

Freeman, Emma

From: Thiede, James <james_thiede@fws.gov>
Sent: Friday, July 15, 2016 8:33 PM
To: VIG/ASP
Cc: Karin Cleary-Rose; Pert, Heather@Wildlife; kim.freeburn@wildlife.ca.gov
Subject: CDFW & USFWS Comments on the Valley-Ivyglen & Alberhill System combined DEIR
Attachments: 16B0316-16CPA0338_WRIV jt_V-Ivyglen & Alberhill Transm Lines DEIR 20160715.pdf

Dear CPUC,

Attached to this message you will find a joint letter from the Wildlife Agencies (CDFW and USFWS) providing the Commission with our agencies' comments on the combined Draft Environmental Impact Report (DEIR) for Southern California Edison's proposed Valley-Ivyglen Subtransmission Line Project and the Alberhill System Project.

A hard copy will not follow unless specifically requested.

Sincerely,

James Thiede
Endangered Species Biologist
U.S. Fish and Wildlife Service
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262
(760) 322-2070 x419 (Please note the new extension number - 419 instead of 219).



U.S. Fish and Wildlife Service
Palm Springs Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262
760-322-2070
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California Department of Fish and Wildlife
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, California 91764
909-484-0167
FAX 909-481-2945

In Reply Refer To:
FWS/CDFW-WRIV-16B0316-16CPA0338

California Public Utilities Commission
re: VIG / ASP
c/o Ecology and Environment, Inc.
505 Sansome Street, Suite 300
San Francisco, California 94111

July 15, 2016
Sent by email

Subject: Draft Combined EIR for the proposed Valley-Ivyglen Subtransmission Line Project and the Alberhill System Project, Riverside County, California

Dear Commission Staff:

The U.S. Fish and Wildlife Service (Service) and the California Department of Fish and Wildlife (Department), hereafter collectively referred to as the Wildlife Agencies, have reviewed the draft Environmental Impact Report (DEIR) for the proposed Valley-Ivyglen Subtransmission Line Project and the Alberhill System Project (Projects) received on June 9, 2016. The dual-project combined DEIR was prepared to identify the proposed Projects' direct, indirect, and cumulative environmental impacts; to discuss alternatives; and to propose mitigation measures that avoid, minimize, or offset significant environmental impacts.

The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 et seq.).

On June 22, 2004, the Service issued a section 10(a)(1)(B) permit for the Western Riverside County Multiple Species Habitat Conservation Plan. The Department issued NCCP Approval and Take Authorization for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) per Section 2800, et seq., of the California Fish and Game Code on June 22, 2004. The MSHCP established a multiple species conservation program to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permit. The Department is responding to the DEIR as a Trustee Agency for fish and wildlife resources (California Fish and Game Code Sections 711.7 and 1802, and the California Environmental Quality Act [CEQA] Guidelines Section 15386), and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines Section 15381), such as the issuance of a Lake or Streambed Alteration Agreement (California Fish and Game Code Sections 1600 et seq.) and/or a California Endangered Species Act (CESA) Permit for Incidental Take of Endangered, Threatened, and/or Candidate species (California Fish and Game Code Sections 2080 and 2080.1). The Department also administers the Natural Community Conservation Plan (NCCP) Program. The Wildlife Agencies are providing the following comments as they relate to the MSHCP and impacts to sensitive natural resources.

The Projects are being proposed by Southern California Edison (SCE) to meet long-term forecasted electrical demand in the proposed Projects' service area and to increase electrical system reliability. The Projects would include the following:

Alberhill Systems Project:

- One 1,120 megavolt ampere (MVA) 500/115-kilovolt (kV) substation to be named the "Alberhill Substation", expandable to a maximum of 1,680 MVA. The substation is proposed to be built on approximately 34 acres of a 124-acre property located northwest of the intersection of Temescal Canyon Road and Concordia Ranch Road in unincorporated western Riverside County.
- Two 500-kV transmission lines to connect the proposed Alberhill Substation to the existing Serrano-Valley 500-kV transmission line. The transmission lines (approximately 3.3 miles, combined) would connect the proposed Alberhill Substation to the existing Serrano-Valley 500-kV transmission line.
- Approximately 11.75 miles of new double-circuit 115-kV subtransmission lines and removal of 11 miles of existing single-circuit 115-kV subtransmission lines primarily in the existing ROW.
- Approximately 3 miles of single-circuit 115-kV subtransmission lines with distribution lines underbuilt on the subtransmission line structures and removal of about 3 miles of electrical distribution lines within the existing ROW.
- A second 115-kV circuit on approximately 6.5 miles of single-circuit 115-kV subtransmission lines (the single-circuit line is to be constructed as part of the proposed Valley–Ivyglen Project).
- Fiber optic lines overhead (9 miles) on sections of the new or modified subtransmission lines and underground (1 mile) in proximity to the proposed Alberhill Substation and several of the existing 115/12-kV substations.
- A 120-foot microwave antenna tower at the proposed Alberhill Substation site. As installed, the microwave antenna tower would direct signals to a new dish antenna located approximately 7 miles to the southwest at the existing Santiago Peak Communications site.

Valley-Ivyglen Subtransmission Line Project:

- One new, single-circuit 115-kV subtransmission line¹ and fiber optic line. The route of the proposed Valley–Ivyglen Project would be approximately 27 miles long and constructed within approximately 23 miles of new right-of-way.
- Overhead fiber optic lines on the proposed structures and underground in new and existing

conduit.

- Transfer of existing distribution circuits along portions of the proposed subtransmission line to new 115-kV structures or to underground positions.
- New 115-kV switching and protective equipment at Valley and Ivyglen Substations.

The proposed facilities traverse the MSHCP Criteria Area and various species survey areas identified in MSHCP Sections 6.1.3 (Narrow Endemic Plant Species) and 6.3.2 (Species requiring Additional Surveys and Procedures). The Projects will affect MSHCP riparian/riverine resources, CDFW jurisdictional areas, and will potentially have significant impacts on multiple special-status species occurring within the Projects' respective footprints.

Wildlife Corridors and Conservation Areas

The DEIR briefly discusses potential impacts to wildlife movement/wildlife corridors and states that “the 115-kV subtransmission line would intersect [MSHCP] Proposed Linkages 1, 2 5, 6, and 19, Core 1, and Extension of Existing Core 2” (DEIR, 4.4-32). However, the DEIR focuses on direct, construction-related impacts, such as wildlife entrapment in trenches and habitat fragmentation due to vegetation removal. The Wildlife Agencies are concerned that the DEIR does not adequately identify and assess potential indirect impacts to proposed and existing wildlife corridors and MSHCP planned conservation areas (“Criteria Area”) as a result of the ongoing and long-term operation of the Projects. For example, the proposed 34-acre Alberhill Substation will be situated directly adjacent to MSHCP Proposed Linkage 1 and Proposed Constrained Linkage 6, but the DEIR does not address the potential long-term effects of the operation of that facility on the viability of the proposed linkages. The DEIR should address potential impacts related to the ongoing and long-term operation of the Project, such as lighting, noise, and increased traffic, and propose specific minimization measures to ensure the MSHCP’s proposed wildlife corridors are not affected. Other potential indirect effects that should be analyzed, and mitigation as appropriate, include, but are not limited to: the potential increase in unauthorized access to proposed conservation areas from SCE access roads, trash dumping along access roads in conservation areas, the introduction and spread of invasive species as a result of ongoing use of access roads, increase in fire risk, and the potential increase in depredation of special-status species by raptors and corvids through the installation of perch structures (transmission poles) in areas currently devoid of perches. In addition to measures already identified in the DEIR, mitigation measures could include gates and fencing to restrict access on new and existing roads, use of infrastructure in conservation areas that is less likely to provide nesting substrate for raptors and corvids, and a maintenance plan for trash and invasive plant species management. Please provide a more detailed analysis of the Project’s indirect impacts to proposed wildlife corridors and conservation areas with the identification of clear and enforceable mitigation measures to offset those impacts in the final EIR (FEIR).

111-1

Special-Status Natural Communities

Construction of the proposed Projects would have direct, permanent impacts on riparian habitat

and several special-status vegetation communities, including Chamise Chaparral, Coast Live Oak Woodland, Riversidean Sage Scrub, Southern Cottonwood-Willow Riparian Woodland, and Southern Sycamore-Alder Riparian Woodland. The DEIR also identified Riversidean Alluvial Fan Scrub within the Projects, which is considered a state-designated S-1.1 “very threatened” community, and as such, should be identified in the DEIR as a special-status natural community. The Wildlife Agencies also consider alkali wetland, grassland, and shrub communities on Willows-Traver-Domino soils on the floodplains of the San Jacinto River as special-status natural communities in urgent need of conservation. The DEIR acknowledges that direct, permanent impacts on special-status natural communities would result from the removal of vegetation for 115-kV installation and access road construction, and proposes to reduce impacts by limiting construction to designated areas, requiring preconstruction surveys and biological monitoring, and limiting the removal of native vegetation. However, the DEIR should provide compensatory mitigation, such as acquisition or conservation, where impacts to special-status communities are unavoidable. The Wildlife Agencies recommend the FEIR include measures to fully avoid and otherwise protect the special-status natural communities from project-related direct and indirect impacts, or provide specific and enforceable compensatory measures to offset the unavoidable impacts.

111-2

Impacts subject to Fish & Game Code Section 1602 and the MSHCP’s Riparian/Riverine Policy

The DEIR identifies potential temporary and permanent impacts to wetlands, drainages, and riparian areas as a result of the implementation of the Projects. To reduce these potential impacts to less than significant, the DEIR proposes to implement Mitigation Measures BR-1, BR-2, BR-3, and BR-15, which would limit construction to designated areas and protect aquatic resources, require site-specific surveys, require biological monitoring, and control erosion, sedimentation, and input of pollutants. The Wildlife Agencies are not opposed to the proposed mitigation measures; however, we cannot agree that those measures reduce the Projects’ impacts to “less than significant”. The Wildlife Agencies request the FEIR include specific and enforceable compensatory measures to offset the permanent loss of Section 1602 and Riparian/Riverine resources, such as re-establishment, rehabilitation, or enhancement of similar habitats offsite, acquisition and conservation of similar habitats, or purchase of in-lieu fee or mitigation bank credits.

111-3

Proposed Impacts and Mitigation Measures

The Wildlife Agencies request minor adjustments to the wording of selected mitigation measures in the DEIR:

- MM BR-6

DEIR Mitigation Measure BR-6 proposes to mitigate the Project’s removal of native oak trees (*Quercus agrifolia*, an ecological keystone species) by planting replacement trees in the 15-gallon size at a 2:1 (replacement-to-removal) ratio. While we commend the commitment to replace native oak trees removed by project activities, we do not

recommend that 15-gallon specimens be used in the mitigation plantings. Wild coast live oak trees face a long and severe summer dry season, which they survive by tapping into the water table using deep roots. Specimens cultivated in pots or boxes experience a rapid loss of vigor in the root system by the time that they must be grown in 5-gallon pots or larger containers, and the plants are typically “root-bound” at this point, meaning that the roots are coiled around the inner perimeter of the container, tangled and meshed together, and typically growing sideways (sometimes even upward) rather than being oriented downward for deep growth. The result is that native oak trees in the 5-gallon size and larger sizes typically fail to develop extensive deep roots after planting, and then they must be supported permanently by heavy irrigation, perish from drought during the summer dry season, or remain permanently stunted and in poor health.

The Wildlife Agencies applaud Southern California Edison for being willing to bare the greater expense of larger replacement saplings. However, to improve the success of Measure BR-6, we recommend that the measure be adjusted to replace removed or otherwise impacted native oak trees by planting 1-gallon size replacement oaks at a 12:1 mitigation-to-impact ratio. Over several decades of future tree growth, this should result in the maintenance or a gain in the number of native oak trees onsite (after allowing for some mortalities of planted trees due to droughts and herbivory by gophers and squirrels).

111-4

We request the MM BR-6 be modified as follows: “If the applicant cannot feasibly relocate oak trees that are removed, 1-gallon oak trees shall be planted at a 12:1 ratio within the appropriate habitat to replace removed trees. These replacement trees shall be indigenous coast live oak trees . . . The applicant shall be responsible for monitoring and maintaining the relocated and replacement trees for a minimum of two years (to include at least two complete California rainy seasons, here defined as the period of the year from November – May).

To evaluate whether or not this type of mitigation is successful over the long-term, the relocated oak trees and replacement oaks will be revisited by a certified arborist in the fifth, tenth, and fifteenth years after relocation or planting to assess the survival/mortality rate of these oaks, and to evaluate the health of the surviving individuals. The applicant will prepare an initial report on the implementation of this measure after the second year of monitoring and maintenance has been completed. A Final Report will be prepared after the Year-15 assessment has been carried out; the Final Report will be submitted to the CPUC, and copies shall be sent to the USFWS (Palm Springs Fish and Wildlife Office), to the CDFW (Inland/Deserts Regional Office in Ontario, California), and to the California Native Plant Society’s Conservation Program staff.”

- MM BR-7: Habitat Restoration and Revegetation Plan Requirements

Much of strategy to reduce the two Projects’ effects to the level identified in the DEIR as “less than significant after mitigation” for the lengthy list of special-status species and natural communities occurring in the Projects’ respective footprints and alignments

depends on to-be-developed Habitat Restoration and Revegetation Plan (HRRP). Since some of the species affected are listed as threatened, endangered, or Fully Protected by either the Department, the Service, or both, the Wildlife Agencies request that the final sentence of MM BR-7 be adjusted to read as follows:

111-5

“A copy of the final Habitat Restoration and Revegetation Plan, along with documentation of agency review and incorporation of comments into the final version, shall be provided to the CPUC, the USFWS, and the CDFW for approval prior to the CPUC issuing a Notice to Proceed.”

- BR-8: Special-Status Plant Species Avoidance and Mitigation Measures

Since some of the species affected are listed as threatened or endangered by the Service, the Wildlife Agencies request that the phrase “...shall develop and implement a transplantation plan in coordination with the appropriate agencies (CDFW, RCA)” be amended to include the Service. Thus, the parenthesis at the end of that sentence would then read as follows: “(CDFW, USFWS, RCA).”

111-6

- Impact BR-6 (VIG) (p. 4.4-34):

Determinations of Biologically Equivalent or Superior Preservation (DBESPs) prepared pursuant to the MSHCP must be provided to the Wildlife Agencies for review and comment. A DBESP must also be included in the Joint Project Review package and reviewed by the RCA if the project occurs within the MSHCP Criteria Area.

111-7

The Wildlife Agencies request that the wording of the first sentence on page 4.4-34 be amended accordingly.

- Quino Checkerspot Butterfly

Suitable habitat for the Quino checkerspot butterfly (checkerspot) consists of open shrubland dominated by native forbs and containing native plantago species. This natural community was widespread prior to European settlement, but has now become rare and patchily distributed in the checkerspot’s range. The DEIR concludes that “construction of the proposed project is not anticipated to impact Quino checkerspot butterflies” because no Quino checkerspots or their larvae were found during the 2009 Quino survey. However, the DEIR acknowledges that “Quino checkerspot butterfly habitat exists ... in the southeastern portion of the substation footprint and within the central portion of the Import Soil Source Area.”

111-8

The federally endangered Quino checkerspot butterfly (*Euphydryas editha quino*) is a species which exhibits “meta-population dynamics”; that is, it has a patchy distribution wherein the patches of suitable habitat distributed across its range are subject to a continually shifting pattern of local butterfly extirpation and recolonization events over

the long term. Since the number and distribution of this taxon’s suitable habitat patches are quite limited, the permanent loss of any patch contributes significantly toward pushing this endangered species closer to extinction. Therefore, even if those patches are presently unoccupied, the destruction of two patches of suitable habitat by the Projects must be considered a significant effect.

We request that, if at all possible, the Projects avoid the portions of the two properties mentioned, above, which contain Quino checkerspot habitat. If further investigation determines that the proposed Alberhill Substation and the proposed soil source area cannot be adjusted to avoid the portions containing Quino checkerspot habitat, then the project proponent should contact the Wildlife Agencies for assistance in developing appropriate compensatory mitigation measures.

The Projects’ respective alignments or footprints are within the MSHCP Plan Area. This is acknowledged in the DEIR and reference is made to the applicant becoming an MSHCP Participating Special Entity. Under the terms of the MSHCP Participating Special Entities participate in the MSHCP by carrying out proposed projects in a manner consistent with MSHCP policies and procedures and contributing funds for land acquisition and management and monitoring. Proposed projects are specifically identified and become MSHCP covered activities with incidental take authorization conveyed via a certificate of inclusion. The applicant’s participation in the Participating Special Entity process for the Projects would address most or all of our comments.

111-9

We appreciate the opportunity to comment on this DEIR. If you have any questions or comments regarding this letter, or to schedule a meeting or a discussion of mitigation options, please contact Kim Freeburn of the Department at (909) 945-3484, or Jim Thiede of the Service at (760) 322-2070, extension 419.

Sincerely,



for
Kennon A. Corey
Assistant Field Supervisor
U.S. Fish and Wildlife Service

Leslie MacNair
Regional Manager
California Department of Fish and
Wildlife

cc:
Charles Landry, Regional Conservation Authority
Jeff Brandt, California Department of Fish and Wildlife

Midbust, Jessica

From: Johl, Balbir@CalOES <Balbir.Johl@CalOES.ca.gov>
Sent: Thursday, July 14, 2016 4:22 PM
To: VIG/ASP
Cc: Johl, Balbir@CalOES; Macrae, Mark@CalOES
Subject: Valley-Ivyglen and Alberhill Projects

To Whom it May Concern,

The Governor's Office of Emergency Services, Public Safety Communications (PSC) would like to comment on the Valley-Ivyglen and Alberhill Projects. The concern that PSC has is stated below.

1. Will the microwave tower with the associated antennas/frequencies generate interfering Radio Frequency (RF) signals. We are requesting that the owner of the microwave tower publish the frequencies to be used at the Alberhill Substation and perform an associated RF intermodulation study.

112-1

2. That a radio spectrum study be performed to determine which of the Public Safety radio bands will receive interference from the substation or substations and what RF signals are being generated by the high voltage lines.

112-2

If there are any questions regarding the above comments, please let me know.

Balbir Johl
Senior Telecommunications Engineer
Governor's Office of Emergency Services
Public Safety Communications
balbir.johl@caloes.ca.gov
916-657-6131

Freeman, Emma

From: Lukins, Chloe <chloe.lukins@cpuc.ca.gov>
Sent: Wednesday, July 20, 2016 5:10 PM
To: VIG/ASP
Cc: Uchida, Jensen; Obiora, Noel
Subject: SCE Alberhill Ivyglen Systems (A.09-09-022) - comments on the Draft Environmental Impact Report (DEIR)
Attachments: [Untitled].pdf
Follow Up Flag: Follow up
Flag Status: Completed

Attached are ORA's comments on the DEIR.

Thanks.

From: Lukins, Chloe
Sent: Monday, July 18, 2016 9:42 AM
To: 'VIG.ASP@ene.com'
Cc: 'JMU@cpuc.ca.gov'; Obiora, Noel
Subject: SCE Alberhill Ivyglen Systems (A.09-09-022) - comments on the Draft Environmental Impact Report (DEIR)

376-1

Hello,

ORA would like request a short extension of the time to file comments for Alberhill Ivyglen DEIR. We would like to use the time to verify certain facts regarding our proposed alternatives that were not fully analyzed or included in the DEIR. We request to submit comments on Wednesday, July 20.

Thanks,
Chloe

Chloe Lukins, P.E.
Program Manager
Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue, Room 4102
San Francisco, CA 94102
Office: 415.703.1637
Chloe.Lukins@cpuc.ca.gov



ORA

Office of Ratepayer Advocates
California Public Utilities Commission

505 Van Ness Avenue
San Francisco, California 94102

<http://ora.ca.gov>

July 20, 2016

California Public Utilities Commission
RE: VIG/ASP
c/o Ecology and Environment, Inc.
505 Sansome Street, Suite #300
San Francisco, CA 94111

Subject: Office of Ratepayer Advocates Comments on the Draft Environmental Impact Report Issued Regarding the Alberhill System Project and Valley-Ivyglen Project.

Reference: Draft Environmental Impact Report, SCH Nos. 2008011082 and 2010041031, California Public Utilities Commission Proceeding Applications 07-01-031 and 09-09-022.

I. Background

The following describes the system configuration of Southern California Edison Company's service area that is affected by the proposed Alberhill System Project (ASP) and Valley-Ivyglen Project (VIG). SCE's Valley Substation is a 500 kilovolt (kV) substation, which serves both the Valley North and Valley South service areas. There are five transformers that transfer power from a 500 kV bus bar to a three-section 115 kV bus bar, namely the AB-Section that serves power demand in the Valley North area; the D-Section that serves power demand in the Valley South area; and a C-Section that serves as back-up for both the AB-Section and the D-Section. (See Figure 1)

376-2

ORA recommends five alternatives (see Section III) that the final Environmental Impact Report (EIR) should fully evaluate because these alternatives appear to be more cost effective and less environmentally impactful compared to the Proposed Projects. Three of ORA's recommended alternatives were mentioned in the Draft EIR (DEIR) and two alternatives were not mentioned at all.

376-3

II. SCE Applications and Commission Decisions

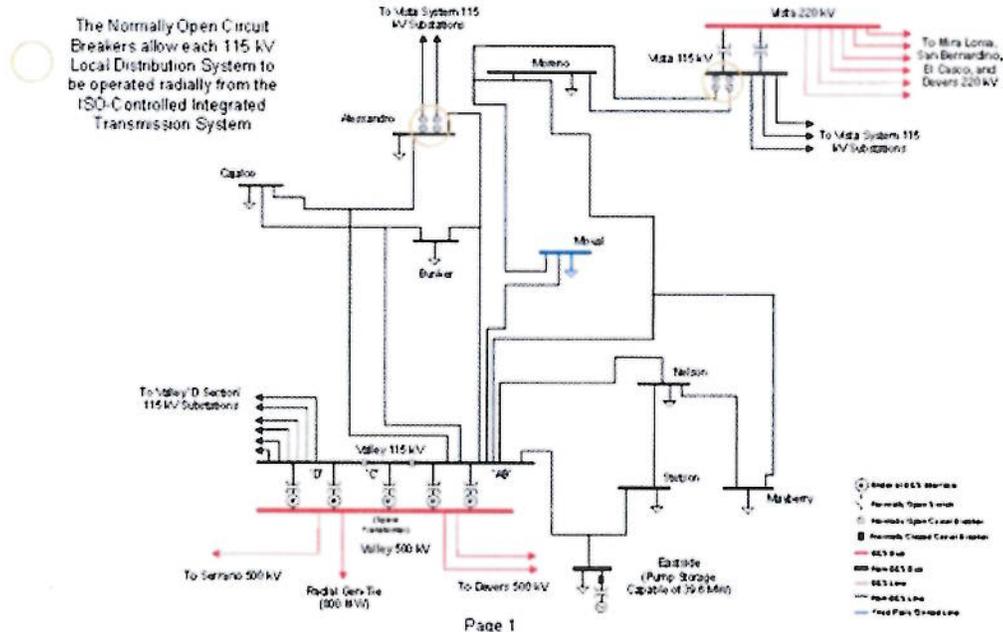
In January 2007, SCE filed Application (A.) 07-01-031 for a Permit to Construct (PTC) the Valley-Ivyglen (VIG) project. The proposed VIG project consists of 27 miles of 115 kV transmission line to interconnect the Valley Substation and the Ivyglen Substation.

376-4

In September 2009, SCE filed A. 09-09-022 for a Certificate of Public Convenience and Necessity (CPCN) to construct the Alberhill System Project (ASP). The ASP consists of the Alberhill 500 kV Substation, 3.3 miles of 500 kV transmission lines to loop in the Alberhill Substation to the Valley-Serrano 500 kV transmission line, and the new and modified 115-kV transmission lines. (See Figure 2)

Figure 1: Existing Valley Substation

Valley 115 kV System (AB Section) Line Arrangement Diagram



Valley 115 kV System (D Section) Line Arrangement Diagram

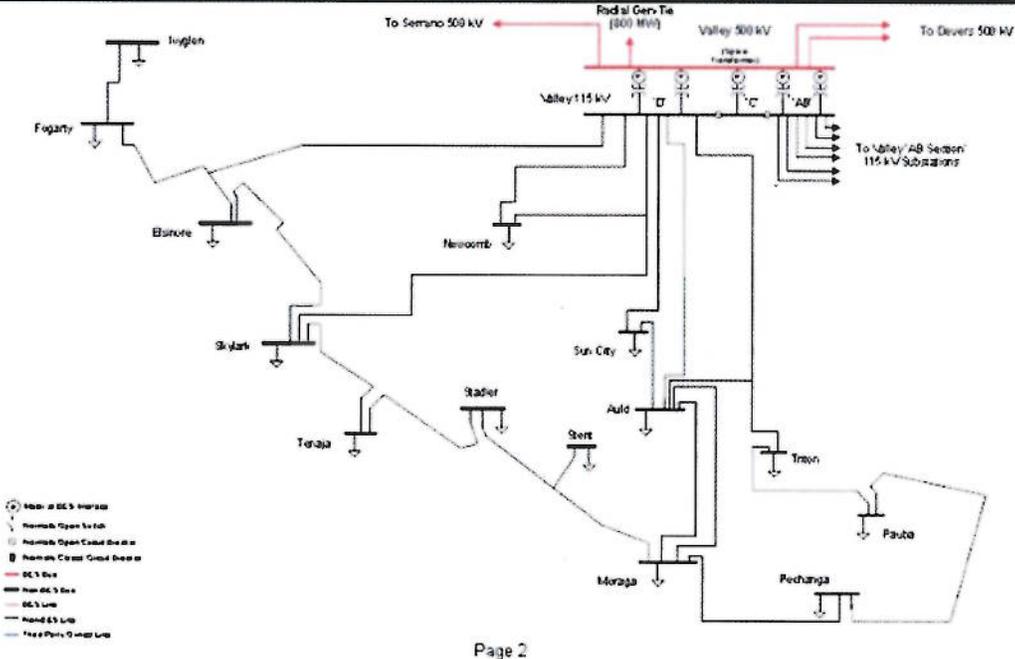


Figure 2: SCE Proposed Projects

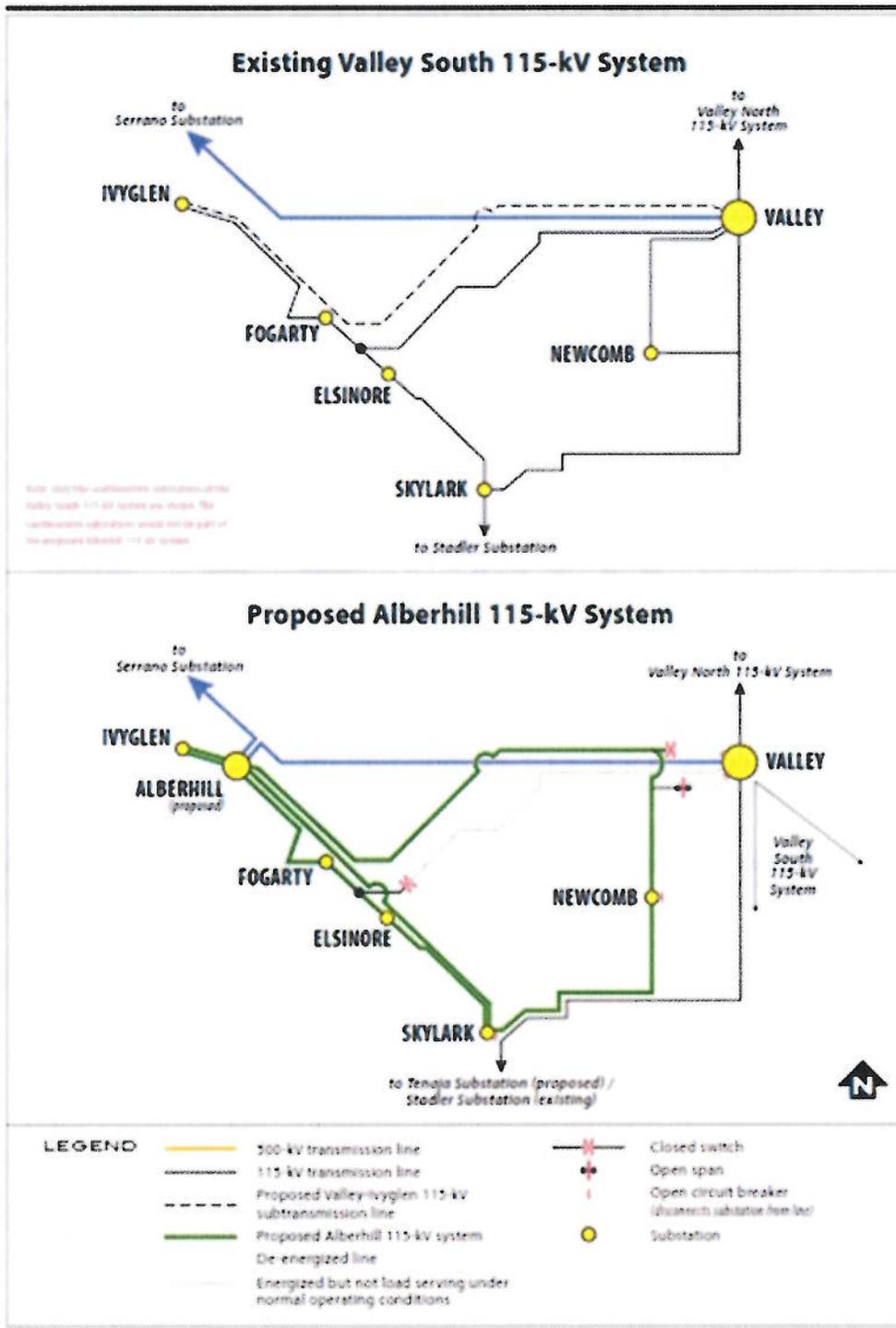


Figure 2-3
Technical Schematic of Existing and Proposed Systems
Alberhill and Valley-Ivyglen Projects
 Riverside County, California

In August 2010, the Commission issued Decision (D.) 10-08-009 and granted, among other things, A. 07-01-031 for the VIG project. However, SCE filed a petition for modification of D.10-08-009 in April 2013, and in May 2014, SCE amended its Petition to modify D.10-08-009. Considering that both the VIG and the ASP projects are in the same geographic area and electrically related to each other, the Commission consolidated the CEQA processes for the two projects.

376-4 Cont.

In April 2016, Energy Division issued a Draft Environmental Impact Report (DEIR) on VIG and ASP (Proposed Projects).

III. Office of Ratepayer Advocates' Comments to the Draft EIR

The Office of Ratepayer Advocates (ORA) is continuing its analysis of SCE's Proposed Projects at this time. ORA's review of the DEIR on the Proposed Projects, VIG and ASP, leads to the conclusion that the DEIR does not sufficiently consider project alternatives that would minimize environmental impact and require less capital investment for the ASP. Therefore, ORA has identified the following project alternatives for the ASP, which have not been sufficiently explored in the DEIR. The following are ORA's suggested alternatives to be evaluated:

376-5

1. No project alternative;
2. Divide Valley South System into Two Systems;
3. Install a New Transformer at the Valley Substation;
4. Interconnect the Inland Empire Energy Center to the 115 kV Bus at the Valley Substation;
5. Loop-in SDG&E's 230 kV Escondido-Talega Transmission Line to SCE's Upgraded Moraga Substation.

Alternatives 1, 3 and 4 were mentioned in the DEIR. ORA is recommending that the electrical improvements and the environmental impacts in these alternatives be fully evaluated. These alternatives appear to be more cost effective and less environmentally impactful compared to the Proposed Projects.

1. No-Project Alternative (See Figure 3)

SCE stated that the C-Section transformer at the Valley Substation operates "as a spare transformer ... during emergency or maintenance conditions." Accordingly, SCE currently sets the circuit breaker between the C-Section and the D-Section at "normal open" position. From an electrical prospective, the C-Section transformer is able to mitigate over loading of AB-Section or D-Section transformers. Therefore, ORA proposes that SCE modify its planning approach and operating procedures so that the circuit breaker may be closed when the D-Section transformers are to be overloaded. In parallel with the two D-Section transformers, the C-Section transformer will be able to provide additional power transfer capability and mitigate potential overload conditions on D-Section transformers. Under this approach, SCE is able to elect when to perform

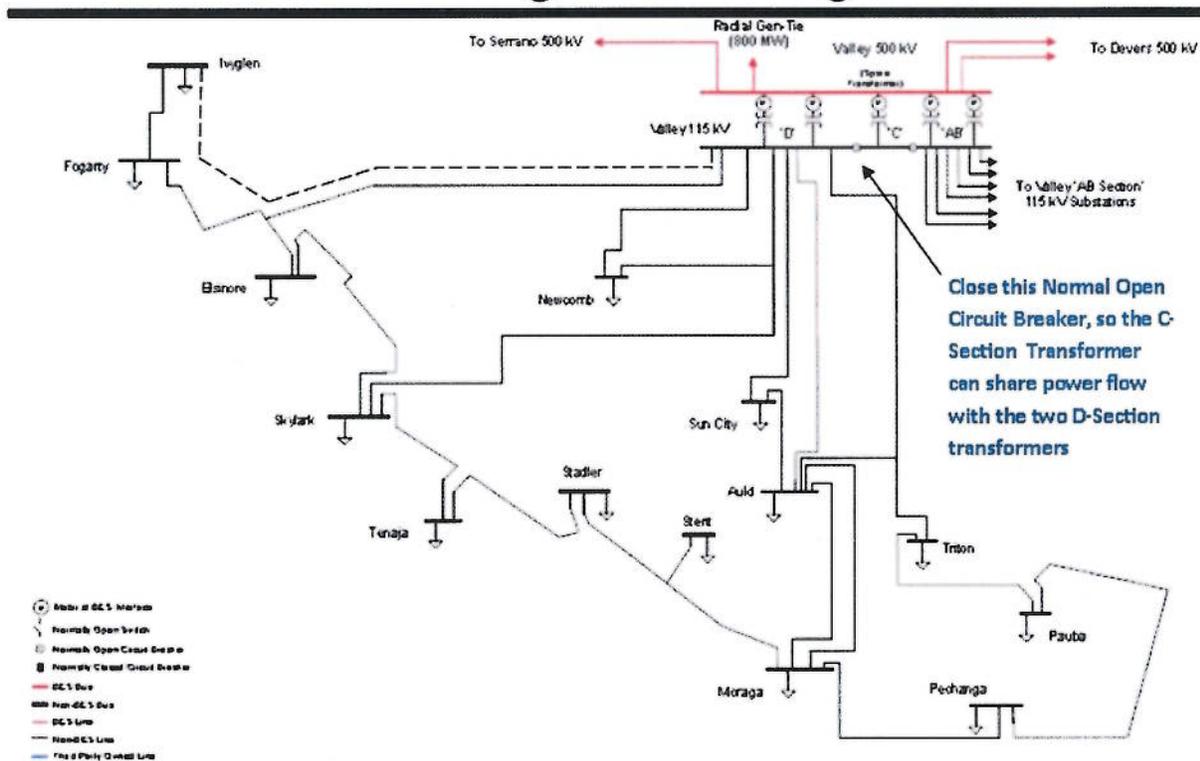
376-6

transformer maintenance. This is a No-Project alternative because it includes changes to circuit breaker settings and operating procedures only, with no environmental impact and no additional capital cost.

376-6 Cont.

Figure 3: No Project Alternative

Valley 115 kV System (D Section) Line Arrangement Diagram



376-6 Cont.

The DEIR makes a reference to ORA’s recommendation in its No Project Alternative section but only as an “event anticipated with respect to the proposed Alberhill Project” if operation and construction of ASP does not occur¹. Specifically, the DEIR states:

“The stand-by spare 560-megawatt ampere 500/115kV transformer, which was installed at the Valley Substation in 2011 to provide back-up transformer capacity in the event of transformer failure at Valley Substation, may be put into service.”²

376-6 Cont.

¹ DEIR, ¶ 3.4.5.2, p.3-12.

² Id.

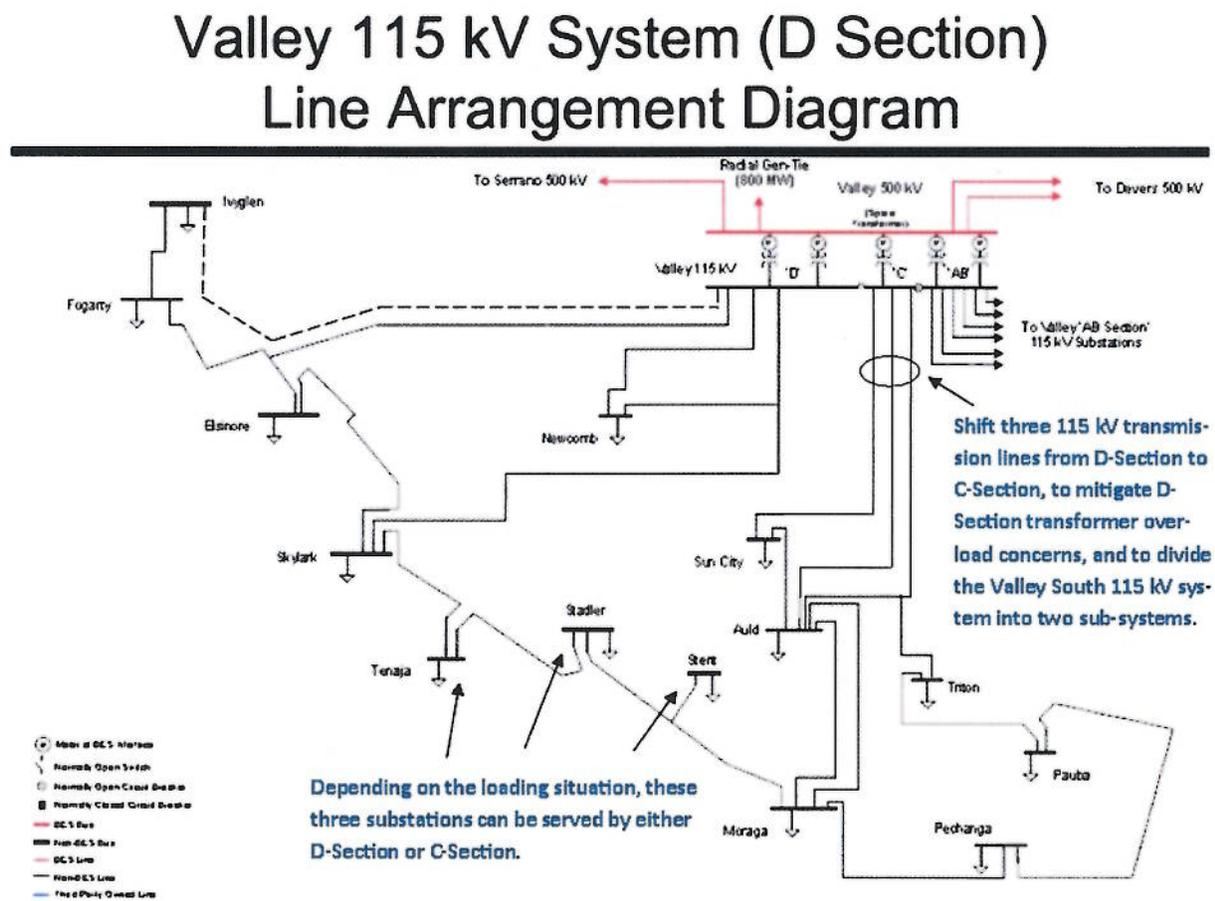
ORA's recommendation is that the Commission fully evaluates this option as a competing alternative.

376-6 Cont.

2. Divide Valley South System into Two Systems

SCE can also divide the Valley South 115 kV system into two systems so that one system is supplied by the D-Section transformers and the other is supplied by the C-Section transformer. (See Figure 4)

Figure 4: Divide Valley South System into Two Parts



376-7

Under this alternative, the three 115 kV transmission lines located to the far right of D-Section can be shifted from D-Section to C-Section, so the Valley South 115 kV system is divided into two systems, with one system being served by the D-Section transformers and the other system being served by the C-Section transformer. Depending on the loading situation of the D-Section transformers and the C-Section transformer, SCE could decide whether Tenaja, Stadler, and Sert substations should be served by the D-Section or C-Section. In addition, the transmission lines connecting these three substations can also act as a system tie between the D-Section System and

376-7 Cont.

the C-Section System. Under this arrangement, the three 115 kV sections (AB, C, and D) can coordinate with each other during emergency and maintenance outages.

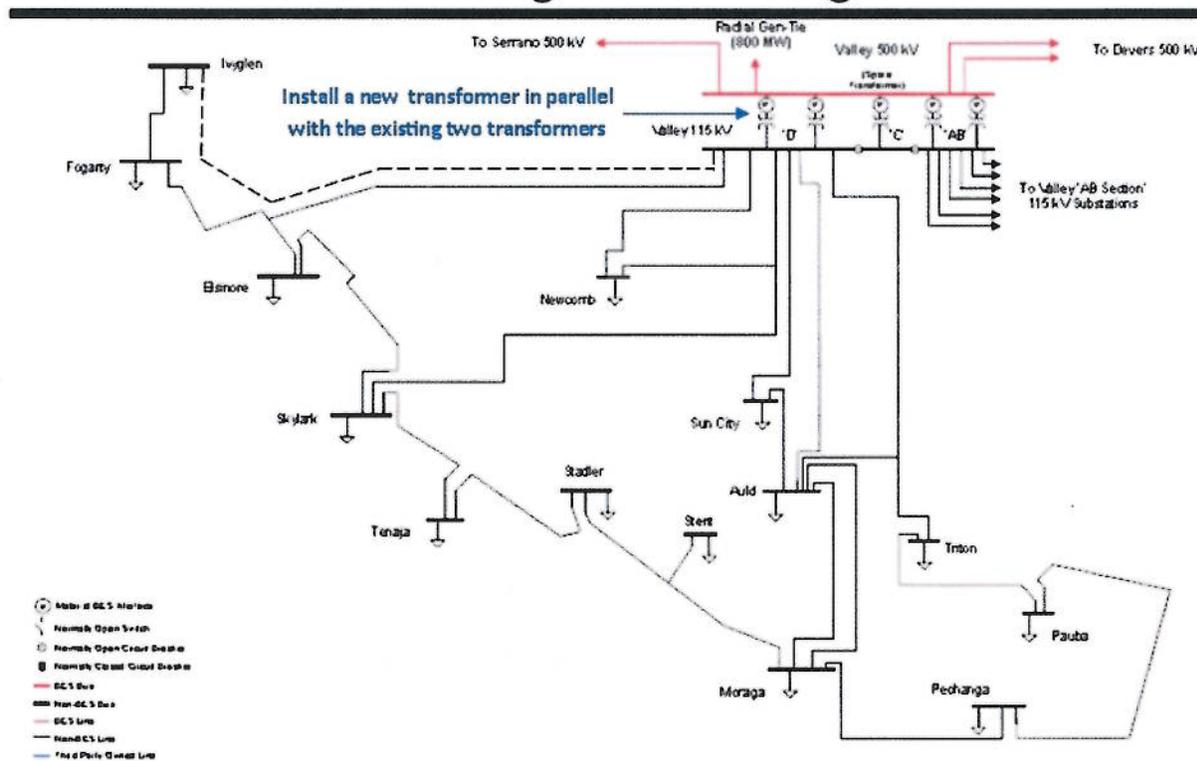
376-7 Cont.

3. Install a New Transformer at the Valley Substation

SCE could install a new transformer on the D-Section to mitigate potential transformer overloading under future load growth scenarios. Installing a new transformer would have a lower environmental impact and would cost less than the Proposed Projects. (See Figure 5)

Figure 5: Install a new 500/115 kV Transformer

Valley 115 kV System (D Section) Line Arrangement Diagram



376-8

The DEIR stated that “This alternative would relieve projected electrical demand but would not include a new 500/115-kV substation within the ENA [Electric Need Area] or maintain system ties between a new 115-kV system and the Valley South 115-kV System.” The DEIR did not explain why one 500/115kV might be insufficient to service 1,260 square miles and 325,000 customers, did not provide analysis on using the IIEC switchyard as a separate power supply

376-8 Cont.

source, and did not consider the fact that Vista Substation is the backup power supply source to the area.

376-8 Cont.

4. Interconnect the Inland Empire Energy Center to the 115 kV Bus at the Valley Substation

The Inland Empire Energy Center (IEEC) is a local generator within the *San Jacinto Region* with a capacity of 800 mega-watts (MW). The power is stepped up from 19.5 kV to 500 kV and then interconnected to the 500 kV bus of the Valley Substation. The IEEC is approximately 0.5 miles west of Valley Substation³ and the IEEC power supply can be used to serve the Valley South area demand. Based on the existing electrical configuration, the output from the IEEC is (1) stepped up from 19.5 kV to 500 kV, (2) delivered to the Valley 500 kV bus, (3) stepped down to the Valley 115 kV bus, and (4) then delivered to the Valley South area. This configuration exacerbates the transmission congestion on the 500 kV bus, the two D-Section transformers, and the D-Section 115 kV bus, because the 800 MW of power supply is unnecessarily constraining the power transfer capability of the transmission lines and transformers it flows through.

376-9

The DEIR stated that “the IEEC interconnection to Valley Substation would require an additional transformer at Valley Substation to step down the electricity generated at the IEEC from 500 to 115 kV.” So the DEIR combined the Additional Valley South Transformer Alternative with the IEEC Interconnection Alternative.⁴ ORA’s analysis concludes that it does not make engineering sense to step up the IEEC power to 500 kV and then to step down to 115 kV to serve local demand.

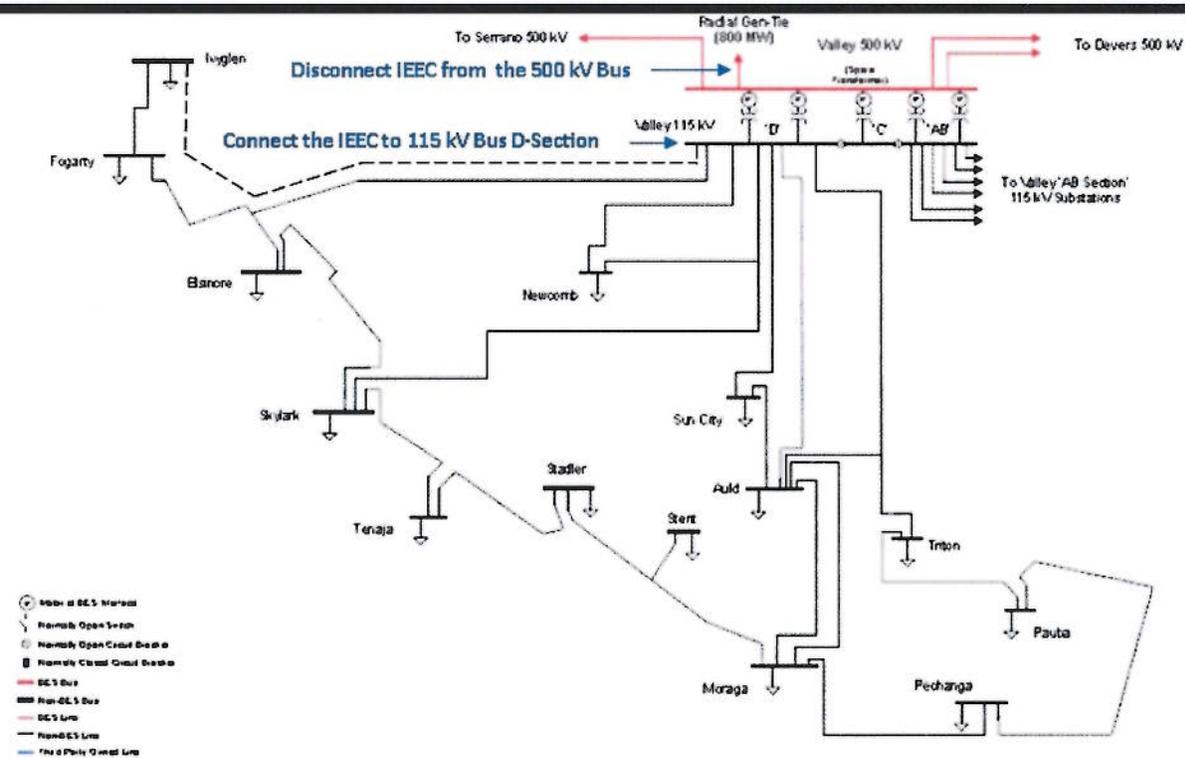
ORA proposes to step up the IEEC generation output to 115 kV and to interconnect the IEEC power plant directly to the Valley 115 kV D-Section. With this alternative, the power flow on the 500 kV bus and the two D-Section transformers would be significantly reduced, so there would be no overloading issues and no need to install another 500/115 kV transformer at Valley Substation. This reconfiguration would also have additional benefit of reducing transmission losses, because the power would not need to be stepped-up and stepped-down through those transformers before it is delivered to the Valley South area. This alternative would have a lower environmental impact and would be less capital-intensive than the Proposed Projects. (See Figure 6 below)

³ DEIR Appendix D at 34.

⁴ Draft EIR Appendix D, at page 34.

Figure 6: Reconfigure the Interconnection of the IEEC Power Plant

Valley 115 kV System (D Section) Line Arrangement Diagram



376-9 Cont.

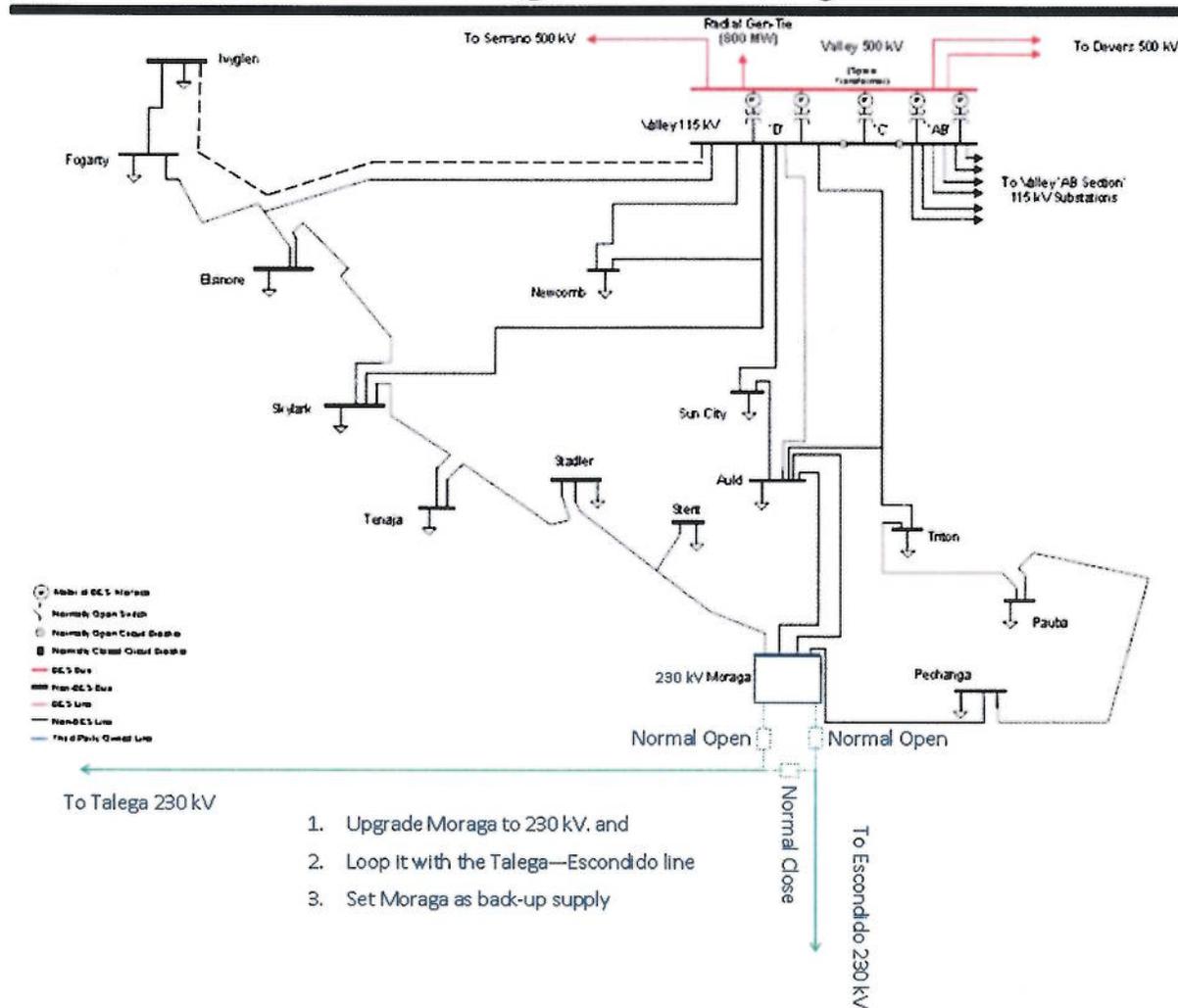
The DEIR does not consider the option of using the IEEC as an alternative to the ASP, but claims that if the ASP is not constructed, the “Valley Substation would continue to be the only 500/115kV substation serving electrical demand in the *San Jancinto Region* of southwestern Riverside County—an area encompassing roughly 1,260 square miles and serving approximately 325,000 metered customers.”⁵ The DEIR did not explain why one 500/115kV might be insufficient to service 1,260 square miles and 325,000 customers, did not provide analysis on using the IEEC switchyard as a separate power supply source, and did not consider the fact that Vista Substation is the backup power supply source to the area.

⁵ DEIR at 3-12.

5. Loop-in SDG&E's 230 kV Escondido-Talega Transmission Line to SCE's Upgraded Moraga Substation (See Figure 7)

Figure 7: Loop in Talega—Escondido 230 kV Line to Upgraded Moraga

**Valley 115 kV System (D Section)
Line Arrangement Diagram**



376-10

ORA believes that SCE could also upgrade the Moraga Substation to 230 kV, then loop it with SDG&E's Escondido—Talega 230 kV transmission line at Interstate 15. Such a loop-in would reduce the power flow on Valley Substation D-Section transformers and provide power supply flexibility and reliability to the Valley South area. This approach is similar to that for the Valley

North area, which uses the 220kV Vista Substation as back up supply to the Valley North area when Valley AB-Section is not available. ORA's initial review indicates that new 230 kV transmission lines needed to loop in the Moraga Substation would be approximately 5.5 miles long. There are four 115 kV transmission lines from the Moraga Substation to serve other substations within the Valley South area. Compared to the Proposed Projects, this alternative will be environmentally superior and more economical because this alternative would eliminate the 500 kV Alberhill Substation, the approximately 3.3 miles of 500 kV double circuit transmission line to loop in the Alberhill Substation, and other modified and new 115 kV transmission lines.

376-10 Cont.

IV. Conclusion

ORA recommends evaluation of the above mentioned five alternatives.

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