

Southern California Edison
Presidential Substation Project A.08-12-030

DATA REQUEST SET PRESIDENTIAL ED-01

To: CPUC

Prepared by: Jack Haggemiller

Title: Project Manager - Field Engineering

Dated: 03/23/2009

Question 01:

Project Description

Vault Design and Location –Provide a description of the Vault size and approximate location. During the site visit the vault was discussed as being outside the substation walls. Describe general design criteria such as depth, width, height above ground, and manner which distribution lines would exit the vault and be placed onto overhead lines.

Response to Question 01:

For the proposed project, the vault would be installed underground outside of the substation walls on SCE property. Only the vent pipes associated with the vault would protrude above ground. Vent pipes are typically 10" in diameter and typically have a height between 30" (min.) - 34" (max.), with 30" being the normal installation. At this time, the distribution lines identified to originate from the Presidential Substation Project have not undergone final engineering. The proposed vault and 16 kV distribution getaway design is as follows:

An underground ductbank, which is estimated to be 90' in length and consisting of six 5" conduits, will be constructed to exit the west end of the 16 kV power cable trench located within the substation at the base of the 16 kV rack. This ductbank will proceed north from the 16 kV rack, exit the substation, turn west, and enter the east wall of the new underground vault. Two of the four 16 kV distribution getaways will be located within this ductbank. A 7'-10" X 18'-10" X 9'-6" vault (please see attachment for typical structure details) is proposed to be installed outside the northwest corner of the proposed Presidential Substation parallel to Olsen Road on SCE owned property

A trench containing two new 5" underground conduits will be constructed from the west end of the vault and will extend approximately 80' to an existing pole (#4047211E) which is located near the northwest corner of the substation site on the south side of Olsen Road. One of the 16 kV distribution getaways will exit the ductbank in this conduit and will rise on this pole.

A second trench containing six 5" underground conduits is tentatively proposed to be constructed from the west end of the vault, extend approximately 8700' feet west on Olsen Road to Erbes Road, where the conduit will connect to an existing underground distribution structure. One 16 kV distribution getaway line will be located in these conduits.

Two additional 5" underground conduits are proposed to exit the east end of the 16 kV power cable trench and proceed east and then south, approximately 125' to exit to the south of the substation. Two 16 kV distribution getaway lines will be located in these conduits. One line will run towards Thousand Oaks, and the other towards Simi Valley. The routes have not been determined at this time.

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Question 02:

Project Description

Provide details regarding the construction methodology used to install the Vaults including but not limited to equipment usage, cubic yardage of material to be excavated, disposal methodology, etc.

Response to Question 02:

The details regarding typical construction methodology used to install a 7' X 18' X 8' vault (inside dimensions) in the street are as follows: A contractor will use a backhoe with a 36" bucket to excavate a hole approximately 9' X 20' X 11.5' in size for a 7' X 18' vault with 36" of necking from flow line gutter. The size of the hole allows for a minimum of 6" of 3/4" crushed rock from wall to wall for the base of the hole and a minimum of 6" clearance around the outside wall of the vault to the wall of the excavation. Shields or trench shoring are then temporarily installed for safety to brace the walls of the trench. Assuming the soil is uncontaminated, approximately 80 tons of soil would be extracted. Eighty tons of soil is approximately 8 loads with 10-ton dump truck.

The 6" of 3/4" crushed rock is then dumped, compacted, and leveled on the floor of the hole wall to wall. Shields or trench shoring are then removed. Using the boom on the delivery truck from the vault manufacturer, the bottom half of the vault is lowered in place and checked to assure it is level. Then the top half is lowered and placed atop the bottom half, with the seam sealed with mastic, a sealant to keep the vault seams from leaking. The depth of the vault is then verified from the roof of the vault to the flow line gutter grade. Eighteen inches of necking is then installed on the 6" collar atop the roof of the vault. All seams are sealed with mastic to keep the structure watertight.

The 12" vault cover and frame is then set and adjusted to grade and the seam is grouted with non-shrink grout. One point five sack sand slurry (which is a mix of sand and water with 1.5 bags of cement added with no aggregate) is then poured around the vault and over the top 6" meaning the sand slurry is going to be 6" high when placed on top of the vault. This amounts to approximately 18 tons (approximately 1 cement truck load equals 10 tons) of slurry for this size vault. The rest of the excavation is then back-filled with minimum 1.5 sack sand slurry or the minimum requirements as required by the local jurisdiction (e.g. the city) in which the vault

is to be located. The contractor would then excavate and install the vent pipes running to the designed location with a backhoe creating approximately another 6 yards of haul-off dirt. Such vent pipes would be installed for the purposes of providing ventilation to cool any distribution transformers that may ultimately be installed inside the vault. The vent pipe conduits are then encased and after the encasement hardens, the trench is backfilled with 1.5 sack sand slurry. To finish, the contractor would then repave the street in accordance with the city's permit requirements.

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To: CPUC
Prepared by: Kathryn Enright
Title: Project Manager
Dated: 03/23/2009

Question 03:

Alternatives

Provide details regarding SCE's Alternative substation analysis. SCE indicated that it considered several other substation sites, provide locations, and criteria used to screen substation sites.

Response to Question 03:

SCE identified the following project objectives to meet the purpose and need of the Presidential Substation Project.

- Meet long term electrical demand requirements in the Electrical Needs Area beginning in 2011 and extending beyond 2014 in order to meet the 10-year planning criterion;
- Improve electrical system operational flexibility and reliability by providing the ability to transfer load between 16 kV distribution circuits and distribution substations within the Electrical Needs Area;
- Meet project needs while minimizing environmental impacts; and
- Meet project needs in a cost-effective manner

To satisfy these objectives, SCE identified a portion of the Electrical Needs Area as the Substation Target Area. Constructing a substation within the Substation Target Area would allow SCE to increase transformer capacity in the Electrical Needs Area, and to transfer load between 16 kV distribution circuits from three Electrical Needs Area substations and the Electrical Need Area substations themselves. In addition, the proposed substation needed to be located in proximity to two subtransmission source lines and existing distribution circuits in order to reduce the amount of construction of new subtransmission and distribution lines.

Of the 31 substation sites evaluated, 16 were eliminated because they were not located within the Substation Target Area. An additional 5 sites were eliminated due to their distance from

existing subtransmission source lines and distribution circuits.

The remaining 10 sites were screened for construction feasibility. The substation site needs to be at least 3 developable acres and accessible for construction, operation and maintenance. Five sites were eliminated because they did not meet these requirements. One site did not contain sufficient developable acreage and 4 sites were eliminated due to terrain impediments and limited access.

The remaining five feasible sites were then reevaluated in relation to each other using the following factors:

- Environmental factors (including aesthetics, biological resources, cultural resources, hydrology, and geology)
- Local land use (current and planned uses), recreation, transportation, and related plans
- Location of sensitive receptors including schools
- Land availability
- Terrain (such as drainage patterns, soil conditions, ground surface topography)
- Other infrastructure (such as road conditions, pipelines)

Of these remaining five sites, four of the sites were located in the City of Thousand Oaks, along Olsen Road, west of Highway 23. The fifth site was located in the City of Simi Valley on the site of the former County Sheriff's Station (please refer to the enclosed map for locations of these five sites). These five sites are shown on the attached map and are also described below.

Site Alternative A

Site Alternative A, as described in the PEA, is located on an approximately four acre portion of an approximate 40-acre vacant parcel that is privately owned. The parcel is located on the south side of Olsen Road in the City of Thousand Oaks, near the city boundary with Simi Valley. The parcel is bounded by the Calleguas Municipal Water District facility to the west and a privately owned avocado orchard to the south and east. A privately owned horse ranch is located to the north of Olsen Road. The parcel slopes downward from south to north, and contains both native and non-native vegetation. SCE would establish vehicular access to Site Alternative A from Olsen Road.

SCE selected Site Alternative A as its proposed site because it met all the proposed project objectives and is presently vacant, available and undeveloped.

Site Alternative B

Site Alternative B, as described in the PEA, is located on an approximate 2.3 acre parcel of land located on the north side of Madera Road in the City of Simi Valley. The parcel is presently owned by the City of Simi Valley and previously housed the Ventura County Sheriff's Department. It contains several abandoned concrete block buildings and structures, a garage, former underground fuel storage tanks, and parking areas that were used by the

Sheriff's Department. The parcel is presently landscaped with light posts and ornamental vegetation. The City of Simi Valley is presently using this parcel as overflow parking for the Ronald Reagan Presidential Library.

Site Alternative B satisfies SCE's project objectives and was retained for consideration in the PEA. However, this site poses several constraints and therefore was not selected as the preferred site. Although the parcel could accommodate the substation, SCE would have to specially engineer and configure the substation to fit the parcel shape. Substation construction on Site Alternative B would require the demolition and removal of all existing buildings, structures, parking areas, landscaping, and terracing.

Site Alternative C

Site Alternative C was located on the southeast side of Olsen Road in the City of Thousand Oaks adjacent to and owned by the Calleguas Municipal Water District facility. The existing access road to the site is currently used by the water district. The water district has indicated that access is controlled due to transport of hazardous materials and they would not consider shared access. They also indicated an unwillingness to sell the site. Because of potential impediments to acquiring and developing the site for substation purposes, this site was not carried forward as an alternative in the PEA.

Site Alternative D

Site Alternative D was located on the northwest side of Olsen Road in the City of Thousand Oaks, adjacent to the new Ventura County Sheriff's Station. Data identified after the initial screening confirmed the presence of an existing landslide on this site. Building on the site would require the placement of retaining walls. The site would also require significant grading due to existing slope. The County of Ventura has ownership of this site and SCE was informed in its consultation with the County of its future plans to construct a building on this site. The County's proposed building and a substation would be difficult to integrate based on the County's conceptual plan for the site. This is also an undisturbed site with biological impacts likely (good quality habitat for potential threatened and endangered species; includes a jurisdictional waterway). For the reasons set forth above, this site was not carried forward as an alternative in the PEA.

Site Alternative E

Site Alternative E was located on the southeast side of Olsen Road in the City of Thousand Oaks. The site is located within a mapped blue line stream with water present. The site size and configuration would require significant grading to accommodate the substation footprint. The stream would be immediately downslope from the area where grading would be done. Furthermore, the site has potential for Riparian woodland. Due to these environmental and terrain concerns, this site was not carried forward in the PEA.

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To: CPUC
Prepared by: Kathryn Enright
Title: Project Manager
Dated: 03/23/2009

Question 04:

Alternatives

Provide details regarding SCE's Alternative route analysis. SCE indicated that it considered several other subtransmission routes. Provide routes and criteria used to screen these subtransmission routes.

Response to Question 04:

SCE has provided details and criteria regarding its alternative subtransmission source line route analysis in PEA Section 2.2.1. The alternative substation source line routes are described in PEA Section 2.2.4.

Note, portions of the proposed subtransmission source line routes were first reviewed against the siting factors described in PEA Section 2.2.1 as individual segments from each existing subtransmission source line (Moorpark-Royal #2 Line and Moorpark-Thousand Oaks #2 Line). The proposed and alternative routes as represented within Southern California Edison's ("SCE") Proposed Environmental Assessment ("PEA") reflect a combination of both route segments from the existing subtransmission source lines. All alternative routes meeting SCE's criteria are contained within SCE's PEA.

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Prepared by: Jack Haggemiller

Title: Project Manager - Field Engineering

Dated: 03/23/2009

Question 05:

Alternatives

Provide confirmation of transformer capacity at existing substations in the electrical needs area.

Response to Question 05:

The existing transformer capacity of the Electrical Needs Area substations is 400 MVA. This is broken down as follows:

Thousand Oaks Substation Capacity	144 MVA
Potrero Substation Capacity	129 MVA
Royal Substation Capacity	<u>127 MVA</u>
Total	400 MVA

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DATA REQUEST SET PRESIDENTIAL ED-01

To: CPUC

Prepared by: Philippe Lapin

Title: Environmental Coordinator

Dated: 03/23/2009

Question 06:

Alternatives

Provide information in GIS on size, length and location of access roads which would need to be constructed for the alternative subtransmission line routes.

Response to Question 06:

Please note, SCE does not design or engineer project elements for alternatives to include access roads for the alternative subtransmission routes.

However, the following describes the anticipated access road needs for each alternative (Subtransmission Source Line Alternative 1 and Subtransmission Source Line Alternative 2) in the PEA.

Subtransmission Source Line Alternative 1 would originate at the Moorpark-Thousand Oaks No. 2 66 kV subtransmission line near the intersection of Read Road and Moorpark Road in unincorporated Ventura County, extend east along Read Road along an existing SCE 16 kV circuit past the intersection of Read Road and Sunset Valley Road, across State Highway 23 to the substation. The subtransmission line would exit the substation in a northerly direction towards Esperance Road, and then parallels Esperance Road to the intersection of Esperance Road and Tierra Rejada Road. A new subtransmission segment and new access road would be required between the substation and Esperance Road. Since this route was a project alternative, the subtransmission structure locations and access road route were not designed or engineered. However, the new source line may require approximately 1.8 miles of new right-of-way that would be up to 25 feet in width.

Subtransmission Source line Alternative 2 would originate at the Moorpark-Thousand Oaks No. 2 66 kV subtransmission line near the intersection of Sunset Hills Boulevard and Olsen Road in the City of Thousand Oaks and , follows Olsen Road to the substation location. From the substation sites the subtransmission route would follow Madera Road within the City of Simi Valley to the Moorpark-Royal No. 2 66 kV subtransmission line near the intersection of Madera Road and Royal Avenue. No new access roads would be required for this alternative because SCE would access would utilize along the existing Olsen and Madera Roads.

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To: CPUC
Prepared by: Kathryn Enright
Title: Project Manager
Dated: 03/23/2009

Question 07:

Geology and Soils

Provide a geotechnical report for the proposed substation site if available.

Response to Question 07:

Attached is a geotechnical study for certain land that includes the proposed substation site. This study was prepared by Gorian & Associates, Inc. on May 31, 2007. The study was prepared in support of City of Thousand Oaks Final Mitigated Negative Declaration No. 218, Tract 5363/RPD 2002-540, for a proposed land development.

SCE is in the process of securing permission from the property owner to conduct additional studies will update the CPUC with the timing of such study once agreement has been reached between the property owner and SCE.

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DATA REQUEST SET PRESIDENTIAL ED-01

To: CPUC

Prepared by: J.Ruther

Title: Project Manager - Transmission Project Delivery

Dated: 03/23/2009

Question 08:

Geology and Soils

Provide a geotechnical report for steep slope areas along the proposed subtransmission route if available.

Response to Question 08:

SCE does not perform geotechnical reports on the subtransmission line routes until such time the CPUC approves the route and the facilities undergo final engineering. Because a geotechnical study is an invasive procedure, SCE typically avoids these studies until such time that final route is approved.

In addition, if a geotechnical report highlights a problem with a particular pole site, SCE can typically move the pole location to a more suitable site along the route.

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DATA REQUEST SET PRESIDENTIAL ED-01

To: CPUC
Prepared by: John Kao
Title: Engineer
Dated: 03/23/2009

Question 09:

Hydrology

Provide detailed description of a drainage plan for the proposed substation site. In particular, whether water from upslope and within the substation site would continue to be passed through a culvert under the road to the other side.

Response to Question 09:

Please note, SCE has not yet commenced final engineering consisting of a detailed hydrology study; however, the following response describes the tentative drainage plan based on preliminary engineering conducted thus far.

The watershed tributary to the proposed substation site consists of approximately 11.5 acres of undeveloped hillside. The existing topography includes slopes having grades up to two horizontal to one vertical (2:1 slope). The proposed substation would be bounded by these slopes on the west, south and east sides with Olsen Road along its frontage. The existing watershed drains to a 36-inch corrugated steel pipe (CSP) culvert located within the proposed substation and under Olsen Road, which is part of the existing drainage system for the embankment fill for Olsen Road and flows northwesterly under this road and discharges into an open valley.

The proposed drainage pattern would continue the tributary flows from this watershed via concrete terrace drains around the substation walls and into a new storm drain pipe that will be connected to the existing Olsen Road CSP culvert. These drainage devices are proposed as part of substation grading and construction. A portion of the existing CSP would be cut and removed up to the new south curb and gutter on Olsen Road. The CSP must be removed to avoid interfering with the substation structures and to accommodate the soil compaction for the substation grading. The substation stormwater runoff would be collected via a drop inlet basin and connected to the new storm drain pipe which will be connected to the existing CSP.

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DATA REQUEST SET PRESIDENTIAL ED-01

To: CPUC

Prepared by: Roger Overstreet

Title: Biologist

Dated: 03/23/2009

Question 10:

Biology

Wetland Delineation – The PEA states that a wetland delineation would be conducted. Provide the resulting wetland report. In particular, a map (GIS data) showing the extent of wetland resources.

Response to Question 10:

The wetland delineation for the proposed substation site will be conducted in mid-April 2009. In addition to the proposed substation site, a wetland delineation will be conducted for the portion of the subtransmission route on Sunset Valley Road which is located within the bank of a roadside drainage associated with the Arroyo Santa Rosa.

The wetland delineation report should be completed by the end of April. SCE will provide the wetland delineation report along with the requested map (in GIS data format) to the CPUC as soon as it is available.

Several other drainages are located within the proposed project area, however, wetland delineations will not be conducted since these drainages will be spanned by the subtransmission route and project-related activities will not impact the drainages.

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DATA REQUEST SET PRESIDENTIAL ED-01

To: CPUC
Prepared by: Roger Overstreet
Title: Biologist
Dated: 03/23/2009

Question 11:

Biology

Focused surveys for sensitive plant species – Provide the results of these surveys referenced in the PEA.

Response to Question 11:

Focused surveys for sensitive plant species are scheduled to occur between the beginning of April 2009 and the middle of August 2009; depending upon conditions in the field, three or four surveys will be conducted at roughly four to six week intervals. SCE biological consultants BonTerra will be monitoring reference populations of Lyon's pentachaeta and other rare plant species to ensure proper timing of the surveys. A rare plant survey report will be completed within four weeks of the end of the survey period. Any rare plant observations within the project area will be reported to the CPUC and their consultants as soon as reasonably possible during the survey as an interim survey memo by e-mail.

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DATA REQUEST SET PRESIDENTIAL ED-01

To: CPUC

Prepared by: Roger Overstreet

Title: Biologist

Dated: 03/23/2009

Question 12:

Biology

Provide the acreage of coastal sage scrub which would be disturbed or removed as part of the project. The PEA states that disturbance would occur, please quantify.

Response to Question 12:

Approximately 1.12 acres (48,667.7 square feet) of permanent impacts to coastal sage scrub (CSS) are anticipated based upon the current project description. Potential impacts to CSS are due to substation site grading and fire break vegetation clearing, access road grading, new steel pole installation, and vegetation clearing around the new steel poles. Impacts were calculated based upon the following assumptions: the existing distribution line access road east of Highway 23 may be widened to 14 feet from the current 8 foot width (approximate average); new steel pole construction and vegetation clearing will be limited to a 20 foot diameter area around each pole location; and, the area to be cleared for the substation is based upon the latest engineering plan for the substation with appropriate fire break buffer around the substation.

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DATA REQUEST SET PRESIDENTIAL ED-01

To: CPUC

Prepared by: Roger Overstreet

Title: Biologist

Dated: 03/23/2009

Question 13:

Biology

Provide results of additional gnatcatcher surveys referenced in the PEA.

Response to Question 13:

Additional focused surveys for coastal California gnatcatcher (CAGN) will be scheduled to occur winter 2009 – 2010 or spring 2010; the formal gnatcatcher report will be completed within four weeks of the completion of the surveys. Non-breeding season protocol surveys for CAGN were conducted between June 28 and November 6, 2008, for the proposed project and alternative routes for which we had property access (see PEA appendix D for survey report). Since survey results are generally valid for one year and additional surveys should be conducted closer to the start of construction to provide the most current information on CAGN presence/absence, conducting breeding season surveys in 2009 (March 15 – June 30) would be less useful and effective than conducting surveys winter 2009 – 2010 or spring 2010.

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To: CPUC

Prepared by: Jack Haggemiller

Title: Project Manager - Field Engineering

Dated: 03/23/2009

Question 14:

Cumulative Impacts

Provide a list and description of other SCE projects planned in the electrical needs area (i.e. MoorPark).

Response to Question 14:

Moorpark Substation Capacity Increase and Related 66 kV Subtransmission Line Project

The *Moorpark Substation Capacity Increase and Related 66 kV Subtransmission Line Project* (Advice Letter 2204-E, filed January 25, 2008) and which was confirmed exempt from the CPUC's PTC requirements in Energy Division Resolution E-4165 on March 20, 2008, has been under construction since mid-2008 and is anticipated to be completed by the end of 2009. The work at Moorpark Substation associated with this project which is still underway in 2009 and not anticipated to be completed until later this year, is not considered to be within the Electrical Needs Area of the Presidential Substation Project as Moorpark Substation is outside of the Electrical Needs Area as defined in SCE's PEA. However, while the subtransmission work associated with this project is within the boundaries of the Electrical Needs Area, it is important to note that the subtransmission work was already completed in 2008.

Project of Note Outside the Electrical Needs Area

As mentioned on page 6-1 of SCE's PEA and as reiterated in SCE's March 2, 2009, Reply to Protests for the Presidential Substation Project, the *Moorpark-Newbury 66 kV Subtransmission Line Project* (Advice Letter 2272-E, filed October 2, 2008), which was confirmed exempt from the CPUC's Permit to Construct Requirements in Energy Division Resolution E-4225, issued on February 24, 2009, is not within the Presidential Substation Project Electrical Needs Area and therefore should not be considered a "cumulative project."