flexibility on subtransmission lines without interruption of service;
- Meet project need while minimizing environmental impacts; and
- Meet project need in a cost-effective manner.

1.2.2 Objectives of the Proposed Alberhill Project

The CPUC developed the following three objectives of the proposed Alberhill Project to reflect the purpose of the project as described in the PEA and applicant responses to the CPUC's requests for further information (SCE 2011). The objectives were developed with consideration of the objectives presented in the PEA. The objectives, as defined by the CPUC, were used as a basis for the development of a reasonable range of alternatives pursuant to CEQA (Chapter 3, "Description of Alternatives"). The basic objectives of the proposed Alberhill Project are to:

- 1 1. Relieve projected electrical demand that may exceed the operating limit of the two load-serving
2 Valley South 115-kV System 500/115-kV transformers;
- 3 2. Construct a new 500/115-kV substation within the Electrical Needs Area that provides safe and
4 reliable electrical service pursuant to NERC and WECC standards; and
- 5 3. Maintain system ties between a new 115-kV System and the Valley South 115-kV System that
6 enable either of these systems to provide electricity in place of the other during maintenance,
7 during emergency events, or to relieve other operational issues on one of the systems.

8 The operating limit and projected electrical demand for the Valley South 115-kV System is provided in
9 Table 1-1.

11 **1.2.1.1 Applicant's Stated Objectives of the Proposed Alberhill Project**

12 The applicant identified the following objectives of the proposed Alberhill Project in the PEA. The
13 analysis presented in this document, however, applies only the three objectives defined by the CPUC,
14 above.
15

- 16 • Serve current and long-term projected electrical demand requirements in the Electrical Needs
17 Area.
- 18 • Increase system operational flexibility and maintain system reliability by creating system ties that
19 establish the ability to transfer substations from the current Valley South 115-kV System.
20
- 21 • Transfer a sufficient amount of electrical demand from the Valley South 115-kV System to
22 maintain a positive reserve capacity on the Valley South 115-kV System through the 10-year
23 planning horizon.
- 24 • Provide safe and reliable electrical service consistent with SCE's *Transmission Planning*
25 *Criteria and Guidelines*.
- 26 • Increase electrical system reliability by constructing a project in a location suitable to serve the
27 Electrical Needs Area.
- 28 • Meet project need while minimizing environmental impacts.
- 29 • Meet project need in a cost-effective manner (SCE 2011).
30

31 **1.3 CPUC Process and Intended Uses of this Document**

32 The application for the proposed Alberhill Project is for a CPCN, and the application for the proposed
33 Valley-Ivyglen Project is for a modification for a Permit to Construct. Pursuant to CPUC General Order
34 131-D, unless exempted under Section III of the order, utilities must file CPCN applications for facilities
35 proposed to operate at 200 kV and above and must file Permit to Construct applications for facilities
36 proposed to operate between 50 kV and 200 kV.
37

38 **1.3.1 CPUC Process**

39 The CPUC conducts two parallel processes when considering applications: (1) a General Proceedings
40 process similar to a court proceeding that considers whether a proposed project is needed and in the
41 public interest; and (2) an Environmental Review process pursuant to CEQA. An assigned CPUC
42 Commissioner (one of the CPUC's five appointed commission members) and an Administrative Law
43
44

1 Judge supervise the General Proceeding process, which includes steps such as a pre-hearing conference,
2 evidentiary hearings, and public participation hearings. CPUC Energy Division staff carry out the
3 Environmental Review process, which includes steps such as the preparation of an environmental
4 document pursuant to CEQA, consultation with other public agencies, and public comment.
5

6 The Administrative Law Judge will prepare a Proposed Decision for consideration by the five CPUC
7 Commissioners when the General Proceeding and Environmental Review processes are complete. The
8 Administrative Law Judge bases the Proposed Decision on evidence gathered during the General
9 Proceeding, Environmental Review findings, and public comments received. Each Commissioner may
10 draft an alternative proposed decision for CPUC review. All five Commissioners will then vote on the
11 proposed decision and any alternates at a meeting of the full Commission.
12

13 **1.3.2 Intended Uses of this Document**

14
15 The CPUC is the lead agency for CEQA compliance in evaluation of the proposed projects. Pursuant to
16 Article XII of the Constitution of the State of California, the CPUC is charged with the regulation of
17 investor-owned public utilities. The CPUC thus directed the preparation of this document. This document
18 evaluates impacts that may result from construction and operation of the proposed Alberhill Project and
19 construction and operation of the proposed Valley-Ivyglen Project separately and evaluates cumulative
20 impacts that may occur from the construction and operation of both projects. It assesses the
21 environmental impacts associated with the proposed projects and alternatives based on the level of
22 engineering design performed to date for each project component.
23

24 Project components described in this document are based on preliminary engineering data and are subject
25 to change based on final engineering. Additional environmental analysis may be required in instances
26 where, as a result of refined engineering design, construction activities would vary from those described
27 in this document or construction or operation would take place in areas not identified in this document. If
28 this document is certified, and changes to the proposed projects are proposed after certification, these
29 changes will be reviewed with consideration given, where appropriate, to CEQA Guidelines Sections
30 15162 through 15164, which describe the requirements for subsequent and supplemental EIRs and
31 addendums to EIRs.
32

33 As lead agency, the CPUC must determine through the CEQA process whether the proposed projects
34 would result in significant impacts on the environment and whether those impacts could be avoided,
35 eliminated, compensated for, or reduced to less than significant levels. The CPUC will use this document
36 in conjunction with other information developed in the CPUC's formal record to act on the application
37 for construction and operation of the proposed projects. Under CEQA requirements, the CPUC will
38 determine the adequacy of the final EIRs and, if they are found to be adequate, will certify the document
39 as complying with CEQA. If the CPUC approves a project with significant environmental impacts that
40 cannot be mitigated to less than significant levels, it must state why in a Statement of Overriding
41 Considerations, which would be included in the CPUC's decision on the application.
42

43 **1.3.3 Other Public Agencies**

44
45 State, regional, and local agencies in addition to the CPUC—such as the Department of Transportation,
46 Department of Fish and Wildlife (CDFW; formerly known as the Department of Fish and Game), Air
47 Quality Management District, Regional Water Quality Control Board, and Historic Preservation Office—
48 may be involved in reviewing and/or approving the proposed projects. At the federal level, agencies with
49 potential reviewing and/or permitting authority include the U.S. Army Corps of Engineers and U.S. Fish

1 and Wildlife Service (USFWS). The agencies will rely on the information presented in this document to
2 inform their decisions regarding the issuance of permits related to construction or operation of the
3 proposed projects.
4

5 The proposed projects comprise the construction, operation, and maintenance of a substation and utility
6 lines by a regulated public utility for the provision of electric utility service. Article XII, Section 8 of the
7 California Constitution states in part: “A city, county, or other public body may not regulate matters over
8 which the Legislature grants regulatory power to the [CPUC]. . . . Thus under the Constitution, as to
9 matters over which the PUC has been granted regulatory power, the PUC’s jurisdiction is exclusive.”⁹ To
10 the extent that the exercise of local ordinances or permit requirements would conflict with the CPUC’s
11 regulation of matters of statewide importance affecting the proposed projects, such as the safe operation
12 of electric utility facilities, this EIR discusses the environmental impacts addressed by such local
13 ordinances and requirements as well as whether the proposed project would conflict with local
14 ordinances, policies, and regulations. The applicant would be required to obtain from local jurisdictions
15 all building, encroachment, and other ministerial (administrative) permits that do not conflict with or
16 interfere with the Commission’s regulation of public utilities.
17

18 CPUC General Order 131-D, requires the applicant to comply with local building, design, and safety
19 standards to the greatest degree feasible to minimize the proposed projects’ conflicts with local
20 conditions. General Order 131-D also requires the CPUC to contact and coordinate with local planning
21 agencies regarding land use concerns that may be associated with the proposed projects. The CPUC
22 consulted with other affected agencies and jurisdictions to gather information regarding possible
23 environmental effects of the proposed projects. This consultation included making early contact and
24 opening a line of communication with key public agencies that would be directly affected by the
25 proposed projects and, as part of this process, obtaining local input and information for this document.
26 Public agency representatives provided background information on the local setting, permitting
27 requirements, regulatory requirements, land use information, and local environmental concerns. Chapter
28 8, “List of Preparers, Agencies, and Persons Contacted,” lists all agencies consulted during preparation of
29 this document.
30

31 The CPUC’s authority does not preempt special districts such as Air Quality Management Districts, other
32 state agencies, or the federal government. The applicant would obtain permits, approvals, and licenses as
33 needed and would participate in reviews and consultations as needed with federal, state, and local
34 agencies (Section 2.7, “Permitting and Consultation Requirements”).
35

36 **1.3.4 Public Scoping**

37

38 This section describes the scoping activities that the CPUC conducted for the proposed projects.
39 Additional detail regarding public scoping can be found in Appendix A, Public Scoping Summary, which
40 includes scoping materials and a summary of public scoping comments received on the proposed
41 projects.
42

43 **1.3.4.1 Scoping Efforts**

44

45 The CPUC conducting scoping for the Alberhill Project on three separate occasions and for the Valley-
46 Ivyglen Project on one occasion, as detailed in Table 1-3.
47

⁹ *Southern California Gas Co. v. City of Vernon* 41 Cal.App.4th 209, 215 (1995).

1 The CPUC maintains a telephone hotline and email addresses for the proposed projects through which
2 the public can contact the CEQA team and comment on one or both projects. The CPUC also maintains
3 websites with information and documents related to each proposed project. This information was
4 included in the Notice of Preparation and newspaper notices, and distributed at the public scoping
5 meetings.
6

Table 1-3 Scoping Periods for the Valley-Ivyglen and Alberhill Projects

Begin Date of 30-day Scoping Period	NOP Distribution	Scoping Meetings
April 13, 2010 (errata notice distributed April 20, 2010) (Alberhill Project only)	<ul style="list-style-type: none"> • State Clearinghouse and responsible and trustee agencies, including three federal agencies, 18 state agencies, and 10 local agencies and planning groups • Seven Native American groups and federal, state, and local elected officials. • More than 3,400 individuals, including property owners within 300 feet of the proposed substation, transmission lines, and subtransmission lines 	Lake Elsinore Cultural Arts Center (April 29, 2010)
July 28, 2011 (Alberhill Project only)	<ul style="list-style-type: none"> • Newspaper notices in the Californian, North County Times, and Riverside Press Enterprise 	Lake Elsinore Cultural Arts Center (August 18, 2011)
May 6, 2015 (Alberhill Project and Valley-Ivyglen Project)	<ul style="list-style-type: none"> • State Clearinghouse and responsible and trustee agencies, including federal agencies, state agencies, and local agencies • Postcard announcing availability of the NOP was also distributed to Native American groups and federal, state, and local elected officials • Postcard was distributed to more than 3,500 individuals, including property owners within 300 feet of the proposed substation, transmission lines, and subtransmission lines • Newspaper notices in the Perris Progress, and Riverside Press Enterprise 	Lake Elsinore Cultural Arts Center (May 18, 2015) Cesar E. Chavez Library (Perris) (May 18, 2015)

Key: NOP = Notice of Preparation

7
8 **1.3.4.2 Interagency Coordination**
9

10 The CPUC and representatives of the USFWS and the Western Riverside County Regional Conservation
11 Authority (WRCRCA) attended a project briefing and site visit facilitated by the applicant on December
12 8, 2009. A representative of the CDFW was also invited but unable to attend. The CPUC has
13 subsequently held several informal telephone consultations with the USFWS, CDFW, WRCRCA, and
14 the Riverside County Habitat Conservation Agency to discuss the proposed Alberhill Project and seek
15 their input regarding potential environmental impacts, alternatives, and mitigation.
16

17 The CPUC also met with the City of Lake Elsinore and County of Riverside and extended invitations to
18 meet with the cities of Wildomar and Menifee to provide information about the proposed Alberhill
19 Project and Valley-Ivyglen Project and to seek input on the cities' and county's concerns regarding
20 potential environmental impacts, alternatives, and mitigation. In addition, the CPUC has contacted the
21 Skylark Airport.
22

1
2 **1.3.4.3 Public and Agency Comments**
3

4 The CPUC received 112 written comments (letters and emails) from federal, state, local, and county
5 government agencies, organizations, and members of the public. The majority of the comment letters
6 were from individuals, and 54 of the letters were copies of the same “form” letter or variations of it.
7 Twelve individuals provided oral comments at the first scoping meeting for the proposed Alberhill
8 Project.¹⁰ In addition to letters from individuals, the following government agencies and Native American
9 tribes also provided comments: the Department of Toxic Substance Control, the California Department
10 of Transportation, CDFW, the South Coast Air Quality Management District, the City of Perris, the City
11 of Elsinore, the City of Menifee Community Development Department, Riverside County Flood Control
12 and Water Conservation District, the Riverside County Habitat Conservation Agency, the Riverside
13 County Airport Land Use Commission, the Riverside County Transportation and Land Management
14 Agency Transportation Department, and the Pechanga Band of Luiseño Indians. Comments received
15 during public scoping include, in summary:

- 16
- 17 • Requests for additional details concerning the Alberhill Project, including height of proposed
18 poles, the location of construction activities, and details relating thereto;
 - 19 • Questions about the need for the projects;
 - 20 • Concerns about impacts on aesthetic resources, including the visual character of neighborhoods
21 and impacts on Interstate 15’s California Scenic Highway eligibility;
 - 22 • Concerns about impacts on air quality, biological resources, cultural resources, local land use
23 planning and zoning designations, noise, health and safety, air traffic, power outages, recreation,
24 and traffic volume and safety; and
 - 25 • Suggestions about potential alternatives to the proposed projects.
- 26

27 The comments received and a more detailed summary of comments received are included in Appendix A.
28

29 **1.3.5 Screening of Alternatives to the Proposed Projects**
30

31 The applicant presented alternatives to the proposed Alberhill Project and Valley-Ivyglen Project in the
32 PEAs and subsequent revisions/amendments, and the CPUC developed additional alternatives in
33 consultation with the applicant.¹¹ An alternatives screening process was carried out to determine which
34 alternatives could feasibly accomplish the purpose of the proposed Alberhill Project and Valley-Ivyglen
35 Project (Section 1.1) and attain most of their basic objectives (Section 1.2, “Objectives of the Proposed
36 Projects”) but would avoid or substantially lessen potentially significant effects pursuant to CEQA
37 Guidelines Section 15126.6.
38

39 The alternatives screening process resulted in a reasonable range of alternatives to the proposed projects
40 for evaluation in this document. Chapter 3, “Description of Alternatives,” lists the alternatives eliminated
41 from further consideration and describes those retained for further analysis in this document. Chapter 5,

¹⁰ Verbal comments were only recorded at the first scoping meeting for the proposed Alberhill Project.

¹¹ The PEA and PEA amendments for the proposed Alberhill Project is available at:
<http://www.cpuc.ca.gov/Environment/info/ene/alberhill/Alberhill.html>. The PEA and Revised PEA for the
proposed Valley-Ivyglen Project is available at
<http://www.cpuc.ca.gov/Environment/info/ene/ivyglen/ivyglen.html>.

1 “Comparison of Alternatives,” compares the proposed projects with the alternatives that were retained
2 for analysis. The Alternatives Screening Report for the proposed projects is provided in Appendix H.
3

4 **1.3.6 Public Comment on the Draft EIR**

5
6 The Draft EIR is circulated to local and state agencies and interested individuals who may wish to review
7 and comment on the report. Written comments may be submitted to the CPUC during the 45-day public
8 review period for the Draft EIR. Written comments on the Draft EIR are accepted via regular mail, fax,
9 and e-mail. Verbal and written comments are accepted at a public meeting to be noticed under separate
10 cover.

11 **1.3.7 Final EIR**

12
13
14 Written and oral comments on the Draft EIR will be addressed in a Response to Comments document
15 that, together with the Draft EIR, will constitute the Final EIR for both proposed projects. The Final EIR
16 will be reviewed during the CPUC’s General Proceedings for the proposed Alberhill and Valley-Ivyglen
17 projects as described in Section 1.3.1, “CPUC Process,” and Section 1.3.2, “Intended Uses of this
18 Document.” Public agencies other than the CPUC will rely on the information presented in this document
19 to inform decision making regarding the issuance of permits related to construction or operation of the
20 proposed projects as described in Section 1.3.3, “Other Public Agencies.”
21

22 **1.3.8 Organization of this Document**

23
24 This document is organized as follows:
25

26 **Executive Summary.** Summarizes the environmental impacts of the proposed projects and mitigation
27 measures identified to reduce or eliminate significant impacts. The Executive Summary also summarizes
28 alternatives to the proposed projects.
29

30 **Chapter 1: Introduction.** Discusses the background and objectives of the proposed projects. This
31 chapter summarizes the results of the public scoping process and explains public agency and other
32 planned uses of this document.
33

34 **Chapter 2: Project Description.** Describes in detail the proposed projects and summarizes the permits
35 and consultations that may be required.
36

37 **Chapter 3: Description of Alternatives.** Describes the alternatives evaluation process and the
38 alternatives considered in this document.
39

40 **Chapter 4: Environmental Analysis.** Provides a comprehensive analysis and assessment of impacts and
41 mitigation measures for the proposed projects. This chapter is divided into sections based on the resource
42 areas identified in CEQA Guidelines Appendix G (e.g., Aesthetics, Agriculture and Forestry Resources,
43 Air Quality, and Biological Resources). The environmental and regulatory settings for each section
44 describe the environmental baseline conditions at the time the Notice of Preparation of a Draft EIR was
45 circulated on May 6, 2015.
46

47 While the environmental and regulatory settings for the proposed projects are combined for each
48 resource area, the impacts analyses evaluate impacts that may occur from construction and operation of
49 the proposed Alberhill Project separately from those that may occur from the proposed Valley-Ivyglen

1 Project. An analysis of the impacts that may occur from the construction and operation of both proposed
2 projects within the cumulative scenario is presented in Chapter 6.

3
4 **Chapter 5: Comparison of Alternatives.** Discusses the relative advantages and disadvantages of the
5 proposed projects and alternatives and identifies the CEQA Environmentally Superior Alternative.

6
7 **Chapter 6: Cumulative Analysis.** Identifies and evaluates past, present, and reasonably foreseeable
8 future projects within the cumulative study area that may be constructed or commence operation during
9 the timeframe of activity associated with the proposed projects. The chapter also assesses cumulative
10 impacts of the proposed projects and mitigation measures. The purpose of the cumulative impacts
11 analysis is to identify impacts from the proposed projects that may not be significant when considered
12 alone but may contribute to significant impacts when considered in conjunction with impacts from past,
13 present, and reasonably foreseeable future projects.

14
15 **Chapter 7: Other CEQA Considerations.** Discusses growth-inducing impacts, mandatory findings of
16 significance, significant irreversible environmental changes, and significant and unavoidable
17 environment effects.

18
19 **Chapter 8: List of Preparers, Agencies, and Persons Contacted.** Identifies the primary authors of this
20 document and provides a list of agencies and persons consulted during the preparation of this report.

21
22 **Chapter 9: Mitigation Monitoring, Compliance, and Reporting Program.** A single Mitigation
23 Monitoring, Compliance, and Reporting Program (MMCRP) will be prepared for publication in the Final
24 EIRs that is applicable to both of the proposed projects and specifies which measures are required for
25 each proposed project. Changes to the proposed projects and mitigation measures that may be made as a
26 result of public review of the Draft EIRs and further consideration of the proposed projects by the CPUC
27 will be reflected in the MMCRP. For a complete list of impacts and mitigation measures (full text)
28 included in the Draft EIRs, refer to Table ES-1 in the Executive Summary.

29
30 **Appendices:** Appendices are included to provide various supporting data and information. For a
31 complete list of appendices, refer to Table of Contents for this document.

32 33 **1.4 References**

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