Alberhill System Project Supplemental Analysis

Public Workshop – Riverside County, CA November 13, 2018



Energy for What's Ahead[™]

Workshop Agenda

- 1. Discuss the recent Decision on the Alberhill System Project.
- 2. Describe SCE's plan to conduct supplemental analysis.
- 3. Provide an overview of the Valley South System needs and the Alberhill System Project.
- 4. Discuss efforts to identify and analyze new alternatives to meet these system needs.
- 5. Describe opportunities for public input and participation.
- 6. Collect feedback regarding alternatives to meet system needs.

Project Status: Why Are We Here?

Milestone	Date
Application submitted to the CPUC	Sept 2009
Environmental Impact Report (EIR) preparation	May 2015 – April 2017
Decision issued	August 31, 2018
Alberhill System Project proceeding held open to allow for further review	

Decision Summary

- Deconsolidates the Alberhill System Project from the Valley-Ivyglen 115 kV Subtransmission Line Project.
 - <u>http://www.cpuc.ca.gov/Environment/info/ene/ivyglen/ivyglen.html</u>
- Holds Alberhill System Project proceeding open to allow for further review.
- Takes no action on the Alberhill System Project at this time.
- Directs SCE to supplement the existing record with additional analyses related to nine specific data items:
 - Load forecast
 - □ Similar subtransmission planning areas
 - Planning Study
 - □ Electric reliability performance
 - □ Analysis of outages
 - □ Impact on service reliability performance
 - Cost/benefit analysis of several alternatives
 - □ Capital investments or operational changes in the absence of Alberhill
 - □ Recommended solution

Supplemental Analysis -SCE Proposed Schedule

Date		Action
Nov 13, 2018	\succ	Host public workshops to discuss SCE's supplemental analysis
		plan and solicit input on new system alternatives
Jan - Feb 2019	•	Complete and submit to CPUC initial set of data items
Mar - June 2019	•	Host open house on identified system alternatives and routing
June - Sept 2019	•	Complete and submit to CPUC final set of data items
Q4 2019	•	CPUC commences with review of supplemental information

Schedule Dependencies:

- Identified system alternatives (range, complexity)
- Data requests

Valley South System



Capacity & Reliability

Capacity represents the need to have adequate resources to ensure that the demand for electricity can be met at all times.

- Includes normal and emergency system conditions.
- Includes normal and heat storm weather conditions.
- When demand exceeds capacity, it can result in service outages.

Reliability means that the lights are always on in a consistent manner. A reliable system requires:

- A sufficient power supply.
- The ability to restore service quickly in the event of outages.
- Adequate electrical connections to adjacent electrical systems to address emergency, maintenance, and planned outage conditions.
- Geographic diversification of supplies of power to avoid major points of failure.

Valley South System Needs

Capacity

 Peak demand in the Valley South System is projected to exceed capacity within several years.



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Valley South System Needs

<u>Reliability</u>

- The Valley South System is <u>operating near maximum</u> <u>limits</u> which may result in equipment failures, safety concerns, and/or service outages.
- The Valley South System is <u>a</u> large, isolated system that is operating without electrical connections to other systems which allow for load transfers during emergency conditions.
- In the Valley South System, the source of power for a <u>significant amount of load is</u> <u>concentrated in one</u> <u>location</u>.



SCE's Project Objectives

Objective

- Serve current and long-term projected electrical demand requirements in the ENA.
- Increase system operational flexibility and maintain system reliability by creating system ties that establish the ability to transfer substations from the current Valley South 115-kV System.
- Transfer a sufficient amount of electrical demand from the Valley South 115-kV System to maintain a positive reserve capacity on the Valley South 115-kV System through the 10-year planning horizon.
- Increase electrical system reliability by constructing a project in a location suitable to serve the ENA.
- Provide safe and reliable electrical service consistent with SCE's Transmission Planning Criteria and Guidelines.
- Meet project need while minimizing environmental impacts.
- Meet project need in a cost-effective manner.

Alberhill System Project - Overview

- A new 500/115-kV substation (Alberhill Substation).
- <u>Two</u>, approximately <u>1.5-mile-long</u>, <u>500-kV</u> transmission lines to connect the Alberhill Substation to the existing Serrano-Valley 500-kV transmission line.
- One new and four modified 115 kV subtransmission lines, totaling approximately 20.5 miles, to transfer five distribution substations currently served by the Valley South 115 kV System to the Alberhill Substation.
- <u>Telecommunications lines</u> on the new and replaced transmission and subtransmission lines and in new and existing underground conduit.
- <u>A 120-foot microwave antenna tower at the proposed Alberhill Substation</u> site, <u>microwave telecommunications antennas</u> at the existing Santiago Peak communications site and Serrano Substation, and <u>other telecommunications</u> <u>equipment</u> installations at existing and proposed substations.

Alberhill System Project



Figure 2-1 Overview of the Proposed Projects Alberhill and Valley-Ivyglen Projects

New System Alternatives for Consideration

CPUC directed SCE to develop a cost/benefit analysis of several alternatives for enhancing system reliability and providing additional capacity including evaluation of:

- Energy Storage
- Distributed Energy Resources
- Demand Response
- Smart Grid Solutions

➢ Others

- Combinations of previously considered alternatives
- New alternatives proposed by the public

Alternatives Previously Considered

- Alternatives Screening Report, Final EIR Appendix D
- Alternatives Eliminated:
 - (1) Substation design; (1) Valley Substation Upgrade; (1) Transfer to Valley North; (7) Substation site locations; (7) Transmission line routes; (1) Double circuit transmission line; (1) Monopole design; (4) 115 kV line routes/undergrounding; (2) Access routes; (1) Demand management; (1) Distributed/local generation; and (1) 220/115 kV line.
- New alternatives to be considered will supplement the extensive list documented in the record.
- Alternatives evaluated previously will not be re-evaluated on their own, however they may be combined with other alternatives to form new options.

How to Get Involved

Opportunity	Date
Provide feedback to SCE staff at workshop	November 13, 2018
Provide feedback to SCE in writing following public workshop; submit comments to: <u>ASP@sce.com</u>	November 30, 2018
Attend public webinar associated with SCE's submittal of initial data items	Jan – Feb 2019
Attend open house on SCE's assessment of new alternatives	Mar – June 2019
Attend public webinar associated with SCE's submittal of final data items	June – Sept 2019
Participate in any future CEQA process to be led by the CPUC	Q4 2019 >

For more information visit the project website at www.sce.com/alberhill