3.18 Visual Resources

Visual Resources, as referred to in National Environmental Policy Act (NEPA), refers to the components of the environment as perceived through the visual sense only. Aesthetics, as referred to in the California Environmental Quality Act (CEQA), refers to visual considerations in the physical environment. Because a person’s reaction and attachment to a given viewshed are subjective, visual changes inherently affect viewers differently. Accordingly, visual resource and aesthetics analysis is a systematic process to logically assess visible change in the physical environment and the anticipated viewer response to that change. The Visual Resources section of this Draft Plan Amendment, Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR) describes the existing landscape character of the Alta East Wind Project (AEWP) area, existing views of the area from various on-the-ground vantage points, the visual characteristics of the AEWP, and the landscape changes that would be associated with the construction and operation of the AEWP, as seen from various vantage points. The analysis in this section utilizes, in part, the Alta East Wind Project Supplemental VRM Analysis, prepared by CH2M Hill (CH2M Hill, 2012). The complete text of this Supplemental VRM Analysis is provided as Appendix E.

3.18.1 Environmental Setting

3.18.1.1 Regional Setting

The AEWP is located in eastern Kern County in the northern Antelope Valley, a broad level valley in the westernmost portion of the Mojave Desert at its boundary with the foothills of the Tehachapi Mountains. The AEWP site occupies a portion of those foothills, called the Horned Toad Hills, and forms a part of the larger Tehachapi Wind Resource Area (TRWA).

3.18.1.2 Approach to Baseline Analysis

Because portions of the proposed AEWP occupy federal lands administered by the BLM, this visual analysis is based on the BLM Visual Resource Management (VRM) System (USDI, 2011). In addition, because the VRM method provides an accepted system of visual analysis applicable to non-BLM lands as well, the VRM method is applied in this study to the entire AEWP, including portions of the AEWP outside of BLM jurisdiction, for the sake of consistency. The VRM system is broadly consistent with the requirements of both NEPA and CEQA for purposes of environmental review.

Under the VRM system, the affected setting is evaluated in terms of its scenic quality, the sensitivity of viewers in the setting to visual change, and distance of viewers to areas within the setting. The study area is delineated into areas based on these criteria, and the evaluation is then expressed in terms of four visual resource inventory (VRI) classes assigned to those areas. The assigned visual inventory classes represent objectives for allowable project contrast in each area as follows:

- Class I: (Special designation scenic management areas) No contrast allowable.
- Class II: Weak contrast. Project contrast can be seen but does not attract attention
- Class III: Moderate contrast. Project contrast begins to attract attention and begins to dominate the characteristic landscape
- Class IV: Strong contrast. Project contrast can demand attention, will not be overlooked, is dominant in the landscape

Under BLM Handbook H-8400 guidelines, VRI classes are assigned according to the following table, showing possible levels of visual sensitivity, scenic quality, and distance zone:
Table 3.18-1. Determining Visual Resource Inventory Classes

<table>
<thead>
<tr>
<th>Special Areas</th>
<th>Visual Sensitivity Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Scenic Quality</td>
<td>I</td>
</tr>
<tr>
<td>A</td>
<td>II</td>
</tr>
<tr>
<td>B</td>
<td>III</td>
</tr>
<tr>
<td>C</td>
<td>IV</td>
</tr>
<tr>
<td>F/m b S/s</td>
<td>F/m</td>
</tr>
</tbody>
</table>

Notes: f/m = foreground/middleground (3 –5 miles)
B = background (5 – 15 miles)
S/s = seldom seen (beyond 15 miles)
Source: BLM Handbook H—8410-1

Because the California Desert District was not previously assigned VRM classes in the BLM’s California Desert Conservation Area Plan (CDCA Plan), Interim VRM Classes are required to establish the resource baseline in accordance with the BLM Handbook. VRI classes were developed for the AEWP based on VRM guidance in BLM Handbook, section H-8410 as described above. The development of these VRI classes is described in the *Alta East Wind Project Supplemental Visual Resource Management (VRM) Analysis* prepared by CH2MHiIl, 2012 and this study appears in Appendix E of this Draft EIS/EIR.

The VRI classes of the VRM analysis were then used by BLM to define Interim VRM (IVRM) Classes for the AEWP area. IVRM classes represent the applicable visual management objectives for affected BLM lands in the AEWP study area. IVRM Classes reflect the VRI analysis in the context of land use allocations in the Resource Management Plan (CDCA Plan), and other applicable agency and district resource management objectives. In this case IVRM Class IV objectives were adopted for the entire AEWP area after a detailed review of site constraints and consideration of agency land management priorities in areas, such as the AEWP site, identified as having high wind energy potential (BLM, 2009).

### 3.18.1.3 Viewshed and Key Observation Points

Due to the level topography in the Antelope Valley floor, viewsheds of wind turbines located atop adjacent ridges in the Tehachapi Mountain foothills tend to extend over a large area. A more relevant consideration in evaluating project viewsheds is the location, number and sensitivity of potential viewers to the project. Concentrations of viewers with exposure to the AEWP would include motorists on Highway 58; a small number of residences and commercial uses north of Highway 58 near KOP 2; hikers on the Pacific Crest Trail (PCT); and a very small number of rural residences to the south of the AEWP.

The location of Key Observation Points (KOPs) discussed below are depicted in Figure 3.18-1.

**Key Observation Points (KOPs)**

Note: The KOPs listed below are the same for all Alternatives in this analysis. Two KOPs in the VRM analysis, KOPs 4 and 6, are omitted from this discussion because the same areas and issues of the AEWP are adequately addressed from the included KOPs.

As described in Section 3.4 (Cultural Resources) and Section 5 (Consultation, Coordination, and Public Involvement), BLM will consult with Indian Tribal governments to identify issues regarding the AEWP, including issues related to the presence of cultural properties, access rights, disruption to traditional cultural practices, and impacts to visual resources important to the Tribe(s).
Key Observation Point 1 (KOP 1) – View Looking East from Pacific Crest National Scenic Trail

KOP 1 is taken from the PCT at a distance of 1.2 miles from the nearest proposed turbine of the AEWP. The KOP is taken from a worst-case elevated point on the scenic trail overlooking the AEWP site and proposed turbines, representative of a short segment of the trail nearest the AEWP site. The KOP presents a good overview of the AEWP site, although visibility of the AEWP would be less on other portions of the PCT due to greater distance and intervening terrain. The turbines visible in the view from this KOP would be located within BLM lands, and are assigned IVRM Class IV. Highway 58 and portions of the Community of Mojave are visible in the pass and valley floor in the distance. The KOP, also located on BLM-administered land, was not inventoried or classified in the visual study leading to AEWP IVRM classifications, but has a higher level of scenic quality and visual sensitivity than the visible portions of the AEWP site. However, under BLM VRM practice, the relevant visual management objective is typically that of the site being viewed, rather than that of the viewpoint. The applicable Scenic Quality class from this KOP is B.

Key Observation Point 2 (KOP 2) – View looking northwest from within rural-residential county lands north of Highway 58 in Tehachapi Pass.

KOP 2 represents the view from a small rural residential settlement located north of Highway 58 at the eastern entrance to Tehachapi Pass. Viewing distance to the nearest proposed turbines would range from very near foreground distance (under 0.25 mile) to over one mile. The KOP is not within BLM land, but is within the same area as the adjacent portions of the site, delineated as the Tehachapi Pass landscape unit and assigned IVRM Class IV. The adjacent Tehachapi Mountain slopes and ridges form a generally scenic and intact natural backdrop in views to the west, although scars of a nearby quarry are also visible at foreground distance on slopes to the northwest. Other existing man-made visual intrusions in the Tehachapi Pass viewshed include roadway lanes and large road cuts of Highway 58, engineered embankments of the UPRR railroad line, roadside commercial development, and existing wind development. The applicable Scenic Quality class from KOP 2 is B.

Key Observation Point 3 (KOP 3) – View looking southeast from within rural-residential county lands north of Highway 58 in Tehachapi Pass.

KOP 3 is a view from the same rural settlement as KOP 2, looking into the pass over Highway 58, toward portions of the AEWP site to the south of the highway. The view is representative of views within the highway corridor in this portion of the pass generally. Viewing distance to the nearest proposed turbines would be as little as 0.5 mile. The KOP is not within BLM land, but is within the same area as the adjacent BLM portions of the AEWP site, delineated as the Tehachapi Pass landscape unit and assigned IVRM Class IV. Although located within the same landscape unit as KOP 2, views into the highway corridor such as this look upon a compromised landscape dominated by the highway, large road cuts, the existing railroad line and embankments, billboards and other development within the settlement. The applicable Scenic Quality class within this view is C.

Key Observation Point 5 (KOP 5) – View looking northwest from Highway 14/Highway 58 interchange

KOP 5 is located at the Highway 14/Highway 58 interchange at a distance of 3 miles or more from the nearest proposed turbines, at portions of the AEWP site located on BLM lands in the Horned Toad Hills. Portions of the AEWP site in this view are located within the Tehachapi Pass landscape unit, assigned IVRM Class IV; others are within the Tehachapi Foothills unit, also assigned IVRM Class IV. Extensive existing wind development is visible in the left (westernmost) portions of the view, extending to the ridge tops where turbines break the skyline of the ridge top. The existing wind development compromises the quality of views in this western quadrant of the landscape. Due particularly to that intrusion of existing wind development, the applicable Scenic Quality class within this view is C. The view is representative
of northwest-bound motorists looking west toward the foothills and Tehachapi Pass at middle-ground distance.

*Key Observation Point 7 (KOP 7) – View looking north from Oak Creek Road/Highway 58 Overpass in Mojave*

KOP 7 is taken from the elevated Oak Creek Road overpass west of the Community of Mojave at a distance of three miles or greater from the AEWP site. The KOP is representative of views from the Community of Mojave, and provides an overview of both the existing and proposed landscape as seen in views toward the AEWP site. Extensive wind development of the TWRA is visible in the foothills and valley, lending an industrial character to the view. Portions of the AEWP visible within the view are predominantly within the Tehachapi Foothill landscape unit, with the nearest portions of the site within BLM lands in the Antelope Valley Desert Floor landscape unit. All areas are assigned IVRM Class IV. Due particularly to intrusion of existing wind development in these views, the applicable Scenic Quality class is C.

### 3.18.2 Applicable Regulations, Plans, and Standards

#### 3.18.2.1 Federal

*Bureau of Land Management California Desert Conservation Area (CDCA) Plan*

The CDCA Plan is the BLM’s land use plan applicable to the AEWP. Visual impacts of projects within BLM lands are evaluated under the Visual Resource Management (VRM) method as described in BLM Handbook 8400 et seq. The CDCA Plan however did not include VRM baseline mapping or delineation of Visual Resource Management Classes. Under these circumstances BLM requires that interim VRM (IVRM) Classes be assigned and adopted to evaluate project visual conformance with the CDCA Plan as described above. The affected BLM lands are designated Multiple-Use Class L (Limited Use) in the CDCA Plan.

*Federal Aviation Administration (FAA)*

The Federal Aviation Administration (FAA) regulates airspace and flyways for air travel. The FAA requires preparation of a Notice of Proposed Construction or Alteration (Form 7460-1) describing the project design and addressing compliance with FAA procedures. The notice must also include the final locations of structures, structure types, and structure heights. The FAA may then conduct its own study of the project and make recommendations to the proponent regarding possible airway marking, lighting, and other safety requirements (FAA 2005).

The FAA regulates regional airspace jurisdiction for the Edwards Air Force Base, which is located 25.5 miles southeast of the easterly boundary of the AEWP site, and China Lake Naval Weapons Center, which is 60 miles northeast of the property. Therefore, AEWP compliance with FAA regulations was considered in this analysis (FAA 2010).

#### 3.18.2.2 State

*California Scenic Highways Program*

The California Scenic Highway Program preserves and protects scenic highway corridors from changes that would diminish their aesthetic value. The California Department of Transportation (Caltrans) designates scenic highway corridors and establishes those highways that are eligible for the program. The program was created in 1963 with the enactment of the State Scenic Highways Law. The street and highway code includes a list of those highways that are either eligible for designation or are designated (California Scenic Highway Mapping System 2010).
The AEWP site is not within the viewshed of any Designated State Scenic Highway. The nearest Officially Designated State Scenic Highway to the AEWP site is SR-2, the Angeles Crest Highway, more than 45 miles to the southeast of the AEWP site in Los Angeles County. The Scenic Highway Program identifies SR-14 north of Mojave and SR-58, east of their intersection 3 miles east of the AEWP site, as Eligible State Scenic Highways, which is distinct from an official scenic designation. However, the highways are not designated and have not been nominated. Therefore, AEWP compliance with the California Scenic Highway Program was not considered in this analysis. Worst-case views from eligible portions of both SR-14 and SR-58 would be essentially similar to the view represented in KOP 5 of this analysis, as presented in Section 4.18.

### 3.18.2.3 Local

**Kern County General Plan (KCGP)**

The AEWP boundaries are located predominately within the KCGP with portions within the Mojave Specific Plan and Cache Creek Interim Rural Community Plan areas. The Mojave Specific Plan and the Cache Creek Interim Rural Community Plan do not contain policies specific to visual resources. Therefore, the AEWP would be subject to the policies and measures of the KCGP as listed below.

*Chapter 1. Land Use, Open Space, and Conservation Element*

- **Policy 47.** Ensure that light and glare from discretionary new development projects are minimized in rural as well as urban areas.
- **Policy 48.** Encourage the use of low-glare lighting to minimize nighttime glare effects on neighboring properties.
- **Implementation Measure AA.** The County shall utilize CEQA Guidelines and the provisions of the Zoning Ordinance to minimize the impacts of light and glare on adjacent properties and in rural undeveloped areas.

*County Zoning Ordinance (Title 19), Chapter 19.64: Wind Energy (WE) Combining District*

The WE Combining District (Chapter 19.64) contains development standards and conditions (Section 19.64.140) that would be applicable to the siting and operation of WTGs. The following provisions apply to aesthetics and visual resources issues related to the AEWP.

- **B.** Towers and blades shall be painted a nonreflective, unobtrusive color or have a non-reflective surface.
- **D.** All on-site electrical power lines associated with wind machines shall be installed underground within one hundred fifty (150) feet of a wind turbine and elsewhere when practicable, excepting therefrom “tie-ins” to utility type transmission poles, towers, and lines. However, if project terrain or other factors are found to be unsuitable to accomplish the intent and purpose of this provision, engineered aboveground electrical power lines shall be allowed.
- **G.** Wind generator machine and associated meteorological tower overall height shall not exceed six hundred (600) feet and is subject to Section 19.08.160.B. For the purposes of this chapter, machine height shall be measured as follows:
  1. Overall machine height of horizontal axis machines shall be measured from grade to the top of the structure, including the uppermost extension of any blades.
  2. Machine height of vertical axis or other machine designs shall be measured from grade to the highest point of the structure.
I. One (1) project identification sign, located at each point of project ingress and egress, not to exceed thirty-two (32) square feet in area, may be erected on the project site. No other signs shall be installed other than safety signs and the required warning signs. The developer shall submit a sign elevation drawing to the Planning Director for review and approval prior to installation.