Decision 26-03-019 March 19, 2026

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY (U338E) for a Certificate of Public Convenience and Necessity for the Alberhill System Project.	Application 09-09-022

DECISION ON THE ALBERHILL SYSTEM PROJECT

TABLE OF CONTENTS

Title **Page**

DECISION ON ALBERHILL SYSTEM PROJECT

Summary

This decision grants Southern California Edison Company's request for a certificate of public convenience and necessity to construct the proposed Alberhill System Project subject to the Mitigation Monitoring, Compliance and Reporting Plan (Appendix A).

The Commission certified the Final Environmental Impact Report for the Alberhill System Project in 2018 (Decision 18-08-026), finding it in compliance with the California Environmental Quality Act. This decision finds and certifies that the subsequent Addendum to the Final Environmental Impact Report meets the requirements of the California Environmental Quality Act. The Addendum affirms that based on the analysis of the alternatives, the Alberhill System Project is the environmentally superior alternative.

The Alberhill System Project will serve public convenience and necessity of approximately 560,000 people living in the Valley South System, an area subject to extreme heat events in Southern California. The Alberhill System Project will increase the Valley South System's capacity to meet customer load. Customers will experience reliability and resilience benefits during maintenance, operational issues, and contingency events. In light of the environmental impacts, the Commission finds that the capacity need, reliability need, and resilience need of the Valley South System are overriding considerations.

This proceeding is closed.

1. Background

1.1. Procedural Background

On September 30, 2009, Southern California Edison Company (SCE) filed Application (A.) 09-09-022 for a certificate of public convenience and necessity (CPCN) to construct the proposed Alberhill System Project (Alberhill project). The Alberhill project is related to two prior applications: A.07-01-031 (the Valley-Ivyglen Sub-transmission Line Project (Valley-Ivyglen project)) and A.07-04-028 (Fogarty project).[1]

On March 12, 2010, SCE filed the *Amendment to the Application of Southern California Edison Company for a Certificate of Public Convenience and Necessity for the Alberhill System Project* (Amended Application), which contained amended sections of the Proponent's Environmental Assessment (PEA).

Before the Energy Division was able to issue a Notice of Preparation of an Environmental Impact Report (EIR) for the Alberhill project, SCE petitioned to modify the Valley-Ivyglen project. On May 23, 2014, SCE filed an amendment to its petition.[2] The Commission's Energy Division consolidated the environmental review of the Alberhill project and the modified Valley-Ivyglen project given that components of the Valley-Ivyglen project are required for construction of the Alberhill project.

---

[1] Decision (D.) 10-08-009 granted the permit to construct Valley-Ivyglen project and the Fogarty project. D.14-08-047 modified D.10-08-009 with regard to the Fogarty project.

[2] The proposed modification is to the Valley-Ivyglen project for the purpose of relieving loads on the existing Valley-Ivyglen – Fogarty sub-transmission line and to provide a second source of power for the Ivyglen substation. June 19, 2017 Assigned Commissioner's Scoping Memo and Ruling in A.07-01-031 (Valley-Ivyglen project), A-07-04-028 (Fogarty project), and A.09-09-022 (Alberhill project) at 1 – 2.

On May 6, 2015, Energy Division issued a Notice of Preparation of EIR (State Clearinghouse No. 2008011082) pursuant to the California Environmental Quality Act (CEQA). The draft EIR was circulated for public comment in April 2016. The Final EIR with responses to public comments was posted on the Energy Division's website for use in the proceeding in April 2017. Energy Division issued an errata to the Final EIR in February 2018 and a second errata in June 2018.

The evidentiary hearing was held on October 17 through October 19 of 2017. In 2018, after briefs and comments on proposed decisions, the Commission issued Decision (D.) 18-08-026. D.18-08-026 certified the EIR as in compliance with CEQA[3] and granted modifications to the Valley-Ivyglen project. D.18-08-026 closed the proceedings regarding the Valley-Ivyglen project and Fogarty project and deconsolidated the Alberhill project from those two proceedings.[4]

D.18-08-026 ordered the following supplemental analysis related to the Alberhill project:

a. Load forecast including industry accepted methods for estimating load growth and incorporating load reduction programs due to energy efficiency, demand response, and behind-the-meter generation;
b. Identification of all sub-transmission planning areas in the SCE system with similar reliability issues;

[3] A Notice of Determination (NOD) was filed by the Commission with the State Clearinghouse for the Final EIR (State Clearinghouse No. 2008011082) on August 28, 2018.

[4] The Commission may consolidate proceedings that involve related questions of law or fact. (Rule 7.4 of the Commission's Rules of Practice and Procedure.) The deconsolidation means that going forward the Alberhill project may be considered independently without further addressing the other two projects.

c. A planning study that supports the project needs and includes applicable planning criteria and reliability standards;

d. An analysis of several years of electric reliability performance for the Valley systems to demonstrate the existing customer service level;

e. An analysis of outages over the past five years by root cause for the Valley South systems in comparison to SCE system average and to other sub-transmission radial systems;

f. The forecasted impact of the proposed project on service reliability performance, using electric service reliability metrics where applicable;

g. Cost/benefit analysis of several alternatives for:

   i. Enhancing reliability; and

   ii. Providing additional capacity, including evaluation of energy storage, distributed energy resources, demand response or smart-grid solutions;

h. Identify capital investments or operational changes effectuated to address reliability issues in the absence of construction of the Alberhill Substation and associated costs for such actions;

i. Detailed justification of the recommended solution as the best solution, including an explanation of how the proposed project ranks in the SCE capital investment portfolio of infrastructure upgrades.[5]

On October 1, 2018, City of Lake Elsinore and Forest Residents Opposing New Transmission Lines (Frontlines) filed applications for rehearing of D.18-08-026. On October 16, 2018, SCE filed a response. On December 13, 2018,

[5] D.18-08-026, Ordering Paragraph (OP) 4.

the Commission issued D.18-12-031 denying the applications for rehearing. D.18-12-031 made minor modifications to D.18-08-026 to reiterate the Commission's future consideration of the Alberhill project and compliance with CEQA.

On May 11, 2020, SCE filed a motion to supplement the record. SCE amended the motion to supplement the record on February 1, 2021, and June 22, 2021.[6]

Also on May 11, 2020, SCE filed a *Second Amended Application of Southern California Edison Company for a Certificate of Public Convenience and Necessity for the Alberhill System Project* (Second Amended Application), which included the second amended PEA. On June 10, 2020, the Commission's Public Advocate's Office (Cal Advocates), The Utility Reform Network (TURN), and Frontlines filed protests to the Second Amended Application. On June 22, 2020, SCE filed a reply to the protests.

On August 18, 2020, the assigned Administrative Law Judge (ALJ) held a prehearing conference regarding the Second Amended Application. On September 30, 2020, the assigned Commissioner issued a ruling amending the scoping memo. This ruling also directed the Energy Division to review SCE's second amended PEA, including load forecasts, reliability for the Valley system,

[6] Southern California Edison Company's Motion to Supplement the Record in Compliance with E-mail Ruling Directing Amendment or Showing Cause, May 11, 2020; Amended Motion to Supplement the Record in Compliance with E-mail Ruling Directing Amendment or Showing Cause, February 1, 2021; Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021. The motions were granted via Administrative Law Judge's Ruling Granting Motions to Supplement the Record, January 27, 2026.

analysis of outages at the Valley South system, cost/benefit analysis for alternatives, and other relevant matters pursuant to CEQA. As a result of its review, Energy Division issued a Staff Report on September 23, 2023.[7]

With permission from the assigned ALJ, on June 2, 2023, SCE filed the *Third Amended Application of Southern California Edison Company for a Certificate of Public Convenience and Necessity for the Alberhill System Project* (Third Amended Application), which included the third amended PEA. The Third Amended Application addressed design changes. On July 3, 2023, Cal Advocates filed a protest to SCE's Third Amended Application. On July 13, 2023, SCE filed a reply to the protest.

On June 27, 2024, Energy Division published an Addendum to the Final EIR (Addendum).[8] The Addendum incorporates and considers SCE's supplemental analysis required by D.18-08-026, design changes in SCE's Third Amended Application and PEA, and Energy Division's Staff Report.

On September 27, 2024, the assigned ALJ held a prehearing conference. SCE, TURN and Cal Advocates attended.

On October 31, 2024, the assigned ALJ issued a ruling permitting limited discovery and service of supplemental testimony given the amount of time that has lapsed between the 2017 Final EIR and the 2024 Addendum to the Final EIR. The parties served supplemental testimony in January and February of 2025.

[7] Exhibit (Ex.) Commission-2, Attachment C at Appendix A: Final Alberhill System Project Energy Division Staff Report.

[8] Ex. Commission-2.

On March 14, 2025, TURN filed a motion for an evidentiary hearing. On April 1, 2025, SCE responded. On June 11, 2025, the assigned ALJ granted TURN's motion for evidentiary hearing and amended the procedural schedule. On June 26, 2025, the assigned ALJ extended the schedule to accommodate out-of-the office dates of counsel. The evidentiary hearing was held on August 29, 2025.[9]

Cal Advocates did not serve testimony or participate in the evidentiary hearing. Their request to withdraw as a party, and instead be identified as an "information only" entity on the service list, was granted on August 28, 2025.[10]

Opening and reply briefs were filed on October 22, 2025, and November 5, 2025, respectively.

1.2. Alberhill System Project Background

SCE plans to locate the Alberhill project north of Interstate 15, in unincorporated western Riverside County, Southern California to meet electricity system needs within a defined Electrical Needs Area, shown in Appendix B of this decision.[11] SCE states the Electrical Needs Area is the service area of the Valley South 115 kV System (Valley South System), which encompasses portions of southwestern Riverside County in the San Jacinto

[9] In addition to the exhibits moved into evidence during the 2025 evidentiary hearing, pursuant to the assigned ALJ's August 1, 2025 ruling, SCE and TURN identified a focused set of exhibits from the 2017/2018 phase that are relevant to this last phase of the proceeding. On September 2, 2025, TURN and SCE served the service list the stipulated relevant 2017/2018 exhibits.

[10] Status Conference Transcript, August 28, 2025, at 3:16 – 3:18.

[11] Ex. Commission-1 at 1-4. *See also* Ex. Commission-2, Attachment C "The Alberhill System Project Supplement to the Alternatives Screening Report" at 5 (Figure 1), 10–11.

Region of SCE's service territory. The Valley South System includes the cities of Lake Elsinore, Canyon Lake, Perris,[12] Menifee, Murrieta Hot Springs, Temecula, and Wildomar, as well as the surrounding unincorporated portions of Riverside County.[13] The Valley South System serves approximately 187,000 metered customers, representing approximately 560,000 individuals, 6,000 of whom are critical care customers.[14]

The load at Valley South System is managed by the Valley Substation. The Valley Substation serves both the Valley South 115kV System and the Valley North 115 kV System (Valley North System).[15] The Valley Substation is the only 500/115 kV substation serving electrical demand in the San Jacinto Region of southwestern Riverside County. The Valley Substation is SCE's largest load-serving substation in total transformer capacity installed, total load served, and total population served.[16] With approximately 325,000 metered customers, the Valley Substation provides electricity to approximately 1,000,000 people.[17]

---

[12] A Southern portion of the City of Perris is located within the Valley South System.

[13] Ex. Commission-2, Attachment C "The Alberhill System Project Supplement to the Alternatives Screening Report" at 11, fn 3 and associated text.

[14] SCE Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2 at 26; Ex. Commission–2, Attachment C "The Alberhill System Project Supplement to the Alternatives Screening Report" at 6. Critical care customers are customers that qualify for SCE's Medical Baseline Program, defined as "customers that qualify and rely on the regular use of electrically powered medical equipment or devices, and/or require air conditioning, and/or have a life-threatening illness or compromised immune system that requires heating and/or cooling." Ex. SCE-8 at 8, fn 4.

[15] SCE Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2 at 8.

[16] *Id.* at 28.

[17] *Id.* at 27.

Additionally, the Valley Substation services the largest concentration of critical care and medical base-line customers in the SCE service territory.[18] Compared to San Diego Gas & Electric Company, the Valley Substation manages nearly 50 percent of the peak demand of SDG&E's entire system.[19]

The Valley Substation has five 500/115 kV 560 megavolt ampere (MVA) load-serving transformers, two for the Valley North System, two for the Valley South System, and a fifth spare transformer. The spare transformer is required by SCE's internal Transmission Planning Criteria Guidelines. It states that all 500/115 kV substations must have a three-phase transformer available for use in the event of transformer failure.[20]

An important difference between the Valley South System and the Valley North System is tie-lines.[21] Tie-lines allow for the transfer of customer demand from a system that is experiencing disturbances, or demand that exceed transformer operating limits, to an adjacent system to relieve the burden on the affected system.[22] Without tie-lines to adjacent systems, power travels only one way, into the system, but not out.[23] The Valley North System has tie-lines to

[18] SCE Opening Brief (OB) at 2; Ex. SCE-8 at 8.

[19] Ex. Commission-5 at 2.

[20] Ex. Commission-2, Attachment C at Appendix A: Final Alberhill System Project Energy Division Staff Report, p. 14, Note (a) and associated text.

[21] SCE OB at 2; Ex. SCE-08 at 4, 7.

[22] Ex. SCE-8 at 7:8 – 7:11.

[23] Evidentiary Hearing Transcript, August 29, 2025, at 509:24 – 510:1.

other adjacent systems. The Valley South System does not and cannot rely on other systems to relieve load[24] or provide electricity during disturbances.

The main components of the Alberhill project include construction of a new substation, transmission lines, sub-transmission lines and telecommunications equipment.[25]

The Third Amended Application differed from the original 2009 application in that SCE proposes two main changes. First, SCE will incorporate air-insulated switchgear at the Alberhill Substation instead of gas-insulated switchgear. SCE states that the air-insulated switchgear for the Alberhill project could reduce greenhouse gas emissions by approximately 75 percent.[26] Second, SCE proposes to leverage existing infrastructure and use helicopter construction to eliminate three of five transmission structure access roads.[27] SCE estimates construction of the Alberhill project will take approximately 3 years.[28]

2. Submission Date

This matter was submitted on January 27, 2026, after reply briefs and upon the admission into the record the supplemental analysis required by D.18-08-026.[29]

---

[24] *Id.* at 510:12 – 510:16.

[25] Third Amended Application of Southern California Edison Company (U 338-E) for a Certification of Public Convenience and Necessity for the Alberhill System Project, June 2, 2023, (hereinafter Third Amended Application) at 6. See Appendix C for details of the project.

[26] Third Amended Application at 4.

[27] *Id.* at 1 – 2, 4 – 5.

[28] *Id.* at 8.

[29] Administrative Law Judge's Ruling Granting Motions to Supplement the Record, January 27, 2026.

3. Jurisdiction

SCE is a public utility (U338E) providing electrical and gas services to customers in southern California, and is therefore subject to the Commission's jurisdiction.

3.1. CPCN/CEQA Process

In reviewing SCE's request for approval of the Alberhill project, the Commission is responsible for both administering the statutory duties of CEQA and fulfilling the statutory requirements related to a CPCN.

The CEQA statute (Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.) govern the CEQA process. CEQA requires the lead agency responsible for reviewing the project conduct an initial study to identify environmental impacts of the proposed project and ways to avoid or reduce environmental harm. The Commission is the lead agency. Section 4 below summarizes the CEQA requirements and the analysis of the Alberhill project.

The application for a CPCN is governed by Public Utilities (Pub. Util.) Code Section 1001 et seq. Before SCE can construct the Alberhill project, the Commission must grant a CPCN on the grounds that the present or future public convenience and necessity require approval of the project.[30]

4. CEQA Requirements

The Commission must prepare an EIR if the initial study finds there is:

i. Substantial evidence that the project may have a significant effect on the environment; or

[30] Pub. Util. Code Sections 1001 and 1002.

ii. Revisions to the project plan cannot reduce all project-related environmental impacts to less than significant levels.

The EIR states specific project objectives and CEQA requires evaluation of a reasonable range of alternatives to the proposed project that would minimize or avoid significant environmental impacts while meeting the project objectives.[31] The Commission must certify the final EIR indicating that:

i. The final EIR has been completed in compliance with CEQA;

ii. That the final EIR was presented to the decision-making body of the public agency;

iii. That the decision-making body reviewed and considered information contained in the final EIR; and

iv. That the final EIR reflects the agency's independent judgment and analysis.[32]

If a final EIR identifies significant environmental effects from the approved project that cannot be avoided or substantially lessened, the agency shall state, in writing, the specific reasons to support its action based on the final EIR and/or other information in the record.[33] These are called Statements of Overriding Consideration and they are made at the time the agency makes a final decision to approve a project that would result in significant and unavoidable impacts.

[31] California Code of Regulations Section 15126.6, CEQA Guidelines.

[32] *Id.* at Section 15090, CEQA Guidelines (Certification of the Final EIR).

[33] California Code of Regulations Section 15090, CEQA Guidelines (Statement of Overriding Considerations).

General Order 131-E[34] and Decision (D.) 06-01-042 added the requirement that a project comply with Commission policies governing the mitigation of electromagnetic field (EMF) effects using low- or no-cost measures.

The Commission shall consider the final EIR in its approval or disapproval of a project.[35]

4.1. CEQA Analysis of the Proposed Project

In this proceeding, the Commission prepared a joint EIR for the Alberhill project and the Valley-Ivyglen project. The Final EIR analyzed a range of alternatives to the proposed Alberhill project that would minimize or avoid significant environmental impacts. The Commission evaluated the alternatives based on the objectives to relieve/meet customer demand, improve reliability, and maintain system ties during maintenance, emergency events, or other operational issues.[36]

D.18-08-026 certified the Final EIR as consistent with CEQA and determined that the proposed Alberhill project is the environmentally superior alternative.[37] However, D.18-08-026 did not take action on the proposed Alberhill project. This was based on uncertainties with respect to demand, reliability, and alternatives. To address these concerns, D.18-08-026 ordered SCE

---

[34] SCE's initial application is governed by GO 131-D, the General Order in effect when the first application was filed in 2009. GO 131-E supersedes GO 131-D but continues the requirement to comply with Commission EMF policies.

[35] Public Resources Code Section 21061, Environmental Impact Report.

[36] Ex. Commission-1 at 1-11; Ex. Commission-2, Attachment C "The Alberhill System Project Supplement to the Alternatives Screening Report" at 18.

[37] D.18-08-026 at 13, Finding of Fact (FOF) 14 and 15.

to supplement the record with additional analyses of demand and alternatives which may satisfy the needs of the Valley South System.[38]

4.2. Supplemental Analysis

In 2020 and 2021 SCE supplemented the record with analyses of alternatives that included updated demand forecasts. The updated forecasts incorporated load reduction programs due to energy efficiency, demand response, and behind-the-meter generation. Additionally, SCE analyzed outages, reliability, and resilience. Lastly, SCE ranked alternatives based on cost/benefit of alternatives that enhanced reliability and added capacity from energy storage, distributed energy sources, demand response and smart grid solutions.[39]

To address the supplemental analyses and the amended applications in 2020 and 2023, the Commission determined that the appropriate next step pursuant to CEQA was to prepare an addendum to the certified Final EIR. An addendum to a certified EIR must be prepared if only minor technical changes or additions are necessary.[40] In contrast, an amendment to the certified EIR is appropriate if the applicant proposes substantial changes to the project, substantial changes occur with respect to the circumstances under which the project is undertaken, or new information of substantial importance becomes available and this information results in new significant impacts or a substantial

[38] *Id.* at OP 4.

[39] Southern California Edison's Motion to Supplement the Record in Compliance with E-mail Ruling Directing Amendment or Showing Cause, May 11, 2020.

[40] Public Resources Code Section 21166 and the Guidelines for CEQA Section 15000, California Code of Regulations Title 14, Chapter 3 (CEQA Guidelines). CEQA Guidelines Section 15164.

increase in the severity of previously identified significant impacts.[41] The addendum need not be circulated for public review;[42] however, an addendum is to be considered by the decision maker prior to deciding on the project.[43]

For the proposed Alberhill project, the Addendum to the certified Final EIR (Addendum) reviewed project changes proposed by SCE in its Third Amended Application and determined whether the changes would materially alter the environmental impacts.[44] The Addendum also attaches the Mitigation Monitoring, Compliance, and Reporting Plan.[45] Lastly the Addendum reviewed new alternatives and the supplemental analyses prepared by SCE in their response to D.18-08-026.[46]

The Addendum concluded that:

a. No specific circumstances necessitating changes to the previous alternatives screening analysis included in the 2017 Final EIR were identified. Also based on Energy Division's Supplement to the Alternatives Screening Report, none of the new alternatives needed to be carried forward for full analysis under CEQA.[47]

b. The amended project description included in SCE's Third Amended Application and PEA would not result in new

[41] CEQA Guidelines Section 15162.

[42] *Id.* at Section 15164[c].

[43] *Id.* at Section 15164[d].

[44] Ex. Commission-2 at Attachment A "Review of SCE Third Amended Application and PEA for the Alberhill System Project Memorandum."

[45] *Id.* at Attachment B "Mitigation Monitoring, Compliance, and Reporting Plan."

[46] *Id.* at Attachment C "The Alberhill System Project Supplement to the Alternatives Screening Report," p. 16.

[47] *Id.* at 133.

significant environmental effects, a substantial increase in the severity of a previously identified significant environmental effects, nor the need for new or substantially modified mitigation measures that would reduce one or more significant effects.

c. No substantial changes have occurred with respect to the circumstances under which the project is being undertaken.

d. Impacts of the proposed technical design changes and engineering refinements would be minor and not result in new or substantially more severe impacts compared to those previously disclosed in the 2017 Final EIR.[48]

The Addendum to the certified Final EIR is the appropriate document to prepare for the Alberhill project changes pursuant to CEQA Guidelines Section 15164(b) based on the determination that none of the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a Subsequent EIR or Supplemental EIR have occurred. As a Subsequent EIR or Supplemental EIR was not required by CEQA, the Commission's certification of the Final EIR in D.18-08-026 is in compliance with CEQA. No additional certification is required for this decision to be in compliance with CEQA.

5. Issues Before the Commission

Nine issues were scoped in the June 19, 2017, Scoping Memo regarding the Alberhill project, with an evidentiary hearing on those issues held in October 2017. D.18-08-026 resolved Issue 6(a) as it solely related to the Valley

[48] Ex. Commission-2 at Attachment A "Review of SCE Third Amended Application and PEA for the Alberhill System Project Memorandum," p. 5.

Ivyglen project. D.18-08-026 resolved Issue 1 through Issue 5 related to the Alberhill project and concluded as follows:

a. The Alberhill project would have significant and unavoidable impacts on air quality and noise during project construction, on noise during maintenance activities, and on aesthetics.[49]
b. After screening 33 alternatives to the Alberhill project, three were retained for consideration. The No Project Alternative was determined to be the environmentally superior alternative. Among the other alternatives, the proposed Alberhill project is the environmentally superior alternative.[50]
c. Substantial evidence supports the final EIR's findings and certified that the final EIR was completed in compliance with CEQA.[51]
d. Because no party asserted that the environmentally superior project alternatives and associated mitigation measures were infeasible, the Commission found that they were not infeasible.[52]

This decision resolves the remaining issues:

Issue 6: To the extent that the proposed projects and/or project alternatives result in significant and unavoidable adverse environmental impacts, are there overriding considerations [pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15093] that nevertheless merit Commission-approval of the proposed project or project alternative? This issue encompasses consideration of whether:

[49] D.18-08-026 at 9 – 10, FOF 8, 9, 11, 12, and 13, Conclusions of Law (COL) 1.

[50] *Id.* at 10, 12, 13, FOF 14 and 15, COL 1.

[51] *Id.* at 14 – 15, FOF 16, COL 1.

[52] *Id.* at 25.

(b) With respect to the Alberhill project, is there a need to relieve projected electrical demand that would exceed the operating limit of the two load-serving Valley South 115 kV system 500/115 kV transformers within the Electrical Needs Area, and to provide electricity in place of the Alberhill 115 kV system during maintenance, during emergency events, or to relieve other operational issues on one of the systems?

Issue 7: Are the proposed projects and/or project alternative designed in compliance with the Commission's policies governing the mitigation of EMF effects using low-cost and no-cost measures?

Issue 8: Does the Alberhill project serve a present or future public convenience and necessity [pursuant to California Public Resources Code §1001]? This issue overlaps with Issue 6(b).

Issue 9: What is the maximum prudent and reasonable cost of the Alberhill project?[53]

6. Issue 6: Overriding Considerations and Need

Issue 6 is based on the CEQA requirement that a public agency may not approve a project that has significant and unavoidable (unmitigable) environmental impacts unless it determines that there are overriding considerations that merit project approval despite those unmitigable environmental impacts.

Issue 6 also asks whether there is a need to relieve the projected demand and provide electricity in place of the current system during emergency events or

[53] The issues have been modified for the Alberhill project only, as it has been deconsolidated from the Valley Ivyglen project by D.18-08-026.

to relieve other issues.[54] Because the topics of Issue 6 overlap with Issue 8,[55] which requires the Commission to consider whether the Alberhill project serves a present or future public convenience and necessity, the discussions in this section apply to the section below regarding the CPCN (Section 8 as well).

D.18-08-026 analyzed whether overriding considerations merit approval of the Alberhill project and determined that, because forecasts at that time predicted declining load growth, the Alberhill project was not needed.[56] D.18-08-026 concluded that it was necessary for SCE to perform additional analyses of load forecasts and alternatives.[57] Based on SCE's supplemental material, Energy Division's Staff Report detailed its independent review of SCE's analysis.[58] Also based on SCE's supplemental material, the Addendum to the Final EIR considered 13 new alternatives, and the Addendum incorporated in its analysis the Staff Report and rankings of the alternatives in the Staff Report.[59] The Addendum concluded that none of the new alternatives will be carried forward

[54] Assigned Commissioner's Scoping Memo and Ruling, June 19, 2017, at 4; D.18-08-026 at 6.

[55] Pub. Util. Code Section 1001; D.18-08-026 at 6.

[56] D.18-08-026, FOF 20, 21, 22, 23.

[57] *Id.* at 33 – 34, OP 4.

[58] Ex. Commission-2, Attachment C at Appendix A: Final Alberhill System Project Energy Division Staff Report, p. 2.

[59] Ex. Commission-2 at Attachment C "The Alberhill System Project Supplement to the Alternatives Screening Report" pp. 136 – 139 (Table 6 summarized the 13 new alternatives and two that were considered in the Final EIR).

for full analysis under CEQA.[60] The Alberhill project remains the environmentally superior alternative.[61]

As explained below, the Commission concludes with regards to Issue 6 that the following needs are overriding considerations that outweigh the project's unavoidable environmental impacts:

i. The need to relieve projected electrical demand that would exceed the operating limit of the two load-serving transformers for the Valley South System;

ii. The need to provide electricity in place of the Valley South System during maintenance; and

iii. The need to provide an alternative during emergency events, or to relieve other operational issues on one of the systems.

By meeting these needs, the Alberhill project serves the public convenience and necessity and the benefits outweigh the project's unavoidable impacts on aesthetics, air quality, noise and vibration during construction, along with cumulative impacts. The detailed reasons for finding capacity need,[62] reliability need, and resilience need are below in Sections 6.1, 6.2, 6.3 and 6.4 However, as a preliminary matter, the Commission explains why it finds that the fifth spare

[60] Ex. Commission-2 at 4; Ex. Commission-2 at Attachment C "The Alberhill System Project Supplement to the Alternatives Screening Report," p. 133.

[61] D.18-08-026, FOF 15.

[62] Capacity is the availability of electric power to serve load and comprises two elements in a radial system: (1) transformation capacity – the ability to deliver power from the transmission system via the substation transformers, and (2) subtransmission system line capacity – the ability to deliver power to substations which directly serve the customer load in an area.

transformer should be excluded from analysis and calculations with regard to need within the Valley South System.

6.1. The Fifth Spare Transformer is Not a Long – Term Solution to Meet Load

The Final EIR considered and rejected the alternative that would place the fifth spare transformer into permanent service at Valley Substation. If the fifth spare transformer becomes a permanent load serving asset, then SCE would require installation of a new spare, a sixth transformer, to meet SCE's internal Transmission Planning Criteria and Guidelines.[63] In other words, a spare is always required. As one of the minimal investment group of alternatives, the Addendum again reviewed and rejected the same alternative.[64] The Addendum concluded that even though currently the fifth spare transformer is used to meet peak electrical demand, it is a short-term solution and it is unlikely to be able to meet future projected electrical demand.[65] Ultimately, the Addendum confirmed that the Alberhill project is the superior alternative.

TURN's current argument that the fifth spare transformer should be considered a permanent load-serving transformer is nearly identical to previously rejected alternatives. Of the five transformers at the Valley Substation, two serve the Valley South System and two serve the Valley North System. The fifth spare transformer can be used for either system. TURN argues that the Commission should consider the capacity of three transformers, instead

[63] Ex. Commission-2 at Attachment C "The Alberhill System Project Supplement to the Alternatives Screening Report," p. 37 – 38.

[64] *Id.*

[65] *Id.* at 39.

of two, as "the status quo" from which the Commission would assess the need for the Alberhill project.[66] TURN notes that SCE approved an exception to its own planning criteria so the Valley South System would be operated with three transformers (instead of two) during peak load conditions. Furthermore, TURN highlights SCE's use of the spare transformer to satisfy peak load since 2012.

The Commission is persuaded that SCE's temporary use of the fifth spare transformer should not be considered "the status quo." Since the fifth spare transformer was added, SCE explains that load growth in the Valley South System forced it to decide between two options:

iv. Shedding load[67] (keep load within 896 MW emergency operating limits); or

v. Using the spare transformer during periods of high demand to provide additional transformer capacity to the Valley South System until a long-term solution (such as the Alberhill project) could be implemented.[68]

SCE states it rejected the first option because it would require load shedding and interrupt electricity service. SCE explains that it selected the second option to provide safe and reliable service to customers.[69] In the face of local area growth and increase in customers, SCE granted an exception to its own

---

[66] TURN OB at 18.

[67] Load shedding occurs when the demand for electricity approaches supply and the utility is forced to reduce power demand by removing some customers to prevent longer, larger outages. The reduction of power ensures adequate reserve margin and helps prevent a failure of the larger electrical grid. Ex. Commission-2 at Attachment C "The Alberhill System Project Supplement to the Alternatives Screening Report," p. 41.

[68] SCE OB at 3, 17.

[69] *Id.*

internal planning guidelines to provide electricity while a long-term solution was being developed, permitted, and implemented.

The Commission agrees the fifth transformer must serve its intended function as a spare.[70] The Valley South System is the only subtransmission system within SCE's entire territory that operates with no tie-lines to other systems.[71] If the spare fifth transformer is counted as the "status quo" as TURN argues, then it would not be available for use in the event of the failure of one or both of the transformers serving the Valley South System. For example, on September 5, 2024, load exceeded 896 MW for a total of seven consecutive hours. If the spare transformer was unavailable due to maintenance or other reasons, SCE would have been required to shed load during each hour that day.[72] The Commission agrees with SCE that relying on the spare fifth transformer as the "status quo" for additional capacity is not prudent in the long term and places SCE's customers at unreasonable risk.[73]

Previously, the Commission noted that potentially cheaper alternatives that would eliminate the need for the Alberhill project conflates the issues of need with possible alternatives to meet that need. D.18-09-026 clarified that the question of need involves whether there is a need to achieve project objectives in

[70] SCE Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2 at 35 – 36.

[71] *Id.*, Exhibit C-2 at 9, 32.

[72] SCE OB at 21; *see also* SCE RB at 8.

[73] SCE OB at 18.

the first place, not whether there is a superior project alternative.[74] Here, if the Commission adopted TURN's current argument, then a sixth transformer would be required to operate as a spare. This appears to repeat TURN's argument that there is a cheaper alternative to Alberhill project. Again, the Commission rejects this argument.

The Commission now turns to the specific arguments of capacity need, reliability need and resilience need.

6.2. There is a Capacity Need for the Alberhill Project

6.2.1. Transformer Capacity

Each of the transformers at Valley Substation have three ratings:

i. Normal rating of 560 MW[75] (also called the nameplate rating);

ii. Short term emergency rating of 896 MW (which is 160% of the nameplate rating and is valid for one hour); and

iii. Long-term emergency rating of 672 MW (which is 120% of the name place rating and is valid for 24 hours; after 24 hours, the transformer must be returned to its nameplate rating).[76]

---

[74] D.18-08-026 at 36; *see* TURN OB at 2.

[75] Transformer ratings are typically provided in mega volt-amperes (MVA) while loading conditions are typically provided in mega-watts (MW). For simplicity, throughout this document MW are used as the two units can be used interchangeably for this purpose.

[76] Ex. SCE-8 at 11:8 – 11:13. SCE's transformer loading limits are established consistent with the intent and methodology in industry standards (IEEE Standard C57.91-2011 and IEC 60076-7-2017) to protect the transformers from accelerated degradation and catastrophic failure. Ex. Commission-2 at Attachment C "The Alberhill System Project Supplement to the Alternatives Screening Report," p. 40, fn 5.

The two transformers for the Valley South System have a maximum operating limit of 1,119 MW,[77] but SCE explains that use of the full 1,119 MW limit is predicated upon tie-lines[78] to transfer away load during emergency conditions if one transformer fails or is out of service. In other words, if there are tie-lines, and one transformer fails, then operators could momentarily shed load (implement a rolling blackout) to at or below the 896 MW 1-hour emergency rating on the remaining transformer while at the same time quickly restore service to those customers using the tie-lines to bring electricity back to those areas.[79] If there are no tie-lines, and one transformer fails, SCE states it cannot restore service to those customers by bringing in electricity or transferring load away to adjacent systems. This means that SCE must take action at a lower threshold than the 1,119 MW of name place rating capacity and the total loading of the two transformers must be maintained at or less than 896 MW.[80] At the Valley South System, if one transformer fails, the other transformer can operate for one hour at the 896 MW limit, until the spare transformer is switched in.

6.2.2. Current/Forecast Load and Need for Capacity

D.18-08-026 determined that SCE overestimated future local area peak demand in the Valley South area.[81] D.18-08-026 found that SCE predicted

---

[77] Commission Exhibit 2 at Attachment C "the Alberhill System Project Supplement to the Alternatives Screening Report," p. 7, Table 1.

[78] Tie – line is a transmission line connecting two or more power systems.

[79] SCE OB at 15.

[80] *Id.*

[81] D.18-08-026 at 31, FOF 20.

decreasing rates of load growth, which pushed out the projected need for Alberhill from 2011 to 2021.[82] The Commission did not use this evidence to deny the application, but ordered additional information and analysis on load.

Two years after the decision, in 2020, SCE predicted that the demand served by the Valley South System would exceed the maximum capacity of the two transformers (1,119 MW) by 2022, at which time Alberhill would be needed.[83] By September 5, 2024, the Valley South System reached an all-time high peak demand of 1,103 MW.[84]

As discussed above, the maximum operating limit of two transformers is 1,119 MW, with tie-lines. Without tie-lines, the Commission is convinced by SCE that the safe and reliable operation require the total load on the two load-serving transformers for the Valley South System to be maintained at no greater than 896 MW.[85] The evidence is that the all-time high peak demand of 1,103 MW is only 17 MW away from the nameplate rating capacity of the two transformers.[86] That means the Valley South System in Summer 2024, if it had tie-lines, was at 99% capacity.[87] Without tie-lines at the Valley South System, the summer peak

---

[82] *Id.* at FOF 21.

[83] SCE OB at 15; SCE's Motion to Supplement the Record in Compliance with E-mail Ruling, May 11, 2020, Attachment A (Item A), includes revised load forecasts from April 27, 2020, and May 6, 2020.

[84] Ex. SCE-8 at 5:10 - 5:11; 30:18 – 30:19.

[85] SCE OB at 15.

[86] *Id.* at 16.

[87] SCE Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021; Ex. Commission-2 at 9.

demand in 2024 of 1,103 MW was 217 MW above the 896 MW 1-hour emergency rating of a single transformer, subjecting customers to potential rolling blackouts during peak load conditions.[88] SCE states that even modest load growth will negatively SCE's ability to serve the Valley South System.[89]

By 2028, SCE forecasts 1,104 MW in peak electrical demand in the Valley South System during normal operations. Also by 2028, SCE forecasts that the peak electrical demand for a 1-in-5 year heat storm could increase to 1,187 MW.[90]

TURN argues the Valley South System is not close to maximum capacity because TURN calculates the maximum capacity as 1,680 MW (two transformers (2 x 560) plus the spare transformer MW (560)).[91] TURN supports this argument using two considerations:

i. The frequency of when the Valley South System exceeded 896 MW; and

ii. The likelihood the spare transformer would be unavailable to serve load because one of the two, or both, transformers is/are out of service.

First, TURN states that between 2013 and 2024, there has been only one incident in July 2018 that lasted a few hours when load in the Valley South System exceeded 896 MW while the spare transformer was unavailable to meet

[88] SCE OB at 16.

[89] SCE Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2 at 9.

[90] Ex. Commission-2 at Attachment C "The Alberhill System Project Supplement to the Alternatives Screening Report," p. 7 – 8.

[91] TURN OB at 17.

peak electric demand.[92] In another incident in August 2018, TURN notes that the Valley South System load approached but did not reach 896 MW when the spare transformer was unavailable.[93] Second, TURN performed a series of calculations based on SCE's transformer maintenance schedule, SCE's probability data on the likelihood of the spare transformer to be unavailable when the Valley South System peak demand exceeded 896 MW, and SCE's load forecasts.[94]
TURN calculates there is a 6 in 10 million possibility of a scenario where all three events occur:

i. The spare fifth transformer is unavailable,
ii. One of the Valley South transformers has an unplanned outage; and
iii. Both events occur during peak demand hours.[95]

TURN concludes there is adequate capacity at the Valley South System because existing capacity should include the spare transformer capacity as the status quo, the high likelihood that the spare transformer would be available to serve load, and the low likelihood of damaging/high stress events occurring simultaneously.[96]

---

[92] *Id.* at 19–20.

[93] *Id.* at 20–21.

[94] *Id.* at 22–24.

[95] This scenario resembles Flex-2-2, which includes a scenario in which the two normally load-serving Valley South transformers are unavailable due to a fire. The Decision analyzes this scenario in Section 6.4.2.

[96] TURN OB at 25. TURN also calculates SCE's transformers are available with a probability of 0.99982 to meet normal (N-0) system conditions.

The Commission is concerned that approximately 560,000 individuals, including 6,000 critical care customers, are served by a system that is isolated from the rest of SCE's grid.[97] TURN's argument is premised on the use of the spare transformer as a permanent load serving asset. The Commission rejects this premise. Consequently, the Commission rejects TURN's argument that the Valley South System has adequate capacity.

Likewise, the Commission rejects TURN's argument that there is such a low probability that Valley South System would experience the type of contingency events that necessitates the Alberhill project. As this argument is similar to TURN's argument regarding the resilience metric for the Valley South System, the Commission details its reasons below.

The Commission finds a remedy is required and does not find TURN's argument compelling. In short, the Commission finds there is a capacity need for Alberhill project.

6.3. There is a Reliability Need for the Alberhill Project

Reliability is a utility's ability to serve customers under normal conditions (N-0) and conditions where one asset is unavailable (N-1).[98] D.18-08-026 required SCE to produce a reliability analysis, including past electric reliability performance for the Valley systems and forecasted impact of the proposed

[97] Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2 at 26; Ex. SCE-8 at 4:15, 7:3 – 7:5 (*stating* that the Valley South System is islanded from the rest of SCE's electrical system).

[98] Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2 at 89.

project on service reliability performance.[99] SCE produced supplemental analysis,[100] which was then considered in the Staff Report and the Addendum.

SCE's evidence shows that the Valley South System operates at or very close to its maximum operating limits and has no connections to other systems. Inadequate capacity adversely impacts reliability. SCE provides additional evidence that the Valley South System has characteristics that increase reliability risks.

The Valley South and Valley North systems are radial systems, not network systems. In a network system, its transmission and sub-transmission systems would be interconnected. This means power from generation sources flow through the transmission system, which is connected with the sub-transmission system, before providing power to the distribution system to serve customers. The advantage of a network design is that it is generally considered more reliable because when a disturbance occurs, such as a transformer outage, power flows around the outage to customers via multiple paths.[101]

In contrast, both Valley South and Valley North are radial systems, which means each individual system serves a pocket of customer demand. Power to a radial network is provided from the transmission system through a single point of connection (Valley Substation for both Valley South and Valley North) rather than multiple points of connection. Because each radial system is electrically

[99] D.18-08-026, OP 4.

[100] Ex. Commission-2 at 3.

[101] Ex. SCE-8 at 6:12 – 6:21.

isolated from other systems and receives power through a single interface with the transmission system, each is subject to possible reliability issues during a transformer or sub-transmission line outage.[102] For example, if there is a substation outage at Valley South, power has only one single point of interface with the transmission system at the Valley Substation and power cannot be imported to the Valley South System from other systems via tie-lines. Tie-lines to adjacent radial systems allow for the transfer of customer demand from a system that is experiencing disturbances to an adjacent system to relieve the burden on the affected system so the affected system can be repaired.[103] The Valley South System is the only one of SCE's 56 electrical systems without system tie-lines to another 115 kV sub-transmission system.[104] The Valley South System is not only a radial system, but it is an "islanded" radial system.[105]

Lastly, the Valley Substation is different from others due to the size of its transformers. In SCE's territory, there is a total of 56 distinct sub-transmission electrical systems served from its 43 A-bank substations.[106] The Valley Substation is an A-bank substation.[107] Forty-two of the A-bank substations use four

---

[102] *Id.* at 6:25 – 7:3.

[103] *Id.* at 7:8 – 7:9.

[104] SCE Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2 at 32.

[105] Ex. SCE-8 at 4:15.

[106] SCE Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2 at 29, 32.

[107] "A-bank" substation is a subtransmission substation (less than 200 kV). "A-bank" transmission substations transform voltage from the transmission level (220kV or 500kV) to the

Footnote continued on next page.

280 MVA transformers.[108] Valley Substation is the only A-bank substation that has transformers rated at 560 MVA, twice the capacity of the typical transformers used at all of the other A-bank substations. The 560 MVA transformers at Valley Station differ from the typical 280 MVA transformers in procurement time, cost, logistics, and storage.[109] Based on the characteristics above presented by SCE, the Commission finds that the Valley South System is uniquely susceptible to reliability risks.

6.3.1. Reliability at Valley South System is Not Comparable

TURN argues that the reliability at the Valley South System is comparable to other SCE service areas. TURN states that Valley South System has better or at least comparable reliability performance to that of SCE's system as a whole.[110] The Commission disagrees. The Commission already explained above how the Valley South System is unique in that it is close to its maximum operating limits and has no tie-lines to other adjacent systems.

Next, TURN reviewed SCE's analysis of past outages by root case for Valley South System as compared to SCE system average and other sub-transmission radial systems. TURN states most of the services interruptions occurred in the distribution system and that between 2014 and 2018 only eight of the 2,311

---

subtransmission level (66kV or 115 kV) and deliver power to multiple distribution substations. SCE Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2, at 29.

[108] SCE Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2, at 29.

[109] *Id.* at 29, fn 34.

[110] TURN OB 36.

service interruption events were caused by transmission.[111] TURN concludes that transmission improvements of the Alberhill project are unnecessary because the transmission level-related customer outages in the Valley South System are minimal.

The Commission rejects TURN's arguments that the Valley South System is comparable to other systems in SCE's territory. The Commission agrees with SCE's statement:

> The need for the Alberhill project is not based on existing reliability problems in the Valley South System, but rather a comprehensive need to increase system operational flexibility and maintain system reliability by creating system tie-lines that provide the ability to transfer substation load from the current Valley South System.[112]

SCE explains that even under normal conditions at Valley South SCE is forced to use the spare transformer to meet load because there are no tie-lines. This means reliability is degraded when there is insufficient capacity to meet demand in the first place.[113] Reliability is related to capacity. Currently the spare transformer is the only option to serve load, stand in during maintenance, during emergency events and any other operational issues. The spare transformer is not enough to perform a variety of important activities without redundancy. This means, as a result, customers are at increased risk of rolling blackouts. As the only one of SCE's 56 electrical areas without tie lines to another adjacent system, and at

[111] TURN OB at 36; Ex. TURN-12 at 29.

[112] SCE Reply Brief (RB) at 13, 14, 21; Ex. Commission-1 at 1-11.

[113] SCE RB at 16.

capacity, the Valley South System has fallen behind the rest of SCE's service territory.

6.3.2. Reliability Benefits from Alberhill

TURN argues SCE's reliability analysis exaggerates the benefits of Alberhill project.[114] TURN disagrees with SCE's choice of metrics. TURN argues SCE should have included in its revised reliability forecast two metrics SCE initially used and calculated: System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) metrics when it revised the reliability forecast.[115]

TURN also reviewed SCE's revised reliability forecast, including the calculated Load at Risk (LAR). LAR is defined as the cumulative load required to be curtailed when subtransmission operating criteria were not met, multiplied by the number of hours of violation, quantified in megawatt-hours.[116] SCE analyzed the LAR for normal conditions (N-0) of the electric power system and for conditions that involve an outage of a single component/element (N-1), also called single outage contingency.[117] For example, a transformer outage is a N-1 contingency. TURN finds SCE's forecast regarding potential amount of unserved load in excessive in MWh as compared to estimates by TURN.[118]

---

[114] TURN OB at 38.

[115] *Id.* at 35 – 37.

[116] Southern California Edison's Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2 at 12, 48 – 49.

[117] *Id*.

[118] TURN OB at 42 (*see* table comparing SCE's forecast (LAR) and TURN's calculated expected energy not served (EENS)); Ex. TURN–12 at 36 – 38.

TURN's forecast of the amount of unavailable power to serve customers involving the outage of one transformer (N-1) was only 3.2 MWh compared to SCE's estimate of 21,373 MWh.[119] TURN's calculations include the spare transformer as part of the normal conditions. TURN argues that SCE creates an artificial capacity shortfall and distorts the reliability forecast because SCE assumes that the spare transformer is unavailable in normal conditions (N-0).[120]

The Commission rejects TURN's arguments for two reasons. First, the Commission again finds that the fifth spare transformer should not be included as "status quo" or as part normal operations at the Valley South System. The Commission does not find TURN's calculations persuasive because TURN inappropriately includes the fifth spare transformer as a permanent load serving asset in its reliability analysis/calculations.[121]

Second, the Commission finds SCE's reliability forecast and calculations to be reasonable. SCE states SAIDI and SAIFI metrics are less informative for planning at the sub-transmission level.[122] SCE explains LAR metric is more

---

[119] *Id.* TURN focused on the metric EENS, which accounts for the probability of events, instead of the metric LAR, which does not account for the probability of events. TURN argues that the Commission must consider EENS along with LAR to accurately assess the need for Alberhill project. However, after extensive discussion with its consultant, Energy Division elected to use LAR because there are a lack of industry standards and a lack of consensus on the event probabilities. Commission-2, Attachment C at Appendix A: Final Alberhill System Project Energy Division Staff Report at 42.

[120] TURN OB at 43, 46 – 47.

[121] *Id.* at 46 – 47.

[122] SCE RB at 14; SCE's Motion to Supplement the Record in Compliance with E-mail Ruling, May 11, 2020, Exhibit D (Item D – An analysis of several years of electric reliability performance for the Valley systems to demonstrate existing customer service level) at D1.

appropriate as compared to SAIDI and SAIFI because the Alberhill project addresses transmission planning, not issues with distribution. Energy Division Staff finds SCE's calculations reasonable. It reports that it explored LAR of normal conditions (all facilities in service) and contingency events separately.[123] As indicated by TURN's calculation of MWh not served as compared to SCE's analysis, the results differ wildly depending on the reliability metric used. Unsurprisingly, TURN's calculations resulted in a lower MWh not served when including the spare as part of normal operations.

The Commission rejects TURN's argument that the improvement in reliability from the Alberhill project would be "small." As explained above, the need for Alberhill is not based on existing reliability problems, and the need to improve reliability. Instead, SCE must prepare for impacts of unscheduled/unexpected contingencies that might impact a large number of customers. To protect the public, the Commission finds that preemptive actions are required.

6.4. There is a Resilience Need for the Alberhill Project

Resilience is different from reliability in that resilience refers to a utility's ability to serve customers under high impact low probability events, such as fires, earthquakes. Resilience also refers to the effectiveness of containing the impact of extraordinary events and how efficiently and quickly a system and/or

[123] Commission-2, Attachment C at Appendix A: Final Alberhill System Project Energy Division Staff Report at 1, 42; *see also* Commission-2, Attachment C at Appendix A: Final Alberhill System Project Energy Division Staff Report (Appendix C – Evaluation of SCE's Load Forecast Methodologies and Performance Metrics, p. 12).

service is restored.[124] Unlike the contingency planning for reliability, resilience focuses on comprehensive consideration of risk and mitigation.[125] SCE presents evidence that there is a resilience need for the Alberhill project. TURN argues that the Valley South System does not need improved resilience. The Commission is persuaded by SCE's evidence.

SCE and TURN present vastly different resilience calculations. SCE measures resilience need with metrics of possible contingency events, assuming a rate of frequency, then calculating the LAR which is the cumulative values of the potential amount of unserved load as explained above. SCE concluded that there is a resilience need based on the high amount of potential unserved load. The higher the LAR, the more customers are at risk for rolling blackouts. If the frequency of contingency events decreases, then the LAR decreases and fewer customers are at risk of rolling blackouts.

TURN argues SCE's calculations of LAR are unreasonably high. TURN concludes that the risk of customers experiencing rolling blackouts is so low there is no need to incur the cost of the Alberhill project for resilience.[126] TURN's main argument regarding resilience needs focuses on two metrics studied by SCE summarized in the table below.

[124] Southern California Edison's Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2 at 89.

[125] *Id.*

[126] TURN OB at 48 – 49.

Table 1. Summary of Performance Metrics for Contingency Events[127]

Performance Metric for Contingency Events	Description
Flexibility-2-1 (Flex-2-1)	• Complete loss of transformation capacity in the Valley Substation (including all transformers) in the Valley South System due to a high impact, low probability event • Assumes a two-week period that randomly occurs throughout the year
Flexibility-2-2 (Flex-2-2)	• Loss of two load-serving transformers at Valley South System, unavailable due to a fire (where the spare transformer and auxiliary equipment remain available) • Assumes a two-week period that randomly occurs throughout the year

In Flex-2-1, SCE assumes a 1-in-100 year outage frequency for high impact low probability events. Flex 2-1 events include complete loss of the Valley Substation due to earthquakes, fires and windstorms.[128] Because of the lack of data on infrequent extremely damaging events, SCE discusses an industry article that states that the average rate of serious failures of 0.9 percent to 1.0 percent per transformer service year.[129] In Flex-2-2, SCE developed an event rate of 0.0015 event per year, which is the equivalent of 1-in-667 year frequency. TURN argues

[127] Ex. Commission 2, Attachment C at Appendix A: Final Alberhill System Project Energy Division Staff Report (Appendix C – Evaluation of SCE's Load Forecast Methodologies and Performance Metrics, p. 6).

[128] Southern California Edison's Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021 (*see* attached Exhibit C-2 at 13).

[129] Ex. TURN-12 at Attachment C, Data Request Set TURN-SCE-Alberhill-007, Question 4.

that for both Flex-2-1 events and Flex-2-2 events, there is no resilience need. However, TURN only disagrees with SCE's Flex-2-1 outage frequency.

6.4.1. Flexibility-2-1 (Flex-2-1) (Complete Loss of Valley Substation)

TURN assumes a lower frequency of contingency events, which results in lower amounts of energy not served.[130] TURN argues that the Commission should reject the 1-in-100 year frequency. First, TURN argues that complete loss of the Valley Substation exceeds the probability of events that have occurred or have been observed.[131] Second, TURN argues that materials selected by SCE to support the 1-in-100 year frequency do not support SCE's assumption.[132] TURN criticizes SCE's reliance on a trade article,[133] SCE substation transformer fire history,[134] substation outages in California since 2000,[135] power outages in California,[136] industry studies and standards.[137] TURN disagrees that the fires at the Vincent, Mira Loma, and El Dorado substations in the SCE territory justify the 1-in-100 year frequency because the fires did not result in complete loss of

[130] TURN presents LAR versus EENS calculations for Flex-2-1 events. TURN OB at 67. While notable, TURN's illustration does not persuade the Commission to discount SCE's evidence. SCE reasonably used LAR, as confirmed by the Energy Division. *See* footnote 119 above and associated text.

[131] TURN OB at 53 – 54, *see* Figure 12 on p. 54.

[132] *Id.* at 55.

[133] TURN OB at 55 – 56.

[134] *Id.* at 56 – 57.

[135] *Id.* at 61 – 63.

[136] *Id.* at 63 – 64.

[137] *Id.* at 58 – 60.

these substations.[138] During the period when SCE repaired the substations, TURN counted them as not being 100 percent out of service because they were partially available and in use.

TURN calculated an alternative event frequency of 1-in-5,000 substation service years based on zero events in 5,000 substation service years because there were zero complete substation losses at California's 100 major transmission substations in the last 50 years.[139]

6.4.2. Flexibility-2-2 (Flex-2-2) (Loss of Two Transformers)

Unlike the total loss of the entire Valley Substation, TURN states SCE reasonably supports the loss of two transformers with the event frequency of 1 in 667 years.[140] Nevertheless, TURN calculates a high resiliency for the Flex-2-2 scenario.[141] TURN states that SCE can further reduce the likelihood of a Flex-2-2 scenario by installing fire walls between its Valley transformers. The two Valley South transformers, known as 1AA and 2AA banks, are about one hundred feet apart from each other.[142] The spare transformer, known as 5AA, is separate from

---

[138] *Id.* at 56 – 57.

[139] *Id.* at 66.

[140] *Id.* at 49.

[141] *Id.* at 50. TURN presents LAR versus EENS calculations for Flex-2-2 events. TURN OB at 52. TURN consistently chooses EENS because it is probability weighted. Since TURN argues for the lower probability of contingency events, TURN uses EENS calculation results to support its argument that the Alberhill project is not needed. While understandable, SCE reasonably used LAR, as discussed above. The Commission does not need to determine a range of possible unserved of load based on different metrics. Rather the Commission agrees with the independent evaluation of Energy Division and its consultant.

[142] TURN-12 at Attachment C, Data Request Set TURN-SCE-Alberhill-007, Question 5, p. 3.

1AA and 2AA. SCE determined there was no need to install fire wall barriers and/or oil/water containment systems because the spacing between these three transformers are double SCE's typical 50-foot spacing between its transformers.[143] TURN argues installing fire wall barriers at Valley Substation as an additional and inexpensive safety measure provides sufficient resiliency.[144]

In summary, TURN argues that there is still an extremely low likelihood of the contingencies, the loss of electricity to customer is low or negligible, and SCE's system is well prepared.[145]

6.4.3. Discussion

The Commission finds that SCE's Flex-2-1 event frequency is reasonable. The Commission finds compelling the examples of substation fires that occurred in the SCE territory (Vincent, Mira Loma, and El Dorado), over the past twenty years.[146] SCE explains that although these three substations experienced partial outages, repairs and replacement of equipment took more than two weeks.[147] SCE states that during the September 2024 heat storm in the City of Ontario there was an unplanned outage of one transformer at the Mira Loma Substation when the system was at its peak. The transformer failed on September 6th and the

[143] *Id.*

[144] TURN OB at 51.

[145] *Id.* at 51 – 52, see Figure 11 on p. 52.

[146] SCE OB at 26; Ex. SCE-8 at 39:4 – 39:6, Attachment A, p. A-4.

[147] SCE RB at 22.

replacement transformer began service on October 6th.[148] During the one-month period, tie-lines were used to serve the area by importing electricity.[149]

Furthermore, SCE explains that the Vicent, Mira Loma and El Dorado substations were network systems and did not directly serve load. This means customers' interruptions were minimal as power could be routed around them during repairs.[150] In contrast, the Valley South System is more vulnerable due to its radial configuration, the lack of tie-lines, and the large number of customers.

The Commission is convinced by SCE's showing that in its experience, its assumptions and analysis are reasonable. TURN's event probability of once in 5,000 substation service years is not comparable to SCE's event frequency of once in a hundred years. The Commission agrees with TURN that it is difficult to develop event probability with little empirical data and finds SCE's efforts are adequate to satisfy the Commission's directives in D.18-08-026.[151]

Because TURN does not contest SCE's event frequency for Flex-2-2, loss of two transformers, the Commission finds SCE's event frequency for Flex-2-2 to be reasonable. Furthermore, spacing between equipment can limit collateral damage from transformer fires, but may not offer mitigation for events such as outages caused by lightning, earthquakes, and windstorms.[152]

---

[148] Ex. SCE-8 at 31:4 – 31:19.

[149] *Id.* at 9:1 – 9: 11, 31:4 – 31:19.

[150] SCE RB at 22.

[151] TURN OB at 66.

[152] TURN-12 at Attachment C Data Request Set TURN-SCE-Alberhill-007, Question 5, p. 3.

The context and goal of SCE's resilience analysis is important. SCE developed reliability and resiliency metrics to assess the effectiveness of various alternatives to the Alberhill project to meet capacity, reliability, and resilience needs of the Valley South System.[153] Energy Division used the metrics to evaluate how SCE ranked the different alternatives, noting that considering the total loss of Valley Substation is appropriate when weighing the resiliency needs of the Valley South System.[154] Energy Division concluded that the Flex scenarios are reasonable.[155] The Commission finds that overall SCE's resilience metrics and assumptions reasonable and that they served their purpose as required by D.18-08-026.

The Commission need not determine a particular event frequency to conclude that there is a resilience need for Alberhill project. The Valley South System is at capacity. The Valley South customers have been served by a system more vulnerable than any other part of SCE's service area. SCE states it needs approximately three years to construct the Alberhill project. During that time, a high impact low probability event may occur, putting the customers at risk. The Commission agrees with the Staff Report that resilience of the Valley South System is vulnerable to loss of its source of electricity and that the total loss of the

[153] SCE RB at 21.

[154] Ex. Commission-2 at Attachment C "Alberhill System Project Supplement to the Alternatives Screening Report," p. 19. *See also* Ex. Commission-2, Attachment C at Appendix A: Final Alberhill System Project Energy Division Staff Report, pp. 1, 24, 25.

[155] Ex. Commission-2, Attachment C at Appendix A: Final Alberhill System Project Energy Division Staff Report, pp. 40 – 41.

Valley Substation is "compelling when weighing the resiliency need" for the Alberhill project.[156]

6.5. Cost/Benefit Analysis

D.18-08-026, Ordering Paragraph 4, required SCE to perform a cost-benefit analysis as a way to review and rank alternatives to the Alberhill project. The Commission noted in the Addendum that a cost benefit analysis is not usually performed as part of the review for a Certificate of Public Convenience and Necessity.[157] Energy Division's Staff Report states that no method was prescribed.[158] Nevertheless, SCE complied with the Commission's order, created reasonable metrics that it applied consistently across the alternatives, and produced reasonable estimated values. SCE's analysis satisfies D.18-08-026.

Table 2 below shows SCE's estimates to be on the higher range of value, while TURN calculated lower values.

Table 2. Summary of the Net Present Value of Contingency Events

Metric for Event/Contingency Scenario	SCE Estimated Net Present Value	TURN Estimated Net Present Value	Reasonable Estimated Net Present Value
N-0 (Normal)	$2.53 Billion	0.7 Million	$2.53 Billion
N-1 (Includes loss of one element, such as a transformer)	$0.1 Million		$0.1 Million
Flex-2-1 (Includes complete Valley Substation outage)	$1.73 Billion	$35.1 Million	$1.73 Billion[159]

[156] *Id.* at 1, 40 – 41, 42.

[157] *Id.* at 42.

[158] *Id.*

[159] Because Table 2 does not include changes to the monetization rate, Table 2 does not include TURN's calculation with the 24-hour Value of Service (VoS) monetization rate, which resulted in a benefit of $415 Million.

	(1-in-100 year frequency)	(1-in-5,000 substation year frequency)	
Flex-2-2 (Includes the loss of two normally load-serving Valley South System transformers due to a fire)	$11.2 Million		$11.2 Million

SCE monetized EENS using SCE's Value of Service assumptions to arrive at the Net Present Value (NPV) for years 2022-2048 for different metrics/contingency scenarios. Table 2 shows that during normal operations (N-0 event), TURN again assumes that the fifth transformer is available to serve load in the Valley South System. From TURN's perspective, the fifth transformer is part of SCE's normal operating conditions and SCE's failure to include the fifth transformer inflates the calculations for N-0 benefits.[160]

Regarding the value of the Alberhill project during the complete outage of the Valley Substation (Flex-2-1), TURN does not oppose the Flex analyses but concludes that SCE's benefit calculations are unreasonable. TURN made two calculations by changing two inputs to show a range of possible benefits in the case of a complete substation outage.

First, TURN applied a lower outage rate because it argues that SCE's 1-in-100 year rate is unreasonable. TURN explains that SCE's high MWhs not served to customers then inflate the benefits of the Alberhill project.[161] TURN used an

[160] TURN OB at 73.

[161] TURN OB at 67. TURN's calculations of EENS for the complete loss of Valley Substation ranges between 26 to 31 MWh, as compared to SCE's EENS range of 1,279 MWh to 1,557 MWh.

outage rate of 1-in-5,000 substation service.[162] From TURN's lower frequency, TURN calculated $35.1 million in NPV of Alberhill for a Flex-2-1 event.

Second, TURN calculated another value of $415 million for the Alberhill project in the event a substation outage by changing SCE's 24-hour Value of Service (VoS) monetization rate.[163] SCE chose an average of its 1-hour and 24-hour VoS monetization rate, which was higher than the 24-hour monetization rate used by TURN.

6.5.1. Discussion

At the outset, the Commission finds SCE's calculations to be reasonable estimates as explained above. Second, the Commission again finds SCE's analysis reasonably excludes the fifth spare transformer as a permanent load serving asset as explained in Section 6.1.[164] Therefore, the Commission rejects TURN's estimated value for normal operations (N-0) because it includes the fifth spare transformer as part of SCE's "status quo" operations.

For the complete substation outage (Flex-2-1) scenario, TURN's calculations show there is a range of estimated values depending on the inputs. It is unsurprising that TURN's estimate is much lower than SCE's estimate based on the change in event frequency or value of service assigned to outages. The Commission gives little weight to the 1 in 5,000 substation service years for the

[162] TURN OB at 74.

[163] *Id.* at 75.

[164] SCE RB at 26.

reasons stated above in Section 6.4. The Commission finds SCE's event probabilities reasonable.

Lastly, the Commission rejects TURN's value calculated from the 24-hour VoS monetization rate. SCE states that it averaged the 1-hour and 24-hour VoS monetization rate. SCE based the values on a survey of SCE residential, commercial and industrial customers for SCE's 2021 general rate case.[165] The results show a higher VoS for a 1-hour outage and a lower VoS for a 24-hour outage. SCE chose to average the two to avoid unintentionally biasing the results by applying the higher 1-hour VoS.[166] TURN argues that SCE did not substantiate its choice. TURN states that it used the lower 24-hour VoS to "illustrate the impact of SCE's choice."[167] TURN's exercise shows how the value estimates change depending on the inputs, but the Commission finds SCE's analysis reasonable as SCE's goal was to avoid bias of one type of outage versus another.

The Commission finds SCE's benefit value estimates reasonable. Nevertheless, given the reasons detailed in Sections 6.1, 6.2, 6.3, and 6.4, it is unnecessary to adopt any particular benefit dollar amount to justify that the Alberhill project is needed.

6.6. Overriding Considerations

CEQA requires that a public agency may not approve a project that has significant and unavoidable (unmitigable) environmental impacts unless it

---

[165] *Id.* at 28.

[166] *Id.* at 28 – 19; SCE-8 at 41:17 – 41:19.

[167] TURN OB at 75 – 76.

determines that there are overriding considerations that merit project approval despite those unmitigable environmental impacts.

SCE's evidence convincingly shows that there is a capacity need, reliability need, and resilience need for the Alberhill project. SCE's evidence also shows that the Valley South System has a unique combination of characteristics as compared to SCE's other sub-transmission systems that contribute to the increased likelihood of loss of service to a large number of customers.[168] Due to the lack of tie-lines, Valley South System is isolated because it cannot transfer load during system contingency events and unplanned outages, including high-impact, low-probability events.[169]

In conclusion, SCE's analysis of capacity need, reliability need and resilience need show that the following overriding considerations outweigh the Alberhill project's unavoidable impacts on aesthetics, air quality and noise and vibration during construction, and cumulative impacts:

i. The need to relieve projected electrical demand that would exceed the operating limit of the two load-serving transformers for the Valley South System,

ii. The need to provide electricity in place of the Valley South System during maintenance,

iii. The need to provide an alternative during emergency events, or to relieve other operational issues on one of the systems.

[168] SCE Second Amended Motion to Correct Clerical Error in Amended Motion to Supplement the Record, June 22, 2021, Exhibit C-2 at 26.

[169] *Id.*

7. Issue 7: EMF

SCE provided a Field Management Plan in its 2009 application, which explained how the Alberhill project design complies with the Commission's electric and magnetic field (EMF) policies by incorporating "no-cost and low-cost" field reduction measures. In the Third Amended Application in 2023, SCE proposed to implement measures, including the following, to reduce EMF:

a. Utilize sub-transmission structure heights that meet or exceed SCE's preferred EMF design criteria;
b. Utilize double-circuit construction that reduces spacing between circuits as compared with single-circuit construction for major portions of sub-transmission lines;
c. Arrange the conductors of proposed transmission line segments and sub-transmission lines for magnetic field reduction;
d. Utilize sub-transmission line construction that reduces the space between conductors compared with other designs;
e. Utilize underground construction in existing conduits;
f. Arrange underground sub-transmission cables for magnetic field reduction;
g. Select route alignments through mostly undeveloped areas; and
h. Place major substation electrical equipment (such as transformers, switchracks, buses and underground duct banks) away from the substation property lines.[170]

No party contested SCE's proposal. No party provided contrary evidence as to the sufficiency of SCE's measures. Since the evidence in the record shows

[170] Third Amended Application, Appendix D, at 6 – 7.

SCE incorporated "no-cost and low-cost" measures into the Alberhill project to reduce EMF, the Commission finds the Alberhill project consistent with the EMF policies.

8. Issue 8: Present or Future Public Convenience and Necessity

Since this proceeding is considering a request for a CPCN, pursuant to Pub. Util. Code Section 1002(a)(1), the Commission must consider, what, if any, are the community values affected by the Alberhill project. The concept of community values is not strictly defined in statute and is somewhat fluid.[171] In this proceeding, the Commission considers the benefits that would be experienced by the Valley South System's customers. In Section 6, the Commission explains why it finds that there is capacity need, reliability need, and resilience need for the Alberhill project. This section details why as a matter of community values, the Commission should approve the Alberhill project. Communities would not only experience benefits from increased capacity, and an updated Valley South System, the Valley South System will have a similar level of reliability and resilience as the rest of the SCE grid. The Valley South System will finally comply with SCE's internal Transmission Planning Criteria and Guidelines. Therefore, the Commission finds that the Alberhill project would have a positive effect on community values.

Pursuant to Pub. Util. Code Section 1002(a), the Commission has considered material in the CEQA Final EIR and Addendum to the Final EIR that relate to recreational and park areas, historical and aesthetic values, and

[171] D.21-08-007 at 17; D.10-12-025 at 8.

influence on the environment. The Commission finds that the record shows there is a present and future public convenience and necessity for the Alberhill project.

9. Issue 9: Maximum Prudent and Reasonable Cost

Pursuant to Pub. Util. Code Section 1005.5, when issuing a CPCN, the Commission must specify a maximum reasonable and prudent cost for projects with costs over $50 Million. The Commission will consider the design of the project, the expected duration of construction, and estimate of the effects of economic inflation, and any known engineering difficulties associated with the project.[172] The Commission may adjust the estimate maximum reasonable cost if actual costs exceed the adopted estimated maximum reasonable cost finding.[173]

SCE provided cost estimates in 2010, 2017 and 2023.[174] At the 2017 evidentiary hearing, SCE estimated the cost be $464 million in 2017 constant dollars ($618 million in 2023 constant dollars).[175] In 2023, the Third Amended Application included technical design and engineering changes to the Alberhill project to reduce greenhouse gas emissions and decrease costs. SCE states that the current total project cost estimated is $482 million (2023 constant dollars).[176] The changes in the project cost were due to inflation, which were then partially offset by reductions in project scope.

---

[172] Pub. Util. Code Section 1005.5(a).

[173] *Id.* at Section 1005.5(b).

[174] Ex. SCE-9 at 2 – 3.

[175] SCE OB at 30 – 32.

[176] Ex. SCE-9 at 3:17 – 3:18.

SCE requests that the Commission set the maximum reasonable and prudent capital cost of $482 million, which consists of $428 million in project costs and a 15 percent contingency ($54 million).[177] SCE states that the contingency amount of 15 percent will be for "unforeseeable elements," which is reasonable because it is based, in part, on the expertise of SCE's engineering and construction professionals and, in part, on industry standard cost estimating information. SCE states that while the total contingency amount decreased by $12 million from 2017, the 15 percent is unchanged.[178]

TURN is silent with regards to SCE's cost estimates.

The Commission finds that SCE's request is reasonable and therefore sets the maximum cost cap of $481,700,000 (2023 constant dollars) based on SCE's work papers. This includes a 15 percent contingency of $53,800,000 (2023 constant dollars), to address factors beyond SCE's control that may impact the final cost.[179]

By specifying these maximum costs, the Commission does not waive our authority to review or challenge actual costs incurred for reasonableness and prudency at the Federal Energy Regulatory Commission (FERC). In furtherance of our interest in exercising this authority, we direct SCE to submit, pursuant to GO 96-B, quarterly information-only submittals to Energy Division reporting on the status of project development and spending.

---

[177] *Id.* at 6, Table 2.

[178] Ex. SCE-9 at 7:27 – 8:2.

[179] *Id.* at Attachment A – p. 6.

The cost cap cannot be exceeded absent significant changes to the Alberhill project which cannot be anticipated at this time. Pursuant to Pub. Util. Code Section 1005.5(b), at any point during the construction of the Alberhill project, but prior to any expenditures in excess of the cost cap, SCE may file a formal Petition for Modification with the Commission for an increase in the reasonable and prudent maximum cost specified in this Decision. The Commission may authorize an increase in the cost cap if it finds and determines that the cost has in fact increased and that the present or future public convenience and necessity require construction of the project at the increased cost. Further, it is expected that SCE shall not seek recovery of costs in rates that are in excess of the cost cap prior to the Commission's approval of the Petition for Modification.

10. Minor Project Refinements

The Commission's Energy Division may approve requests by SCE for minor project refinements that may be necessary, so long as such minor project refinements are located within the geographic boundary of the study area of the Final EIR and do not:

a. Result, without mitigation, in a new significant impact based on the criteria used in the Final EIR;
b. Substantively conflict with any mitigation measure or applicable law or policy; and/or
c. Trigger an additional discretionary permit requirement.

A minor project refinement should be strictly limited to a minor project change that will not trigger other discretionary permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. SCE shall seek

any project changes that do not fit within these criteria by a petition to modify today's decision. A change to the Alberhill project that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental CEQA review is required.

SCE shall report any proposed deviation from the Alberhill project and adopted mitigation measures in Appendix A to the Commission and the mitigation monitor assigned to the construction for their review and Commission approval.

11. Conclusion

SCE has provided the supplemental material required by D.18-08-026. The Commission's Energy Division has independently reviewed and analyzed the supplemental material in the record since 2018. Based on the supplemental information, under CEQA, the conclusion that Alberhill is the superior alternative has not changed.

The Commission has reviewed the record as a whole, including the Final EIR and the Addendum to the Final EIR. Although TURN criticizes SCE's assumptions and metrics, argues that SCE's results inflate the need for and the benefits of the Alberhill project, the reality is the Valley South System does not have the same level of reliability and resilience as the rest of SCE's service territory. The Commission finds that it is in the interest of SCE to prevent and remediate contingency events by preemptively authorizing projects before the contingency events occur. Today, the Valley South System is at 99 percent capacity. Furthermore, Valley Substation, of which the Valley South System is a part, serves approximately a million people. The failure to relieve the Valley

Substation and update the Valley South System puts more customers at risk. In conclusion, the Commission finds that SCE has met its burden of showing that the Alberhill project serves public convenience and necessity and that the Commission should grant a CPCN for the Alberhill project.

12. Summary of Public Comment

Rule 1.18 allows any member of the public to submit written comment in any Commission proceeding using the "Public Comment" tab of the online Docket Card for that proceeding on the Commission's website. Rule 1.18(b) requires that relevant written comment submitted in a proceeding be summarized in the final decision issued in that proceeding.

By the submission date, three comments have been posted under the "Public Comment" tab of the online Docket Card. Two in support of the Alberhill project and one against.

13. Procedural Matters

All motions not ruled on are deemed denied.

This decision affirms all rulings made by the ALJ and assigned Commissioner in this proceeding.

14. Comments on Proposed Decision

The proposed decision of ALJ Zhen Zhang was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure.

On March 5, 2026, SCE and TURN filed opening comments.[180] On March 10, 2026, SCE and TURN filed reply comments.[181]

In general, SCE supports the decision. However, in the event that SCE files a petition to modify the cost cap set by this decision, SCE states that it is burdensome to require SCE to wait to seek cost recovery of amounts in excess of the cost cap until after the Commission reviews and decides on SCE's petition.[182] SCE argues that review of all project costs in the General Rate Case is adequate. TURN responds that when reviewing an increase to the cost cap, the Commission considers "whether the project cost 'in fact increased' and that 'the present or future public convenience and necessity require construction of the project at increased cost.'"[183] The Commission agrees with TURN that deciding whether the project at a higher cost continues to serve the public is a distinct and important question to resolve before allowing cost recovery from ratepayers. Therefore, the Commission rejects SCE's argument and proposed changes to the decision.

---

[180] Southern California Edison Company's (U 338-E) Opening Comments on the Proposed Decision on the Alberhill System Project, March 5, 2026 (SCE Opening Comments); Comments of The Utility Reform Network on the Proposed Decision of Administrative Law Judge Zhen Zhang March 5, 2026 (TURN Opening Comments).

[181] Southern California Edison Company's (U 338-E) Reply Comments on the Proposed Decision on the Alberhill System Project, March 10, 2026 (SCE Reply Comments); Reply Comments of The Utility Reform Network on the Proposed Decision of Administrative Law Judge Zhen Zhang, March 10, 2026 (TURN Reply Comments).

[182] SCE Reply Comments at 4.

[183] TURN Reply Comments at 4 (*citing* Pub. Util. Code Section 1005.5(b)).

TURN points out alleged factual errors and recommends that the Commission adopt additional reporting requirements. TURN states there are factual errors in the decision's discussions of benefits to customers, tie-lines, rolling blackouts, the spare transformer, a network design versus a radial design, reliability performance versus reliability risk, Load at Risk, Expected Energy Not Served, and possible event frequencies.[184] TURN proposes changes to the status reports such as requiring SCE to identify costs based on FERC jurisdiction or Commission jurisdiction and drivers of the differences between actual spending and total estimated project costs.[185] Except for two minor proposed changes by TURN,[186] SCE disagrees with TURN's alleged factual errors and additional reporting requirements.[187]

The Commission has carefully reviewed and considered the parties' comments and made appropriate changes to the proposed decision where warranted. The Commission finds all other comments not specifically addressed by revisions to the proposed decision do not raise any factual, legal or technical errors and are accorded no weight.

15. Assignment of Proceeding

John Reynolds is the assigned Commissioner and Zhen Zhang is the assigned Administrative Law Judge in this proceeding.

---

[184] TURN Opening Comments at 6 – 11.

[185] TURN Reply Comments at 11 – 14.

[186] SCE Reply Comments at 1 – 2.

[187] *Id.* at 2 – 5.

Findings of Fact

1. The Addendum to the Final EIR confirms the finding that the Alberhill project is the environmentally superior alternative, as determined in D.18-08-026 Findings of Fact 15.

2. Prior to deciding on SCE's application, the Commission has reviewed and considered the information contained in the Final EIR and Addendum to the Final EIR.

3. The Electrical Needs Area is the service area of the Valley South 115 kV System, also called the Valley South System.

4. Currently, the load at the Valley South System is managed by the Valley Substation.

5. The Valley Substation is SCE's largest load-serving substation in total transformer capacity installed, total load served, and total population served.

6. The Valley Substation provides electricity to approximately 1,000,000 people.

7. Out of SCE's 43 A-bank substations, the Valley Substation is the only A-bank substation that has transformers rated at 560 MVA, twice the capacity of the typical 280 MVA transformer used at all of the other A-bank substations.

8. 560 MVA transformers differ from typical 280 MVA transformers in procurement time, cost, logistics, and storage.

9. The Valley Substation serves the Valley South System and the Valley North System. The Valley North System has tie-lines to adjacent transmission

systems. The Valley South System does not have tie-lines to adjacent transmission systems.

10. The Valley South System is the only one of SCE's 56 subtransmission electrical systems without system tie-lines to another 115 kV sub-transmission system within SCE's entire service territory.

11. The Valley South System is a radial system, which means it is an individual system that serves a pocket of customer demand through a single point of connection rather than multiple points of connection. If there is an outage at the Valley South System, power only has one single point of interface with the transmission system at Valley Substation and power cannot be imported to the Valley South System from other systems via tie-lines.

12. The fifth spare transformer was installed to comply with SCE's internal Transmission Planning Criteria and Guidelines in case one of the two transformers serving the Valley South System becomes unavailable.

13. The fifth spare transformer is more important for the Valley South System because it does not have tie-lines.

14. If one of the two transformers serving the Valley South System becomes unavailable, operators cannot use tie-lines to bring electricity back into the area. In such a situation, if the fifth spare transformer is unavailable then SCE would have to implement rolling blackouts.

15. To rely on the fifth spare transformer as a long-term solution for additional capacity is not prudent and places SCE's customers at unreasonable risk.

16. The fifth spare transformer is not a permanent load-serving asset.

17. The fifth spare transformer is not part of the status quo from which to assess the capacity limit calculations, reliability metrics, resilience metrics, and cost/benefit calculations.

18. The Valley South System's two transformers have 1,119 MW of name plate rating capacity.

19. Without tie-lines, the Valley South System total load should be maintained at or less than 896 MW 1-hour emergency rating of a single transformer.

20. The Valley South System is the only electrical system in SCE's territory that must use the spare transformer to mitigate overloads when demand goes over 896 MW.

21. The Valley South System reached an all-time high peak of 1,103 MW by Summer 2024, which is 99 percent of the Valley South System's normal capacity rating of 1,119 MW, if the Valley South System had tie-lines.

22. Without tie-lines, the Valley South System all-time high peak of 1,103 MW is 23 percent over the 896 MW 1-hour emergency rating of a single transformer.

23. SCE forecasts 1,104 MW in peak electrical demand in the Valley South System during normal operations by 2028.

24. SCE forecasts the peak electrical demand under 1-in-5 year heat storm conditions will increase to 1,187 MW by 2028.

25. There is a need to relieve the projected electrical demand that would exceed the operating limit of the two load-serving Valley South 115 kV system 500/115 kV transformers within the Valley South System.

26. The Alberhill project would increase the capacity of the Valley South System to accommodate the forecasted increase in local peak demand.

27. Unserved customer demand from a lack of capacity at the Valley South System adversely impacts reliability.

28. When the system is at capacity, without tie-lines to the rest of the grid, operators have no options to transfer customer load to neighboring systems during maintenance, emergencies, or other operational issues and unplanned outages.

29. When compared with the rest of SCE's service territory, the Valley South System has unique challenges, making it more susceptible to reliability risks.

30. SCE's use of Load at Risk (LAR), its reliability forecast, and calculations are reasonable and comply with D.18-08-026.

31. There is a need to improve reliability at the Valley South System because of its unique challenges resulting from a combination of a large customer base, lack of excess capacity, isolation from the rest of the transmission grid, and lack operational flexibility compared to SCE's other systems.

32. Resilience refers to a utility's ability to serve customers under high impact low probability events, such as fires and earthquakes.

33. Resilience refers to the effectiveness of containing the impact of extraordinary events and how efficiently and quickly a system and/or service is restored. Resilience focuses on comprehensive consideration of risk and mitigation.

34. SCE's resilience metrics (Flex-2-1: includes complete Valley Substation outage, Flex-2-2: includes the loss of two normally load-serving Valley South System transformers), the assumptions, and load at risk calculations are reasonable and comply with D.18-08-026.

35. For the resilience analysis, it is reasonable for SCE to consider events that have happened in the SCE territory, including fires at SCE's substations.

36. When analyzing resilience, due to the lack of industry studies and analysis of high impact low probability events, it is difficult to develop event probability numbers.

37. The Valley South System is more vulnerable to high impact and low probability events as compared to the rest of SCE's systems due to the combination of the radial configuration, the lack of tie-lines, its reliance on the Valley Substation, and the large customer base.

38. The Valley South System is vulnerable to the loss of its source of electricity supply during a high impact, low probability event, which is undesirable.

39. There is a resilience need for the Alberhill project.

40. SCE's net present value assumptions, analysis, and conclusions of the Alberhill project for operations and contingency events comply with D.18-08-026.

41. There is a need to provide electricity in place of the Valley South System during maintenance, emergency events, or to relieve other operational issues.

42. There is a comprehensive need to increase system operational flexibility in the Valley South System.

43. The Alberhill project is needed in the near and foreseeable future.

44. The capacity need, reliability need, and resilience need for Alberhill project are overriding considerations meriting project approval.

45. The Alberhill project's reliability, resilience, and operational flexibility benefits are overriding considerations meriting project approval.

46. SCE's cost/benefit metics, analysis, and conclusions are reasonable and comply with D.18-08-026.

47. In accordance with Pub. Util. Code Section 1002(a), the Commission has considered, as a basis for granting the CPCN, community values, recreational and park areas, historical and aesthetic values, and influence on the environment.

48. The Alberhill project would have a positive effect on community values.

49. SCE agrees to undertake the EMF measures in its construction of the Alberhill project.

50. The Commission is the lead agency for compliance with the provisions of CEQA. As the lead agency under CEQA, the Commission is required to monitor the implementation of mitigation measures adopted for the Alberhill project to ensure full compliance.

51. SCE agrees to undertake the actions in the Mitigation, Monitoring, Compliance, and Reporting Plan, affixed as Appendix A to this decision.

52. SCE has presented its estimate for the cost of the Alberhill project as $481,700,000 (2023 dollars) including $53,800,000 contingency.

Conclusions of Law

1. The Addendum to the certified Final EIR is the appropriate document to prepare for the Alberhill project changes pursuant to CEQA Guidelines Section 15164(b).

2. The Addendum to the Final EIR was completed in compliance with CEQA, and it reflects the Commission's independent judgment and analysis on all material matters.

3. The Commission's preparation of the Addendum to the Final EIR was supported by substantial record evidence.

4. The capacity benefits, reliability benefits, and resilience benefits are overriding considerations that outweigh the Alberhill project's significant and unavoidable adverse environmental impacts.

5. The Alberhill project serves present and public convenience and necessity.

6. Approval of the Alberhill project, subject to the direction set forth in this decision, is in the public interest.

7. The parties did not present sufficient evidence contrary to SCE's presentation of need for the Alberhill project.

8. The no-cost and low-cost measures to reduce EMF exposure SCE agrees to undertake in the Alberhill project are reasonable.

9. SCE should be granted a certificate of public convenience and necessity to construct the Alberhill project, in conformance with the Mitigation, Monitoring, Compliance, and Reporting Plan in Appendix A affixed to this decision.

10. The Commission's Energy Division should be authorized to approve requests by SCE for minor project refinements that may be necessary, so long as the minor project refinements are located within the geographic boundary of the area and do not 1) result, without mitigation, in a new significant impact based on the criterial used in the Final EIR; 2) substantively conflict with any mitigation measures or applicable law or policy; and/or 3) trigger an additional discretionary permit requirement.

11. Pursuant to Public Utilities Code Section 1005, Commission should approve a maximum reasonable and prudent cost cap of $481,700,000 (2023 dollars), including $53,800,000 contingency, for the Alberhill project.

12. The cost cap should not be exceeded absent significant changes to the Alberhill project.

13. Pursuant to Pub. Util. Code Section 1005.5(b), at any point during the construction of the Alberhill project, but prior to any expenditures in excess of the cost cap, SCE should be authorized to file a formal Petition for Modification with the Commission for an increase in the reasonable and prudent maximum cost specified in this decision and show that:

a. The cost has in fact increased; and
b. The present or future public convenience and necessity require construction of the project at increased cost.

In the event of such a petition being filed, SCE should be authorized to seek recovery of costs in rates that are in excess of the cost cap only after the Commission's approval of such petition for project cost increases.

14. SCE should file quarterly reports with Energy Division on the status of Alberhill project development and spending.

15. Any pending motions that are not addressed in this decision should be deemed denied.

16. All rulings of this proceeding should be affirmed.

17. This proceeding should be closed.

18. This decision should be effective immediately.

O R D E R

IT IS ORDERED that:

1. The Addendum to the final EIR for the Alberhill project is adopted as having been completed in compliance with the California Environmental Quality Act, reviewed and considered by the California Public Utilities Commission (Commission) prior to approving the Alberhill project, and reflective of the Commission's independent judgment.

2. The mitigation measures, Southern California Edison Company proposed measures, and construction measures included in the Mitigation, Monitoring, Compliance, and Reporting Plan in Appendix A affixed to this decision are adopted.

3. The application of Southern California Edison Company for a certificate of Public Convenience and Necessity to construct the proposed Alberhill System Project (Alberhill project) is granted, conditioned upon compliance with

Mitigation, Monitoring, Compliance, and Reporting Plan in Appendix A affixed to this decision.

4. The Commission's Energy Division may approve requests by Southern California Edison Company (SCE) for minor project refinements that may be necessary, so long as such minor project refinements are located within the geographic boundary of the study area, and do not result, with mitigation, in a new significant impact based on the criteria used in the Final EIR, conflict with any mitigation or applicable law or policy; and/or trigger additional discretionary permit requirement. SCE shall seek any other project refinements by filing a petition for modification of today's decision.

5. Pursuant to Public Utilities Code Section 1005.5, the maximum reasonable and prudent cost for the Alberhill project is $481,700,000 (2023 dollars), which includes a 15 percent contingency. The cost cap should not be exceeded absent significant changes to the Alberhill project which cannot be anticipated at this time.

6. At any point during the construction of the Alberhill project, but prior to any expenditures in excess of the maximum reasonable and prudent cost of $481,700,000 (2023 dollars), Southern California Edison Company (SCE) must file a formal Petition for Modification with the Commission for consideration of an increase of the reasonable and prudent maximum cost of the Alberhill project and show that: a) the cost has in fact increased; and b) the present or future public convenience and necessity require construction of the project at increased cost. In the event of such a petition being filed, SCE may be authorized to seek

recovery of costs in rates that are in excess of the cost cap only after the Commission's approval of such petition for project cost increases.

7. Southern California Edison Company (SCE) shall make quarterly information-only submittals to the Commission's Energy Division, pursuant to General Order 96-B, providing status updates on the Alberhill project. These status updates shall include, at minimum:

   a. Comprehensive project development schedule (with data organized by month), including estimated project in service date;
   b. Any changes in project scope and schedule, including the reasons for such changes;
   c. Any engineering difficulties encountered in constructing the project;
   d. Total estimated project costs;
   e. Actual spending to date;
   f. Any and all filings submitted to the Federal Energy Regulatory Commission for ultimate cost recovery through transmission rates; and
   g. Any additional information SCE believes relevant and necessary to accurately convey the status of the Alberhill project.

8. All outstanding motions filed in this proceeding that are not ruled on are denied.

9. All rulings of this proceeding are affirmed.

10. Application 09-09-022 is closed.

This order is effective today.

Dated March 19, 2026, at Sacramento, California.

JOHN REYNOLDS
President
DARCIE L. HOUCK
KAREN DOUGLAS
CHRISTINE HARADA
Commissioners

Commissioner Matthew Baker recused himself from this agenda item and was not part of the quorum in its consideration.

APPENDIX A

MITIGATION, MONITORING, COMPLIANCE, AND REPORTING PLAN FOR THE ALBERHILL SYSTEM PROJECT

(REDLINE and CLEAN)

APPENDIX B

MAP OF VALLEY SOUTH SYSTEM (ELECTRICAL NEEDS AREA)

APPENDIX C

ALBERHILL SYSTEM PROJECT DESCRIPTION

a. Construction of a new 1,120 megavolt ampere (MVA) 500/115 kV substation (Alberhill Substation);

b. Construction of two new 500 kV transmission lines (approximately 3.3 miles, combined) within a new right-of-way to connect the proposed Alberhill Substation to the existing Serrano-Valley 500 kV Transmission Line;

c. Double-circuit approximately 10.6 miles of existing single-circuit 115 kV sub-transmission lines with structure replacement primarily in the existing right of way;

d. Construction of approximately three miles of single-circuit 115 kV sub-transmission lines with distribution lines underbuilt on the sub-transmission line structures, and removal of about three miles of electrical distribution lines within the existing right of way;

e. Installation of a second 115 kV circuit on approximately 6.2 miles of existing 115 kV sub-transmission lines constructed as part of the Valley-Ivyglen project;

f. Installation of approximately 550 feet of new 115 kV underground sub-transmission circuit within new duct banks, and installation of approximately 4,000 feet of new 115 kV sub-transmission circuit within existing duct banks;

g. Installation of fiber optic lines overhead (approximately nine miles) on sections of new or modified sub-transmission lines and underground (approximately one mile) in proximity to the proposed Alberhill Substation and several of the existing 115/12 kV substations;

h. Construction of an approximately 120-foot microwave antenna tower at the proposed Alberhill Substation site; installation of microwave telecommunications dish antennas at the proposed Alberhill Substation, the existing Santiago Peak Communications Site, and Serrano

Substation; and other telecommunications equipment installations at existing and proposed substations;

i. Installation of a new 115 kV line position inside Newcomb Substation to accommodate the new Newcomb-Skylark 115 kV line, and modifications to an existing position at Valley Substation to isolate the existing Valley-Newcomb 115 kV line which will be taken out of service as part of the Alberhill project; and

j. Transfer five of the 14 Valley South 115 kV System substations to the Alberhill 115 kV System: Ivyglen, Fogarty, Elsinore, Skylark, and Newcomb 115/12 kV Substations.