Southern California Edison
Presidential Substation Project A.08-12-023

DATA REQUEST SET Presidential ED-07

To: ENERGY DIVISION
Prepared by: Saeed Sadeghi
Title: Project Engineer
Dated: 02/24/2012

Question 01:

Response to Comments and Final EIR

The following comments from SCE provided in their table submitted to the CPUC on December 9, 2011, require clarification in order to be incorporated into the FEIR. The comment numbers relate to comments from the SCE table:

> Comment 1: Pertaining to site acreage. Our understanding is that the Proposed Presidential Substation Site would require SCE to purchase a 5.4 acre parcel. However, the maximum footprint of disturbance would be 4 acres (hence the consistent use of "4-acre site"). This is consistent with the application and construction drawings. Provide either confirmation of this assumption, or additional detail to support disturbance of an area greater than 4 acres.

Response to Question 01:

The gross acreage of the purchased land is 5.4. Of this, 0.134 acre is dedicated to the street acceleration/deceleration to access the substation. Additionally, 2.33 acres of land is estimated to be disturbed for the substation construction which includes 1.36 acres within the substation walls and the remaining approximately 1 acre for such things as slope stabilization, catch basin, etc. In summary, the total land disturbance is estimated to be approximately 2.5 acres.

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To: ENERGY DIVISION
Prepared by: Kendra Heinicke
Title: Estimator
Dated: 02/24/2012

Question 02:

Response to Comments and Final EIR

The following comments from SCE provided in their table submitted to the CPUC on December 9, 2011, require clarification in order to be incorporated into the FEIR. The comment numbers relate to comments from the SCE table:

> Comment 65: Based on conceptual engineering referenced in comment, please provide a map showing where overhead facilities are expected to occur on both sides of the roadway.

Response to Question 02:

SCE is not able to provide mapping at this time due to the fact SCE has not engineered this alternative route. It is expected, however, overhead facilities would occur on both sides of the roadway due to required guying or to avoid obstacles such as vegetation. For example, poles located in a curve or on a corner will typically require guying. (See Presidential ED-03 (Part 3) Question 50 for previous information provided regarding guying). Typically, guying consists of a guy wire (down guy) attached to a buried anchor, or when there is not adequate space for the required down guy, a shorter guy pole is typically placed with a down guy and buried anchor in a location that has sufficient room for these facilities. For example, if the guy wires would need to be placed in an area that is used by vehicles, a guy pole would instead be placed on the opposite side of the road to clear the roadway. To minimize the number of guy wires crossing the road, the subtransmission alignment could be designed to cross the roadway at certain locations so that most ,or ideally all, of the guying would be located on the same side of the roadway as the subtransmission line. In addition, the subtransmission line may need to cross the road at right angles to avoid vegetation or other obstacles.

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DATA REQUEST SET Presidential ED-07

To: ENERGY DIVISION
Prepared by: Rodney Porter
Title: Planner
Dated: 02/24/2012

Question 03a:

Response to Comments and Final EIR

The following comments from SCE provided in their table submitted to the CPUC on December 9, 2011, require clarification in order to be incorporated into the FEIR. The comment numbers relate to comments from the SCE table:

> Comment 67* (and several others) (** Per confirmation from ESA to SCE on 3/1/12, while SCE's Comment 67 pertained to Alternative Alignment 3, SCE is to respond to the question in reference to Alternative Alignment 3*) : In regards to Alternative Alignment 3. Please perform and provide the results of a wind loading study for installing a telecommunications line on the existing distribution poles from the intersection of Sunset Valley Road and Read Road east to the Proposed Presidential Substation If the results of the wind loading study determine that under Alternative Alignment 3, it would be necessary to replace existing 16 kV distribution poles between Sunset Valley Road and the Proposed Substation in order to support the installation of a telecommunications line please provide the following:
>
> a. In a latter comment (Comment 182), SCE stated that the telecommunications line would not be installed in the duct bank. Please explain whether this is an engineering constraint or not.

Response to Question 03a:

3. In regards to Alternative Alignment 3, wind loading calculations have been performed for the existing distribution poles from the intersection of Sunset Valley Road and Read Road east to the proposed Presidential Substation. The wind loading calculations determined that all the poles that were calculated "passed" - meeting or exceeding the minimum safety factor required with the addition of the proposed telecommunication line being installed on them.

3a. There would not be an engineering constraint to install the telecommunications line inside the proposed subtransmission duct bank, based on the Alternative Alignment 3 design.

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DATA REQUEST SET Presidential ED-07

To: ENERGY DIVISION
Prepared by: Jack Haggenmiller
Title: Field Engineering Project Manager
Dated: 02/24/2012

Question 03b:

Response to Comments and Final EIR

The following comments from SCE provided in their table submitted to the CPUC on December 9, 2011, require clarification in order to be incorporated into the FEIR. The comment numbers relate to comments from the SCE table:

> Comment 67* (and several others) (** Per confirmation from ESA to SCE on 3/1/12, while SCE's Comment 67 pertained to Alternative Alignment 3, SCE is to respond to the question in reference to Alternative Alignment 3*) : In regards to Alternative Alignment 3. Please perform and provide the results of a wind loading study for installing a telecommunications line on the existing distribution poles from the intersection of Sunset Valley Road and Read Road east to the Proposed Presidential Substation If the results of the wind loading study determine that under Alternative Alignment 3, it would be necessary to replace existing 16 kV distribution poles between Sunset Valley Road and the Proposed Substation in order to support the installation of a telecommunications line please provide the following:
>
> b. Describe the types of poles to be installed, including estimated heights.

Response to Question 03b:

The results of the wind loading study determined that under Alternative Alignment 3, it would **not** be necessary to replace any of the existing 16 kV distribution poles between Sunset Valley Road and the Proposed Substation in order to support the installation of a new telecommunicaitons line. Therefore, there are no types of poles to be installed that can be described.

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DATA REQUEST SET Presidential ED-07

To: ENERGY DIVISION
Prepared by: Adolfo Espino
Title: Engineer
Dated: 02/24/2012

Question 03c:

Response to Comments and Final EIR

The following comments from SCE provided in their table submitted to the CPUC on December 9, 2011, require clarification in order to be incorporated into the FEIR. The comment numbers relate to comments from the SCE table:

> Comment 67* (and several others) (** Per confirmation from ESA to SCE on 3/1/12, while SCE's Comment 67 pertained to Alternative Alignment 3, SCE is to respond to the question in reference to Alternative Alignment 3*) : In regards to Alternative Alignment 3. Please perform and provide the results of a wind loading study for installing a telecommunications line on the existing distribution poles from the intersection of Sunset Valley Road and Read Road east to the Proposed Presidential Substation If the results of the wind loading study determine that under Alternative Alignment 3, it would be necessary to replace existing 16 kV distribution poles between Sunset Valley Road and the Proposed Substation in order to support the installation of a telecommunications line please provide the following:
>
> c. Describe the required access road widening and retaining wall construction anticipated.

Response to Question 03c:

Based on the results of the wind loading study, 16kV distribution poles will not need to be replaced in order to support the installation of a telecommunications line, therefore, access road widening and retaining wall construction is not anticipated for Telecom but would still be needed for the underground subtransmission construction as described in Response 04a. However, per the scenario posed in Question 03c in which it would be necessary to replace the 16kV distribution poles, the improvements for the existing access roads east of HWY 23 would include: road widening along tangents to provide the minimum required width per SCE standards, road widening along curvatures to accommodate safe travel of construction and maintenance vehicles per SCE standards, and Hilfiker retaining walls for slope stability and minimize disturbance to adjacent properties.

Southern California Edison
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DATA REQUEST SET Presidential ED-07

To: ENERGY DIVISION
Prepared by: Adolfo Espino
Title: Engineer
Dated: 02/24/2012

Question 04:

Response to Comments and Final EIR

The following comments from SCE provided in their table submitted to the CPUC on December 9, 2011, require clarification in order to be incorporated into the FEIR. The comment numbers relate to comments from the SCE table:

Comment 70 (and several others): Alternative Subtransmission Alignment #3 – Explain the conditions under which the Hilfiker wall widening of access roads would be required and what specific construction components it pertains to, specifically is it associated with undergrounding, or installation of poles. It was previously explained that the access road widening and installation of the Hilfiker wall was associated with the installation of new subtransmission poles and not necessarily associated with the undergrounding activities. For Alternative Alignment 3 Specifically:

a. If the existing 16 kV poles did not need to be replaced, would the access road need to be widened? If yes, describe and explain why.

b. If the existing 16 kV poles did not need to be replaced, would the Hilfiker wall be required? If yes explain why.

Response to Question 04:

a. The construction activities involved with installing the telecommunication line east of HWY 23 would not require access road widening if the existing 16kV subtransmission poles did not need to be replaced.

The construction activities pertaining to undergrounding the 66kV along Alternative Subtransmission Alignment #3 include a large flat pad for construction vehicles, turnaround areas, crane pad areas for installing the vault, and access roads for construction and maintenance designed to current SCE Standards. Due to the steep slope in the vicinity of the proposed alignment, any grading activities would have extensive impacts to the slope and may require retaining walls to provide adequate stability and minimize impacts.

b. The construction activities involved with installing the telecommunication line east of HWY 23 would not require the Hilfiker wall if the existing 16kV subtransmission poles did not need to be replaced.

See description of construction activities pertaining to undergrounding the 66kV along Alternative Subtransmission Alignment #3 in Response 04a.

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DATA REQUEST SET Presidential ED-07

To: ENERGY DIVISION
Prepared by: Kendra Heinicke
Title: Estimator
Dated: 02/24/2012

Question 05:

Response to Comments and Final EIR

The following comments from SCE provided in their table submitted to the CPUC on December 9, 2011, require clarification in order to be incorporated into the FEIR. The comment numbers relate to comments from the SCE table:

> Comment 71: SCE comments stating that undergrounding the 66 kV line east of Hwy 23 could be infeasible contradicts with information provided in Data Response 5, Question 2* ~~#6 (1/6/2011).~~ Response 5, Question 2 ~~#6~~ provided details on undergrounding this section. Please describe the engineering constraints associated with radius requirements, topography, and existing water pipeline associated with this alignment for a 66 kV installation compared to a 16 kV installation. (* *Per confirmation from ESA to SCE on 3/1/12, Data Response 5, Question 2 is the correct data request question),*

Response to Question 05:

The CPUC's Data Request 5, Question 2 requests information for general methodologies as well as specifics for undergrounding along Read Road and west of HWY 23. SCE's response therefore addressed west of the 23 Hwy and not east of HWY 23.

The DEIR's Alternative Subtransmission Alignment 3 proposes that the 66 kV subtransmission line would follow the same underground route that was proposed by SCE for the 16 kV facilities. This does not appear to be feasible with the current topography and design constraints on the east side of HWY 23. For example, on the east side of HWY 23, the area immediately adjacent to the Caltrans ROW has a 20 foot wide easement owned by the Camrosa Water Company. The Camrosa easement contains various above and below ground facilities owned and used by Camrosa, therefore there may be additional constraints with the placement of underground subtransmission facilities in this area.

The 66 kV conduit would be placed under the freeway utilizing a bore, which would consist of a sending and a receiving pit on each side of the HWY 23 ROW. Based on a conceptual review, SCE would need to install two subtransmission vaults on each side of the freeway (one for each circuit on each side of the freeway) near the bore locations The two new subtransmission vaults on both sides of the freeway are required to allow workers to safely maintain each source 66 kV

subtransmission line to the proposed Presidential Substation while maintaining 66 kV service to the substation. The vaults would need to be installed as close as possible to the freeway crossing to prevent cable damage. On the east side of the freeway, there is not enough suitable space for the subtransmission vaults to be aligned with the bore due to the terrain. This may require SCE to grade a space in line with the bore to install the vaults. If this was to be required, space for two 10' by 20' vaults would need to be provided and this would be followed by a 90 degree turn with a 25' minimum radius that would be needed to turn the conduits to the north. To summarize, approximately eighty feet of flat space directly in line with the bore would be required before the ducts turn to the north.

Alternatively, assuming that there are no engineering constraints, the 66 kV subtransmission conduits would instead require a 25 foot radius sweep ten feet outside of the Caltrans ROW before making an approximately 90 degree turn to the north. The closest vault locations would be located in a slope and this would require that the ground be graded to level.

In any case, SCE would need to establish a work area to access the vault locations. Cranes and other large vehicles would need access to the bore pit and vault location areas to install the underground infrastructure. The existing terrain is not suitable for the activities required to construct and maintain the 66 kV facilities and significant grading would be required for construction. Some of the access roads that were proposed for the overhead 66 kV line route may still need to be constructed to facilitate underground construction and maintenance access.

The existing 16 kV distribution circuit crosses the freeway underground and terminates on each side of the freeway in existing manholes adjacent to the Caltrans ROW. Under SCE's Proposed Project, the proposed 16 kV underground facilities on the east side of the freeway would begin at the existing manhole and proceed north. The 16 kV conduits would typically require only a 12.5 foot turning radius to accommodate the proposed 16 kV cable and is much more feasible given the space constraints imposed by the existing topography and the additional grading that would be required for subtransmission construction that include conduit with a 25 foot turning radius and the addition of large vaults. In addition, the installation of 66 kV underground facilities require a larger work space compared to the 16 kV underground installation due to the larger equipment required for construction.

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DATA REQUEST SET Presidential ED-07

To: ENERGY DIVISION
Prepared by: Adolfo Espino
Title: Engineer
Dated: 02/24/2012

Question 06:

Response to Comments and Final EIR

The following comments from SCE provided in their table submitted to the CPUC on December 9, 2011, require clarification in order to be incorporated into the FEIR. The comment numbers relate to comments from the SCE table:

> Comment 122: Please explain why the Hilfiker wall and widening of the access roads will still be required.

Response to Question 06:

Alternative Subtransmission Alignment 3 describes undergrounding the 66 kV subtransmission line under HWY 23 and continuing underground from the east side of the highway to the proposed Presidential Substation site. Due to the steep slope on the east side of the highway, any grading activities could have extensive impacts to the slope and may require retaining walls to provide adequate stability and minimize impacts. The construction activities pertaining to undergrounding the 66 kV line include constructing the following: a large flat pad for construction vehicles, turnaround areas, crane pad areas for vault installation, and access roads that will be needed for both construction and maintenance that meet current SCE standards.

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DATA REQUEST SET Presidential ED-07

To: ENERGY DIVISION
Prepared by: Rodney Porter
Title: Planner
Dated: 02/24/2012

Question 07:

Response to Comments and Final EIR

The following comments from SCE provided in their table submitted to the CPUC on December 9, 2011, require clarification in order to be incorporated into the FEIR. The comment numbers relate to comments from the SCE table:

> Comment 182: Please explain why the telecommunications line could not be installed in the duct bank and would require installation on the distribution poles along this specific route.

Response to Question 07:

The telecommunications line could be installed in a separate conduit within the subtransmission duct bank, but additional underground telecommunications structures would be required.

Installing the telecommunications line on the existing distribution poles for Alternative Alignment 3 on the east side of HWY 23, would be consistent with the rest of the proposed telecommunications route per Alternative Alignment 3, and also be considerably less expensive than constructing additional underground conduit and structures, and is therefore preferred over installing the telecommunications underground.

Southern California Edison
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DATA REQUEST SET Presidential ED-07

To: ENERGY DIVISION
Prepared by: Adolfo Espino
Title: Engineer
Dated: 02/24/2012

Question 08:

Response to Comments and Final EIR

The following comments from SCE provided in their table submitted to the CPUC on December 9, 2011, require clarification in order to be incorporated into the FEIR. The comment numbers relate to comments from the SCE table:

> Comment 328: Please clarify if the suggested revision is for the Proposed Project of an Alternative. If it's for an Alternative, we would need additional information on this Alternative to evaluate it. If so, please provide additional information to support the Alternative.

Response to Question 08:

The suggested revision is for the Proposed Project and Subtransmission Alignments 1, 2, and 3. The update describes more accurately the use of paved and unpaved roads east of HWY 23 and an existing access road off of Olsen/Madera Road. Figure 2-10 in the EIR displays some roads required for construction east of HWY 23. The roads shown would be required for the Proposed Project as well as all Alternative Alignments.

Southern California Edison
Presidential Substation Project A.08-12-023

DATA REQUEST SET Presidential ED-07

To: ENERGY DIVISION
Prepared by: Rosalie Barcinas
Title: Project Manager
Dated: 02/24/2012

Question 09:

Response to Comments and Final EIR

The following comments from SCE provided in their table submitted to the CPUC on December 9, 2011, require clarification in order to be incorporated into the FEIR. The comment numbers relate to comments from the SCE table:

Comment 329: The number of estimated truckloads contradicts the truck capacity indicated in SCE's response to Data Response #3, Question 32 which calculated 7.3 CY per truck. Please explain the change, and describe the truck type used for the revised estimate.

Response to Question 09:

SCE revised its estimate for truckloads given the fact there are different types of dump trucks with different capacities that could be used during construction. The revised estimate represents a more realistic number.