APPENDIX E

VISUAL RESOURCES METHODOLOGY MEMORADUM

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From: Environmental Intelligence, LLC

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SUBJECT: Visual Resources Methodology Memorandum for the proposed Banducci Substation Project Located in Kern County, California

***SUMMARY**: This memorandum provides a summary of the methodology and results of modeling and visual resources simulations that were completed for the proposed Banducci Substation Project (Proposed Project). A total of six key observation points (KOPs) were identified and were used to model the substation portion of the Proposed Project. A review of the existing and proposed conditions at the Proposed Project site; along with a review of the visual stimulations that were prepared by Truescape Visual Communication (Truescape), it was determined that the Proposed Project would represent an incremental, but not significant, change from the existing site and its surroundings and would not substantially alter the existing visual characteristic of the Proposed Project Study Area or the KOPs.*

Methodology

Locations and Photography

A site reconnaissance was conducted with the California Public Utilities Commission (CPUC), Southern California Edison (SCE), and the respective consultants in August 2011. Initial KOP viewpoint locations were identified during this preliminary analysis of the Proposed Project site. Additional site reconnaissance and site visits were conducted in February 2012 and September 2012. Photos were captured from each KOP viewpoint location during each site reconnaissance taking into account factors such as line of sight and obstructions of view. Photos were taken using a digital single-lens reflex (SLR) camera, and the position where the photo was taken was then captured using a hand held global positioning system (GPS) unit with tolerances of +/-15 feet horizontally.

Field of View

The field of view of each photo simulation is 46 degrees in the horizontal and 27 degrees in the vertical.

Datasets

Truescape then created additional data to produce an indicative representation of the Proposed Project. This data included the following:

- AutoCAD drawings of the proposed Banducci Substation layout provided by SCE were used to produce a 3D model of the substation (see Figure 1.0).
- Substation site plans and transmission line layouts with XYZ co-ordinates were provided by SCE and used by Truescape to locate the model in its correct geospatial position.
- Terrain data with accuracy tolerances of +/- 45 feet was used to assist in aligning the 3D model to real world photography (see Figure 2.0).
- Specified materials and textures were assigned for the proposed Banducci Substation structures.

This information was then translated into 3D software. A 3D camera simulated the view on site and the scene was re-created in 3D. The 3D model was then aligned with the photo taken on site by matching features and landmarks visible in the photo, such as background hills and transmission poles, some of which were aligned with markers placed according to their corresponding locations on aerial photography.

The natural lighting conditions were also simulated in the 3D software to match the exact date and time of day the photo was taken.

The computerized visual simulation photographs/modeling of the Proposed Project, project features, and relevant project components were developed using 3D computerized modeling software; these photographs and visual simulations were reviewed and compared to determine the potential impacts related to aesthetic resources that may result from the Proposed Project.

The visual resources analysis (as provided in the section 4.1 Aesthetics of the Proponent's Environmental Assessment (PEA) for the Proposed Project) was conducted based upon the representative views from the four KOPs and several observation points in the vicinity of the Proposed Project site. The visual simulations and photographs were evaluated to determine how the Proposed Project might alter the existing visual conditions. The following factors were considered in determining the extent and implications of the visual changes:

- Specific changes in the landscape's visual composition, character, and any specially valued qualities;
- The visual context (what surrounds the area);
- The extent to which the affected environment contains places or features that have been designated in government plans for visual protection or special consideration; and
- Particular consideration was given to effects on landscapes visible in the foreground (0- to 0.25-mile distance) from public viewpoints.

Conclusion

The visual simulations represent the view of the proposed development from the location the photos were taken. The results of the visual simulations sit within the tolerances of the datasets used to construct the model.

Although the landscaping and design features of the proposed Banducci Substation would vary from the existing site, these changes would be incremental, but not significant, and would largely be consistent with the surrounding settings. The Proposed Project's telecommunications facilities would be located in areas that contain existing poles, structures used for commercial purposes, existing SCE rights-of-way (ROWs), and easements. The Proposed Project Study Area has been determined to have a low level of scenic quality and moderate to low sensitivity level based upon the scenic quality evaluation and the sensitivity level analysis that was completed for the Proposed Project Study Area and KOPs (see the section 4.1, Aesthetics of the PEA). The Proposed Project would represent an incremental, but not significant, change from the existing site and its surroundings and would not substantially alter the existing visual characteristic of the Proposed Project Study Area or the KOPs. The Proposed Project would not be expected to substantially degrade the existing visual character or quality of the site and its surroundings.