

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



FILED
11/30/17
04:59 PM

In the Matter of the Application of
SOUTHERN CALIFORNIA EDISON
COMPANY (U338E) for a Permit to
Construct Electrical Facilities with Voltages
between 50kV and 200 kV: Valley-Ivyglen
115 kV Subtransmission Line Project.

Application 07-01-031

And Related Matters.

Application 07-04-028

Application 09-09-022

OPENING BRIEF OF THE OFFICE OF RATEPAYER ADVOCATES

I. INTRODUCTION

In accordance with Rule 13.11 of the California Public Utilities Commission Rules of Practice and Procedure, and with the schedule¹ established for the above-captioned proceeding, the Office of Ratepayer Advocates (ORA) hereby submits its Opening Brief regarding Southern California Edison Company's (SCE) application for a Certificate of Public Convenience and Necessity (CPCN) to construct the Alberhill System Project (Alberhill), and SCE's petition for modification of the previously-approved Permit to Construct (PTC) the Valley-Ivyglen 115 kV Subtransmission Line Project (VIG).

Because SCE has not shown that the proposed Alberhill project is needed, a CPCN for that project should be denied. SCE also has not shown that overriding considerations warrant approval of the proposed VIG project despite its significant and unavoidable adverse environmental impacts. Therefore, SCE's petition to modify the VIG project's PTC should be denied.

¹ See Assigned Commissioner's Scoping Memo and Ruling (Scoping Memo), June 19, 2017, p. 7.

II. DISCUSSION

A. Need for the Proposed Projects

1. SCE Has Not Demonstrated that the Proposed Alberhill Project Serves a Present or Future Public Convenience and Necessity

To obtain a CPCN to construct the Alberhill project, Public Utilities Code Section 1001 requires a showing from SCE that “the present or future public convenience and necessity require or will require such construction.”² SCE has not demonstrated that its proposed Alberhill project is needed. Therefore, the Alberhill project does not serve a present or future public convenience and necessity.

For purposes of the Environmental Impact Report (EIR), SCE has not sufficiently shown that the purported need for the Alberhill project should be an overriding consideration meriting approval of the proposed project despite its significant and unavoidable adverse environmental impacts. In determining whether there are such overriding factors, the Commission considers whether there is a need to relieve projected electrical demand that would exceed the operating limit of the two Section “D” 500/115-kV transformers serving load in the Valley South 115 kiloVolt (kV) System, and to provide electricity in place of the Valley South 115 kV System during maintenance, emergency events, or to relieve other operational issues on the Valley South system.³

SCE’s forecast methodology overstates the projected electrical demand that is the basis of a finding of need for Alberhill. Energy efficiency and the growth of distributed energy resources (DER) continue to depress load growth, but SCE’s forecast method discounts or ignores these resources.⁴ Consistent with sound planning and the state’s environmental goals, any load forecast should properly account for energy efficiency and (DER) programs by deferring infrastructure projects where possible.⁵ For example, the California Independent System

² Unless otherwise indicated, all statutory references herein are to the California Public Utilities Code.

³ Scoping Memo, p. 4, issue 6.b.

⁴ SCE-02, p. 10, n. 5; Reporter’s Transcript (RT) 46:1-27 (SCE-McCabe).

⁵ Ex. ORA-01, p. 4.

Operator (CAISO), in both its 2015-2016 Transmission Plan⁶ and 2016-2017 Transmission Plan,⁷ canceled dozens of transmission projects that it determined were no longer needed based on reliability, local capacity requirements and deliverability assessments.⁸ Similarly, a 2016 report by the California Energy Commission (CEC) addresses the potential for avoided transmission and the benefits of avoided costs from DER deployment.² Absent such adjustments, SCE's forecast methodology overstates the projected electrical demand that is the basis of a finding of need for Alberhill.

The Commission should defer infrastructure projects where reasonably possible. In Rulemaking (R.) 14-10-003,¹⁰ the Commission discussed a similar concept:

Public Utilities Code Section 454.5(b)(9)(c), the California Energy Action Plan, and past Commission decisions have established policies to procure all available cost-effective demand reduction and energy efficiency resources before procuring generation resources. Furthermore, Public Utilities Code Section 701.1(a) directs the Commission "to minimize the cost to society of the reliable energy services that are provided by natural gas and electricity, and to improve the environment and to encourage the diversity of energy sources through improvements in energy efficiency and renewable energy resources."

The Utility Reform Network (TURN) likewise notes that existing state policies, such as clean energy, clean air and greenhouse gas reduction goals established by Senate Bill 350, will exert downward pressure on electricity demand in the Valley South ENA.¹¹ Given the continued development of DER, the Alberhill project may be canceled, modified, or deferred due to the success of the state's DER programs.

⁶ Ex. ORA-01, p. 4, citing 2015-2016 CAISO Transmission Plan, p. 93, available at: <http://www.caiso.com/Documents/Board-Approved2015-2016TransmissionPlan.pdf>.

⁷ Ex. ORA-01, p. 4, citing 2016-2017 CAISO Transmission Plan, p. 102, available at: http://www.caiso.com/Documents/Board-Approved_2016-2017TransmissionPlan.pdf.

⁸ Similar cancellations or deferrals have also occurred in other high-DER states. Ex. ORA-01, p. 4, citing <http://www.utilitydive.com/news/new-york-utility-turns-to-ders-to-avoid-118m-substation-upgrade/422599/>.

² Ex. ORA-01, p. 4, citing San Joaquin Valley Distributed Energy Resource, Regional Assessment, July 2016. Available at: <http://www.energy.ca.gov/2016publications/CEC-200-2016-004/CEC-200-2016-004.pdf>.

¹⁰ R.14-10-003, Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning and Evaluation of Integrated Demand-Side Resource Programs, issued Oct. 8, 2014.

¹¹ Ex. TURN-01, pp. 7-8.

According to SCE, recorded peak demand at the Valley South System in year 2016 was 996 megavolt amperes (MVA).¹² By SCE’s projections, the 1-in-5 weather year peak demand for the Valley South System in year 2021 will be 1129 MVA, which will exceed 1120 MVA – the capacity of the two Section “D” transformers at Valley Substation. However, the 1129 MVA peak demand is a gross peak demand, which does not consider the offset effects of “behind the meter generation” because SCE views behind the meter generation as non-dependable resources that are not included by SCE in its planning activities.¹³ Forest Residents Opposing New Transmission Lines (FRONTLINES) contrasts SCE’s most recent general rate case (GRC), where the utility “is requesting \$2 billion to increase ‘DER integration capacity’ and reliability on its own grid,” with the current proceeding, where SCE’s peak demand forecasts account for few DERs.¹⁴ SCE’s discounting of DERs here is inconsistent with its GRC position, and with the CAISO’s forecast methodology. The CAISO, in its 2016-2017 Transmission Plan, included “behind the meter generation” to offset the peak demand.¹⁵ As a result, CAISO forecasted that net peak demand in the Valley South System in 2021 would be 956 megawatts (MW). Assuming a unity power factor,¹⁶ the 956 MW approximately equates to 956 MVA. CAISO further forecasted that net peak demand for the Valley South System in year 2026 will be 950 MW or, assuming a unity power factor,¹⁷ 950 MVA. With these considerations, the net peak

¹² Ex. ORA-01, Appendix B, Table 1.

¹³ Ex. ORA-01, p. 5; Ex. SCE-02, p. 10, n. 5.

¹⁴ Ex. FRONT-1, p. 5, n. 6. ORA opposed SCE’s GRC request for ratepayer funding for new or expanded programs to improve grid performance and to address SCE’s concerns regarding integration of DERs. (See Application (A.) 16-09-001, Opening Brief of the Office Ratepayer Advocates, Sept. 8, 2017, pp. 80-81.)

¹⁵ Ex. ORA-01, 5, citing 2016-2017 CAISO Transmission Plan, p. 1.

¹⁶ Ex. ORA-01, p. 5, n. 16: An alternating current power supply system delivers apparent power with the measurement unit of MVA. This apparent power consists of two components: real power with the measurement unit of MW and reactive power with the measurement unit of megavolt-ampere reactive or MVAR. The ratio of the real power (in MW) to the apparent power (in MVA) is defined as the power factor. Demand for reactive power (in MVAR) at a local system can be supplied or compensated by local installation of reactive power compensators such as shunt capacitors. In this way, the need for reactive power from the high voltage grid can be minimized, and the power flowing through the transformers will be only real power but not reactive power. When there is no reactive power flowing through the transformers, the measurement of real power will equal to the measurement of apparent power. This will result in a power factor equal to one.

¹⁷ See footnote 16, above.

demand that needs to be served by the two Section “D” transformers will be decreased due to the ever increasing penetration of preferred resources, including behind the meter generation.

The load forecasting estimates that SCE relies on to justify transmission additions to the Valley South System are inconsistent with the current CAISO Transmission Plan. Therefore, the Commission should not rely on SCE’s load forecast results to determine the need for new transmission projects, but should rely on the CAISO forecasts for transmission planning purposes. According to the CAISO’s 2016-2017 Transmission Plan studies, the peak demand in the Valley South System is decreasing rather than increasing. Therefore, the overload concern for the two Valley Substation Section “D” transformers is overstated.¹⁸ Similarly, TURN states that, based on the “top-down”¹⁹ load forecast used by the CAISO, the projected electrical demand would not exceed the operating limit of the Valley “D” Section transformers and, therefore, the Alberhill project is not needed.²⁰ TURN further notes that SCE’s own forecast has “dropped precipitously” in the eight years since SCE filed its initial application for the Alberhill project before the Commission.²¹ Given these circumstances, the Alberhill project is “an expensive solution that provides vastly more capacity than can be justified by the SCE projected load growth.”²²

2. SCE Has Not Demonstrated that the VIG Project Is Needed

Construction of the VIG project would have significant air quality and noise impacts that cannot be mitigated.²³ SCE has not sufficiently shown that the purported need for the VIG

¹⁸ The EIR states that the environmentally superior No Project Alternative impacts “provision of electricity because there may be overloads on the two 560 [MVA] transformers that serve the Valley South 115-kV System as soon as summer 2019.” (Final EIR, at 5-45.) However, FRONTLINES notes that under the “no project” scenario, SCE can accommodate actual load growth by shifting demand between its interconnected and reconfigurable 115 kV systems. (Ex. FRONT-01, p. 14.) Indeed, “this ‘load shift’ strategy is the foundational element of SCE’s adopted ‘A-Bank Plan’” by which SCE evaluates “whether we can utilize existing infrastructure to balance electric power between highly loaded substations and substations with additional reserve margin.” (Ex. FRONT-01, p. 11, citing SCE’s GRC testimony in A.16-09-001.)

¹⁹ TURN-01, pp. 3-4.

²⁰ TURN-01, p. 36.

²¹ TURN-01, pp. 2, 20 (Figure 6).

²² TURN-01, p. 36.

²³ Ex. FRONT-01, p. 15; Final EIR, §§ 4.3 and 4.11.

project should be an overriding consideration meriting approval of the proposed project despite these and other significant and unavoidable adverse environmental impacts. In determining whether there are such overriding factors, the Commission considers whether there is a need to relieve load on the existing Valley-Elsinore-Fogarty 115 kV Subtransmission Line and provide a second source of power to the Ivyglen Substation.²⁴ Constructing the Valley–Ivyglen line will lead to the existing Valley leg of the Valley-Elsinore-Fogarty three-terminal line, approximately 13 miles long, not being used most of the time.²⁵ The proposed VIG project should be refined to include only those elements that are needed.²⁶

B. Maximum Prudent and Reasonable Cost of the Alberhill Project

Section 1005.5(a) requires the Commission, if it issues a CPCN, to specify a maximum prudent and reasonable cost for the Alberhill project.²⁷ The Commission determines the maximum cost using an estimate of the anticipated construction cost, taking into consideration the design of the project, the expected duration of construction, an estimate of the effects of economic inflation, and any known engineering difficulties associated with the project.²⁸

SCE’s current estimate for Alberhill project costs is \$463.6 million (in constant 2017 dollars).²⁹ To the extent that the Commission finds that the Alberhill project is needed, the cost estimate should be refined to include only those project elements that are needed. ORA has identified some technical issues with the proposed projects that, if addressed, could potentially decrease project costs. For example, in 2016, the total peak demand of the five substations served by the Alberhill Substation was only 336 MVA.³⁰ Therefore, one transformer that has power transfer capability of 560 MVA would have a utilization factor of 60 percent,³¹ which is sufficient to serve the five substations. SCE proposed to install two transformers at Alberhill

²⁴ Scoping Memo, p. 4, issue 6.a.

²⁵ Ex. ORA-01, p. 7.

²⁶ Ex. ORA-01, p. 7.

²⁷ Cal. Pub. Util. Code §1005.5(a).

²⁸ Cal. Pub. Util. Code §1005.5(a).

²⁹ SCE-01, p. 25, Table IV-1.

³⁰ Ex. ORA-01, Appendix B, Table 1.

³¹ $336\text{MVA}/560\text{MVA} \times 100\% = 60\%$.

Substation, with load power transfer capability of 1120 MVA. Therefore, under SCE’s proposal, the utilization factor will be less than 30 percent.³² Thus, SCE is over-investing ratepayer money for an unneeded transmission facility.³³

If the Commission decides to issue a CPCN for the Alberhill project, the approved project should be refined to include only components that are needed and the maximum prudent and reasonable cost authorized for the project should be adjusted accordingly.

C. Significant Environmental Impacts of the Proposed Projects

The Final EIR identifies the significant adverse environmental impacts of the proposed projects. ORA takes no further position on this issue.

D. Feasible Mitigation Measures to Avoid or Lessen the Significant Environmental Impacts

The EIR addresses potentially feasible mitigation measures that would eliminate or lessen the significant environmental impacts of the proposed projects. ORA takes no further position on this issue.

E. Environmentally Superior Alternative

As between the proposed projects and the project alternatives, the EIR identifies the proposed projects as the environmentally superior alternatives.³⁴ ORA takes no further position on this issue.

F. Infeasibility of Environmentally Superior Alternatives and/or Mitigation Measures

For both the Alberhill and VIG projects, the EIR finds that the No Project Alternative would be environmentally superior for all environmental resources.³⁵ When the environmentally superior alternative is the “No Project” alternative, CEQA requires the identification, if possible,

³² $336\text{MVA}/1120\text{MVA} \times 100\% = 30\%$.

³³ ORA-01, pp. 6-7.

³⁴ Final EIR, at ES-8 (“None of the alternatives identified for either of the projects are considered environmentally superior to the proposed project....”), 5-29, 5-45 to 5-46.

³⁵ Final EIR, at 5-29 and 5-45.

of an environmentally superior alternative among the other alternatives.³⁶ Here, the EIR identifies the proposed projects as environmentally superior to the other project alternatives.³⁷ ORA takes no further position on this issue.

G. California Environmental Quality Act Compliance

ORA has no reason to believe that the EIR was not completed in compliance with CEQA.

H. Electromagnetic Field (EMF) Policy Compliance

ORA takes no position on this issue at this time.

III. CONCLUSION

For the reasons stated above, ORA recommends that the Commission deny SCE's request for a CPCN for the Alberhill project and a PTC the VIG project.

Respectfully submitted,

/s/ MARION PELEO

Marion Peleo
Attorney

Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Phone: (415) 703-2130
E-mail: Marion.Peleo@cpuc.ca.gov

November 30, 2017

³⁶ Final EIR, at 5-29 and 5-45, CEQA Guidelines § 15126.6.

³⁷ Final EIR, at 5-29 and 5-45 to 5-46.