Southern California Edison
RTRP A.15-04-013

DATA REQUEST SET A1504013 ED-SCE-06

To: ENERGY DIVISION
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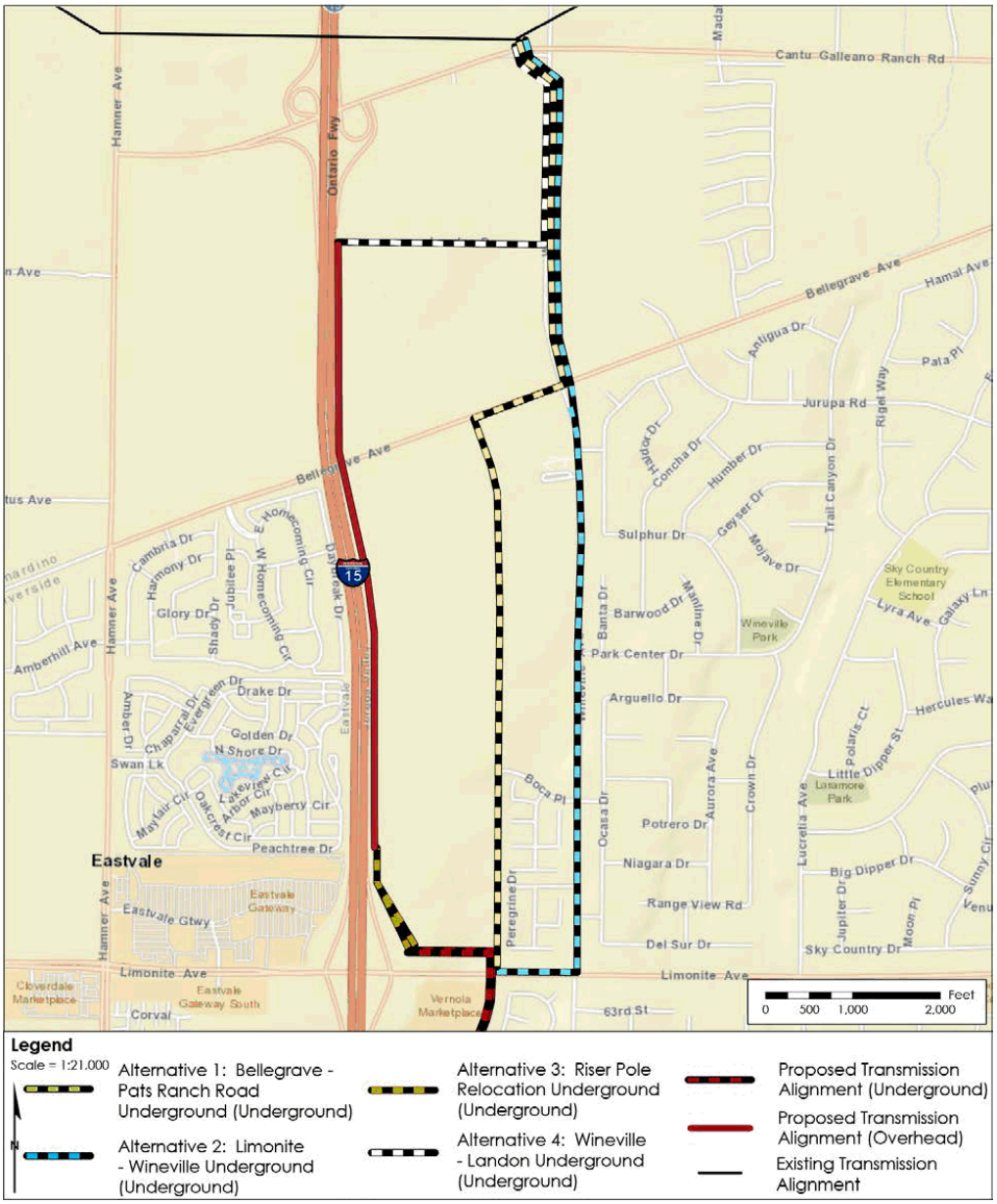
Dated: 06/16/2017

Question ALT-1:

Provide preliminary engineering layout details in GIS and PDF map format for each of the four alternative 230-kV transmission routes shown in the attached map. Layout details that are required include the approximate location of riser poles, the underground duct bank alignment, and vault structures. Describe any preliminary design considerations and assumptions that may affect or will require consideration in the final design of each alternative alignment and structure location. If construction of the alternatives would require a unique construction technique not considered for the proposed project (horizontal directional drilling, jack and bore, etc.) to avoid existing utilities, please provide a description of the activity. Any required temporary and permanent work space areas should be included in the layout mapping.

Note that what SCE previously considered as Alternative 3 (as shown in Data Request #4) has been split into two separate alternatives (#3 and #4).



Response to Question ALT-1:

Please refer to the attached documents.

As noted previously, these alternatives are conceptual, representing routes and designs preliminarily deemed appropriate for the Riverside Transmission Reliability Project (RTRP) based on planning level assumptions, analyses performed to date, and known conditions. If implemented, the precise design and location of these alternatives would be subject to change following completion of final engineering, identification and/or verification of field conditions, completion of underground surveys, availability of labor, material, and equipment, compliance with applicable environmental and permitting requirements, and other factors.

Specifically, there have been no subsurface investigations performed in support of these routes. Subsurface investigations will be needed to advance the 220kV underground engineering and determine what, if any, adjustments need to be made to the layouts. SCE assumes crossing utilities that: (1) either directly cross the path of the 220kV underground duct bank; and/or (2) are heat generating or heat sensitive such as may be impacted by the heat produced by the proposed underground lines, can either be avoided to provide sufficient thermal distance and/or relocated. In the event crossing utilities cannot be feasibly relocated, SCE assumes the 220 kV underground duct bank may be installed deeper or shallower while simultaneously being constrained to incorporate duct bank sweeps of at least a 40-60 ft. minimum radius. Lastly, SCE did not assume the need for any trenchless construction techniques for the depicted alternative routes.