

February 8, 2015

Re: Responses to A.15-04-013 RTRP-CPUC Deficiency Report-SCE-002

Dear Ms. Hietter,

Please find enclosed a CD which includes responses to the following Deficiency Report Responses:

- A.15-04-013 RTRP-CPUC Deficiency Report-SCE-002 Q.01 Response + Attachment
- A.15-04-013 RTRP-CPUC Deficiency Report-SCE-002 Q.13 Response + Attachments (zip files)

Should you have any questions or concerns, please feel free to contact me at (626) 302-6838 or Laura.Placencia@sce.com.

Sincerely,

Laura Placencia
Project Analyst, State Regulatory Operations
Southern California Edison Company

Southern California Edison
RTRP A.15-04-013

DATA REQUEST SET A.15-04-013 RTRP-CPUC Deficiency Report-SCE-002

To: CPUC
Prepared by: Kenneth Spear
Title: Project Manager
Dated: 12/02/2015

Question 01:

Provide preliminary engineering plans and a detailed route map for the entire RTRP 230 kV alignment and substations. The preliminary engineering and detailed route maps need to include the locations of all temporary and permanent work spaces including:

- Pole work areas (e.g., crane pads)
- Lattice steel tower work areas
- Conductor stringing pull and tension areas
- Guard structures
- 230-kV conductor field snub areas
- Temporary downline, access and spur roads
- Permanent access roads
- Temporary staging yards

The Final EIR provides a calculated area of disturbance for each work area in Table 2.5-3a; however, there is no mapping of these work areas that show the maximum limits of the area of disturbance. Further engineering details and mapped locations of the disturbance area are required to verify the impacts to environmental resources and determine the conflicts with recent developments. As an example, the pole and work area at Wineville Avenue and Landon Drive appear to conflict with recent development in the area.

Response to Question 01:

Attached is a detailed route map for the entire RTRP 230 kV alignment and substation. The map includes both temporary and permanent work locations.

Please note, the temporary and permanent work areas associated with RTRP, including the depicted structure locations for tubular steel poles (TSPs), lattice steel towers (LSTs) and access roads, are preliminary and subject to change pending the CPUC's approval of RTRP's CPCN application and final engineering by SCE. Therefore, the depiction of the route for the RTRP 230 kV alignment and substation attached here identifies potential areas of disturbance ("buffers") within which the work areas described in the FEIR's description of "Land Disturbance" at pgs. 2-87 to 2-89, and specifically in Table 2.5-3a, will be located. These buffers have been established around the preliminary structure locations to capture potential work areas so that:

- An environmental assessment of the areas of potential disturbance can be performed;

- Property owners who may potentially be impacted by the Proposed Project are identified; and
- Flexibility is provided to allow the work areas to be adjusted in a manner which minimizes impacts to sensitive resources and/or avoids obstructions during construction.

Final placement of the work areas described in FEIR Tables 2.5-3a –b will be undertaken consistent with assumptions and mitigation measures described in the FEIR to minimize land disturbance impacts, including compliance with: all regulations and policies outlined in the Western Riverside County Multiple Species Habitat Conservation Program (MSHCP) (*see* FEIR at 3-134, 3-251); the best management practices and siting and design criteria set forth in Section 7 and Appendix C of the MSHCP (*see* FEIR at 3-134, 3-251); assumptions and mitigation measures (MM) supporting biological resources (MM BIO-1 through BIO-13, *see* FEIR section 3.2.4, *Biological Resources*); and assumptions supporting potential Project impacts to land use and planning (*see* FEIR section 3.2.9, *Land Use and Planning*).

The size of the buffer areas directly relate to the type of construction work to be conducted at a particular location. Examples of these construction areas are as follows:

- TSPs - 200 ft. radius
- LSTs - 300 ft. radius
- TSP/LST stringing location - 600 ft. radius

Once structure locations are verified during final engineering, the buffer areas around the structure will be reassessed and the specific work areas around the structures will be further defined.

Specific locations for conductor splicing or field snubs, guard structures, and permanent access roads will also be identified during final engineering.

Note, since the originally identified staging yard 2 location is no longer available due to a new housing development, an alternate location has been tentatively identified approximately 350 ft. north of Cantu Galleano Ranch Rd on the west side of Etiwanda Ave.

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To: CPUC
Prepared by: Kenneth Spear
Title: Project Manager
Dated: 12/02/2015

Question 09:

Provide updated air quality and greenhouse gas emissions modeling for the SCE project components including the 230-kV transmission lines. Provide the model assumptions to support the model output. Provide updated air quality dispersion modeling using current air quality models and meteorological data.

The Final EIR uses old out-of-date air quality models, air quality data, and emissions factors to calculate RTRP construction emissions and evaluate impacts. The air quality and greenhouse gas emissions modeling needs to use current EMFAC2014 emissions factors. SCE's model assumptions (e.g., use of Tier 2, Tier 3, or Tier 4 equipment) and helicopter emissions modeling are also required.

The Final EIR analysis of localized effects of air quality on sensitive receptors relies on ISCST3 modeling to define pollutant levels at sensitive receptors. ISCST3 is out-of-date and the California Air Resources Board (CARB) recommends use of AERMOD for dispersion modeling. The USEPA Guideline on Air Quality Models recommend that the most recent five years of consecutive meteorological data should be used for air quality modeling. Provide updated dispersion modeling using the AERMOD model and recent meteorological data.

Response to Question 09:

On or about November 17, 2015, the CPUC issued *Application Deficiency Report #2 Amendment - Certificate of Public Convenience and Necessity for the Riverside Transmission Reliability Project – Application No. A.15-04-013*, clarifying the information sought via Deficiency Report No. 2, question 9. After additional discussions with SCE, question 9 was further clarified to read as follows:

“Provide updated air quality and greenhouse gas emissions modeling for the SCE project components: the 230-kV transmission lines and Wildlife substation using current air quality models and meteorological data. Provide the model assumptions to support the model output. Provide updated localized air quality emissions for construction and, as necessary, dispersion modeling using current air quality models and meteorological data.

The Final EIR uses old, out-of-date air quality models, air quality data, and emissions factors to calculate RTRP construction emissions and evaluate impacts.

Use updated emission factors. The Final EIR analysis of criteria air pollutants and greenhouse gas emissions relies on SCAQMD emission factors from EMFAC2007.

Please update the emissions calculations, with current EMFAC2014 emissions factors.

Provide regional and GHG emissions data and assumptions. Criteria air pollutants and greenhouse gas emissions (e.g., methane and nitrous oxides) shall be recalculated. The calculations shall include emissions from all areas proposed for surface-disturbing grading (i.e., including, but not limited to access roads, staging, and marshalling yards). Please detail all of SCE's assumptions (e.g., use of Tier 2, Tier 3, or Tier 4 equipment). In addition, helicopter emissions (typically using Federal Aviation Administration Aviation Environmental Design Tool) are also required.

Use updated dispersion modeling software. The Final EIR analysis of localized effects of air quality on nearby sensitive receptors relies on SCREEN3 dispersion modeling to define pollutant levels. SCREEN3 is out-of-date and the California Air Resources Board (CARB) and SCAQMD recommends use of Atmospheric dispersion modeling (AERMOD). Please use the most recent 5 years of meteorological data provided by SCAQMD when modeling in AERMOD as recommended by the USEPA Guideline on Air Quality Models.

Provide localized emissions data. The Final EIR analyzed localized emissions from construction of a single pole in comparison to localized significance thresholds (LSTs). The final EIR assumed receptors were at or within 25 meters. LSTs may still be used as screening to determine whether further analysis is necessary. The 25 meter distance from receptors, such as residents and schools, is adequate. Identify the extent of maximum daily construction activities. Estimate the maximum daily emissions generated by construction activities and provide the emission data using these parameters. If LSTs are exceeded, model the construction activities using AERMOD. The air dispersion modeling results shall be compared to the SCAQMD Significance Thresholds for Ambient Air Quality Standards Rule 1303.

Mitigation Measures. Verify that the Final EIR mitigation measures are adequate. Add Applicant Proposed Measures as necessary.”

SCE offers the following response to the revised Deficiency Report No. 2, question 9:

SCE has updated the air quality and greenhouse gas emissions calculations for SCE's RTRP scope of work to utilize the most recently available emission factors and meteorological data. A summary of findings and methodology is attached as *FINAL Tech Memo_SCE RTRP_20151207.pdf* . Emissions calculations are attached as *Attachment 1_Emissions Calculations.pdf* . Localized Significance Threshold AERMOD modeling output files are attached as *Attachment 2_Modeling Output Files.pdf* .

Final EIR Mitigation Measures AQ-1 through AQ-19 are still applicable and appropriate to minimize air quality impacts.

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To: CPUC
Prepared by: Kenneth Spear
Title: Project Manager
Dated: 12/02/2015

Question 10:

Provide information on existing and proposed right-of-way (ROW) and easements in the area where the RTRP alignment intersects with the approved projects. Identify the type of ROW (i.e., owned in fee or easement), the width of the proposed ROW, the location of the ROW relative to the property boundaries for the approved projects, and the location of the transmission line within the ROW. Identify any limitations on uses within the ROW.

Response to Question 10:

Note: For purposes of responding to CPUC Deficiency Report #2, Question No. 10, "approved projects" are those developments in the City of Jurupa Valley that are in the path of overhead route described within the Riverside Transmission Reliability Project (RTRP) Final EIR and certified by the City of Riverside on or about February 5, 2013 and which are currently under construction or have received discretionary approval(s) from the local municipal authority.

The proposed rights-of-way (ROW) for RTRP will require new land rights acquisitions in the areas where the RTRP alignment intersects with the referenced approved projects.

SCE generally secures ROW in easements unless the ROW causes an uneconomic or unusable remainder of property, in which case, such acquisition may result in land acquisition in fee. The proposed ROW width for the overhead 220kV line is designed with a width requirement of 100 feet in the areas of the approved projects, with Tubular Steel Poles (TSPs) positioned along the centerline at approximately 50 feet. Please refer to the attached PDF maps for ROW relative to property boundaries for the approved projects.

The following general requirements and restrictions apply to all third-party uses of our property and easements. This list is not exhaustive and SCE may require additional conditions as the particular factual circumstances warrant.

- SCE's access to its land (including fee-owned and easements) and facilities must be maintained at all times.
- All users of SCE's land shall be responsible for compliance with all applicable federal, state, county and local laws affecting use of SCE's land. The user must obtain all permits and other governmental approvals required for the proposed use.

- All third-party proposed uses must maintain adequate clearances from SCE's facilities.
- No plant species protected by federal or state law shall be planted within SCE's property and easements.
- All new trees and shrubs proposed on SCE land rights shall be slow growing and not exceed 15 feet in height.
- No wetlands, other sensitive natural habitat, vegetation related natural plant areas, or environmental mitigation on SCE land will be permitted.
- Groundwater or storm water infiltration or recharge and water basins will not be allowed on SCE property.
- Flammable or combustible materials are not allowed to be used or stored on SCE's property.
- SCE may require a third-party user of SCE land to implement certain safety measures or mitigations as a condition to approval of the third-party use. Users of SCE land must adhere to minimum grounding standards dictated by SCE.
- Uses on SCE land will not be approved if said use is deemed unsafe.

Some examples of low-intensity uses SCE may consider on its property include:

- Greenbelts (grass, shrubs, and trees with a maximum height and mature growth limitation based upon the Operational Criteria referenced previously);
- Trails for walking, hiking, horseback riding, and non-motorized biking;
- Horticulture (i.e., nurseries) and agriculture;
- Wireless communication facilities within the footprint of the tower or removable shelters/equipment; and
- Temporary activities, such as TV filming.

The SCE website provides additional information on "Using SCE Fee-Owned Property," here: <https://www.sce.com/wps/portal/home/partners/real-estate-and-locations/secondary-land-use> .

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To: CPUC
Prepared by: Kenneth Spear
Title: Project Manager
Dated: 12/02/2015

Question 12:

Provide the basis for the 100-foot right-of-way width used for the RTRP. Does SCE have any narrower rights-of-way for 230-kV transmission lines?

Response to Question 12:

SCE's typical right-of-way (ROW) width for a 230 kV transmission line is 100 feet. SCE's determination of this 100 foot transmission line ROW requirement includes consideration of the following criteria:

- § Conductor size, tension and sag;
- § Electrical and magnetic fields at the edge of the right-of-way;
- § Conductor blowout, insulator swing and electrical clearance requirements to the edge of the right-of-way;
- § Maintenance and access;
- § Current and potential land uses on adjacent lands; and
- § Need for potential adjustments to structure locations during final engineering due to conditions on the ground.

In certain instances, SCE may, and does in fact, have ROW widths less than 100 feet for 230 kV transmission lines. ROWs narrower than 100 feet are considered when exigent circumstances warrant a narrower ROW and depend on the needs of the particular project, including anticipated conductor performance of the line, required clearances under California Public Utilities Commission (CPUC) General Orders (GO), specifically including GO 95, and land uses adjacent to the proposed transmission facility.

However, even where feasible, narrower ROWs may change the number, type (e.g., tubular steel pole to lattices steel structures), orientation, span, and/or configuration of transmission line structures. For example, during the City of Riverside's consideration of the RTRP project, the area between the I-15 freeway and the Vernola Market Place Shopping Center was redesigned at Vernola's request with, among other things, the ROW width reduced to a less than 100 feet. This reduction was accomplished by reducing span lengths and constructing additional tower structures, using heavier and larger dead-end steel poles to restrict conductor movement, reducing support arm lengths, analyzing the conductor performance in-situ, and increasing line tensions.

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To: CPUC
Prepared by: Kenneth Spear
Title: Project Manager
Dated: 12/02/2015

Question 13:

Provide GIS data for the following:

- **Project alignment, substations, and all temporary and permanent impact areas defined in response to Item 1 above**
- **Biological resources including**
 - **Vegetation communities**
 - **Special status species locations**
 - **Jurisdictional resources**
- **Cultural resources including**
 - **Resource locations and boundaries**
 - **Survey boundaries**

Response to Question 13:

Attached is the requested GIS data for Question 13.

Description:

The project description is based on planning level assumptions. Exact details would be determined following California Public Utilities Commission (CPUC) approval of the Certificate of Public Convenience and Necessity (CPCN) for the Riverside Transmission Reliability Project (RTRP), completion of final engineering, identification and confirmation of field conditions, availability of labor, material, and equipment, and compliance with applicable environmental and permitting requirements.

Use Limitation:

These Geographic Information Systems (GIS) locations of project components may change based on any of the following: the CPUC's RTRP CPCN approval; the completion of final

engineering; any changes to existing field conditions and/or the identification of yet unknown field conditions; system outage constraints; as well as any constraints caused by compliance with applicable environmental and/or permitting requirements.

Data provided by:

Preliminary Engineering performed by Powers Engineering as submitted in EIR.

- § Pole Location
- § Transmission Line
- § Substation
- § Access Roads

Data provided by SCE:

- § Ground Disturbance Area Data (GDAD) buffer areas
- § Tentative Material Yards.

Biological Data provided as submitted in EIR.

Please note, GDAD buffer areas indicate potential areas of disturbance within which the work areas described in the FEIR's description of "Land Disturbance" at pgs. 2-87 to 2-89, and specifically in Table 2.5-3a, will be located. These buffers have been established around the preliminary structure locations to capture potential work areas so that:

- § An environmental assessment of the areas of potential disturbance can be performed;
- § Property owners who may potentially be impacted by the Proposed Project are identified; and
- § Flexibility is provided to allow the work areas to be adjusted in a manner which minimizes impacts to sensitive resources and/or avoids obstructions during construction.

Final placement of the work areas described in FEIR Tables 2.5-3a –b will be undertaken consistent with assumptions and mitigation measures described in the FEIR to minimize land disturbance impacts, including compliance with: all regulations and policies outlined in the Western Riverside County Multiple Species Habitat Conservation Program (MSHCP) (*see* FEIR at 3-134, 3-251); the best management practices and siting and design criteria set forth in Section 7 and Appendix C of the MSHCP (*see* FEIR at 3-134, 3-251); assumptions and mitigation measures (MM) supporting biological resources (MM BIO-1 through BIO-13, *see* FEIR section 3.2.4, *Biological Resources*); and assumptions supporting potential Project impacts to land use and planning (*see* FEIR section 3.2.9, *Land Use and Planning*).

The size of the GDAD buffer areas directly relate to the type of construction work to be conducted at a particular location. Examples of these construction areas are as follows:

- § TSPs - 200 ft. radius
- § LSTs - 300 ft. radius
- § TSP/LST stringing location - 600 ft. radius

Once structure locations are verified during final engineering, the buffer areas around the

structure will be reassessed and the specific work areas around the structures will be further defined. Specific locations for conductor splicing or field snubs, guard structures, and permanent access roads will also be identified during final engineering.

Lastly, since the originally identified staging yard 2 location is no longer available due to a new housing development, an alternate location has been tentatively identified approximately 350 ft. north of Cantu Galleano Ranch Rd. on the west side of Etiwanda Ave.

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Prepared by: Kenneth Spear
Title: Project Manager
Dated: 12/02/2015

Question 15:

Please clarify if the duct bank separation included in the desktop study is based on heat calculations using the proposed project power flow or if there is some other basis for the separation. Assuming there are no heat generating utilities adjacent to the underground duct banks, please identify the minimum ROW width (i.e., no buffer) required for the two 230-kV underground circuits.

Page 26 to 27 of the Underground Desktop Study dated July 2015 indicates that the ROW for the two 230-kV circuits would be approximately 50 feet. The study then goes on to illustrate a minimum ROW that is 40 feet; however, this width includes 10 feet of buffer on each side of the proposed duct banks. These ROW requirements appear excessive since many of the existing utilities in roadways are not heat generating.

Response to Question 15:

The duct bank separation of 10 feet is based on internal SCE practices relating to ampacity. The required power flow and cable size requirements are based on the duct bank configuration and separation requirements.

If utilities adjacent to the duct bank do not generate any heat, a minimum one-foot duct bank separation is required per CPUC General Order 128. Based solely on preliminary ampacity studies and regulatory requirements, the minimum ROW width would be 21 feet. However, a larger minimum buffer would likely be required for construction purposes. Adding this additional buffer for construction purposes and again assuming there is no heat generating facilities adjacent to the underground duct banks, for existing and future underground utilities, the minimum underground ROW width would be 30 feet.

Regardless of this currently estimated minimum, the ROW width ultimately required in support of the construction of any underground facilities is subject to change based on the CPUC's grant of a CPCN in support of RTRP, completion of final engineering, identification and confirmation of field conditions, and compliance with applicable environmental and permitting requirements.