Comment Set E.18: Applicant – Visual Resources

Global Comments on the Visual Resources Analysis of the Antelope-Pardee Transmission Line EIR/EIS

Thomas Priestley, Ph.D. AICP/ASLA
CH2M HILL

Introduction

The Visual Resources analysis included in the Draft EIR/EIS identifies a total of 13 impacts associated with the Proposed Project that it identifies as being significant and unavoidable and 17 such impacts associated with the alternatives. These findings cannot be accepted because the analysis has serious flaws that undermine its value as a source of information for the public and decision makers about the project's aesthetic effects. Ways in which the EIR/EIS visual resources analysis is flawed include but are not limited to:

- the visual simulations are not properly documented and do not accurately portray the project's appearance
- the analysis does not properly characterize the project's appearance
- the view context is not taken into account in assessing project visual effects
- the visual sensitivity-visual change methodology used for analysis of impacts on non-Federal lands has serious flaws
- the need for many of the mitigation measures is not supported by the analysis
- the visual impacts of most of the alternatives have not been fully analyzed

E.18-1

The Visual Simulations Are Not Properly Documented and Do Not Accurately Portray the Project's Appearance

The visual resources analysis submitted as a part of the PEA included a set of simulations of the proposed project representing views from nine different viewpoints. These simulations were prepared using systematic methods to assure a high level of accuracy. We note that none of the simulations prepared for the PEA have been used or referred to in the Draft EIR/EIS. Instead, an entirely new set of simulations was prepared. Curiously, there is no review or evaluation of the simulations submitted with the PEA, and no rationale is presented as to why it was necessary to reject the PEA simulations and replace them with new ones.

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The explanation in the Draft EIR/EIS of the methods, techniques and assumptions employed in producing the new set of simulations on which its analysis is based is incomplete. Provision of a thorough documentation of the protocols used in simulation preparation is standard professional practice and is essential for providing a basis for assessing the validity of the simulations. For example, although reference is made to use of a digital camera with an 18-55mm zoom lens set at a "normal" focal length (p. C.15-2) the exact focal length is not identified, and there is no identification of the dimensions of the camera's sensor size. As a consequence, there is no way to determine whether the images used for creation of the simulations are the equivalent of photos taken with a 35 mm camera with a 50 mm lens. This is an important point because use of a 35 mm camera with a lens with a 50 mm focal length

E.18-3

is the accepted professional standard for creating photographic images that are the equivalent of what is seen by the human eye. E.18-3 cont'd

A related issue is that a number of the photographs used as the basis for preparation of the simulations appear to be wide angle views. No information is provided to document what photographic methods were used to capture these views and what measures were taken to prevent the view distortion that could have occurred if these photographs had been taken with a wide angle lens. Close review of the simulations and comparison of them with 50 mm photographs of the same views suggests that in some cases, the photos used as the basis for the simulations may have been cropped. This would have the effect of making landscape elements in these photos appear closer and larger than they really are in the landscape. No information is provided in the discussion of the technical specifications for preparation of the simulations that addresses the question of photo cropping. The omission of this critical information about the lens focal length used in taking the simulation photos and practices related to cropping and creation of panoramic views makes it difficult for Draft EIR/EIS readers and reviewers to assess the validity and accuracy of the simulations and of the analysis of impacts based on interpretation of them. E.18-4

Most of the simulations presented in the EIR/EIS systematically overstate the impacts of the project because they incorrectly portray the color of the transmission towers and grossly overstate the visibility of the project access roads. As a standard practice, Southern California Edison specifies that the steel members used for construction of lattice transmission towers be given a dulled finish at the factory and as a consequence, unlike towers made of untreated steel, the lattice towers that SCE installs do not have a light colored, highly reflective finish. The preparers of the simulations in the EIR/EIS appear to have not been aware of this fact because the transmission structures depicted in most of the simulations are erroneously depicted as being light in color and reflective, and as a consequence, they contrast with their backdrops, creating the false impression that they will be highly visible. E.18-5

Many of the simulations that appear in the EIR/EIS include depictions of project access roads that appear as broad ribbons of white that contrast with their surroundings and diminish the visual intactness of the landscape. These depictions of the project access roads appear to be based on misinterpretations of the planned provisions for project access. Access to the transmission tower sites for construction and maintenance will take place primarily on existing roads. These roads will be regraded in many cases, but for the most part, they will not require removal of surrounding vegetation or other disturbance of the surface of the surrounding land. As a consequence, it is incorrect for the project access roads to have been presented in every case as highly contrasting white scars on the landscape because the roads will not be any wider than they are at present, and in many cases, the road surfaces will remain fully to partially hidden from view by the surrounding vegetation. EIR/EIS Figure C.15-8B provides a typical example of these crude and exaggerated depictions of the access roads that create the impression of a much higher level of change to the appearance of the roads than is likely to be the case. E.18-6

Because of the systematic overstatement of the project's impacts that they portray, the simulations that are now included in the EIR/EIS do not provide an accurate basis for determining the degree of significance of the projects aesthetic effects and the need for mitigation. E.18-7

The Analysis Does Not Properly Characterize the Project's Appearance

Consistently throughout the analysis, the appearance of the transmission structures and conductors are mischaracterized in ways that lead to overstatements of the project's visual effects. For example, the analysis consistently refers to the transmission towers as being "light gray to silver in color" (e.g., p. C.15-37) and that this color "…would create more visual contrast, light, and glare" (e.g., p. C.15-45 and pp. C.15-66 – C.15-67). The analysis also alleges that the proposed transmission line's conductors would reflect sunlight and create glare (e.g., p. C.15) These assertions are erroneous in that it is SCE's standard practice to have the steel used for transmission tower construction treated at the factory to give it a dulled finish that darkens its color and minimizes its degree of reflectivity. The assertion that the new towers would create "light and glare" is entirely unsubstantiated. Because the towers are not illuminated, there is no basis for suggesting that the towers would create light. It is false to say that the transmission towers would create "glare". Glare is a phenomenon that exists when there is too high a degree of contrast between bright and dark areas in a field of view. For example, glare could be created if the filament of an unshielded light were visible at close range in an otherwise dark setting. The high contrast between light and dark areas can make it difficult for the human eye to adjust to differences in brightness. The Illuminating Engineering Society of America defines glare as "the sensation produced by luminance in the visual field that is sufficiently greater than the luminance to which the eye has adapted to cause annoyance, discomfort, or loss of visual performance and visibility." Although it is possible that at low sun angles, the members of the transmission structures could reflect small amounts of sunlight, the low levels of reflected light would not be so great as to constitute anything close to "glare" as it is normally defined and that would be considered to create a significant impact under CEQA. E.18-8

Throughout the analysis, the assertion is made that the transmission structures are "industrial style towers" (e.g. p. C.15-44) and that they will create "an increase in industrial character"(e.g., p. C.15-37). The use of the term "industrial" for an electric transmission line structure is not justified, and creates an inaccurate impression of its character and appearance. The term "industrial" is most often used to refer to facilities that involve manufacturing, creation of localized pollution, and generation of truck traffic. The existing transmission lines in the project area and proposed transmission line have none of these characteristics. It should be noted that transmission lines of similar design are long-term and well-established features of rural and wild land landscapes throughout California. E.18-9

Frequent reference is made to the proposed lattice steel transmission towers and in some cases the conductors as well as having the effect of "blocking" views (e.g., C.15-57). These features may interfere with some views, but interference is not the same as blockage. In a number of cases, the assertions that the transmission towers and structures would create "blockage" have fed into conclusions that overall visual change would be "high", leading to conclusions that impacts would be significant. Given that lattice steel towers are not solid structures and that it is possible to essentially see through them, and that the conductors are relatively thin and do not substantially obstruct views, it is not at all correct to indicate that they create view blockage. The references to "view blockage" need to be removed and the determinations of significant impacts in which alleged "view blockage" has played a role must be modified. E.18-10

The View Context is Not Taken into Account in Assessing Project Effects

One of the most fundamental flaws of the EIR/EIS visual resources analysis is that it focuses exclusively on the changes to the views from the specific Key Observation Position (KOP) viewpoints without putting those views into context in a way that makes it possible to properly assess the significance of the project-related changes. This narrow focus on each of the KOP views leads the EIR/EIR to conclude in most cases that the project would result in a substantial visual change, and that this change equals a significant aesthetic impact. This approach fails to step back and ask the bigger questions of how representative the views are, how unique or sensitive they are, who sees the views, for how long, and under what circumstances, and how the visual change would affect the viewers' overall experience of their environments. Although three examples are presented here to suggest what is meant by this criticism, this critique is not limited to these three views because the EIR/EIS's analyses of the project's effects on most of the other views are invalidated because of similar issues.

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KOP 6 Bouquet Reservoir

KOP 6, which is illustrated with EIR/EIS Figures C.15-8A, C.15-8B, and C.15-8C is described as having been selected "…to characterize the existing landscape and the proposed project visible by travelers on Bouquet Canyon Road at the turnout and vista point at Bouquet Reservoir." (p. C.15-18). This characterization is wrong and misleading in the extreme. Figure 1a attached to this memo is a photo of the view seen by eastbound travelers on Bouquet Canyon Road as they approach the reservoir. In this area, the dominant elements in the view are the chain link fence along the edge of the reservoir property and the reservoir's dam. Views toward the hillside beyond the lake on which the proposed transmission line would be sited are limited by the angle of view and are obscured by the chain link fence in the immediate foreground. As the road reaches the top of the slope, the entrance into the Los Angeles Department of Water and Power (LADWP) service road that travels across the top of the dam comes into view (Figure 1b) – this is the area that the EIR/EIS characterizes as a "pullout and vista point" Figure 2a is the photo the EIR/EIS presents as Figure C.15-8A to characterize the existing views from this area. The impression that this photo creates of what the view from this area is like is false. The actual view visible from this area is the one seen in Figure 2b, where the reservoir is seen through the surrounding chain link fence and in the context of the unpaved area that provides access to the dam service road. The photo in Figure 2a (EIR/EIS Figure C.15-8a) is not a view available to the public – this photo appears to have been taken by holding a camera at arms-length through the space between the fence and the locked gate seen in Figure 2b. As Figures 2b and 3a make very clear, this area has not been designed as public turnout and vista point, and that in fact, public use of this area is not encouraged. As review of the photos in Figures 1b, 2b, and 3a indicate, views toward the proposed transmission line alignment from this area are seen in the context of a landscape that has already been highly modified by the reservoir and the existing transmission lines. Given the fact that the photo used for this KOP misrepresents the view from this area, this KOP should be eliminated, or if kept, the photo should be replaced with one that represents views typical of those to which the public has access. In addition, the discussion of this area's existing visual character and quality needs to be thoroughly revised to take into account the dominance of the highly engineered reservoir, the chain link fence, and other developed features in the foreground of the view.

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KOP 7 Bouquet Canyon Road

The description of KOP 7 in Bouquet Canyon Road (p. C.15-19) describes Bouquet Canyon Road as a "high use" two-lane road. The term "high use" appears to suggest that the road is heavily traveled and thus has large numbers of viewers, but the term "high use" is not defined, and no traffic data is presented to provide a tangible sense of how many travelers actually use this road, which in fact has the character of a relatively lightly used byway. Although the EIR/EIS text indicates that this KOP was selected to "characterize the existing landscape from Bouquet Canyon Road", the view used for this KOP is actually uncharacteristic of views from this road because in most areas along this road, the existing 66 kV line and thus the route of the proposed Antelope-Palo Verde line are not visible. This portion of the analysis needs to be revised to underscore the fact that the proposed transmission line will be visible in just a few places from the canyon in the segment between Vasquez Canyon and Bouquet Reservoir, and that in these areas, the transmission line will be visible for very short periods of time and will be outside the driver's primary cone of vision. This context then needs to be taken into account in evaluating the significance of the incremental visual change created by the replacement of the existing transmission line with the proposed transmission line to assess the extent to which the fleeting views of these incremental changes will alter the motorist's overall experience of driving through Bouquet Canyon.

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KOP 5 San Francisquito Road

The analysis text indicates that Key Observation Position 5 was established to "characterize the existing landscape and the proposed Project visible from the west by travelers on this major north-south highway." No traffic data is presented to indicate the numbers of travelers who might see this view. Although the text indicates that the viewpoint is located under the existing Midway-Vincent No. 1 and 2 500 kV lines, the description of this viewpoint does not go far enough in characterizing the visual context. The reality is that San Francisquito Canyon is an environment that has been highly modified and is visually dominated by major infrastructure facilities. In addition to the Midway-Vincent 500 kV lines that travel through the canyon, the Los Angeles Aqueduct pipeline is a highly visible feature in much of the canyon, and San Francisquito Creek has been developed with a series of LADWP hydroelectric facilities. The location from which the KOP view toward the proposed Project was taken is unrepresentative in that it is one of the few places along San Francisquito Road where large transmission towers are not visible in the foreground of the view (Figure 4a). Figure 4b for example is a view from San Francisquito Road taken just slightly west of the KOP 5 viewpoint, and in this view, the existing 500 kV lines in close proximity to the road are dominant elements in the view. To provide a more representative context for assessing the change in the overall character and quality that the project would create for the landscape seen from this area, the view used for KOP 5 should be replaced with a view like the one in Figure 4b in which the canyon's existing foreground features are more readily visible.

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The Visual Sensitivity-Visual Change Methodology Used for Analysis of Impacts on Non-Federal Lands Has Serious Flaws

For non-federal lands, the analysis relies on a "Visual Sensitivity-Visual Change" (VS-VC) methodology. This methodology is described to some degree on pages C.15-2 – C.15-4. This description makes no reference to the origins of this methodology and do not explain how it

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relates to the standard approaches to visual impact assessment that have been adopted by public agencies and/or that are in widespread professional use. The VS-VC method appears to be unique to the consultants who prepared this chapter of the EIR/EIS.

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The explanation of the VS-VC methodology is not complete, and there are a number of significant issues related to the way it is structured and has been applied:

Relationship to the Requirements of the California Environmental Quality Act
The VS-VC method is not structured in a way that provides ready answers to the questions that Appendix G of the California Environmental Quality Act Guidelines poses to determine the significance of visual impacts. These questions are: "Would the project:

1. Have a substantial adverse effect on a scenic vista?
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
3. Substantially degrade the existing visual character or quality of the site and its surroundings?
4. Create a new source of substantial light and glare that would adversely affect day or nighttime views in the area?"[1]

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It should be noted that on page C.15-35, in presenting significance criteria, the Draft EIR/EIS Visual Resources chapter does not distinguish between the significance criteria that are applicable under CEQA and thus pertain to non-federal lands and the NEPA criteria that pertain to lands under the jurisdiction of federal agencies. One of the concerns with this list of criteria is with Criterion VIS2" "Conflict with applicable adopted city, county, State or federal plans, policies, regulations, or standards applicable to the protection of visual resources." This criterion is not one of the significance criteria for aesthetic impacts specified in the CEQA Guidelines and thus does not necessarily provide a basis for determining impact significance under CEQA.

For most projects, the most important of the CEQA aesthetic impact significance questions is the one which asks whether a substantial degradation of the existing visual character or quality of the site and its surroundings would occur. A close look at the VS-VC method reveals that it does not provide a direct means for developing the complete answer to this question For example, it does not provide a category that specifically accounts for the existing character of the project setting and does not include a variable that measures the change in character that would result from development of the project. The failure to properly account for the setting's existing character has serious implications because for much of the proposed route, the existing transmission line is a well-established part of the existing landscape's character, and the role of this facility in determining the landscape's existing character is not properly taken into account. As a consequence in the impact assessment phase, the VS-VC system does not provide proper recognition of the fact that the proposed project's effect in the areas where the new transmission line would replace the

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[1] California Environmental Quality Act Guidelines, Appendix G, Final Text, October 26, 1998, p.4.

existing transmission line would be to create an incremental change in the existing landscape character, rather than a wholesale change. E.18-17 cont'd

The VS-VC analytical outcome, "impact significance" is not clearly defined and does not appear to have been developed in a rigorous way that makes it meaningful in relationship to the need of the key CEQA guideline question to determine whether a project will "…substantially degrade the existing visual character or quality of the site and its surroundings". The VS-VC process determines impact significance by combining a "high", "moderate to high", "moderate", "low to moderate" or "low" rating of "Overall Visual Sensitivity" with a "high", "moderate to high", "moderate", "low to moderate" or "low" level of "Overall Visual Change". The logic of how the two sets of ratings are combined is not explained, and there is no definition of how the combined levels of sensitivity and visual change are believed to create "substantial degradation" and thus constitute a "significant" visual impact. E.18-18

Table C.15-1 entitled "General Guidance for Review of Visual Impact Significance for Non-NFS Lands" appears to provide a framework for determining the VS-VC impact findings (page C.15-4). The text provides no indication of whether this framework was developed specifically for purposes of the Antelope-Pardee Transmission Line project Draft EIR/EIS visual impact analysis. Because no information is provided on where this table came from and what it is based on, it is not at all evident what the assumptions are that are built into this table and the extent to which they have any real-world validity. E.18-19

The Draft EIR/EIS also asserts that "for a visual impact to be considered significant, two conditions generally exist: 1) the existing landscape is of reasonably high quality and is relatively valued by viewers and 2) the perceived incompatibility of one or more Proposed Project elements or characteristics tends toward the high extreme, leading to a substantial reduction in visual quality" (C.15-3). Based on this statement, the Draft EIR/EIS fails to make a clear case for finding significant visual impacts as defined by CEQA. Table C.15-1, which the VS-VC method uses to identify impact significance considers "overall visual change' rather than the more specific questions that CEQA poses about the degree of degradation of existing levels of visual character and visual quality. E.18-20

The Need for Many of the Mitigation Measures is Not Supported by the Analysis
The EIR/EIS Visual Resources Analysis prescribes a total of 19 measures to mitigate the significant impacts it asserts the Proposed Project would create, and an additional 4 measures for mitigation of impacts associated with the alternatives. In many cases, the need for the mitigation measures has not been established by the analysis either because the project's impacts would not in fact be significant and require mitigation and/or because the case has not been made that the measures prescribed would be feasible or have the potential to actually achieve the desired results. A few examples these issues are provided here. E.18-21

Two of the proposed mitigation measures (V-1a and V-17a) are related to transmission equipment reflectivity and color. As noted above, the EIR/EIS analysis fails to take into account the fact that Edison's standard practice is to have the steel used for lattice steel tower construction treated at the factory to darken it and minimize its reflectivity, and that non specular (i.e. non reflective) conductors and non reflective and non refractive insulators are specified as a matter of course for projects like this one. As a consequence there is no E.18-22

basis for the findings that that the transmission towers would unduly contrast with their backdrops or create "light impacts" and contribute to the creation of "glare". The finding of "glare" impacts is particularly unsustainable, because as previously noted, to the degree that there might be times of day when small amounts of light would be reflected off of the transmission towers or conductors, these small areas of low levels of reflected light would come nowhere close to the definition of what constitutes glare. The requirement in Mitigation Measure V-1e that surface coatings be applied to transmission towers to reduce contrast with the backdrop is made without consideration of the fact that Edison's current practices for treating the steel used for transmission structures already provide a reasonable degree of contrast reduction, and that that measures that go beyond what Edison now does can create a whole host of issues of their own. Many years of experience with tower coloration experiments in the utility industry have led to an understanding that towers built of the dulled steel that Edison now uses that have a neutral gray color and low levels of reflectivity provide good levels of integration into both landscape and sky backdrops. Experience with painting of transmission towers indicate that although use of colors other than the dull, neutral gray color of the towers that Edison now constructs may blend with some settings in some angles, from other angles, they can create higher levels of contrast. Tower painting can create environmental and operational issues. Painting of towers in natural settings can create the risk of paint splattering and spills in sensitive habitat areas. Experience has also shown that painted towers need periodic repainting to remain attractive, and that this repainting can create many practical issues> These include the need to get equipment to towers, which can be problematic in areas without access roads or where environmental conditions are sensitive, and in some cases, the need to de-energize the transmission lines during painting, creating electric system reliability issues.

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Mitigation Measure V-16c is particularly unwarranted and extreme. This measure calls for preparation of an entirely new siting study "…that provides a detailed analysis of the least visually impacting location for a new 500 kV transmission line from Antelope Substation to Pardee Substation (mile 0.0 to 25.6)" and requires undergrounding in areas where there are no topographic features to provide screening (p.C.15-63). Prescription of this measure is predicated on the EIR/EIS 's finding that the project would have a significant impact because of conflicts with visual quality policies an objectives contained in Forest and local plans. First, as previously pointed out, although the EIR/EIS analysis makes "Conflict with applicable adopted city, county, State, or federal plans, policies, regulations, or standards applicable to the protection of visual resources" (p. C.15-35) one of the criteria it uses to determine impact significance, this is not one of the criteria for determining visual impact that is established in the CEQA guidelines. Thus, it is questionable whether it is legitimate for this criterion to be used to determine impact significance in on the non-federal lands that are being evaluated under CEQA. In addition, among the local policies that the EIR/EIS analysis cites are policies that require transmission lines to be placed underground "where feasible". Because transmission lines of 50 kV and over in size fall under the exclusive jurisdiction of the California Public Utilities Commission, these local policies are not applicable to this proposed 500 kV transmission line. In the area under Federal jurisdiction, that is, the Forest Service lands crossed from Mile 5.7 to 18.6, it is not clear that the "High" Scenic Integrity Objective assigned in the Forest Management Plan to the area encompassing the proposed right of way is legitimate and provides a valid basis for the determination of impact. Because the proposed right of way through the Angeles National Forest is already

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occupied by a high voltage transmission line carried on lattice steel towers, this right of way does not meet the criteria for designation with a SIO of "High". Recently, in a comment letter related to the Devers-Palo Verde 2 transmission line, the San Bernardino National Forest indicated that the Very High SIO level that had been assigned to the project's proposed alignment in the right of way now occupied by the Devers-Paolo Verde 1 transmission line had been assigned in error and that that the SIO level for the right of way would be revised to reflect its actual conditions. If the right of way through the Angeles National Forest in which the proposed project would be located were similarly reclassified to reflect its current status and visual condition, there would be no basis for finding that the proposed project would create a significant impact based on conflict with the SIO rating. Under these circumstances, there would be no basis for the radical, highly burdensome, and perhaps technically and financially infeasible impact mitigation that Mitigation Measure V-16c calls for.

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The Visual Impacts of Most of the Alternatives Have Not Been Not Fully Analyzed
The EIR/EIS visual resources analysis does not conform to the requirements of the National Environmental Quality Act that an equal level of analysis be given to the proposed project and each of the alternatives considered. This is particularly true of Alternative 2, the Midslope Alternative, which the analysis identifies as being "preferred over the proposed Project and Alternatives 1, 2, and 3." (p. ES-26). Adequate documentation is not provided to support this conclusion. For the segment of the proposed alignment that would be replaced by Alternative 2, a total of 4 simulations was prepared. For Alternative 2, only two simulations were prepared, and they do not adequately represent the areas where this alternative has the potential to create visual impacts. It is curious, for example, that no simulation of Alternative 2 was prepared for KOP 7, the view from Bouquet Canyon Road, where Alternative 2's entirely new towers would be visible in an area closer to the road than the Proposed project. Because this alternative would introduce towers and associated landscape modifications into a number of areas that are highly visible to the public and where there are no transmission lines at present, a proper analysis would have included preparation of simulations of views from these areas. For example, Figure 5 is a view toward the west from Bouquet Canyon Road near the Bouquet Reservoir dam. In this view, which is directly in the traveler's cone of vision, transmission towers would be visible on the slope on the left side of the canyon, conductors – perhaps marked for aviation safety - would be visible crossing the canyon, and a transmission tower would be highly visible at the top of the ridge at the right side of the view.

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Another important set of views that require simulation are the views across Bouquet Reservoir from Spunky Canyon Road on the reservoir's northern and eastern edges. Because Spunky Canyon Road is located at elevations that are to varying degrees considerably higher than the reservoir, it provides unobstructed views over the top of the reservoir's chain link fence that take in the reservoir's surface and the surrounding landscape. Figure 6, a view from Spunky Creek Road along the reservoir's eastern edge is representative of these views. In this view, Alternative 2 would introduce an entirely new transmission facility across the face of the now natural-appearing slope in the middleground of the view, and in addition, would result in the placement of a skylined tower on the top of the peak visible to the right of the reservoir's dam. Although the visual impacts on these views have the potential to be substantial, no justification is provided for not making representations of these effects available to the decision-makers and the public in the EIR/EIS document. If simulations had

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been prepared of these and other views along the Alternative 2 route, it would be clear that the EIR/EIS's repeated assertions that Alternative 2 provides a less visible location for the transmission line route compared to the proposed project route are not necessarily true.

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1a: View from Bouquet Canyon Road approaching Bouquet Reservoir from the west. For the entire approach to the reservoir from the west, the view to the north side of the road is dominated by the reservoir's dam and chain link security fence.

E.18-26

1b: View from Bouquet Canyon Road toward the entrance to the private LADWP service road across the top of the Bouquet Reservoir dam. From this segment of the road, the road, the reservoir surface is not visible, and the chain link fence obscures the view toward the hills in the background.

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FIGURE 1
SCE ANTELOPE-PARDEE 500 kV TRANSMISSION PROJECT
REVIEW OF EIR/EIS

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2a: This is the image the Draft EIR/EIS uses to characterize the view from the "turnout and vista point" at Bouquet Reservoir.

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2b: What the EIR/EIS characterizes as a "turnout and vista point" is actually the entrance to the LADWP's dam access road, and is not designed as a place for the public to park or view the reservoir. The photo used for the EIR/EIS KOP 6 (photo 2a above), which must have been taken by holding a camera at arms length through the opening between the gate and the fence, does not accurately portray the view that the public sees from this area

E.18-29

FIGURE 2
SCE ANTELOPE-PARDEE 500 kV TRANSMISSION PROJECT
REVIEW OF EIR/EIS

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3a: Signage on the fence at the entrance to the LADWP service road across the Bouquet Reservoir dam communicates that public use of the reservoir and the area around it is not permitted.

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3b: View of Bouquet Reservoir from Bouquet Canyon Road in the area east of the dam. In all views toward the reservoir from Bouquet Canyon Road, the reservoir is seen through the chain link security fence that dominates the foreground of the view.

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FIGURE 3
SCE ANTELOPE-PARDEE 500 kV TRANSMISSION PROJECT
REVIEW OF EIR/EIS

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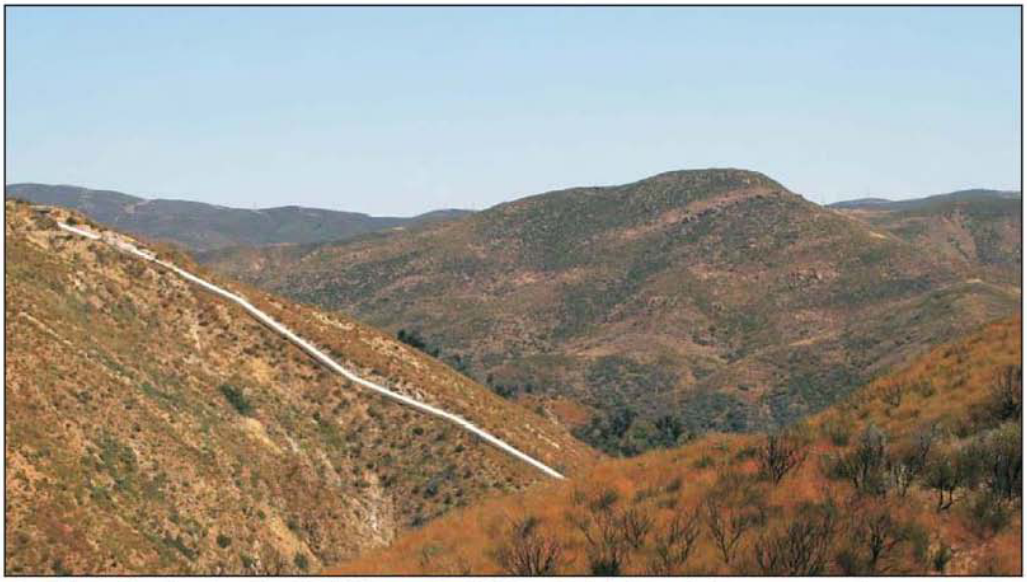

4a: This is the view that the EIS/EIR uses for KOP 5, which is intended to represent views toward the project route from San Francisquito Road. This view is taken from one of the few points along the road where there are no transmission towers in the foreground.

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4b: View looking southwest from San Francisquito Road toward the project route on the distant ridgeline from a point to the immediate west of EIR/EIS KOP 5. (photo 4a above) This view is more typical of views from San Francisquito Road than the KOP 5 view because it includes several of the existing transmission lines that dominate the foreground of the views from the road corridor.

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FIGURE 4
SCE ANTELOPE-PARDEE 500 kV TRANSMISSION PROJECT
REVIEW OF EIR/EIS

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Westbound view from Bouquet Canyon Road just west of the Bouquet Reservoir dam. Alternative 2 (the "Midslope Alternative") would cross over the valley in the middle of this view, and would entail placement of a tower on the top of the peak on the right side of the the view.

FIGURE 5
SCE ANTELOPE-PARDEE 500 kV TRANSMISSION PROJECT
REVIEW OF EIR/EIS

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E.18-34

South-southwest view from Spunky Canyon Road across Bouquet Reservoir and toward the slope on the southern side of the reservoir that would be crossed by Alternative 2 (the "Midslope Alternative"). At present, this slope has a high level of visual intactness that would be reduced under Alternative 2 by introduction of an entirely new transmission corridor across the middle of its face and placement of a transmission tower on the top of the peak to the right of the dam.

E.18-35

FIGURE 6
SCE ANTELOPE-PARDEE 500 kV TRANSMISSION PROJECT
REVIEW OF EIR/EIS

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Response to Comment Set E.18: Applicant – VISUAL RESOURCES

E.18-1 In this comment, the commenter provides an overview and bullet-list of subsequent detailed comments listed in Comment Set E.18. Please see detailed responses below. However, there is one correction necessary to this introduction. The comment asserts that the proposed Project would have 13 significant and unavoidable visual impacts. Table C.15-21 (Impact and Mitigation Summary – Visual Resources) indicates there would be 14 (not 13) significant, unavoidable (i.e., Class I) visual impacts associated with the proposed Project. Alternatives 1 through 5 have different numbers of significant, unavoidable visual impacts (not 17 for each, as suggested by the comment).

E.18-2 Some typical reasons for not using PEA simulations include: (a) viewpoint locations that do not fully capture a project's visual effects on the landscape, (b) inappropriate or ineffective viewing angles at selected viewpoints, (c) poor image quality, or (d) inappropriate image scale. With regard to the Project, the comment is incorrect in stating that no simulations from the PEA were used. In fact, one viewpoint and simulation was re-used in the Draft EIR/EIS analysis. PEA Figure 5.2-3B shows the incorrect location of the proposed foreground tower, as compared to the location in the PEA Road Story on sheet 41B, and therefore was redone in the Draft EIR/EIS. Figure C.15-5B in the Draft EIR/EIS shows the correct location of this proposed foreground tower, and also shows three towers on the skyline in their correct location, while the PEA simulation shows only two skyline towers, missing the third. Therefore, new viewpoints and simulations were deemed necessary to more accurately describe the proposed Project's potential visual impacts. Also, in order to prepare an unbiased third-party analysis of visual resource impacts, new visual simulations were prepared for the Draft EIR/EIS as described in Section C.15.1.1 using AutoCAD three-dimensional models of the proposed structures placed into the landscape photograph using AutoCAD and 3DStudio. These simulations are very accurate and show new features at the appropriate size, location, and scale, and are generally considered much more accurate than the method which is described in the PEA, where photos were retouched using Photoshop.

E.18-3 The use of visual simulations is intended to present reasonable representations of an actual viewing experience. Simulations are typically prepared for the key viewpoints, also called key observation positions or KOPs, which were selected for detailed analysis. As stated in Section C.15.1.1 on page C.15-2 of the Draft EIR/EIS, "At each KOP, photographs were taken with a Canon-20D digital camera equipped with the 18-55mm zoom lens set at a "normal" focal length. When printed on 11x17-paper, each photograph appears "life-size" when held approximately 18-inches from the eye."

"Normal" focal length is "35" on the 18-55mm zoom lens for the Canon 20D camera (35mm film equivalent is 28.8-88.0mm zoom lens). This is caused by the camera's sensor size which is 22.5x15mm (approximately 2/3 the size of a frame of 35mm film, which is 36x24mm), resulting in a multiplier of 1.6, as specified in Canon camera operating manuals (data also available on the web at http://www.usa.canon.com). Therefore, all photographs and simulations are presented in a "normal" view and appear "life size" when held approximately 18 inches away, resulting in very accurate representations for readers of the Draft EIR/EIS.

The comment also states that: "… use of a 35mm camera with a 50mm focal length is the accepted professional standard for creating photographic images that are the equivalent of what is seen by the

human eye." What the comment fails to point out is that by squeezing what the eye can see down to an 8.5" x 11" page (as in the PEA or the above comment photographs) or even an 11" x 17" page with two cropped images per page, the landscape features in the PEA are presented in miniature since the image must be scaled down substantially to fit the page (note: a canvass several feet wide would be required to portray the visible field of view at a standard reading distance of about 18 inches). This may be appropriate for illustrating the visible field of view, but it is not appropriate for the presentation of visual simulations because the simulation should communicate a reasonable approximation of the actual viewing experience. Landscape features (including transmission lines) should appear approximately the same scale (size) as if the viewer was standing on location. There should be no visual disconnect between what is seen on a page and what is experienced in the field. The approach suggested in this comment and in the PEA understates the prominence of landscape features (such as transmission line towers or substations) and conveys a false sense of the Project's potential visual impacts. That is why the Draft EIR/EIS presents images at life-size scale when viewed at a standard reading distance of 18 inches.

In addition, the technical steps taken in the visualization process are described below, with the corresponding software platforms employed:

- **Photo/3D Model Composite Simulation:** Generally, to ensure a high degree of visual accuracy in the simulations, Computer Aided Design (CAD) equipment allows for life-size modeling within the computer. This translates to using real world scale and dimension to locate proposed facilities and structures, other site data, and actual camera locations and bearings corresponding with 3D simulation viewpoints.

- **AutoCAD & 3D Studio Max Electronic Model Data Integration:** USGS topographical quad maps and ortho-rectified aerial photography were initially employed as background references. AutoCAD drawings of the proposed structure locations and orientations were generated based upon these detailed reference materials and information provided by the Applicant for the proposed Project. Corresponding camera positions and orientations were also recorded in the same 3D coordinate space. The 3D Studio massing models of the proposed structures and camera locations were generated in real world scale and orientation with respect to each other, including: the USGS topographical quad maps, the ortho-rectified aerial photography, and the 3D AutoCAD drawings on which they were placed.

- **3D Studio Max - Simulation Generation:** An electronic camera lens matching the lens that was actually used in the field was placed at its appropriate position in 3D coordinate space. A Canon 20D digital SLR camera was used (with the equivalent setting of a "normal" film lens, resulting in a "normal" view) consistently throughout the process. This lens selection allows for viewing of the model generated above in the same way the project would be viewed in the field. Therefore, all photographs and simulations are presented in a "normal" view and appear "life size" when held approximately 18 inches away, resulting in very accurate representations for readers of the Draft EIR/EIS.

  Next, the photography was imported into the 3D database and loaded as an environment map, within which the camera view of the 3D model was generated. To generate the correct view relative to the actual photographs, the electronic camera was placed at a location (within the computer) corresponding to the location of its physical counter part in the actual field during the photo shoot. This was supported by documented camera location, bearing/direction, and lens type, which were recorded during the generation of the digital photography itself. From here, the 3D wire frame models of the proposed structures were displayed, along with any

significant existing structures, so that proper alignment, scale, angle, and distance could be verified. To complete this phase, the sun angle was set, materials and textures were applied, and finally, the composite image was rendered through computer image processing commonly known as Ray Tracing.

- **Adobe Photo Shop:** Necessary layers were then created within the photography, representing foreground and background, with respect to the 3D model and its appropriate position within the topography. Once the final composite for the simulated view was completed, additional filters designed to achieve atmospheric conditions such as: blur, haze, etc., were applied, as appropriate.

E.18-4 All photographs were taken with the camera's focal length set for a "normal" view, and there are no wide-angle views and, therefore, no view distortions. Outside edges of all photographs and simulations were cropped to allow their placement inside of title blocks with borders. The image size stayed the same as described in the response Comment E.18-2, above and, therefore, no distortion occurred to the "life size" effects. Also, please see response to Comment E.18-3, above.

E.18-5 New lattice steel towers constructed of dulled galvanized steel would reflect more sunlight than existing lattice towers which are weathered and rusted. The color of new steel is light gray, even when dulled. Simulations took these factors into account, because new towers would be light in color and during certain times of day and under certain lighting conditions, sunlight would be reflected off the angled steel structures.

E.18-6 For the proposed Project, in Volume 2 of the Proponent's Environmental Assessment, the Road Story, most of the existing access roads and spur roads were designated "BLADE GRADE" or 'CLEAR WEEDS & VEGETATION/BLADE GRADE" or "CLEAR WEEDS AND VEGETATION. REGRADE TO REMOVE DEEP GULLIES & OTHER SURFACE IRREGULARITIES." However, for the existing access and spur roads shown in Figure C.15-8B at Bouquet Reservoir, the Road Story note says "EXISTING ROADS ARE INACCESSIBLE. NEED SOME EXTENSIVE GRADING WORK. REBUILD PER TRANSMISSION STANDARDS. INSTALL DRAINAGE STRUCTURES AS NEEDED. L = 5000' (Length equals 5000-feet)". The visual analyst carefully studied KOP photographs of existing conditions, the Road Story aerial photographs, and color aerial photographs taken in the spring of 2005, and then discovered that many of the existing patches of bare soil are, in fact, the existing access and spur roads that have revegetated and grown-over since the line was constructed in the 1930s. By connecting the dots, it was easy to determine the location of access and spur roads that would be re-built for dismantling existing transmission line structures and construction of new structures. The depiction of access and spur roads in the simulation, Figure C.15-8B, is an accurate representation of the location of roads, the amount of grading, the lack of vegetative and topographic screening, and the future conditions as they would likely appear, and leads to conclusions on the need for visual mitigation measures.

In locations where access and spur roads were not designated or known at the time of Draft EIR/EIS preparation, the text in Section C.15 notes that the simulations do NOT show access roads or spur roads and therefore, visual impacts would increase beyond those shown in simulations (see especially Alternative 5 text).

E.18-7 Because of the stringent methods used to take photographs of existing conditions, the "life-size" characteristics of simulations, accuracy provided by placing three-dimensional models of transmission towers into the photographs using AutoCAD and 3DStudio software, and careful study

of topographic maps and aerial photographs, the simulations in the Draft EIR/EIS are accurate and represent reasonable portrayals of expected future conditions upon completion of Project construction.

E.18-8 Light can come from many sources other than light bulbs, including reflected sunlight. Figure C.15-5A, Existing Visual Condition as seen from KOP 3, has an example of sunlight reflecting from an existing weathered and rusted 66-kV steel lattice structure in the foreground, which was reportedly constructed in the 1930s. New dulled galvanized steel would reflect more sunlight than old, weathered, rusted steel. Figure C.15-13A, Existing Visual Condition as seen from KOP 11, has an example of sunlight reflecting from existing weathered 500-kV steel lattice structures in Mountain View Park. Figure C.15-26A, Existing Visual Condition as seen from KOP 5-9, has an example of sunlight reflecting from existing weathered 500-kV steel lattice structures and conductors as seen from the PCT.

E.18-9 This comment states that the use of the term "industrial" to describe the character of the lattice structures creates an inaccurate impression and that the term industrial "…is most often used to refer to facilities that involve manufacturing, creation of localized pollution, and generation of truck traffic." The EIS/EIR visual analyst is not aware of any empirical data that suggests that the term "industrial" should be reserved for the rather narrow uses suggested in the comment. To the contrary, the use of the term "industrial" to describe the character of electric transmission facilities (including lattice steel towers and substations, which are commonly recognized industrial land uses) is appropriate and the most readily understandable descriptor of the proposed facilities.

E.18-10 This comment questions the use of the term view blockage and suggests that lattice towers rather than block views actually interfere with views. It is not clear what the commenter is referring to as view interference, or what aspects of the structure is causing the interference, or specifically what is being interfered with, or for that matter how view interference differs from view blockage. The EIR/EIS is clear as to why view blockage is important, as explained on page C.15-2 of the Draft EIR/EIS, "Project-induced visual change was determined for each KOP based on field studies of anticipated visual contrast, project dominance, and the potential for view blockage of higher quality landscape features." The comment also notes that lattice steel towers enable viewers to "see through" the structures and that conductors are relatively thin and do not substantially obstruct views. This is true to a degree and the "transparent" characteristic of lattice structures is particularly effective in enabling these structures to blend with appropriately mottled landscape backdrops when viewed from a distance. However, from closer viewpoints, this design characteristic is less effective. Thus, to the extent that the built structure blocks, obstructs, or impairs the view of the backdrop landscape, this is referred to in the text as view blockage and the degree of view blockage is illustrated in the simulations.

E.18-11 This comment states that the analysis of specific KOPs, without putting those views into context, "leads the EIR/EIS to conclude in most cases that the project would result in a substantial visual change, and that this change equals a significant aesthetic impact." This comment is followed by three specific critiques of KOPs 6, 7, and 5, all of which are located on the Angeles National Forest. The Angeles National Forest Landscape Architect and EIR/EIS visual analyst investigated hundreds of vantage points and recommended numerous possible KOP locations, of which, these three were deemed representative. Additionally, all 14 KOPs for the proposed Project, including KOPs 5, 6, and 7, were selected and approved by the Forest Service and CPUC Project Managers. Quoting from page C.15-11 of the Draft EIR/EIS, "Computerized visual simulations were prepared

for KOPs viewing Angeles National Forest landscapes in order to aid in the assessment of SIO achievement. Using the visual simulations, a comparison was made for predicted future levels of scenic integrity and the definitions for SIOs. Next, the overall impact significance was determined by evaluating the degree of deviation between the future visual conditions and the SIOs."

E.18-12 This comment states that the selection of KOP 6 at Bouquet Reservoir is wrong and misleading in the extreme, and attaches a photograph taken from Bouquet Canyon Road looking at the chain link fence. This KOP was selected by the EIR/EIS visual analyst and supported by the Angeles National Forest Landscape Architect because it represents a continuum of several hundred viewing opportunities looking *through* the chain link fence while traveling northbound on Bouquet Canyon Road. Because the view from a moving vehicle allows a stroboscope effect, the chain link fence becomes transparent and attention can be focused on mountains in the middleground and background distance zones. The introduction of new transmission lines and access/spur roads would create new focal points in this landscape, further drawing attention through the chain link fence to the proposed Project. This viewshed is extremely important to the Forest Service. Because it is impossible to simulate this stroboscope effect with a single still photograph, therefore, the photograph at KOP 6 was taken in such a way that the chain link fence was not blocking, obstructing, or impairing the view. Finally, presence of Bouquet Reservoir does not create "the dominance of the highly engineered reservoir" as argued by the commenter. In fact, the presence of a large water body in this landscape is highly scenic and attracts attention because it is a rare occurrence in this landscape place.

E.18-13 This comment states that Bouquet Canyon Road is not a "high use" road, but "a relatively lightly used byway." In fact, there are only three major roadways linking the Antelope Valley from the north to greater Los Angeles to the south – Antelope Valley Freeway (SR-14), San Francisquito Canyon Road (which has been closed periodically for reconstruction), and Bouquet Canyon Road. During commuting hours, all three of these roads have "high use" traffic. The Draft EIR/EIS text clearly states the rationale for selecting KOP 7, as follows: "Because of the narrow, curving nature of this road, set deep in the canyon bottom, there are only a handful of locations where the proposed Project would be visible, and this is one of the best examples." The incremental visual change that would occur under the proposed Antelope-Pardee (not Antelope-Palo Verde) Project is clearly shown in Figure C.15-9B.

E.18-14 This comment asserts that no traffic data are "presented to indicate the numbers of travelers who might see this view." See the response to Comment E.18-13 for descriptions of the only three major roadways linking the Antelope Valley to greater Los Angeles, of which San Francisquito Canyon Road is one. The presence of multiple infrastructures (500-kV, 1000-kV transmission lines and a pipeline) in the foreground of San Francisquito Canyon Road do not justify the introduction of a new 500-kV transmission line on Del Sur Ridge in the middleground view from KOP 5. The proliferation of large transmission lines would create additional visual impacts, and this is well represented by the commenter's own photograph of the visual impacts of these existing transmission lines (see Figure 4b, comment 34), which clearly do not meet the Forest Service HIGH SIO.

E.18-15 This comment asserts that the Visual Sensitivity/Visual Change Methodology has serious flaws, does not explain how it relates to the standard approaches to visual impact assessment of public agencies, or that are in widespread professional use. While it is true that the Visual Sensitivity-Visual Change Methodology is more comprehensive and more transparent than other visual impact

assessment methodologies used by some consultants, the foundational underpinnings of the VS/VC approach are quite consistent with those of adopted agency methodologies such as the Forest Service's Scenery Management System and the Bureau of Land Management's Visual Resource Management System approach where project-induced change is generally assessed against a given landscape's ability to accommodate change, which for the agencies, is basically manifested in the concluding management objectives (Scenic Integrity Objectives for the Forest Service and VRM Classes for the BLM). In the case of the Antelope-Pardee Draft EIR/EIS, the basic similarities between the Forest Service's Scenic Integrity Objectives, the BLM's VRM Classes in Alternative 5, and the VS/VC methodology on non-federal lands are clearly described in the text and clearly illustrated in the simulations. Factors contributing to the existing visual settings as well the factors contributing to the determination of project induced change (contrasts of form, line, color, and texture for the FS-SIO method, visual contrast analysis for the BLM-VRM method, and visual change analysis for the VS/VC method) are clearly identified.

E.18-16 This comment states that, on page C.15-35, the Draft EIR/EIS "Visual Resources chapter does not distinguish between the significance criteria that are applicable under CEQA and thus pertain to non-federal lands and the NEPA criteria that pertain to lands under the jurisdiction of federal agencies." In fact, all four criteria listed on page C.15-35 of the Draft EIR/EIS apply to all lands crossed by the proposed Project and alternatives regardless of managing agency (federal, State, or local government). The Draft EIR/EIS evaluates all visual impacts of the proposed Project and alternatives against all four criteria, regardless of jurisdiction.

Note that the State CEQA Guidelines Appendix G Environmental Checklist Form is provided as mechanism for Initial Study analysis of a project for California State and local agency projects. While it is standard practice to use the Appendix G questions as significance criteria in CEQA analyses, the use of such criteria is not a requirement. In fact, the commenter should be aware that the CEQA Guidelines indicates that it is the Lead Agency's purview to determine the thresholds of significance for analysis of impacts. The commenter is referred to State CEQA Guidelines Section 15064(b), which states:

> *The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data. An iron clad definition of significant effect is not always possible because the significance of an activity may vary with the setting. For example, an activity which may not be significant in an urban area may be significant in a rural area.*

In addition, as discussed in The Governor's Office of Planning and Research's (OPR) CEQA Technical Advice Series report *Thresholds of Significance: Criteria for Defining Environmental Significance*, "The threshold of significance for a given environmental effect is simply that level at which the Lead Agency finds the effects to be significant." The CPUC and USDA Forest Service determined the thresholds of significance for determination of impacts based on several factors including but not limited to similar recent and past projects in similar settings, commonly used criteria by both Lead Agencies, and project-specific data. Therefore, the significance criteria used for the analysis of visual impacts and throughout other technical issue areas sections of the document are valid as determined by the two lead agencies which prepared this EIR/EIS.

E.18-17 This comment asserts that the Visual Sensitivity/Visual Change Method does not account for "the existing character of the project setting (assume this means the existing Saugus-Del Sur 66-kV

transmission line) or a variable that measures the change in character that would result from development of the project." The ratings for Visual Change (VC) are assessments of the "change" from existing conditions. In fact, the existing character (or visual quality) of the project setting is discussed in every KOP location and throughout the area and project setting discussions in Section C.15. An example of this information is presented here, from page C.15-13 of the Draft EIR/EIS, for KOP 1: "The existing 66-kV towers, built in the 1930s, have weathered to a dark-brown color that is visually evident and draws attention when viewed against the blue sky or against the tan landscape. The existing electric transmission lines diminish the scenic integrity of this landscape, reducing what would otherwise be a high level of visual quality, especially when viewed in springtime with poppies in bloom." The proposed Project is the removal of existing 66-kV line and construction of a new 500-kV line in an existing ROW (for most of the 25.6-mile length). The presence of the existing transmission line facilities, including 66-kV lines from Mile 0.0 to 18.6 and 500-kV lines from Mile 20.6 to 25.6, are acknowledged throughout the setting and impact discussions and are shown in the visual simulations.

E.18-18 This comment asserts that "The VS-VC analytical outcome, 'impact significance' is not clearly defined and does not appear to have been developed in a rigorous way…" Impact significance is defined throughout Section C.15.2, leading to the establishment of significance criteria in Section C.15.3 on page C.15-35 of the Draft EIR/EIS. Further, determination of impact significance under the VS/VC method is clearly discussed in Section C.15.1 on pages C.15-2 and C.15-3 of the Draft EIR/EIS. Also, see response to Comment E.18-16, above.

E.18-19 This comment asserts that "Table C.15-1 entitled 'General Guidance for Review of Visual Impact Significance for Non-NFS Lands' appears to provide a framework for determining the VS-VC impact findings (page C.15-4 of the Draft EIR/EIS)." This comment fails to acknowledge the last two sentences of the statement on page C.15-3 of the Draft EIR/EIS, quoted below (emphasis added):

> "For the North Area and South Area (non-NFS lands), in order to accommodate the various State, county and city regulations presented later in this section (see C.15.2, Regulatory Framework), the visual analysis used a single methodology to determine the degree of impact significance. Visual impact significance is a function of two factors – overall visual sensitivity and visual change (VS/VC). Table C.15-1 illustrates the general relationship between visual sensitivity and visual change. **This table was used primarily as a consistency check between individual KOP evaluations. Determinations of visual sensitivity and visual change were based primarily on analyst experience and site-specific circumstances."**

The comment also questions the assumptions built into Table C.15-1 and their "real world validity." In fact there are no assumptions built into the table beyond the general observations stated in the text on page C.15-3 of the Draft EIR/EIS, above the table:

> "The relationships presented in Table C.15-1 are intended as a guide only, recognizing that site-specific circumstances may warrant a different conclusion. However, it is reasonable to conclude that lower visual sensitivity ratings combined with lower visual change ratings will generally correlate well with lower degrees of impact significance when viewed. Conversely, higher visual sensitivity ratings combined with higher visual change ratings will tend to result in higher degrees of visual impact occurring at the site."

Both of these observations should be intuitive. Rarely are visual impacts so clear cut as to have a high degree of visual change occurring in landscapes of high sensitivity. Prudent project siting efforts usually avoid such a circumstance (except in the instance of re-using an existing ROW that was established in the 1930s for a new transmission line to be built in the 21st Century). Thus, it falls to the professional analyst's judgment and site specific circumstances (as noted on page C.15-3 of the Draft EIR/EIS) to determine if those visual impacts that are adverse and potentially significant, rise to a level that are in fact sufficient to justify a finding of significance. Table C.15-1 is merely a graphical illustration of those common sense relationships and its genesis is based on over 30 years of experience in the conduct of visual impact analysis. Also, see the response to Comment E.18-16, above.

E.18-20 This comment asserts that under the VS/VC methodology, "…the Draft EIR/EIS fails to make a clear case for finding significant visual impacts as defined by CEQA" and that the VS/VC method used to identify impact significance considers "overall visual change rather than the more specific questions that CEQA poses about the degree of degradation of existing levels of visual character and visual quality." In fact, visual change is a summation of the visual degradation caused by increased visual contrast, project dominance, and view blockage. As stated on page C.15-3 of the Draft EIR/EIS:

> "Implicit in this rating methodology is the acknowledgment that for a visual impact to be considered significant, two conditions generally exist: (1) the existing landscape is of reasonably high quality and is relatively valued by viewers; and (2) the perceived incompatibility of one or more elements or characteristics of the Project tends toward the high extreme, leading to a substantial reduction in visual quality."

Also, see the response to Comment E.18-16, above.

E.18-21 This comment asserts that the need for many of the mitigation measures is not supported by the analysis, stating that 19 measures are recommended for the proposed Project and 4 additional measures are recommended for the alternatives. However, without being specific to which measures are deemed "unsupported" by the analysis, it is impossible to respond to this comment. Likewise, without mentioning which mitigation measures are deemed to be not "feasible," it is impossible to respond.

E.18-22 This comment asserts that two of the mitigation measures (V-1a and V-17a) fail to take into account SCE's standard practices of using dulled galvanized steel for lattice steel towers and non-specular, non-reflective/non-refractive insulators. It is assumed that "V-1a" is a typographic error because text further in this comment refers to Measure "V-1e" and "surface coatings" statements. In fact, these standard practices were taken into account. Especially regarding lattice steel towers, the use of dulled galvanized steel does not blend into the landscape in many situations as described in detailed analysis of numerous KOPs. Galvanized steel is light gray or silver in color; it is not dark gray, brown, black, blue, or green. Dulled galvanized steel has a roughened texture but remains light gray or silver in color. When new 500-kV towers are seen at foreground viewing distances with a dark green landscape backdrop, such as KOP 3, dulled galvanized steel towers and new 500-kV conductors would stand out and be very noticeable, as described on page C.15-40 of the Draft EIR/EIS.

> "Visual contrast of the larger vertical, complex structures would range from moderate-to-high in a landscape that is dominated by horizontal to rolling natural landforms, and is largely a result of the structures' increased size and silver-gray color in contrast with the backdrop of darker green vegetation. The color contrast caused by the sun's reflection off the structures would depend on ambient lighting conditions and time of day."

The assertion that SCE's 500-kV conductors do not reflect light is not substantiated by any evidence and, in fact, Figure C.15-8A – Existing Visual Condition as seen from KOP 6 clearly illustrates that existing 500-kV conductors are visible when viewed against a dark green landscape. The sagging lines of the conductors draw attention to the existing 500-kV transmission towers of the existing Midway-Vincent No. 1 & 2 lines.

This comment also asserts that "painting can create environmental and operational issues." First mentioned on page C.15-39 of the Draft EIR/EIS, Mitigation Measure V-1e does not recommend "painting," but rather recommends "Treat Surfaces with Appropriate Colors, Finishes, and Textures." Rather than describe the methods of attaining this visual resource goal, Mitigation Measure V-1e describes the desired end result.

E.18-23 Establishment of significance criteria is the responsibility of the Lead Agencies, which have chosen to consider conflicts with adopted city, county, State, and federal plans as significant impacts. Because the Lead Agencies have the exclusive responsibility to determine the significance of impacts, the significance criteria presented in Section C.15.3 of the EIR/EIS are legitimate and provide a valid basis for determining impact significance. The CPUC is not obligated to follow the criteria presented in Appendix G of the State CEQA Guidelines nor is Appendix G intended to be used as the sole basis for determining impact significance. See the response to Comment E.18-16, above.

This comment objects to Mitigation Measure V-16c, which recommends the preparation of "an additional siting study that provides a detailed analysis of the least visually impacting location for a new 500-kV transmission line from Antelope Substation to Pardee Substation." The measure is presented with the intent to comply with the Scenic Integrity Objectives of the Forest Management Plan to the maximum degree feasible. Therefore, Mitigation Measure V-16c recommends refinement of tower siting to minimize visual impacts in the ANF. The measure is appropriate to the identified impact. Of course, like all mitigation measures, Mitigation Measure V-16c can only require changes that are feasible and is not intended to require any modifications to the project that are not feasible.

Regarding the statement that questions the legitimacy and validity of the "High" Scenic Integrity Objective assigned in the Forest Management Plan, please refer to the response to Comment E.32-1.

Regarding the "letter related to the Devers-Palo Verde 2 transmission line" asserting that the San Bernardino National Forest assigned the Very High SIO "in error," and the contention that this letter somehow relates to the Antelope-Pardee Transmission Line Project, please refer to the response to Comment E.32-4, below.

E.18-24 This comment asserts that visual impacts of most alternatives have not been fully analyzed and that the "analysis does not conform to the requirements of the National Environmental Quality Act that an equal level of analysis be given to the proposed project and each of the alternatives considered."

It is assumed that the commenter is referring to the National Environmental Policy Act (NEPA). In fact, the visual analysis gives equal consideration and attention to the proposed Project and all five alternatives. In this comment, particular concern and criticism is aimed at Alternative 2, and concern is expressed that only two simulations were prepared for Alternative 2 rather than four simulations which were prepared for the proposed Project. Based on more than 30 years professional experience in visual resource management and impact assessment, it is clearly possible to assess visual impacts without a visual simulation. As described on pages C.15-77 through C.15-81 of the Draft EIR/EIS, visual effects of Alternative 2 are fully analyzed. Likewise, visual effects of Alternatives 1, 3, 4, and 5 are fully analyzed in other parts of Section C.15 of the Draft EIR/EIS.

E.18-25 This comment asserts that "another set of important views that require simulation are the views across Bouquet Reservoir from Spunky Canyon Road…." While it would be possible to prepare such simulations, which would show significant, unavoidable visual impacts for the proposed Project as well as for Alternative 2, it is not necessary. Based on professional experience and use of simulations already prepared for the proposed Project and alternatives, it was possible to determine the visual effects of Alternative 2 in the environs of Bouquet Reservoir. Quoting from page C.15-79 of the Draft EIR/EIS:

> "Additionally, some relocated towers and conductors would be skylined, especially as seen from Spunky Canyon Road and Upper Bouquet Canyon Road (further east of KOP 6 and not simulated) as the conductors cross overhead. Because of this skylining, the predicted scenic integrity level for the 500-kV transmission line meets the definition of Unacceptably Low Scenic Integrity because the relocated steel lattice tower structures and conductors that would be visible would not borrow form, line, color, texture, or scale from the natural-appearing landscape character. The resulting visual impact of Alternative 2 would be four levels below the High Scenic Integrity Objective. Without mitigation, Alternative 2 would adversely affect different scenic vistas seen from Spunky Canyon Road and Upper Bouquet Canyon Road and would substantially degrade the existing natural landscape character and scenic quality. This would be a significant impact, similar to Impact V-6, but at a different location."

Because the proposed Project and the five alternatives would be visible from thousands of different and important vantage points, it is impractical to prepare a new visual simulation for each vantage point. However, it is possible to prepare visual effect predictions for these different and important vantage points, with confidence in their accuracy. This same level of confidence in visual effect predictions allows other alternatives to be evaluated without preparing additional visual simulations.

E.18-26 This photograph and caption explain the view from Bouquet Canyon Road with Jupiter Mountain in the background.

E.18-27 This photograph and caption show the view from Bouquet Canyon Road toward the turnout at KOP 6, with the mountains of Leona Divide defining the skyline in the background. The assertion that "the chain link fence obscures the view toward the hills in the background" is false, and as explained in RTC E.18-12 above, when traveling on Bouquet Canyon Road, the chain link fence becomes transparent, especially if attention is focused on the background mountains.

E.18-28 This photograph shows the existing visual condition as seen from KOP 6.

E.18-29 This photograph shows the view of the turnout at KOP 6, and contrary to the assertion in this comment, there is no signage at the turnout that prohibits public viewing; it is a commonly used turnout. The assertion that the photo used in the Draft EIR/EIS was taken through the fence is correct, and this vantage point was selected with full support from and direction of the Forest Landscape Architect in order to represent the very important viewshed that would be affected by the Project.

E.18-30 This photograph shows a close-up view of the signage at the turnout, but contrary to the assertion that this sign would prohibit public use and enjoyment of the turnout, which it does not, the sign communicates "no trespassing, parking, dumping." Common sense dictates that this reservoir can be enjoyed for its scenic attributes without climbing over the fence and entering the water. Stopping at the turnout to enjoy the view, or to analyze the proposed Project, is not prohibited; only trespassing, parking, dumping is prohibited.

E.18-31 The caption for this photograph contends that the chain link fence dominates the view. That contention is left to the decision makers to decide. It can be argued that the chain link fence is transparent if attention is drawn to the middleground and background mountains.

E.18-32 The photograph at E.18-32 does not meet "the accepted professional standards for creating photographic images that are equivalent of what is seen by the human eye." This photograph is an excellent example of the distortion that occurs when 1) a wide-angle lens is used, 2) a photograph is reduced in size to fit onto an 8 ½ x 11 page, and 3) a photograph is cropped to fit into an area with dimensions wider than tall and different than the 3x2 proportions of a 35mm camera. However, no substantiation is given to the parameters of the photograph at E.18-32, which leads to a false assertion about the visual effects Alternative 2. In fact, the EIR/EIS describes this view, without representing it in a photograph or a simulation, and predicts that the visual effects would be significant, as quoted above in E.18-25. Also, please see response to Comment E.18-3, above.

E.18-33 The photograph at E.18-33 shows Existing Visual Conditions as seen from KOP 5, and asserts that "This view is taken from one of the few points along the road where there are no transmission towers in the foreground." This assertion is not based in fact, and is not supported by any maps or additional photographs, and therefore, can be dismissed. In fact, based on numerous site visits and study of aerial photographs and topographic maps, it can be said that there are many locations along San Francisquito Canyon Road where there are NO transmission towers in the foreground.

E.18-34 The photograph at E.18-34 is an accurate representation of the existing foreground view and Unacceptably Low Scenic Integrity Level that exists on NFS lands along San Francisquito Canyon Road. As stated in the response to Comment E.18-14 above, the presence of multiple infrastructures (500-kV, 1000-kV transmission lines and a pipeline) in the foreground of San Francisquito Canyon Road do not justify the introduction of a new 500-kV transmission line on Del Sur Ridge in the middleground view from KOP 5. The proliferation of large transmission lines would create additional visual impacts, and this is well represented in the photograph at E.18-34, where existing visual conditions clearly do not meet the Forest Service HIGH SIO.

E.18-35 The photograph at E.18-35 shows another view from Bouquet Canyon Road, and speaks to the location of Alternative 2 in this photograph. The same comments on the lack of "accepted professional standards" regarding photograph size, proportion, scale, and accuracy are applicable to this photograph and without repeating them, all the comments from the response to Comment E.18-

32, above, are applicable here. Notwithstanding the inaccuracies of the photograph presented here, the visual effects of Alternative 2 are fully and accurately analyzed in the EIR/EIS.

For all these reasons enumerated above, changes recommended by SCE comments have not been incorporated and additional simulations have not been prepared.