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5.13 Visual Resources

5.13.1 Introduction

This section of the Application for Certification (AFC) discusses the existing condition of visual resources of the landscape surrounding the Applicant's (Hydrostor, Inc.) Pecho Energy Storage Facility (Pecho) proposed Advanced Compressed Air Energy Storage (A-CAES) facility in San Luis Obispo (SLO) County, California (the Project) and the potential visual impacts associated with its construction and operation.

For this study, visual resources refer to the natural and cultural landscape features that comprise the landscape surrounding the Project as well as their qualities and contribution to landscape character. Natural landscape features include landforms, water features, and vegetation. Cultural landscape features include buildings, roadways, structures, and artificial lighting related to human land uses. The quality of the visual environment has value to individuals, society, and the economy of a region, particularly in an area where scenic landscapes provide the backdrop for tourism and recreational activities.

This section evaluates whether there is a potential for the visibility and visual characteristics of Project components and activities to significantly change the visual quality of the existing landscape setting surrounding the Project. Land clearing, landform modifications, and the erection of built structures (i.e., Project facilities, reservoir, and an overhead transmission line) that may result in visual disturbance and alterations during construction and operations are evaluated to determine whether they are inconsistent with the current character of the landscape setting.

This section was prepared following California Energy Commission (CEC) guidelines for preparing visual impact assessments for Applications for Certification (CEC 2021). The analysis also conforms with the documentation requirements of the California Environmental Quality Act (CEQA) (CEQA 2019).

Section 5.13.2 describes existing visual quality in the Project area. Section 5.13.3 documents the methods used to prepare this visual assessment, as well as potential environmental effects as they relate to visual resources.

Section 5.13.4 discusses the potential cumulative impacts of this and other projects in the area. Section 5.13.5 summarizes the mitigation measures proposed to address potential Project impacts on visual resources. Section 5.13.6 describes the applicable laws, ordinances, regulations, and standards (LORS) relevant to visual resources. Section 5.13.7 lists agencies involved and agency contacts, and Section 5.13.8 discusses permits. Section 5.13.9 lists the references used in the preparation of this section.

Figure 5.13-1 provides a map showing the general Project location within a regional landscape context. Figure 5.13-2 illustrates the results of viewshed analysis and viewing distances zones. Figure 5.13-3 shows the locations selected as key observation points (KOPs) and light receptor locations representative of sensitive public viewing areas. The existing and simulated viewing conditions of the Project area from the selected KOPs are presented in Appendix 5.13A, Landscape Photographs and Simulations.

Figure 5.13-1: Project Location

Figure 5.13-2: Viewshed and Viewing Distance

5.13.2 Affected Environment

5.13.2.1 Regional Setting

The Pecho project site is located in the Coastal Zone of unincorporated San Luis Obispo (SLO) County (the County), approximately 1.4 miles east of the City of Morro Bay, California. The regional landscape is characterized by a relatively flat alluvial plain in the western portion of the Chorro Valley bounded to the north by rolling hills, and to the south by rugged, mountainous terrain. Regional topographical features include a series of volcanic mountains (the Nine Sisters of the Morros) which are spread between the cities of Morro Bay and San Luis Obispo. These include Morro Rock (578 ft elevation) and Black Hill (661 ft elevation) to the west of the Project site, and the adjacent Cerro Cabrillo (911ft elevation) and Hollister Peak (1,404 ft elevation). Chorro Creek runs along the northern boundary of the Project site and divides the approximately 300-acre agricultural parcel on which the approximately 80-acre Project site is located. Three smaller tributaries (Little Morro Creek, San Bernadino Creek, San Luisito Creek) incise drainages in the hills to the north of the Project area. Natural vegetation in the area is dominated by a mixture of grasslands, riparian areas, oak woodland, and chaparral shrubland.

Morro Bay State Park, a 2,700-acre scenic conservation and recreation area, is located adjacent to the Pacific Ocean immediately south of the City of Morro Bay, with the park boundary extending within approximately ¼ mile southwest of the Project. The Park has an extensive network of hiking trails, including access to Cerro Cabrillo peak. Recreational trails also occur on Black Hill to the west of the Project site. Hollister Peak is not open to the public. Morro Rock, located approximately 3.5 miles to the west of the Project, is a historical landmark (i.e., California Historical Landmark #821).

Communities within the region include the City of Morro Bay, the City of San Luis Obispo, and Baywood-Los Osos. Land uses patterns surrounding the Project include open areas of agricultural and undeveloped land, commercial facilities (i.e., Bayside Care Center), and rural residential areas. The region is intersected by State Route (SR) 1, a four-lane highway that is designated as a national scenic byway and a state scenic highway. There are several paved local roads near settlement areas and gravel roads that access agricultural areas in the region. Existing 115 kilovolts (kV) and 230 kV Pacific Gas and Electric Company's (PG&E) transmission corridors overlap the region and connect with the existing substation at the Morro Bay Power Plant in the City of Morro Bay.

The landscape surrounding the Project is primarily natural or agricultural land use and therefore has limited sources of artificial light at nighttime. The nighttime viewing conditions are influenced by existing lighting from rural residences, and ambient lighting from nearby communities and industrial areas (i.e., City of Morro Bay, Baywood-Los Osos). No street lighting exists along local roadways although cars and trucks are a potential source of temporary light.

5.13.2.2 Project Site

The Project site covers approximately 80 acres situated at an elevation of approximately 51 feet above sea level with relatively flat terrain. The site is bounded on the north by a meandering strip of riparian vegetation along Chorro Creek and to the south by a ridgeline between Cerro Cabrillo and Hollister Peak. The site is currently utilized for agricultural purposes with some associated agricultural structures on the property and properties nearby. Agricultural lands extend beyond Chorro Creek and border SR-1 approximately 0.25 miles to the north. The Project site will be accessed by an improved site access road beginning at the intersection of San Bernardo Creek Road and Quintana Roads and will include a new bridge crossing at Chorro Creek to the main entrance on the north side of the facility.

The 230 kV transmission line route would extend from the Project site and interconnect at the PG&E Morro Bay substation to the northwest and will parallel an existing PG&E transmission corridor. This would involve an approximately 3.8-mile transmission line route (Preferred Route). Alternative routing is also proposed slightly further to the north than the Preferred Route (Alternate 1 and Alternate 2). The transmission line routes are considered to be preliminary and subject to change.

The Project site and transmission line route options considered in this visual assessment (i.e., Preferred Route and Alternate 1) are illustrated in Figure 5.13-1.

Potential viewing opportunities near the Project site include rural residential and agricultural properties and views from SR-1, local roadways (e.g., Canet Road, Quintana Road, San Luisito Creek Road), and surrounding recreational trails. Potential viewing opportunities near the transmission line routes include rural residential properties and residential neighborhoods in the eastern portion of the City of Morro Bay. Views for affected receptors would consist largely of expansive views over the natural and rural agricultural landscape surrounding the Project site and would include evident roadways, transmission lines, rural residences, and background views of surrounding hills and mountains.

5.13.2.3 Construction Laydown Area

Temporary construction facilities will include approximately 40 acres of land to the northwest of the Project site and south of California State Route SR-1. This will include areas for construction laydown, worker parking as well as temporary topsoil storage. Temporary disturbances of this area will be mitigated after construction. The construction laydown area is illustrated in Figure 5.13-1.

5.13.2.4 Project Assessment Area

Spatial boundaries used for this visual assessment are based on the extent of area anticipated to experience direct and indirect visual effects from the Project. The assessment area boundaries considered the results of the visibility analysis and viewing distances which affect the level of visible detail in the landscape that may be perceived by viewers; where visual elements of the landscape are more discernible and prominent the closer they are to the observer.

5.13.2.4.1 Project Viewshed and Visibility

Visibility analysis identifies areas across a landscape that can be seen from one or more observation points, also known as a ‘viewshed’. A direct line-of-sight exists between each location within the viewshed and the viewpoint from which the viewshed was generated. Visibility analysis was performed using a geographic information system (GIS) and digital data to model the physical terrain surrounding the Project to define the general area from which the Project would be theoretically visible. The result of the visibility analysis is illustrated in Figure 5.13-2.

Viewing distance zones were measured outward from the Project footprint and include foreground, middle-ground, and background distance zones (FWHA 2015). The foreground viewing zone is defined as the distance of within 0.5 miles, the middle-ground viewing zone is defined as the distance of 0.5 to 3 miles from the Project. The assessment of Project effects was focused on foreground and middle-ground zones as this is where details in the landscape are most noticeable to the viewer and objects generally appear as distinct shapes and forms within the setting. As viewing distance from the Project increases, visible detail and sensitivity to alteration generally decrease. The background viewing zone is defined as the distance beyond 5 miles from the Project where details in the landscape are generally less discernable to the viewer and objects begin to blend with the existing setting. Viewing distance zones are illustrated in Figure 5.13-3.

Figure 5.13-3: Key Observation Point and Light Receptor Locations

5.13.3 Environmental Analysis

5.13.3.1 Analysis Procedure and Methodology

5.13.3.1.1 Regulatory Setting

A review of existing relevant LORs was conducted to understand the regulatory context for visual resource management surrounding the Project. This a review of applicable federal, state, and local policies and regulations including the National Scenic Byways Program, California Environmental Quality Act, California Scenic Highways Program, California Coastal Act, County of San Luis Obispo Local Coastal Program and Ordinances, County of San Luis Obispo Municipal Code, and the City of Morro Bay Local Coastal Program. These are detailed in Section 5.13.6.

5.13.3.1.2 Photographic Survey

Potential representative viewing locations were identified from the results of the visibility analysis (Section 5.13.2.4.1) and the overlay of datasets detailing the location of communities and residential property, roadways, recreational resources (e.g., recreation sites and trails), and other land uses. The identification of potential viewing locations was used to support the gathering of photos of the landscape during a photographic field survey.

A photographic field survey was used to gain an on-the-ground familiarity with the visible area of the Project from an observer's perspective, to confirm the validity of potential viewpoints from initial visibility analysis, and to gather photographic images and related geographic data for each viewpoint. Photographs of daytime viewing conditions were taken by Golder Associates Ltd. (Golder) field staff during a field survey conducted between July 10th and 11th, 2021.

Photographic survey locations were visited that represent public viewing opportunities related to tourists and residents, recreational users, and motorists. At each surveyed viewpoint location, landscape photographs were captured, and observational information of viewing conditions was recorded. Photographs were taken using a digital camera with a focal length of 50 millimeters (mm) which is consistent with the view perceived by the human eye (Landscape Institute 2019). For each surveyed viewpoint field staff also completed an observation log describing geographic information gathered using a global positioning system (GPS), camera settings, and details about viewing conditions. Landscape photographs and observation log information is provided in Appendix 5.13A.

5.13.3.1.3 Key Observation Points

Because it is not feasible to analyze all potential viewing opportunities surrounding the Project, it is necessary to select several KOPs to represent the range of viewers and viewing conditions that would potentially be affected by the Project. The following criteria were used to identify representative KOPs:

- proximity to features that provide publicly accessible viewing, including roads, trails, waterbodies, parks, and recreation amenities near residential areas;
- ease of access and use by a range of viewer/user groups, including recreational users, tourists, motorists, and residents;
- representation of a range of viewing angles and distances; and
- the potential for unobstructed views of the Project

Seven KOPs were selected for evaluation of existing visual quality and analysis of the Project's potential visual effects. KOPs and the rationale for their selection are summarized in Table 5.13-1. The location of KOPs is illustrated in Figure 5.13-3.

Table 5.13-1: Key Observation Points

Key Observation Point		Rationale
KOP1 - Cerro Cabrillo		■ represents the view of recreational users ■ within middle-ground[(a)] viewing distance of the Project site (~0.55 miles) ■ view from the west (90º)
KOP2 - Canet Road		■ represents the view of residents, local motorists, and agricultural workers ■ within foreground viewing distance of the Project site (~0.35 miles) ■ view from the northeast (250º)
KOP3 - Quintana Road		■ represents the view of residents and local motorists ■ within middle-ground viewing distance of the Project site (~0.68 miles) ■ view from the northwest (135º)
KOP4 - San Luisito Creek Road / State Route-1		■ represents the view of residents, local motorists, and regional travelers on SR-1 northbound ■ within middle-ground[(a)] of the Project site (~0.51 miles) ■ view from the northeast (250º)
KOP5 - State Route-1 Southbound		■ represents the view of local motorists and regional travelers ■ within the foreground of the Project site (~0.25 miles) ■ the view from the north (185º)
KOP6 ([b]) - State Route-1 Southbound / San Bernardo Creek Road	KOP6a	■ represents the view of local motorists, and regional travelers on SR-1 southbound looking towards the Project site ■ within middle-ground of the Project site (~0.56 miles) ■ the view from the north (160º)

Key Observation Point		Rationale
	KOP6b	■ represents the view of local motorists and regional travelers on SR-1 northbound looking towards the transmission line ■ the view within the foreground of the transmission line route (0.12 miles) ■ the view from the east (260º)
KOP7 - Little Morro Creek Road		■ represents the view of residents and local motorists ■ the view within the foreground of the transmission line route (0.13 miles) ■ the view from the northwest (150º)

Notes: a) Viewing distance at this location is on the boundary between foreground and middle ground viewing distance zones
b) There are two viewing angles from KOP6 – one view directed toward the Project site and a second view directed more toward the transmission line routes.

º = viewing angle towards the Project component; ~ = approximately; SR = State Route

KOPs representing views from background viewing distances beyond 3 miles were not selected due to consideration of the scale of Project features where distant viewing of the site and the local topography is likely to obscure or screen views. The selection of KOPs focused on more sensitive viewing locations at closer viewing distances.

5.13.3.1.4 Viewers and Exposure

The range of potential viewers that may be affected by a proposed project can be described by the distinct types of viewers and the conditions they experience within the landscape. Understanding the types of viewers and their exposure to potential Project-related visual effects helps to predict sensitivity and responses to visual changes. The term exposure describes the degree to which viewers are subjected to views of the landscape. Viewer exposure considers dimensions of viewing distance (proximity of viewers to the project), frequency (the number of times the project may be seen), and the duration (the length of time the project may be seen) of the viewing opportunities[1]. The primary groups of potential viewers of the Project and description of their exposure are based on definitions provided by the Federal Highway Administration (FHWA 2015).

Four types of viewers were identified in the Project assessment area that will be potentially affected by the Project. These consist of the following:

- **Residential viewers:** Residential viewers can be owners or renters of a residential property or settlement area. Residential viewers generally have a higher sense of ownership of views and a desire to maintain the existing landscape as it contributes to their quality of life. Residential viewers tend to experience frequent and continual viewing opportunities. Within the Project assessment area, these include numerous rural residential properties.

[1] Generally, the greater the exposure (i.e., closer, longer, or more frequent viewing), the more viewers will be concerned about visual impacts.

- **Recreational viewers:** Tourists / recreational viewers provide or participate in recreational uses such as hiking, cycling, or wildlife viewing. Recreational viewers are often focused on their activity and tend to be sensitive to the visual disturbances that would adversely affect the setting of their activity. Recreational visitors are transitory and tend to experience somewhat frequent and sustained viewing opportunities relative to the type and popularity of the activity. Within the Project assessment area, this includes recreational users on public land and sites such as Cerro Cabrillo in Morro Bay State Park, or Black Hill trail.
- **Motorists:** Motorists experience views from the roadway. By necessity, the driver of a motor vehicle focuses less on the view outside the vehicle and more on the roadway while passengers are free to view the adjacent landscape from a variety of viewing angles. Motorists move at higher speeds than other groups and have temporary and/or intermittent viewing opportunities. Within the Project area, this includes local motorists and travelers passing through the region. Local motorists will experience more frequent viewing than travelers, although travelers may be more aware of the landscape if they take a particular route for its scenic qualities. Within the Project assessment area, this includes motorists on local roads (e.g., Quintana Road, Canet Road, San Luisito Creek Road) or SR-1. Views along SR-1 will be of limited duration due to the high speed (65 mile per hour (mph) posted speed limit) of vehicles and passengers.
- **Agricultural Workers:** Viewers on agricultural properties are typically farmers and farmhands who tend to crops or herd animals in fields and pastures. Agricultural workers are either consistent year-round or seasonal laborers and tend to experience frequent and sustained viewing opportunities. Within the Project assessment area, this includes agricultural works on nearby farms surrounding the Project site.

5.13.3.1.5 Visual Impact Analysis

The assessment of visual impacts is based on the potential for Project-related visual disturbance to change the existing visual character of an area. For many established visual assessment methods, the level of visual impact is determined by combining factors related to the sensitivity of viewers to visual change with a predicted measure of the degree of visual change (USDI BLM 1986a; FHWA 2015). This section describes the approach used in this analysis to characterize and combine factors of viewer sensitivity and visual change to determine the visual impact of the Project from representative KOPs.

5.13.3.1.5.1 Landscape Modelling

To determine potential visual effects of the Project components and activities, a computer-generated 3D landscape model was developed in advanced 3D landscape modeling software (Autodesk 3D Studio MAX), based on available spatial data describing the terrain and Project components (i.e., the Project disturbance area, facilities and earthworks, transmission line components). This modeling allowed for the rendering of ground-based perspective images that include modeled Project landform, vegetation clearing, and built features to be located accurately on the terrain. Simulation images rendered for KOPs were combined with site photography to create photo-composite images of the predicted arrangement and visual character of Project components.

Similar to landscape modeling for daytime viewing, a computer-generated landscape model was developed to simulate the Project lighting layout during the operation phase (i.e., lighting of buildings and the Project area). This allowed the rendering of images of Project-related light sources and indirect illumination of surfaces for illustrating predicted lighting effects. A simulated image was generated for KOP6 and was calibrated with nighttime photographs gathered during the photographic field survey to develop a representative simulation of the location and extent of Project lighting.

These images were used to support the visual effects assessment and are presented in Appendix 5.13A.

5.13.3.1.5.2 Visual Contrast Rating

The physical characteristics of Project components were evaluated by visual design elements (i.e., color, form, line, texture, scale, spatial dominance) and compared to the existing landscape conditions. The overall contrast created by the visual elements of Project components was characterized using the following descriptive categories (USDI BLM 1986b):

- **Negligible:** The disturbance is barely perceptible without any noticeable contrast within the existing landscape character.
- **Weak:** The disturbance is evident, but the contrast does not attract the attention of the viewer.
- **Moderate:** The disturbance provides a noticeable contrast that begins to attract attention but is subordinate to the existing landscape character.
- **Strong:** The disturbance contrasts with the surrounding landscape elements in such a way that it attracts attention and is a dominant feature of the landscape.
- **Severe:** The disturbance highly modifies the surrounding landscape elements in such a way that the disturbance is a dominant element of the landscape with a high degree of contrast to the existing landscape character.

5.13.3.1.5.3 Visual Impact Assessment

A visual impact assessment was completed for each KOP to determine how the predicted level of visual contrast from the Project is related to anticipated viewer sensitivity. This was conducted as a qualitative assessment of the level of visual impact that the Project-related disturbances are predicted to have on the existing visual quality and character. This assessment considering the exposure and sensitivity of viewers to change (Section 5.13.3.1.4), and the Contrast Rating (Section 5.13.3.1.5.2) which describes the predicted level of visual contrast of the Project components.

The resulting ratings of visual impacts are defined as follows:

- **Negligible:** a very minor loss or alteration to one or more key elements/features of the existing landscape.
- **Low:** minor loss or alteration to one or more key elements/features of the existing landscape and/or introduction of elements that may be characteristic within the existing landscape.
- **Moderate:** partial loss or alteration to one or more key elements/features of the existing landscape and/or introduction of elements that may be prominent and may partially change the existing landscape character.
- **High:** a loss of or major alteration to key elements/features of the existing landscape and/or introduction of elements considered to change in the existing landscape.

5.13.3.1.6 Lighting Assessment

The assessment of the existing nighttime visual character is based on the current perceived lighting conditions experienced by viewers during the nighttime. To establish a baseline of pre-Project lighting conditions, the existing skyglow light levels were measured at selected receptor locations. Skyglow is stray light scattering in the atmosphere, brightening the natural sky background level, and reducing star visibility. Sky glow effects are often associated with light pollution that can have a regional effect on perceived lighting conditions.

Receptor locations were selected to represent a range of sites that experience use during the night and that could potentially be affected by the presence of Project-related exterior lighting including locations related to residences or motorists. The light receptor locations are shown in Figure 5.13-3.

Lighting conditions were evaluated in terms of percentage brightness above natural dark sky background and were classified based on definitions and descriptions from established international lighting guidelines, which consist of a set of established Environmental Lighting Zones for classifying exterior light levels (CIE 1997; CIE 2003). Environmental Lighting Zones and related quantitative thresholds are shown in Table 5.13-2.

Table 5.13-2: Environmental Lighting Zone Classification for Sky Glow

Environmental Lighting Zone [(a)]	Description of the Environmental Lighting Zone	Sky Glow (% brightness above the naturally dark sky)
E1	Intrinsically dark natural (e.g., national parks or protected sites, roads usually unlit)	0 % < x ≤ 20 %
E2	Areas of low district brightness (e.g., agricultural, industrial, or outer urban / rural residential areas)	20 % < x ≤ 100 %
E3	Areas of medium district brightness (e.g., industrial, or small-town centers / residential suburbs)	100 % < x ≤ 200 %
E4	Areas of high district brightness (e.g., town/city centers and commercial areas urban areas, residential and commercial with high levels of nighttime activity)	x > 200 %

Notes: a) from the Commission Internationale de l'Éclairage (CIE 1997; CIE 2003)
%: percentage;<: less than; ≤: less than or equal to; >: greater than.

The assessment of Project related lighting involved a review of available information of the Project lighting layout, luminaires, and illumination levels required for safe operations. This information provided an estimate of the potential incremental increase in lighting that may result from the Project and would influence the current skyglow level. This incremental change was combined with the measured percentage brightness above natural dark sky background at light receptors to determine if anticipated light levels with the Project would exceed thresholds for Environmental Lighting Zones class. A change in an Environmental Lighting Zone class would signal a noticeable change in the perceived lighting conditions experienced by viewers during the nighttime.

A determination of existing light trespass, which is light or illuminance that strays from its intended purpose and potentially becomes an annoyance to nearby receptors, was quantified by comparing the sky glow measured in the 90° angle with that of the horizontal (0°) angle. This serves as an indicator of the light that may be experienced by viewers that could affect perceived lighting conditions at that location.

5.13.3.2 Impact Evaluation Criteria

The significance of visual changes was evaluated in terms of criteria provided by CEQA guidelines (CEQA 2019). Appendixes G and I of the CEQA guidelines indicate that a project will have a significant effect on the environment if it will:

- Have a substantial, adverse effect on a scenic vista
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway

- Substantially degrade the existing visual character or quality of the site and its surroundings
- Create a new source of substantial light or glare, which will adversely affect day or nighttime views in the area

5.13.3.3 Project Appearance

5.13.3.3.1 Project Structures, Dimensions, and Materials

The Project components are described in detail in Section 2, Project Description. Figures 2-2 to 2-5 show the general arrangement, layout, and various elevation views of the proposed Project components.

Table 5.13-3 identifies the main above-ground components their dimensions, materials, and finishes.

Table 5.13-3: Project Site Components Approximate Dimension, Materials, and Finishes

Project Component	Dimensions	Materials	Finishes
Turbine Hall Additional buildings connected the Turbine Hall include: ▪ Maintenance Hall ▪ Electrical Gallery ▪ Control House	Turbine Hall: 100 ft high by 65 ft wide by 1075 ft long Maintenance Hall: 70 ft high by 52 ft wide Electrical Gallery: 28 ft high by 45 ft wide Control House: 40 ft high by 60ft wide	metal siding	dark grey/green
Series of heat exchangers and thermal storage equipment	20 ft high	prefabricated metal material	primarily light to dark gray
Low-pressure exhaust stack	125 ft high	prefabricated metal material	primarily light to dark gray
One cold thermal fluid tank	150-foot diameter and 90 ft high	insulated metal plates	white to light gray
Four hot thermal fluid tanks	83-foot diameter and 90 ft high	insulated metal plates	white to light gray
Two stormwater ponds	1.2 acres (south) and 2.7 acres (north)	excavated soil and mined rock	similar to existing exposed soil and rock
Surface Reservoir with cover	covering 27 acres with 40 ft high earth berms	excavated soil and mined rock berms; non-reflective cover	Berms - similar to existing exposed soil and rock; Cover – light to dark gray
230 kV onsite electrical switchyard	20 ft to 40 ft high	prefabricated metal material	primarily light to dark gray
GIS building	85 ft wide by 140 ft long by 70 ft high	metal siding	dark grey/green

Note(s):
ft = feet/foot; kV = kilovolt; GIS = gas insulated substation

Finishes for material and surface treatments will be predominately flat and non-reflective to minimize the potential for glare. The terrain around buildings and equipment will be graded and have gravel surfacing where not paved or concreted. The Project site will also be surrounded by a 6-to 8-foot-tall chain link security fencing with access at the main entrance and a secondary access gate along the site perimeter.

The Preferred Route is an approximately 3.8 miles 230 kV transmission line extending from the Project site and interconnecting at the PG&E's Morro Bay substation to the northwest and will parallel an existing PG&E transmission corridor. Alternate 1 transmission line route is proposed to cross SR-1, slightly further to the north of a portion of the Preferred Route, and also paralleling an existing PG&E corridor. Table 5.13-4 identifies the transmission line components and their dimensions, materials, and finishes.

Table 5.13-4: Transmission Line Components Approximate Dimension, Materials, and Finishes

Project Component	Dimensions	Materials	Finishes
Tapered metal monopole towers	120 ft high and approximately 600 ft to 900 ft spans (conservative average of 650 ft) span between poles	steel	light to dark gray

Note(s): ft = foot/feet

The right-of-way width for the 230 kV route is expected to be up to 150 feet where clearing is required.

5.13.3.3.2 Construction Laydown Area

Construction of the Project facilities is expected to last approximately 54 months. Temporary construction facilities will include an approximately 40- areas for construction laydown, worker parking as well as temporary topsoil storage. This area will be directly northwest of the Project site on the north side of Chorro Creek. Temporary disturbances of this area will be mitigated after construction. During the construction period, construction materials, large equipment, trucks, parked vehicles, and temporarily relocated topsoil will be present in these two areas. Temporary disturbances of this area will be mitigated after construction.

Nighttime construction is anticipated primarily for the cavern mining process and some intermittent localized 24-hour construction activities. When nighttime construction activity is required, all necessary temporary lighting will be directed on work areas and away from sensitive receptors such as nearby residences.

Operation of the Project will require onsite lighting for safety and security and approach lighting for the substation, control equipment enclosures, and operator interface locations. This will include a combination of pole-mounted LED lighting ranging from 11 feet to 40 feet heights and a wall-mounted fixture on buildings mounted between 23 feet and 30 feet. All new lighting will be dark sky compliant and include shielding and/or be directed downward to minimize the potential for glare, light trespass, and skyglow. Project lighting will use dimmable motion-sensitive and scheduling controls to minimize the use of the lights. Light level will comply with recommendations of the Illuminating Engineering Society (IES), as well as CEC and local jurisdictions ordinances or codes, to ensure lighting is no brighter than necessary.

5.13.3.3.3 Water Vapor Plumes

During operations, compressed air that has been routed through the power turbines and expanded during the power generation cycle will be discharged to the environment through the low-pressure exhaust stacks. During the power generation cycle, as the compressed air expands and cools, water vapor is condensed and recovered

for process use. The condensation and removal of water will result in a relatively dry air discharge that has very low absolute humidity. As a result, when the ambient temperature is low, there is not sufficient water vapor in the discharge from the exhaust stack to form a visible water vapor plume in the environment.

The psychrometric analysis provided in Appendix 5.13B demonstrates that the conditions for visible steam plume are unlikely to occur. In the unlikely event that plumes are present, they would be relatively small and temporary, and would not likely result in a noticeable impact to visual resources.

5.13.3.4 Assessment of Visual Effects

This section provides an assessment of visual effects provided for daytime viewing from KOPs and lighting effects from light receptor locations.

5.13.3.4.1 Key Observation Points

Seven KOPs were selected for assessment of the predicted level of visual contrast and visual impact from the Project. Photo-composite images presented in Appendix 5.13A, representing the viewing conditions during operations at KOPs, were evaluated using the methods detailed in Section 5.13.3.1.5. Ratings of visual contrast defined in Section 5.13.3.1.5.2 were assigned for each KOP considering the characteristics of Project components within the existing landscape conditions. Ratings of the level of visual impact defined in Section 5.13.3.1.5.3 were assigned for each KOP considering the sensitivity of viewers to change, and the predicted level of visual contrast of the Project components.

Table 5.13-5 summarizes the receptors and viewing conditions associated with each KOP, as well as the assessed Contrast Rating and Visual Impact Ratings and a rationale for each.

Table 5.13-5: Visual Contrast and Visual Impact for Key Observation Points

Key Observation Point	Receptors	Visual Contrast	Visual Impact
KOP1 - Cerro Cabrillo	▪ Represents the view of recreational users. ▪ Located within middle-ground [(a)] viewing distance of the Project site. ▪ Potential for moderate numbers of viewers at a scenic viewing location.	▪ Contrast Rating: **Moderate** ▪ The long, geometric pattern of built structures (i.e., Turbine Hall, thermal fluid tanks) and Surface Reservoir. ▪ The smooth texture of building surfaces and gravel surfacing and pavement. ▪ The Potential for glare from the surface of the Surface Reservoir is reduced by cover with a non-reflective anti-glare surface. ▪ The overall level of contrast from the Project is noticeable and attracts attention but is subordinate to the existing landscape features.	▪ Visual Impact Rating: **Moderate** ▪ Alteration to the existing landscape through the introduction of Project components that are prominent and may partially change the existing landscape character for viewers at this location.

Key Observation Point	Receptors	Visual Contrast	Visual Impact
KOP2 - Canet Road	▪ Represents view of residents, local motorists, and agricultural workers. ▪ Located within foreground viewing distance of the Project site. ▪ Anticipated to be a relatively low number of viewers where views are anticipated to be important to some viewers (i.e., residents).	▪ Contrast Rating: **Weak** ▪ A portion of the geometric pattern of the Turbine Hall is visible behind existing vegetation. ▪ The smooth texture of the building surface. ▪ The visible portion of Turbine Hall is of a similar scale to other built features in the landscape. ▪ The overall level of contrast from the Project is evident but would not attract the attention of viewers.	▪ Visual Impact Rating: **Low** ▪ Minor alteration to the existing landscape through the introduction of Project components that are evident but do not change the existing overall landscape for viewers at this location.
KOP3 - Quintana Road	▪ Represents the view of residents and local motorists ▪ Located within the middle-ground viewing distance of the Project site. ▪ Anticipated to be a relatively low number of viewers where views are anticipated to be important to some viewers (i.e., residents)	▪ Contrast Rating: **Negligible** ▪ A small portion of the Project (Turbine Hall and thermal fluid tanks) is visible behind existing vegetation. ▪ Visible Project components are very small in scale and are indistinct features in the landscape. ▪ The overall level of contrast from the Project is inconspicuous and would not attract the attention of viewers.	▪ Visual Impact Rating**:** **Low** ▪ A very minor alteration to the existing landscape through the introduction of Project components that do not change the existing overall landscape character for viewers at this location.
KOP4 - San Luisito Creek Road / State Route-1	▪ Represents view of residents, local motorists, and regional travelers on SR-1 northbound ▪ Located within the middle-ground [(a)] of the Project site. ▪ Anticipated to be a moderate to a high number of viewers where scenic views are considered important (i.e., residents, officially designated scenic corridor).	▪ Contrast Rating: **Weak** ▪ A portion of the geometric pattern of the Turbine Hall is visible behind existing vegetation. ▪ The smooth texture of the building surface. ▪ The visible portion of Turbine Hall is of a similar scale to other built features in the landscape. ▪ The overall level of contrast from the Project is evident but would not attract the attention of viewers.	▪ Visual Impact Rating: **Low** ▪ Minor alteration to the existing landscape through the introduction of Project components that are evident but do not change the existing overall landscape for viewers at this location.

Key Observation Point	Receptors	Visual Contrast	Visual Impact
KOP5 - State Route-1 Southbound	▪ Represents the view of local motorists and regional travelers. ▪ Located within the foreground of the Project site. ▪ Anticipated to be a moderate to high number of viewers where scenic views are considered important (i.e., officially designated scenic corridor).	▪ Contrast Rating: **Strong** ▪ The long, horizontal, geometric pattern of the Turbine Hall and angular patterns of other structures (e.g., GIS building, electrical switchyard). ▪ The smooth texture of building surfaces. ▪ Potential for glare from the surface of the Surface Reservoir reduced by cover with a non-reflective anti-glare surface. ▪ The Project components are relatively large in scale and are a major focus of visual attention. ▪ The overall level of contrast from the Project attracts attention and is a prominent feature of the landscape.	▪ Visual Impact Rating: **High** ▪ Alteration to the existing landscape through the introduction of Project components that are prominent and would change the existing landscape character for viewers at this location. ▪
KOP6a - State Route-1 Southbound / San Bernardo Creek Road	▪ Represents view of local motorists and regional travelers. ▪ Located within the middle-ground of the Project site. ▪ Anticipated to be a moderate to high number of viewers where scenic views are considered important (i.e., officially designated scenic corridor).	▪ Contrast Rating: **Negligible** ▪ A small portion of the Project (Turbine Hall and thermal fluid tanks) is visible behind existing vegetation. ▪ Visible Project components are very small in scale and are indistinct features in the landscape. ▪ The overall level of contrast from the Project is inconspicuous and would not attract the attention of viewers.	▪ Visual Impact Rating**:** **Low** ▪ A very minor alteration to the existing landscape through the introduction of Project components that do not change the existing overall landscape character for viewers at this location. ▪
KOP6b - State Route-1 Northbound / San Bernardo Creek Road	▪ Located within the foreground of the transmission line route.	▪ Contrast Rating: **Moderate** ▪ Broad, horizontally oriented transmission conductors, and vertically oriented transmission structures. ▪ Internal texture created by conductors ▪ Relatively tall transmission structures are seen against a backdrop of land and sky.	▪ Visual Impact Rating: **Moderate** ▪ Alteration to the existing landscape through the introduction of Project components that are evident and may partially change the existing landscape character for viewers at this location.

Key Observation Point	Receptors	Visual Contrast	Visual Impact
		▪ The overall level of contrast from the Project is evident and is a distinct feature in the existing landscape features.	
KOP7 - Little Morro Creek Road	▪ Represents view of residents and local motorists. ▪ Located within the foreground of the transmission line route and an existing transmission line corridor. ▪ Anticipated to be a relatively low number of viewers where views are anticipated to be important to some viewers (i.e., residents)	▪ Contrast Rating: **Weak** ▪ Broad, horizontally oriented transmission conductors, and vertically oriented transmission structures. ▪ Internal texture of conductors seen against a backdrop of sky and existing transmission line structures. ▪ The overall level of contrast from the Project is evident but would not attract the attention of viewers.	▪ Visual Impact Rating**: Low** ▪ A very minor alteration to the existing landscape through the introduction of Project components that do not change the existing overall landscape character for viewers at this location.

Notes: a) viewing distance at this location is on the boundary between foreground and middle ground viewing distance zones
º = viewing angle towards the Project component

For nearby KOPs with unobstructed views of the Project site and along the officially designated scenic corridor of SR-1, where it is anticipated there will be a high sensitivity to visual change, the Contrast Ratings of the Project range from 'Strong' to 'Moderate' with some viewpoint locations (i.e., KOP1 and KOP5) experiencing substantial visual impacts where the Project components will attract attention and be a prominent feature within the landscape setting. Alterations to the existing landscape may partially change the existing landscape character for viewers at these locations. For other KOPs along SR-1 with views of the Project site (i.e., KOP4 and KOP6a), Project components are partially screened by existing vegetation which reduces the overall scale and prominence of Project components. KOPs along SR-1 are expected to have brief views of the Project site. At all other KOPs surrounding the Project site, Project components are less visible, and Contrast Ratings range from 'Weak' to 'Negligible' resulting in alteration to the existing landscape that does not change the existing landscape character for viewers.

Views of the transmission line route will experience lesser visual effects than the Project site with Contrast Ratings that range from 'Moderate' to 'Weak'. Transmission line components are anticipated to be fully visible but generally result in an alteration to the landscape setting that would retain its existing overall visual character for viewers. For views along the officially designated scenic corridor of SR-1, where viewers are anticipated to be sensitive to visual change, transmission line components would be distinct features and views are expected to be brief.

5.13.3.4.2 Lighting Effects

New light sources will be introduced by the Project into the existing nighttime environment, which presently has a range of direct light sources and ambient lighting. Existing sources of lighting are associates with exterior lighting from rural residents and industrial facilities, and ambient lighting from nearby communities (e.g., Morro Bay,

Baywood-Los Osos). The Project site is used for agricultural purposes and the current existing lighting conditions include very few light sources.

Table 5.13-6 summarizes the measured sky glow levels for selected light receptor locations near the Project site. These values range from 19.32 to 21.58 for measurement of % brightness above natural dark sky. This indicates nighttime light levels are generally representative of an E2 Environmental Lighting Zone; an area of low district brightness such as a rural residential environment.

Table 5.13-6: Environmental Light Classification for Light Receptors

Light Receptors	Sky Glow (% brightness above the naturally dark sky)			Environmental Lighting Zone	Description
	0º	45º	90º		
Receptor 1 - San Luisito Road	19.32	20.45	21.07	E2	Areas of low district brightness
Receptor 2 – Canet Road	21.58	20.95	20.94	E2	Areas of low district brightness
Receptor 3 -	21.11	20.50	21.04	E2	Areas of low district brightness

Notes: º = degrees; % - percentage

Construction-related lighting is anticipated to be limited to the period of the cavern mining process which is estimated to last for 41 months during which there will be intermittent localized 24-hour construction activities. This would result in a temporary increase in perceivable light sources and light levels at viewing locations adjacent to the Project. It is anticipated that there will be a short-term impact on sky glow and light trespass.

The changes to light sources during Project operations will include new lighting of Project facilities for safety and security purposes. This will include a combination of pole-mounted LED lighting and wall-mounted fixture on buildings, as well as the application of best practices to minimize the effects of obtrusive exterior lighting (e.g., shielding light fixtures directed downward, scheduling controls).

Based on a review of the Project lighting design information, light levels are anticipated to increase by a minor amount. Typical new LEEDS certified building exterior lighting can account for a vertical and horizontal illuminance value no greater than 0.1 lux (15.1 as a sky glow measurement [2]) at the property boundary. A recent study completed for the U.S. Department of Energy about the effect of luminescence of LED streetlights indicated they can increase sky glow between 0.2 and 1.6 times the baseline sky glow for nearby receptors (U.S. Department of Energy 2017). Conservatively using an increase of 1.6 times the measured skyglow light levels, the lowest sky glow measurement of 20.94 would decrease to 20.43 as a percent brightness above the naturally dark sky[3]. This level would still be classified as an Environmental Lighting Zone designation of E2 representing an area of low district brightness.

[2] Luminance measurements in units of mag/arcsec^2 (magnitudes per square arcsecond), a logarithmic astronomical unit used commonly for measuring sky glow.

[3] In relation to measurements for sky quality, the greater the value that darker the environment.

The estimated light trespass ranged from a difference of 0.64 to 1.75; the lower the difference the less light trespass is indicated. A difference of 0.64 indicates little to no light trespass and a difference of 1.75 indicates the existence of minimal to moderate degree of light trespass that could affect perceived light levels. It's expected that light trespass effects would most likely occur at locations adjacent the property boundary, such as Light Receptor 1, which is not a publicly accessibly.

A comparison of existing sky glow levels for light receptors to the predicted sky glow levels within the Project suggests that there will be a minor change to the existing level of sky glow due to Project-related lighting. The Environmental Lighting Zone for all light receptors are predicted to remain within the E2 classification. As such, lighting from Project during operations will be a minor contributor to light levels and is not anticipated to change to the existing light environment during nighttime viewing.

The presence of Project lighting will introduce evident light sources that will appear prominent within the existing lighting conditions from some viewing locations of the Project site (e.g., along SR-1). The visibility of Project-related lighting is illustrated in Appendix 5.13A, Figure 17 and Figure 18. The simulated image of the nighttime view for KOP6 demonstrates the anticipated location and extent of additional Project lighting during operation that would be visible to viewers.

5.13.3.5 Impact Significance

There is federal, state, and locally designated scenic highways and scenic vistas identified by the applicable LORS (Section 5.13.6). The National Scenic Byways Program, California Coastal Act, and the California Scenic Highways Program recognize scenic vistas and visual resources of coastal areas are to be considered and protected as an important public resource. The County of San Luis Obispo and the City or Morro Bay also identify natural and cultural elements and areas of the landscape (e.g., critical viewsheds along -SR-1, Cerro Cabrillo, Hollister Peak, and agricultural open spaces) that contribute to the character and scenic enjoyment within the Project study area. Key scenic vistas of the landscape are available along SR-1 and from recreations areas (e.g., Morro Bay State Park).

As assessed in Section 0, for KOPs with unobstructed views of the Project site along the scenic corridor of SR-1 and nearby recreational areas, viewers will experience visual impacts where the Project components will be a prominent feature within the landscape setting and may partially change the existing landscape character for viewers at these locations. Lighting from the Project during operations will introduce evident light sources that will appear prominent within the existing lighting conditions from some viewing locations but are not anticipated to change to the existing light environment during nighttime viewing. Therefore, scenic vistas available from some locations would be affected by the Project during construction and operation.

SR-1 runs adjacent to the Project site and is a National Scenic Byway and an officially designated scenic state highway. There are several scenic resources visible from the portion of the SR-1 that include Cerro Cabrillo and Hollister Peak and these unique landscape features create a backdrop for the Project site. The Project is also located within a rural agricultural setting which is identified through local planning (i.e., County Coastal Plan, Estero Area Plan) as providing scenic value to residents and tourists. As assessed in Section 0, for some KOPs along the SR-1, viewers will experience substantial visual impacts where the Project components and light sources will be a prominent feature within the landscape setting. While scenic resources such as Cerro Cabrillo and Hollister Peak will not be directly impacted, from some viewing locations, the Project may partially change the existing landscape character for viewers. As a result, Project components would have an effect on scenic resources during construction and operation.

As assessed in Section 0, at most KOPs surrounding the Project site, Project components are partially visible, and the visual contrast does not attract the attention of the viewer resulting in alteration to the existing landscape that does not change the existing character. However, for KOPs with unobstructed views of the Project site along the scenic corridor of SR-1 and nearby residential and recreational areas that are considered to be sensitivity to visual change, viewers will experience substantial visual impacts where the Project components will be a prominent feature within the landscape setting and may partially change the existing landscape character for viewers at these locations. Lighting from the Project during operations will introduce perceivable light sources that will appear prominent within the existing lighting conditions from some viewing locations but are not anticipated to change to the existing light environment during nighttime viewing. As a result, the Project will have a substantial adverse effect on the existing visual character of the site and its surroundings from some sensitive viewing locations.

The limited lighting required during Project construction will be temporary and short-term and are not expected to substantially effect nighttime viewing. The lighting required during Project operations would follow best practices to minimize obtrusive lighting effects while meeting requirements for safety and security. It's anticipated that Project-related light sources will be evident to nearby viewers but would not increase the overall perceived light levels, thereby maintaining current nighttime viewing conditions anticipated for a rural setting. Project effects from light would not result in substantial light or glare, and effects on day or nighttime views would be less than significant.

Considering the predicted effects to scenic vistas and scenic resources, particularly along the scenic corridor of SR-1 and nearby recreational areas, and the potential for partial change to the existing landscape character of the rural agricultural landscape for viewers at these locations, the Project is considered to have an overall significant adverse effect on visual resources without mitigation. With the inclusion of proposed mitigation measures detailed in Section 5.13.5 into the Project design, there is the potential to decrease the visibility and modify the visual character of Project components and lighting which would reduce the visual effects to less than significant levels.

5.13.4 Cumulative Effects

The CEQA Guidelines (Section 15355) define cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA 2019). The assessment of cumulative effects measures and describes the effects of adding the incremental changes from the Project to the effects of past projects, and the predicted incremental change of currently planned projects, and proposed future projects.

The landscape in the region surrounding the Project demonstrates evidence of past and present visible disturbances related to agriculture, transmission, and transportation infrastructure, as well as suburban and rural residential development. The Project effects on the existing visual character of the site and its surroundings are predicted to be minor for most KOPs surrounding the Project site, but for some sensitive KOPs, viewers will experience substantial visual impacts where the Project components and light sources will be a prominent feature within the landscape setting. The Project will be a minor contributor to light levels and is not anticipated to change the existing light environment during nighttime viewing.

The Morro Bay Water Reclamation Facility project is a proposed water reclamation facility that would provide wastewater treatment services for the City of Morro Bay. It will involve the decommissioning and removal of an existing wastewater treatment facility (WWTP), the Morro Bay-Cayucos Wastewater Treatment Plant located along the coast north of the City of Morro Bay, that would be replaced by a proposed new Water Reclamation Facility (WRF) located approximately 1.3 miles northwest of the Project. The proposed WRF component of the

Morro Bay Water Reclamation Facility project would be constructed on a 10- to 15-acre area located along SR-1. The decommissioning of the current WWTP and construction of the lift station would be located along the coast and not be visible within the regional assessment area. Pipelines between the lift station and the WRF will be underground and not present a visual effect.

The Morro Bay Water Reclamation Facility Environmental Impact Report (ESA 2018) included an aesthetics assessment (Section 3.1). This assessment identified that the WRF would introduce aboveground, wastewater facilities, and paved areas into a landscape that is currently undeveloped. The proposed facilities were predicted to not contrast with the existing visual character in the immediate area as the proposed WRF architectural forms and treatment of the building would be informed by the agricultural character and be subject to special design standards for development along the SR-1 corridor. With the application of proposed architectural forms and treatment, the WRF is expected to blend in with the scenic character of the hillside areas along the SR-1 corridor.

Development of the WRF facilities would require new exterior nighttime lighting for operational and security purposes that could be visible by the nearest residences. The proposed project would be required to comply with the County of San Luis Obispo Local Coastal Plan and City of Morro Bay Municipal Code, which both contain exterior nighttime lighting ordinances to manage and preserve the natural darkness of night skies.

5.13.5 Mitigation Measures

As significant adverse impacts to visual resources were identified, mitigation measures are necessary.

- Consistent with policies of the San Luis Obispo County Local Coastal Plan, the Project design will include measures to site new development and utility lines to minimize the visibility of the Project from major public view corridors, such as SR-1.
- A Landscape Management Plan will be developed to support the progressive restoration of disturbed areas such as laydown areas after construction and to establish visual screening to further minimize the visibility and visual effects to the visual character of the Project site. The Landscape Management Plan will be based on established best practices for project siting and design to reduce visual impacts (USDI BLM 2013) and focus on the design of earthworks (e.g., berms) and planting of vegetation to provide visual screening of structures (i.e., Turbine Hall, GIS building, the electrical switchyard) from major public view areas. This will reduce the visibility of Project components and visually integrate the Project site more effectively with agricultural open spaces by providing a transition with the adjacent landscape.
- Policies within the California Scenic Highways Program and the San Luis Obispo County Local Coastal Program (LCP) identify the need for development that is compatible with the natural and rural landscapes. The Project's location within the Coastal Zone of the County makes it subject to special design standards to preserve view corridors. Architectural design and/or treatments will be identified in an Architectural Treatment Mitigation Plan that will be applied to the Project's built structures visible from major public view corridors and locations to visually integrate the Project with the rural agricultural and/or natural setting of the area. Building forms will reference the architectural details of agricultural buildings, to the extent possible, including features such as gable roofs, and cladding that is a combination of exposed concrete masonry, metal siding, wood, or cement board siding, and plaster. The colors of the build features would be compatible with the patterns of neighboring agricultural buildings along SR-1 or may be colored to blend with the surrounding natural setting. This will provide for more diverse form, texture, and color in visible Project components, which is more visually interesting and will integrate the overall Project with the rural and natural landscape character of the County.

The Applicant will coordinate with San Luis Obispo County and the CEC to develop a Landscape Management Plan and an Architectural Treatment Mitigation Plan to reduce the visibility of Project components and integrate Project components with the natural and rural agricultural character of the existing landscape setting surrounding the Project site. Incorporation of these plans into the Project's final design will not eliminate the Project's visual impacts but can reduce those impacts to less than significant levels.

5.13.6 Laws, Ordinances, Regulations, and Standards

This section lists and discusses relevant laws, ordinances, regulations, and standards to understand the regional and local context for management of visual resources or lighting that apply to the Project assessment area.

Federal Policies and Regulations

National Scenic Byways Program

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. Under this program, certain roads are recognized as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational, and scenic qualities. Route 1 San Luis Obispo North Coast Byway, which overlaps a portion of California State Route SR-1, runs adjacent to the Project site, and is designated as a National Scenic Byway (FWHA 2021).

State Policies and Regulations

California Environmental Quality Act

The CEQA requires an evaluation of scenic resources when considering project effects on the environment. Following CEQA requirements (Appendix G and I), and analysis includes an evaluation also considers site-specific history, context, and area sensitivity, such as whether light and glare, demolition, and new development could potentially change the visual character and affect scenic views and natural and manmade visual resources (CEQA 2019). CEQA guidance is also identified as it guides the determination of significance for the Project's potential effects.

California Scenic Highways Program

The California Scenic Highways Program helps to preserve and protect scenic highway corridors of the State's highway system from change that would diminish the aesthetic value of lands adjacent to highways. The program identifies portions of the state highway system that require special conservation treatments through land use regulations, design guidelines, and site planning measures. This applies to highways that are either Eligible for designation as scenic highways or have been so Designated. Any project that may affect the scenic value of an identified scenic corridor is required to consider the provisions of the program.

Review of the California Scenic Highway Mapping System (Caltrans 2018) identifies the Project site is adjacent to, and the Alternate 1 transmission line route intersects, officially Designated scenic highway California SR-1. Designated scenic corridors are subject to protection, including regulations regarding land use, site planning, advertising, earthmoving, landscaping, and the design and appearance of structures and equipment.

California Coastal Act

The Project is located in the Coastal Zone of San Luis Obispo County, as defined by the California Coastal Act. The California Coastal Act includes amongst its objectives, prioritizing the protection of important scenic and visual resources of the coastal area (California Coastal Act 2017). Because the proposed Project falls within the California Coastal Zone, the Coastal Act requires that its goals and policies be implemented through a LCP that

includes a local Coastal Plan. They establish land use, development, natural resource protection, coastal access, and public recreation policies for their jurisdiction's coastal zone.

Local Policies and Regulations

County of San Luis Obispo Local Coastal Program

Coastal visual resources are addressed by the San Luis Obispo County LCP specifically, through the County Coastal Plan, the County of San Luis Obispo General Plan planning elements, local area plans, and Coastal Zone Land Use Ordinance (CZLUO).

Chapter 10 of the County Coastal Plan policies address Visual and Scenic Resources. It identifies several inventoried visual resources and policies to protect visual corridors along public roads in rural areas and protect community character. Policies include measures to site new development and utility lines to minimize visibility from major public view corridors (County of San Luis Obispo 2007).

Chapter 9 of the Conservation and Open Space Element provides guidance and specifies goals and policies to protect and preserve scenic and visual resources within the County. These goals encourage designs that are compatible with the natural and rural landscape of the County, protect visual resources within visual sensitive resources and areas such as scenic corridors and scenic vistas points, minimize the visual effects of utility lines, and protect the quality of the night sky within communities and rural areas (County of San Luis Obispo 2010a).

The Agricultural Element provides specifics goals and policies about agricultural resources, including AGP 30: Scenic Resources. AGP 30 identifies that in designated scenic corridors, new development requiring a discretionary permit and land divisions shall address the protection of scenic vistas including measures to minimize visibility from the scenic corridor and be compatible with agricultural operations (County of San Luis Obispo 2010b).

The Project is located within the jurisdiction of the Estero Area Plan (County of San Luis Obispo 2009). Generally, the Estero Area identifies scenic values associated with natural and human resources in the County that include parks and recreation areas, coastal areas, agricultural open spaces, and unique landscape features, as well as how scenic values contribute to a high quality of life and supporting tourism. Sensitive Resource Area (SRA) are identified in the planning area including the Morro Area critical viewsheds along Highway 1 including Cerro Cabrillo, Hollister Peak, and associated hills. Planning area standards are established for the Estero Area Plan to address conditions and help implement the goals and policies.

Section 23.04.210 – Visual Resources of the CZLUO details standards that apply within critical viewsheds, scenic corridors, and SRA designations that are intended to protect visual resources. Standards include, but are not limited to, the requirement to site development in the portion of the site least visible from major public view corridors, to minimize structure height and mass, and provide screening of development without obstructing major public views. According to these standards, all new development that must obtain a land use permit should include a landscaping plan, grading, and drainage plan, lighting plan, fencing plan, and visual analysis (County of San Luis Obispo 2019).

County of San Luis Obispo Municipal Code

Chapter 22 of the County of San Luis Obispo Municipal Code includes various general lighting standards for the County (County of San Luis Obispo, 2018). Applicable lighting standards include those for exterior lighting that detail light source design and layout requirements to minimize excess illumination and trespass onto neighboring

properties. Lighting design and llight levels for the Project will comply with recommendations of the IES, as well as CEC and local jurisdictions ordinances or codes.

City of Morro Bay Local Coastal Plan

The transmission line route terminates at PG&E's Morro Bay substation in the City of Morro Bay. Chapter 8 – Visual Resources of the City of Morro Bay Coastal Lands Use Plan includes the identification of significant public views and areas as well as issues and policies related to the protection of visual resources (City of Morro Bay 2004). This includes concerns related to the visual impacts of overhead utility lines but no specific guidance or standards that relate to the Project transmission line components.

5.13.7 Agencies and Agency Contacts

Agencies and contacts related to visual resources are provided in Table 5.13-7.

Table 5.13-7: Agency Contacts for Visual Resources

Issue	Agency	Contact
Visual Resources	County of San Luis Obispo: Planning and Building	Trevor Keith Director of Planning & Building Phone: 805-781-5600 976 Osos Street Room 200 San Luis Obispo, CA 93408
	City of Morro Bay Community Development: Planning Division	Scot Graham Community Development Director Phone: 805-772-6291 955 Shasta Avenue Morro Bay, CA 93442

5.13.8 Permits and Permit Schedule

There are no permits related to visual resources that are required to construct the Project. The CEC will work with the San Luis Obispo County on review of the AFC to ensure compliance with San Luis Obispo County land use policies and ordinances related to visual resources as well as, potential conditions (e.g., landscaping plan, architectural treatment plan).

5.13.9 References

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APPENDIX 5.13A

Landscape Photographs and Simulations

APPENDIX 5.13B

Psychrometric Analysis for Decompressed Air Discharge