## Variance Factors Analysis Report

Eagle Eye Solar Project BLM Serial Number: AZA 38757

Revised February 2023

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### **List of Abbreviations and Acronyms**

AC alternating current

ADOT Arizona Department of Transportation
ADWR Arizona Department of Water Resources

AF acre-feet

asml above mean sea level

AZGFD Arizona Game and Fish Department
BESS battery energy storage system
BLM U.S. Bureau of Land Management
BMP best management practice
CHAT crucial habitat assessment tool

County La Paz County DC direct current

DOD U.S. Department of Defense
DOE U.S. Department of Energy

EAGL, LLC Applicant; a subsidiary of BNC DEVCO, LLC, which is a joint venture

between BrightNight, LLC, and Cordelio Power

EPA U.S. Environmental Protection Agency

ESA Endangered Species Act

FEMA Federal Emergency Management Agency

FUDS Formerly Used Defense Site

kV kilovolt

LCC Landscape Conservation Cooperative

LHFO Lake Havasu Field Office

MW megawatt

NEPA National Environmental Policy Act
NHD National Hydrography Dataset

NPS National Park Service

NWI National Wetlands Inventory

O&M operations and maintenance

OHV off-highway vehicle

PEIS Programmatic Environmental Impact Statement

PFYC Potential Fossil Yield Classification

POD Plan of Development
Project Eagle Eye Solar Project

PV photovoltaic

REA Rapid Ecoregional Assessments

REDA Renewable Energy Development Area

Research area Project Area plus a 1-mile buffer

RDEP Restoration Design Energy Project

RMP Resource Management Plan

ROD Record of Decision

ROW right-of-way

SEZ Solar Energy Zone

SRMA Special Recreation Management Area

USACE U.S. Army Corps of Engineers
USFWS U.S. Fish and Wildlife Service

USGS U.S. Geological Survey

VFAR Variance Factors Analysis Report
VRM Visual Resource Management

WAPA Western Area Power Administration

WOTUS Waters of the United States

### 1.0 Introduction

### a. Background

In 2012, the U.S. Bureau of Land Management (BLM) and the U.S. Department of Energy (DOE) issued the Final Programmatic Environmental Impact Statement (PEIS) for Solar Energy Development in Six Southwestern States (Arizona, California, Colorado, Nevada, New Mexico, and Utah) (Solar PEIS) (FES 12-24; DOE/EIS-0403) (BLM and DOE 2012). This comprehensive Solar Energy Program facilitates the permitting of solar energy development projects on public land in a more efficient, standardized, and environmentally responsible manner. The Solar Energy Program identified solar energy zones (SEZ) that are well suited for utility scale production of solar energy. The Solar Energy Program identified three SEZs in Arizona, all in the southwestern portion of the state.

The Solar Energy Program also identified variance areas on BLM-administered land that are outside of the SEZs and not otherwise excluded by the Solar Energy Program. Variance areas are potentially available for utility scale solar energy development, per the variance process, to provide flexibility. The BLM considers right-of-way (ROW) applications for utility scale solar energy development in variance areas on a case-by-case basis based on environmental considerations; coordination with appropriate federal, state, and local agencies and tribes; and public outreach.

The BLM further identified Renewable Energy Development Areas (REDA) and management actions, design features, and land tenure and reuse policies applicable to solar energy development on BLM-administered land in Arizona in the Renewable Arizona: Restoration Design Energy Project (RDEP) Record of Decision (ROD) and Amendment to Resource Management Plans (BLM 2013).

EAGL, LLC (a subsidiary of BNC DEVCO, LLC, which is a joint venture between BrightNight, LLC (BrightNight), and Cordelio Power (Cordelio), referred to as "Applicant", proposes to construct, operate, maintain, and decommission up to a 400-megawatt (MW) solar and up to a 400-MW battery energy storage system (BESS) facility known as the Eagle Eye Solar Project (referred to as the "Eagle Eye Solar Project," or "Project"). The Applicant's proposed Project will be wholly located on federal land in a BLM's Lake Havasu Field Office (LHFO) variance area for solar power plant development located in unincorporated La Paz County, Arizona (Figure 1).

As part of the variance process, the Applicant must demonstrate that the proposed Project would avoid, minimize, and/or mitigate the impacts to sensitive resources, according to standards set out by the Solar PEIS (BLM/DOE 2012: Appendix B, Section B.5.3) and the Renewable Arizona: Restoration Design Energy Project (BLM 2013: Section 2.2.2, Table 2-2) for Water Protection Zones. The Applicant must also demonstrate that the proposed Project is compatible with state and local plans, that they can acquire all required permits and authorities to implement the Project, and that any potential conflicts with sensitive resources have been assessed. This Variance Factors Analysis Report (VFAR) provides this information to the BLM LHFO for the Eagle Eye Solar ROW grant application review.

### b. Project Description

The Applicant proposes to construct, own, operate, and decommission the Project, consisting of up to a nominal 400-MW alternating current (MWAC), photovoltaic (PV) power generating facility and a 400-MW BESS. The Project is also evaluating the potential for a Hydrogen Energy Storage System (HESS). The proposed Project is located unincorporated La Paz County, Arizona (in Township 7N, Range 12W,

Sections 20, 26–29, 32-35; Township 6N, Range 12W, Sections 1–4 and 9–12 of the Gila-Salt River Meridian), about 3 miles north of Wenden, Arizona, and approximately 100 miles west-northwest of Phoenix, Arizona (Figure 2). The Project would be located entirely within the requested ROW area of approximately 4,830 acres of BLM-administered land (Project Area). The ROW application request contains a larger area than would be ultimately required for the solar facility to allow for micro adjustments in the layout to minimize environmental impacts and optimize layout. The entire Project is within BLM Variance lands and 1,029.1 acres are within BLM REDA lands.

The proposed Project would consist of approximately 2,600 acres within the requested ROW area of single-axis tracking system PV panels, inverter pads and inverters, access roads, a up to 400-MW BESS, laydown areas, and an operation and maintenance (O&M) building. Figure 3 depicts a conceptual Project layout out. The final design will take into consideration results of National Environmental Policy Act (NEPA) and other resource inventories that will be done during the NEPA process.

The power produced by the proposed Project would be conveyed to the DOE Western Area Power Administration's (WAPA) transmission system via a new 230-kilovolt (kV) generation tie (gen-tie) with the point of interconnect at the existing Harcuvar Substation, located 2.1 miles to the north. The proposed gen-tie consists of an approximately 42-acre corridor (2.1 miles long by 150 feet wide). An additional approximate 20 acres will be included for temporary laydown and construction areas and temporary access roads, and 4 acres for a proposed substation adjacent to the existing Harcuvar substation will also be utilized. The applicant holds an Interconnection Queue Position with WAPA at the existing Harcuvar Substation. Figure 3 presents the Conceptual Site Plan for the Project.

Construction would begin as early as 2024, and based on this timeframe, would begin operation as early as the first half of 2026. The Project is rated to operate for a minimum of 35 years. At the end of its useful life, the Project would be decommissioned, and the land would be returned to its pre-Project conditions. The target in-service date is December 2026, pending variance approval and future NEPA process timeline.

### c. Project Components

The proposed Project would include the following primary elements. For more information and full description of the Project components, please see Eagle Eye Solar Project Plan of Development (POD) 2023. The conceptual layout set is provided in Figure 3.

### **Solar Array and Collection System**

The proposed Project would use approximately 1,739,000 bifacial solar PV modules mounted on single-axis, horizontal tracker mounting systems throughout the Project Area supported by driven steel posts or other embedded foundation design. For maximum efficiency, panels are typically installed between 16 and 24 inches off the ground when at their lowest point and from 8 to 12 feet to the top of the panels from the ground level, once installed. The vertical support legs for the tracker mounting system consist of foundations that may include concrete piers approximately 18 to 24 inches in diameter and 6 to 8 feet deep, or driven posts (wide flange I-beam) approximately 6 to 8 inches across and 6 to 12 feet deep. The PV tracker rows would be oriented north-south based on the mounting structure design; however, exact module support structure types would be determined during the final Project design.

An underground direct current (DC) collection system and power collection system to collect power generated from the modules will be installed from the array blocks. An underground and overhead 34.5-kVAC collection system to convey electricity from the 4 MWAC inverters and power stations to the on-site Project substation, and ultimately to the gen-tie line.

### **Generation Interconnection Transmission Line and Substation**

An approximately 2.1-mile-long, 230-kV, single-circuit gen-tie transmission line hung on power poles extending from the Project's on-site switchyard(s) to WAPA's Harcuvar Substation will be installed. The ROW width would be determined based on coordination with the BLM but would be approximately 150 feet wide. Gen-tie line poles would range between 55 and 100 feet in height from ground surface and spaced between 600 and 1,200 feet apart. The gen-tie line would be engineered to meet established Avian Power Line Interaction Committee guidelines.

A new electrical substation would be required as part of the Project and located on an approximately 4-acre area to the south and southwest of the existing Harcuvar Substation. The substation would maintain electrical equipment required to match the interconnect voltage at the existing substation bay.

### **Battery Energy Storage System**

A 400-MW lithium-ion or helium BESS, which would be located within the Project Area near the on-site substation, would be installed. The BESS would occupy approximately 36 acres. The BESS battery containers would comply with the National Fire Protection Association 855, Standard for the Installation of Stationary Energy Storage Systems. Fans and/or air conditioning equipment within the battery storage units would be used to maintain the manufacturer's required temperature within containers.

### **Meteorological Station**

A meteorological station approximately 30 feet high and mounted on 3-foot-by-3-foot concrete foundations, which may be installed at a location near the perimeter of the solar field, closest to Low Mountain Road.

### **Project Area Access**

The primary access point for the Project would originate from a proposed improved road from Alamo Road, located west of the Project Area approximately 1.6 miles. To access this location from Highway 60 in Wenden, turn north on Cunningham Pass Road/2nd Street. Continue straight onto Alamo Road for approximately 4.5 miles northward to an existing non-improved road on the eastern side of the road. This existing unsurfaced road would be improved and extend eastward approximately 1.6 miles to the Project Area. This access road would be 25 feet in width.

A secondary Project access will originate from the north, adjacent and west of the proposed gen-tie line. From Wenden, turn north on Cunningham Pass Road/2nd Street. Continue straight on Alamo Road approximately 6.0 miles and turn right onto Low Mountain Road. The access point would be approximately 2.0 miles from the junction of Alamo Road and Low Mountain Road on the right, immediately north of the Project Area and is proposed to be approximately 25 feet in width.

#### **Internal Access Roads**

The perimeter road around the generation solar site would be approximately 15 feet wide and composed of native graded and compacted soil, or an aggregate base would be used in some or all areas to meet Project dust and flood control requirements.

Interior access ways would be approximately 15 feet wide and occur in between solar panel arrays across the solar field. The existing surface area would be graded and compacted using on-site materials to facilitate use by two-wheel-drive vehicles.

### **Security**

Project security would include a combination of perimeter security fencing, controlled access gates, on-site security patrols, lighting, electronic security systems, and/or remote monitoring.

The perimeter fence would be an approximately 6- to 7-foot-high chain link fence with 1-foot-high barbed-wire security strands at the top; a 10-foot-wide fire break would be maintained around the exterior of the perimeter fence. Project fencing would follow the Arizona Game and Fish Department's (AZGFD) Guidelines for Wildlife-Compatible Fencing and Guidelines for Solar Development in Arizona.

### Lighting

Permanent lighting would be provided within the substation and at the Project entry gate. Lighting for facilities and associated infrastructure would be down shielded to keep light within the boundaries of the proposed Project site and the minimum amount and intensity necessary for the intended use.

### **O&M Building**

A permanent O&M building may be installed and isanticipated to be a pre-fabricated structure or set of trailers, would provide working space for on-site personnel and storage for spare parts. Future engineering would determine the location within the Project site and anticipated size of this building.

### **Temporary Construction**

A temporary construction mobilization and laydown area would contain construction trailers, construction workforce parking, aboveground water tanks, materials receiving, and materials storage (graded/compacted earth). Future engineering would determine the location within the Project site and anticipated size of this component.

Temporary construction areas (approximately 200 by 200 feet) would be located at each transmission tower location and at locations required for conductor stringing and pulling operations to accommodate construction of the gen-tie line.

### **Water Use**

An estimated 50 acre-feet (AF) per month of water would be required over the proposed Project's approximately 18-month construction period for construction-related activities, including dust control. If dust palliatives are used in place of water, the total amount of water needed during construction would be reduced.

After construction is complete, the Project's water consumption during operation would require approximately 120,000 gallons per year, or approximately 0.368 AF per year. Water would be used for panel washing and dust suppression during operation.



Water is anticipated to be taken from a well that the Applicant is anticipated to drill within the Project Area. The location of an on-site well for operational water use would be determined during Project design.

The proposed Project's fire protection water system would be supplied from the on-site water well. Water would be obtained from the well then stored in an on-site water tank. The size of the on-site water storage tank would be determined during future design phases.

Water use during construction and operations would comply with the goals and requirements of the Phoenix Active Management Area Fourth Management Plan (ADWR 2010).

Wastewater generated during construction would include sanitary waste from portable toilets. This waste would be collected by a contracted sanitary disposal service and transported to a licensed disposal facility. Since the facility would be operated by a small number of full-time employees, no permanent wastewater facilities would be installed.

### d. Project Purpose and Need

The Applicant's purpose for the Project is to generate, store, and transmit renewable energy to the statewide wholesale electrical grid. The Applicant's identified need for the Project is to:

- Deliver up to 400 MW of reliable, clean, affordable, renewable energy to Arizona and other Southwest customers under long-term contracts with electricity service providers;
- Help support and/or mitigate the loss of large-scale power hydro generation resources that
  are dwindling due to long-term drought affecting the Southwest, causing stress on the power
  grid and higher prices for Arizona customers;
- Enhance grid reliability and security through the supply of energy, capacity, and ancillary services to the grid;
- Further the purpose of Secretarial Order 3285A1, establishing the development of
  environmentally responsible renewable energy as a priority for the U.S. Department of the
  Interior; and Minimize environmental impacts and land disturbances associated with solar
  energy development by siting the facility on relatively flat, contiguous lands with: a) road
  access and high solar insolation, b) low biological impact, and c) in proximity to established
  utility corridors and existing transmission lines with available capacity to facilitate a reliable
  and secure interconnection to the power grid.

The BLM's purpose is to review and evaluate the proposed Project. The BLM's need is to respond to a ROW application submitted by the Applicant to construct, operate, maintain, and decommission (at end of life) a solar PV BESS facility and associated electrical infrastructure on public lands in compliance with the Federal Land Policy and Management Act, BLM ROW regulations, and other applicable federal laws and policies.

Approval of the Project on public lands involves a federal action and is thus subject to the environmental analysis requirements of the NEPA. The NEPA requires that federal agencies undertaking any "major federal actions significantly affecting the quality of the human environment" must prepare an Environmental Impact Statement (42 United States Code § 4332(C)).

### e. Final VFAR Findings

The BLM considers a variety of factors when evaluating ROW applications and associated data in variance areas. The focus of the variance process is to preliminarily evaluate a project with respect to allowable variance lands established under the BLM's Solar Energy Program, to ensure the project applicant is collecting the appropriate data and evaluating it with the right parties to assess the appropriateness of a given proposal (rather than developing a prescriptive set of measures that would be established at the programmatic level).

The Applicant will initiate the environmental data collection and analysis required for the level of NEPA review required by the BLM and other applicable state and county regulations. As advocated by the BLM, the Applicant will work with the BLM to detail and undergo the necessary studies to ensure a comprehensive review of the Project based on sound science and resources of concern. The Applicant is also prepared to adhere to the following:

- The Applicant will comply with the BLM-required preliminary meetings with public resource agencies and local jurisdictions as part of BLM's Solar Energy Program;
- The Applicant will comply with required preliminary public outreach and meetings as part of the BLM's Solar Energy Program; and
- The Applicant will confirm with the BLM and adhere to the data collection and survey
  protocols prescribed by resource agencies, including, but not limited to, those resource
  investigations listed below in Section 2 (Factors to be Considered) as part of the BLM's Solar
  Energy Program.

Based on the information provided in Sections 2 through 5 of this report, the Applicant will work with the BLM to establish preliminary compliance with the use of variance lands under the BLM's Solar Energy Program. At this time, preliminary indications are that the Project can and would avoid, minimize, and/or mitigate, as necessary, effects to sensitive resources. Furthermore, initial review suggests the proposed Project is compatible with state and local plans and is capable of acquiring all required permits and authorities to implement the Project.

### 2.0 Factors to be Considered

In accordance with the BLM's Solar Energy Program, this section analyzes each of the factors to be considered by the BLM consistent with Appendix B.5.3. of the Western Solar Plan and the programmatic design features adopted in the Western Solar Plan ROD, as appropriate, when evaluating ROW applications for utility scale solar energy development in variance areas.

### a. Factors to be Considered

1. The availability of lands in an SEZ that could meet the applicant's needs, including access to transmission.

The following three SEZs in Arizona were identified in the BLM's Western Solar Plan (Solar PEIS) and the Arizona RDEP and were considered for solar development by the Applicant:

- Agua Caliente SEZ: 2,560 acres managed by Yuma Field Office;
- Brenda SEZ: 3,878 acres managed by Lake Havasu Field Office; and



• Gillespie SEZ: 2,618 acres managed by Lower Sonoran Field Office.

The nearest BLM SEZ, the Brenda SEZ, is located approximately 22 aerial miles southwest of the Project (Figure 2). However, on November 4, 2021, the BLM filed a notice in the *Federal Register* of competitive offers to lease lands for solar development within each of its SEZs. Based on the expressed interest, all three Arizona SEZs were offered for lease in their entirety. As of February 2, 2022, the BLM indicated all three SEZs (including the Brenda SEZ) have been preliminarily leased and slated for solar development; therefore, SEZ lands are unavailable to the Applicant.

The proposed Project is partially (approximately 1,029.1 acres or 21.3 percent of the Project Study Area and up to 40% of the final 2600-acre footprint) located on BLM-identified REDA lands. The proposed Project has been sited in proximity to existing electrical infrastructure (the Harcuvar Substation is approximately 2.1 miles northwest of the Project Area) and the Project would require minimal new electrical infrastructure (including a new 2.1-mile-long gen-tie line, which would parallel a segment of the existing Eagle Eye to Parker 230-kV Transmission Line to minimize additional disturbance) (Figure 1).

The Project is located in an area identified as suitable for solar energy development in the LHFO Land Use Plan and/or the BLM Solar PEIS, as well as the RDEP of BLM Arizona.

2. Documentation that the proposed project will be in conformance with decisions in current land use plan(s) (e.g., Visual Resource Management class designations and seasonal restrictions) or, if necessary, represents an acceptable proposal for a land use plan amendment.

The Project conforms with Decisions from the 2007 LHFO Resource Management Plan (RMP). The proposed Project would avoid all designated Special Recreation Management Areas (SRMA) and designated utility corridors. In addition, the proposed Project Area is in conformance with the RDEP Decisions. The closest SRMA are approximately 11 miles east of the proposed Project Area and approximately 5 miles north of the Project Area. Harquahala Mountains Area of Critical Environmental Concern (ACEC) and the Harquahala Mountains Wilderness are east of the Project. State Highway 60 and some agricultural land lie between the Harquahala SRMA and the Project Site. The Harcuvar Mountains Wilderness is 5 miles north of the proposed generation solar site and approximately 3.5 miles from the existing Harcuvar Substation. The existing uses within the Project Area include grazing, mining claims, and undesignated outdoor dispersed recreation. The Visual Resource Management (VRM) Classes for the proposed Solar Array area are Class III (47 percent of the Project Area) and Class IV (52 percent of the Project Area). Approximately 1.1 miles of the gen-tie adjacent to the Harcuvar substation is located in Class II (1 percent) VRM. The proposed gen-tie line will be sited adjacent to an existing transmission line. Further VRM analysis and review will be done to determine impacts to potential land uses plans and nearby designations.

3. Documentation that the proposed project will be consistent with priority conservation, restoration, and/or adaptation objectives in the best available landscape-scale information (e.g., landscape conservation cooperatives, rapid ecological assessments, and State and regional-level crucial habitat assessment tools [CHATs]).

Landscape Conservation Cooperatives (LCC) were established to provide science capacity and technical expertise for meeting shared natural and cultural resource priorities. These LCC collaborative partnerships leverage resources, share scientific expertise, fill needed science gaps, identify best practices, and prevent duplication of efforts through coordinated conservation planning and design. The Project Area lies within the Desert LCC, which includes the Mojave, Sonoran, and Chihuahuan Deserts, grasslands and valley bottoms, and isolated mountain ranges, with elevations ranging from near sea level to more than 10,000 feet. This LCC does not provide documents or information that would require consistency (LCC 2023).

The AZGFD participates with the Western Governors' Association and 16 other western states' wildlife agencies to develop a crucial habitat assessment tool (CHAT). CHAT is an online mapping application that presents wildlife and habitat data for improved multi-state planning and integration of wildlife resource priorities throughout land use planning processes and incorporates data from the AZGFD and other agency and partner data sources. "Crucial habitat" and Landscape Condition are ranked using a relative, six-level prioritization scheme, where 1 represents areas "most crucial" and 6 represents areas "least crucial." According to CHAT data, the Project Area CHAT ranks 5 and 6, indicating that the proposed site is not likely to contain crucial habitats (WAFWA 2023).

The BLM has also conducted Rapid Ecoregional Assessments (REA) to identify important resource values and patterns of environmental change that may not be evident when managing smaller local land areas. REAs look across all lands in an ecoregion to identify regionally important habitats for fish, wildlife, and species of concern and provide context for cross-jurisdictional, multi-scale resource discussions, potential future conditions, and the basis to prioritize additional information needs. The proposed Project Area lies within the Sonoran Desert REA, which includes parts of Arizona and California (BLM 2023a).

The proposed Project will be consistent with priority conservation, restoration, and/or adaptation objectives in the best available landscape-scale information.

### 4. Documentation that the proposed project can meet applicable programmatic design features adopted in the Solar PEIS Record of Decision (ROD) (Appendix A, Section A.4.1).

The programmatic design features identified in the Solar PEIS address the broad possible range of direct and indirect impacts that may result from utility scale solar energy development. Application of the programmatic design features is intended to result in the avoidance, minimization, and/or mitigation of potential resource conflicts. Due to site-specific circumstances, not all design features as written will apply to all projects (e.g., a resource is not present on a given site). Some design features may require variations from what is described (e.g., a larger or smaller protective area). In some cases, multiple options for addressing a potential resource conflict are provided.

The Applicant has initiated early coordination with the BLM and resource agencies through preapplication meetings and correspondence and will continue to work with the BLM to address proposed variations in the design features and to discuss selected options for avoidance, minimization, and/or mitigation of potential resource conflicts. Variations in programmatic design features will require appropriate analysis and disclosure as part of individual Project authorizations. Programmatic design features that apply to the Project will be described and evaluated as part of the environmental analysis under the NEPA and future BLM decision rationale. Additional mitigation

measures may be identified and required during Project development and NEPA environmental review. Section 4.b. below describes resources within the Project Area and how the Project can meet the applicable programmatic design features or provide an assessment in further investigation of resources, as adopted in the solar PEIS ROD.

5. Documentation that the applicant has coordinated with State and local (county and/or municipal) governments, including consideration of consistency with officially adopted plans and policies (e.g., comprehensive land use plans, open space plans, and conservation plans) and permit requirements (e.g., special use permits).

The Project would be located entirely on BLM-administered public land. The Applicant will coordinate with state and local (county and/or municipal) governments to ensure consistency with officially adopted plans and policies and permit requirements.

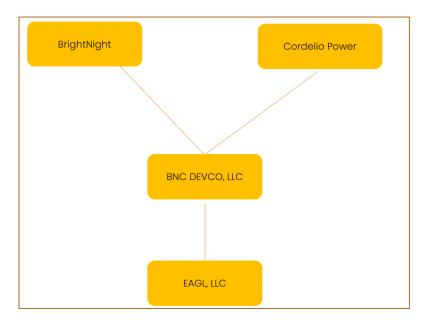
On February 7, 2023, the Applicant met with representatives from La Paz County, Megan Spielman (County Administrator), D.L Wilson (Director, La Paz Economic Development Corporation), and Jim Downing (President, La Paz Economic Development Corporation) to discuss the Project and evaluate consistency with local regulations. No concerns were stated at the meeting related to any inconsistency with the county's land use plans. Additional meetings with the County officials, including county supervisors, are scheduled in early March 2023. Additionally, the Applicant has worked with the State to identify state level plans and policies on other solar energy facilities in Arizona and will apply this experience and knowledge of permit requirements for this Project.

All construction and O&M activities associated with the Project will be conducted in compliance with all relevant federal, state, and local regulations and permit requirements. A preliminary list of required permits and authorizations has been developed and will be used to guide the Project as the Project planning continues. The Applicant will coordinate with the La Paz County Community Development Department and the State on any necessary procedures and/or permits that may be required. This section will be updated once any feedback is received from state and local governments resulting from the BLM's outreach efforts.

6. Documentation of the financial and technical capability of the applicant, including, but not limited to, the following: - International or domestic experience with solar energy projects on either Federal or non-Federal lands; and - Sufficient capitalization to carry out development, monitoring, and decommissioning, including the preliminary study phase of the project and the environmental review and clearance process.

The Applicant (EAGL, LLC) is owned by BNC DEVCO, LLC, a joint venture between BrightNight and Cordelio Power. BrightNight was formed on July 24, 2018, as a Limited Liability Company registered in the state of Delaware. Cordelio) was originally formed in June 2018 and was registered as an Ontario limited partnership in December 2020.

In December 2020, BrightNight and Cordelio partnered to develop dispatchable renewable energy and energy storage projects in the western U.S. The following figure shows the organizational chart for the Project Company:



BrightNight develops, finances, constructs, and operates dispatchable clean energy power plants (i.e., renewable energy plus energy storage). BrightNight then sells and delivers the energy, capacity, other renewable attributes and services, and/or the projects themselves to utilities, municipal load-serving entities, other electric retailers, and commercial and industrial customers in the U.S. BrightNight is focused on using advanced solar PV and battery technologies to store the energy and deliver energy when customers need it. BrightNight has built a U.S. portfolio that is over 10 gigawatts in size.

Cordelio manages a 1,200+-MW renewable power generation portfolio that includes 1) a 396-MW portfolio of wind and solar projects in Ontario, and 2) a 656-MW (net) wind and solar portfolio owned by Canada Pension Plan Investment Board (CPP Investments) through a joint venture with a strategic partner. Cordelio also wholly owns, through a joint venture, a growth pipeline of over 175,000 MW of wind, solar, and storage projects in the western and midwestern U.S. Cordelio carries out its operations and growth activities by working with all stakeholders in an efficient, safe, and environmentally responsible manner. Cordelio is based in Toronto, Ontario, and is wholly owned by CPP Investments, which has \$545 billion (Canadian) in net assets as of December 31, 2022.

The Applicant remains fully committed to its mission of becoming a leading developer, owner, and operator of renewable power facilities across North America and has demonstrated capacity to complete federal, state, and local environmental reviews, obtain all necessary permits, and successfully construct/operate utility scale solar energy facilities consistent with all requirements. Financial and credit-related information for the Applicant is provided in Appendix B of the POD.

# 7. Documentation that the proposed project is in an area with low or comparatively low resource conflicts and where conflicts can be resolved (as demonstrated through many of the factors that follow).

The Project is located in an area of low resource conflict (BLM 2022b). The Project Area does not overlap the majority of the Solar Development Exclusions in Arizona identified by the BLM as part of the Final PEIS for Solar Energy Development in Six Southwestern States, including the following resources:

ACECs;



- Areas Excluded from SEZs in Arizona;
- Developed Recreational Facilities in Arizona;
- U.S. Fish and Wildlife Service (USFWS) Critical Habitat for Fauna in Arizona;
- USFWS Critical Habitat for Flora in Arizona;
- National Conservation Areas in Arizona;
- National Historic and Natural Landmarks in Arizona;
- National Monuments in Arizona;
- National Trails in Arizona;
- ROW Avoidance Areas in Arizona;
- ROW Exclusion Areas in Arizona;
- Special Recreation Management Areas in Arizona;
- VRM Class I in Arizona;
- Wilderness Areas in Arizona;
- Wilderness Characteristics in Arizona; and
- Wilderness Study Areas in Arizona (BLM 2022b).

The Project, if advanced through the variance process, would undergo NEPA review and a more detailed evaluation would ensue to confirm that adverse impacts would not occur as a result of implementation of the Project. See Section 5, *Summary of Potential Resource Conflicts*, for further details regarding anticipated documents to support NEPA review of the Project.

### 8. Documentation that the proposed project will optimize the use of existing roads.

Throughout Project planning, the Applicant will optimize the use of existing roads. The Applicant plans to use existing roads and to minimize the creation of new roads to the extent feasible for the Project. There are two proposed access points utilizing existing roads: an unimproved road running east-west originating off Alamo Road and another from Low Mountain Road. The Primary Access Road, off Alamo Road, will require improvements of an existing Off Highway Vehicle road and can be accessed from U.S. Highway 60.

Any existing roads within the Project Area would be utilized to the extent possible and practicable to provide access for equipment, suppliers, workers, and contractors. Any other new roads associated with the Project will be internal access roads necessary to support solar facility construction and operation. The number and length of roads will be minimized to the extent possible to reduce surface disturbance.

9. Documentation that the proposed project will optimize the capacity of existing and new transmission infrastructure and avoid duplication in the use of or need for existing and new transmission and transmission interconnection facilities.

The Project will optimize the capacity of existing and new transmission infrastructure and avoid duplication in the use of or need for existing and new transmission and transmission interconnection facilities.

The Applicant plans to build an approximately 2.1-mile gen-tie line to interconnect to the existing Harcuvar Substation, parallel a segment of the existing Eagle Eye to Parker 230-kV transmission line, and would utilize existing road infrastructure to minimize additional disturbance. Additionally, a portion of the proposed gen-tie line occurs within the BLM Section 368 corridor, an area designated for transmission. The Applicant's proposed gen-tie line will be sited to create the least amount of environmental or land use impact as possible. Existing access roads will be used to the greatest extent possible to minimize the need for additional new roads. The principal reason for the siting of the Project is the proximity of the Harcuvar Substation.

## 10. Documentation that the proposed project will make efficient use of the land considering the solar resource, the technology to be used, and the proposed project layout.

The Project will make efficient use of the land considering the solar resource, the technology to be used, and the proposed Project layout. The Project will maximize the use of the land by utilizing the most current PV technology and arranging the layout to be concise and compact, while avoiding environmental resources and other development constraints. The final 400-MW footprint is expected to be approximately 2,600 acres within the 4,830 acres applied for in the BLM SF-299 (the entire Project Area) as needed to make the most efficient and least impactful use of the land. The acreage requested in the POD provides flexibility in siting and ability to avoid local constraints and select the most environmentally compatible area for installation. The Project location has been chosen in consideration of site-specific conditions to provide maximum photon reception within the Project. The region in which the proposed Project is located receives an average of 6.5 kWh per m2 per day of solar radiation energy, making it a very desirable location for solar development (NREL 2017).

The Project would use state-of-the-art, PV bifacial module technology. Bifacial solar panels are more efficient than traditional panels to capture sunlight on both their front and back, allowing more surface area to absorb sunlight. If bifacial modules are set up vertically, they can capture energy at two of the sun's peak times: sunrise and sunset. Because solar energy technologies continue to evolve at a rapid rate, the exact arrangement and nature of the PV systems would be determined during the final design.

The Project would also likely utilize single-axis trackers that track the sun's position during the day. A solar tracking mechanism is used to maximize the solar energy conversion efficiency by minimizing the incidence angle between the sun's rays and the modules throughout the day. This completed assembly of PV modules mounted on a framework structure is called a tracker, since it tracks the sun from east to west. In most cases a horizontal single-axis tracker typically delivers the lowest levelized cost of electricity for customers in the U.S. A fixed support structure is also possible, but less efficient for this climate. If utilized, a fixed structure deployment would orient the panels in a permanent position facing south at a certain angle to optimize production throughout the year without any mechanical movement or drive motors. The exact tracker manufacturer and model would be determined in the final design.

The Project array layout and spacing would be optimized to balance energy production versus peak capacity and would depend on the sun's angle and shading caused by the horizon surrounding the Project. The spacing between the rows of trackers is dependent on site-specific features and tracker selection. Spacing would be identified in the final design.

Furthermore, the project would also employ up to a 400 MW lithium-ion BESS from Tier-1 manufacturers that would have a nameplate power capacity no larger than the solar facility and would be connected using either an AC- or DC-coupled system. Selection of an AC- or DC-coupled system is ultimately determined through off-taker preference and contract terms. The Applicant is also evaluating if the technology is available for a HESS. These equipment enclosures would be placed on concrete pads and would occupy up to approximately 50 acres, depending on the size of the system contracted and technology selected.

The gen-tie line has been sited and will be built with maximum efficiencies and parallel similar land uses where available. Existing roads will be used to the greatest extent practicable.

The Applicant will continue to progress the design process and will update the POD as necessary through the NEPA process.

11. If applicable, documentation that the proposed project will be located in an area identified as suitable for solar energy development in an applicable BLM land use plan or by another related process such as the California DRECP (e.g., Development Focus Areas) or Arizona Restoration Design Energy Project (e.g., Renewable Energy Development Areas).

The location of the Project has been selected because it provides a large portion of land that has been identified as suitable for solar development: the BLM Solar Energy Environmental Mapper identified the land as available solar variance land with excellent solar potential (BLM 2022b; Figure 1). Additionally, approximately 1,029.1 acres or up to 40 percent of the final 2600-acre footprint occurs within the REDA area. The surrounding land is similar in nature and character to the lands inside of the REDAs, defined as designated leasing areas in the 2017 updates to ROW regulations. Forthcoming studies as part of the NEPA process will determine the suitability and development constraints of these lands.

12. If applicable, special circumstances associated with an application such as an expansion or repowering of an existing project or unique interagency partnership.

Not applicable as this is a new project. Therefore, there is no associated application for expansion or repowering of an existing project or proposed alteration to an existing interagency partnership.

13. If applicable, opportunities to combine Federal and nonfederal lands for optimum siting (e.g., combining BLM-administered land with adjacent previously disturbed private lands).

Not applicable. No private land capable of supporting a nameplate capacity of 400 MWAC using renewable solar technology exists within proximity to the Harcuvar Substation. The entire Project would be sited on BLM-administered lands.

14. If applicable, documentation that the proposed project will be located in, or adjacent to, previously contaminated or disturbed lands such as brownfields identified by the EPA's RE-Powering America's Land Initiative or State, local or Tribal authorities; mechanically altered lands such as mine-scarred lands and fallowed agricultural lands; idle or underutilized industrial areas; lands adjacent to urbanized areas or load centers; or areas repeatedly burned and invaded by fire-promoting non-native grasses where the probability of restoration is determined to be limited. Preference will be given to proposed projects that are located in, or

### adjacent to, previously contaminated or disturbed lands under the variance process, assuming all other factors are adequately considered.

The Project Area is located in unincorporated La Paz County where public lands are utilized in part for other BLM authorized land uses, including mineral lease rights, sand gravel mining, pipeline and highway ROWs, cattle grazing, and dispersed recreation. The Project Area, and more specifically, the gen-tie line, overlaps with one open and several closed mining claims. The Project Area is not considered a brownfield site and has never been developed with any industrial or agricultural uses.

Approximately 2,150 acres of the Project Area occur within the U.S. Department of Defense (DOD) Formerly Use Defense Sites (FUDS), known as the Laguna Maneuver Area, Bomb Target 2 and 3. Also, approximately 1 mile of the gen-tie line and proposed substation overlap with the Camp Bouse FUDS. According to the U.S. Army Corps of Engineers (USACE), these FUDS were previously disturbed from past DOD activities, such as bombing target ranges, gunnery ranges, and maneuver/training areas. The Laguna Maneuver Area was used by units from Blythe Army Airfield for air to ground gunnery training as well as maneuver areas and vehicular access from 1942 to 1944. The Maneuver/Training Area was used as a maneuver and training range by tank battalion personnel stationed at Camp Bouse from approximately 1942 to 1945.

The Applicant consulted with the USACE and determined that the Laguna Maneuver Area has received a "No Longer Requires Action" designation and the case was closed May 16, 2014. This category is reserved for Munition Response Services that no longer require an assigned priority because the Department of the Army has conducted a response, all objectives set out in the decision document for the Munition Response Service have been achieved, and no further action, except for long-term management and recurring reviews, is required. The Applicant also conducted an After Action Report for Unexploded Ordnance (UXO) survey along a portion of the gen-tie line that overlaps with Camp Bouse on November 3 and 4, 2022, and reported no material presenting an explosive hazard. Camp Bouse is still within the USACE Interim Risk Management program with known or suspected munitions used including various sizes of artillery shells and mortars; antitank mines; hand, smoke, and rifle grenades; rockets; practice bombs and mines; and general small arms ammunition. According to the USACE, the anticipated schedule for remediation is between 2033 and 2066 (USACE Project files: ASR 2002, Final SI 2008 for original project J09AZ026901). Given the past history of the Project Area and its documentation of being previously contaminated and disturbed, the Project Area offers an advantageous reuse opportunity for the Project.

Lastly, based on a windshield survey and pedestrian survey of a portion of the gen-tie line the Project Area is dominated by native vegetation, not invasive grasses. Additionally, the Project Area lies within Lower Sonoran Desertscrub and Riparian Vegetation Communities for Fire Management. For both vegetation communities the desired future conditions are as follows: adequate cover and a mix of natural plant species that have good vigor; and in terms of management and fire ecology, the desired future conditions are for fire to control or reduce exotic annual weeds, such as red brome and to limit woody vegetation to non-hazardous levels. The Applicant is prepared to further investigate the potential for existing UXO to minimize risk to development through the NEPA process.

15. Documentation that the proposed project will minimize adverse impacts on access and recreational opportunities on public lands (including hunting, fishing, and other fish- and wildlife-related activities).



The Project will minimize adverse impacts on access and recreational opportunities on public lands (including hunting, fishing, and other fish- and wildlife-related activities). The Project Area is vacant, relatively flat, and has no physical improvements or development. The Project Area is open to dispersed recreation, and several unimproved and primitive access roads and is used by hiking, off-highway vehicle use, and dispersed camping. The Project Area does not offer fishing opportunities, nor are there remarkable geologic or natural features that may attract recreationists to the Project Area.

The Project Area falls within AZGFD Game Management Unit 44A and is likely used for hunting throughout certain times of the year. The species within this Game Management Unit that could be hunted include bighorn sheep (*Ovis canadensis*), elk (*Cervus canadensis*), mule deer (*Odocoileus hemionus*), javelina (*Tayassu tajacu*), dove (*Columba* spp.), and quail (*Coturnix* spp.; AZGFD 2022<u>b</u>). Bighorn sheep are primarily found in the mountain ranges of the Game Management Unit. Elk are primarily found in the river bottoms of the Big Sandy and Santa Maria Rivers upstream of Alamo Lake and those portions of the Bill Williams River directly above Alamo Lake. Mule deer are associated with the Harcuvar and Harquahala Mountains and surrounding areas. Javelina are found throughout the Game Management Unit but are associated with permanent water sources. Doves and quail are found throughout the Game Management Unit and are associated with a variety of habitats (AZGFD 2022b).

The Project may impact suitable habitat where mule deer, dove, and quail would be present; however, there is ample suitable habitat present throughout the Game Management Unit where these species could occur. Additionally, a portion of the gen-tie line lies within the bighorn sheep habitat; however, minimal disturbance is anticipated for the gen-tie line construction.

The Project would introduce a new solar facility and associated components, which would be visible to recreational viewers on nearby lands. Recreational activities may also be temporarily affected by construction traffic, and portions of the Project Area would be temporarily (along the electrical connection line) or permanently closed (solar facility site), thereby potentially affecting recreational access within the Project Area. Alternate access would be established to ensure that the Project Area does not affect access to designated OHV routes or other recreational opportunities in the surrounding area.

The Applicant would work with the BLM to avoid, minimize, and/or mitigate as needed recreational access and opportunities that may occur as a result of the Project. Additionally, the Applicant will evaluate potential visual resource impacts during the NEPA process.

16. Documentation that the proposed project will minimize adverse impacts on important fish and wildlife habitats and migration/movement corridors (e.g., utilizing the Western Wildlife CHAT, administered by the Western Association of Fish and Wildlife Agencies and coordinating with State fish and wildlife agencies).

The Project would be required to minimize any adverse impacts on wildlife habitats and migration/movement corridors. There is no fish habitat in the Project Area due to the absence of perennial aquatic habitat.

The Project Area is not within a Wildlife Connectivity Zone as outlined by the AZGFD, a wildlife habitat management area, or Wildlife Corridor as identified by the RMP. The AZGFD has developed management plans and conservation strategies for game and non-game species in the state. The

AZGFD has defined conservation potential areas in the state; the department vision for critical habitat areas is to preserve these areas and interconnected networks between them to support viable populations of wildlife, while providing ample opportunity for people to enjoy and benefit from the presence of wildlife. There is an AZGFD-mapped Important Connectivity Zone 0.65 mile east of the Project. (These "Important Connectivity Zones" were identified by a broad range of stakeholders representing diverse organizations and interests to identify and map areas to encourage strategies for their conservation into land use decisions). Additionally, a wildlife linkage designated by Arizona Department of Transportation (ADOT) is south of the Project Area. This linkage is identified as the Harcuvar Mountains Harquahala Mountains linkage. The key species identified by the ADOT that would potentially use this linkage include:

- Pale townsend's big-eared bat (Corynorhinus townsendii pallescens);
- Greater western mastiff bat (Eumpos perotis californicus);
- Sonoran desert tortoise (Gopherus morafkai);
- Banded Gila monster (Heloderma suspectum cinctum);
- California leaf-nosed bat (Macrotus californicus);
- Cave myotis (Myotis velifer);
- Long-legged myotis (Myotis volans);
- Yuma myotis (Myotis yumanensis);
- Pocketed free-tailed bat (Nyctinomops femorosaccus);
- Big free-tailed bat (Nyctinomops macrotis);
- Lowland leopard frog (Lithobates yavapaiensis); and
- Arizona chuckwalla (Sauromalus ater) (ADOT 2006).

Prior to and during the NEPA process, the Applicant will perform field surveys and prepare a Natural Resources Report describing biological resources on the Project site, including a focus on sensitive and state and federally listed species, subject to review by the BLM and other resource agencies. In addition, the Applicant will provide a delineation of any surface water features that may be subject to Clean Water Act (CWA) permitting by the USACE and will propose mitigation as needed to avoid, minimize, or offset impacts to jurisdictional waters.

# 17. Documentation that the proposed project will minimize impacts on lands with wilderness characteristics and the values associated with these lands (e.g., scenic values, recreation, and wildlife habitat).

The Project will minimize impacts on lands with wilderness characteristics and the values associated with these lands (e.g., scenic values, recreation, and wildlife habitat). The Project does not fall within any lands that have been inventoried as eligible for Lands with Wilderness Characteristics and is not within Wilderness-designated areas. The Harcuvar Mountains Wilderness is approximately 2.5 miles north of the proposed solar array and 1.3 miles northeast of the proposed gen-tie line. This wilderness

is briefly described in the BLM Wilderness Review Arizona: Intensive Inventory of Public Lands Administered by Bureau of Land Management as:

- This unit is 10 miles north of Wenden. It is largely comprised of the Harcuvar Mountains and portions of Butler and McMullen Valleys. The topography varies from high, rounded peaks, to steep canyons that rapidly open into the bajadas in the lower valleys. The vegetation is largely grasses and yucca in the mountain areas, and yellow palo verde (*Parkinsonia microphylla*), saguaro (*Carnegiea gigantea*), cholla, ocotillo (*Fouquieria splendens*), and brittlebush (*Encelia farinosa*) on the bajadas. The unit is bounded by roads, state and private lands, a gas pipeline and a 230-ky transmission line.
- Seventeen boundary adjustments were required to remove roads and other impacts. The
  remaining area appears to be apparently natural because the several imprints of man's work
  that remain within the unit are not substantially noticeable. The unit's large size and diverse
  terrain and vegetation provide outstanding opportunities for solitude and primitive and
  unconfined recreation (BLM 1980).

As part of the NEPA process, the Applicant will work with the BLM to conduct the necessary analyses to identify any indirect impacts the Project may have on this wilderness area and would avoid, minimize, and/or mitigate these impacts to the extent practicable.

## 18. Documentation that the proposed project will be designed, constructed, and operated to optimize the specific generation technology's efficiencies with respect to water impacts.

The majority of the construction water use is anticipated to occur during site grading. Water may also be used during operations to clean the solar panels periodically to prevent dust accumulation and maintain their efficiency in capturing solar energy. PV solar panels are among the solar technologies that use the least amount of water during operations, as compared to solar thermal or solar tower infrastructure. Water consumption required for operation of a 400-MW, PV solar facility is expected to be less than 120,000 gallons per year, or approximately 0.368 AF per year. For context on this amount of usage, the Arizona Department of Water Resources (AZDWR) indicates that the annual average use of a Phoenix residence is about 50,000 gallons per year, making the annual solar facility consumption equivalent to about 2.5 residential homes (ADWR 2023).

The Applicant will work with the BLM to incorporate design features and mitigation measures that reduce water flow volume, allow water absorption into the ground, and minimize the volume and concentration of water leaving the Project as part of the NEPA process. The Applicant is prepared to investigate the feasibility, cost, and environmental impacts of trucking water to site. The Applicant would also obtain a Stormwater Pollution Prevention Plan (SWPPP) through the Arizona Department of Environmental Quality. The SWPPP and the design features and mitigation measures incorporated into the Project design would minimize sediment yield from the site compared to pre-Project conditions during Project construction, operation, and maintenance.

19. Documentation that any groundwater withdrawal associated with a proposed project will not cause or contribute to withdrawals over the perennial yield of the basin, or cause an adverse effect on Endangered Species Act (ESA)-listed or other special status species or their habitats over the long term. However, where groundwater extraction may affect groundwater-dependent ecosystems, and especially within groundwater basins that have been over

appropriated by State water resource agencies, an application may be acceptable if commitments are made to provide mitigation measures that will provide a net benefit to that specific groundwater resource over the duration of the project. Determination of impacts on groundwater will likely require applicants to undertake hydrological studies using available data and accepted models.

The Project is located within the McMullen Valley groundwater basin. It is anticipated that a non-potable well would be installed within the Project to provide the water for construction and for cleaning of the solar panels after construction. In addition, due to the amounts of water needed for construction and the size of the construction site, water storage facilities may be implemented during the construction of the Project. The Applicant is prepared to investigate the feasibility, cost, and environmental impacts of trucking water to site.

The Project is not expected to cause an adverse effect on Endangered Species Act (ESA)-listed or other special status species or their habitats over the long term or to affect groundwater-dependent ecosystems. The groundwater depth in the Project area is expected to be up to 450 feet below the ground surface. Therefore, the groundwater depth is considered too deep to affect surface ecosystems. An additional review of the existing groundwater resources and the anticipated water usage required for the Project will be needed to evaluate further impacts to groundwater resources in the groundwater basin (ADWR 2022).

20. Documentation that the proposed project will not adversely affect lands donated or acquired for conservation purposes, or mitigation lands identified in previously approved projects such as translocation areas for desert tortoise.

The Project Area does not contain any lands donated or acquired for conservation purposes or mitigation lands.

21. Documentation that significant cumulative impacts on resources of concern should not occur as a result of the proposed project (i.e., exceedance of an established threshold such as air quality standards).

Based on the POD, the BLM will likely prepare an Environmental Assessment or Environmental Impact Statement per the requirements of the NEPA to disclose the effects of the Project and any action alternatives to the public. This will include a full analysis of potential cumulative impacts associated with the proposed action. At this time, no adverse and unavoidable cumulative impacts are expected. Many impacts (e.g., air quality emissions, noise, etc.) would be temporary, only occurring during construction. Once operational, the primary cumulative issues of concern would be on wildlife movement, overall loss of public lands, and visual impacts.

### 23. If applicable, documentation on evaluation of desert tortoise impacts based on the variance process protocol for desert tortoise.

Although the federally listed as threatened, the Mojave Desert tortoise (*Gopherus agassizii*) geographic range is outside of the proposed Project Area; the Project Area is within the geographic range of the Sonoran Desert tortoise population, which is not listed threatened or endangered. The Sonoran desert tortoise (*Gopherus morafkai*) is a candidate for listing under the ESA and is considered a sensitive species by the BLM. Both the BLM and AZGFD are participants in a Candidate Conservation

Agreement for the Sonoran desert tortoise in Arizona (USFWS and Arizona Interagency Desert Tortoise Team 2015).

The BLM characterizes tortoise habitat on their managed lands into three categories with Category I habitat being necessary to maintain populations with the highest densities, Category II habitats capable of supporting stable populations, and Category III habitats containing medium to subpar habitats. The proposed gen-tie line occurs within desert tortoise Category I and III habitats, and the northwest corner of the Project or solar array contains desert tortoise Category III habitat.

The BLM will determine whether any conservation actions are consistent with the RMP and whether additional NEPA analysis is required.

24. If applicable, documentation on evaluation of greater sage-grouse impacts based on the variance process protocol for greater sage-grouse.

Not applicable. The Project site and surrounding areas are outside the sage-grouse's geographic range and do not contain sage-grouse habitat.

25. If applicable, documentation on evaluation of impacts to National Park Service (NPS) units and other special status areas under NPS administration as defined in the variance process protocol for resources and values of units of the NPS.

Not applicable. The Project site and surrounding areas do not contain NPS units or areas.

### b. Programmatic Design Features

The following address how the Project can meet each of the applicable programmatic design features as adopted in the Western Solar Plan PEIS ROD.

### **Land and Realty**

Renewable solar energy facilities within variance areas would be processed as ROW or lease authorizations on a case-by-case basis and involve environmental review. Notifications required by the BLM would be provided to individuals or other parties that may be affected by the Project, including existing BLM ROW authorization holders to inform them that an application may affect their existing ROW has been filed (43 Code of Federal Regulations [CFR] 2807.14).

The Project is located in Township 7N, Range 12W, Sections 20, 26–29, 32-35; Township 6N, Range 12W, Sections 1–4 and 9–12 of the Gila-Salt River Meridian in unincorporated La Paz County. Based on BLM information, there are no conflicts with land and realty for this Project Area. The BLM land is open to ROWs for use of the public land. The Project occurs partially within a BLM-designated REDA land and is adjacent to the Section 368 Transmission Corridor on the north side of the Project Area and is adjacent to a locally Designated Utility Corridor (LHFO RMP) on the west side of the Project Area. A portion of the gen-tie is proposed within the Section 368 corridor. The Project Area would be located within the Babcock #03006 BLM Grazing Allotment and one BLM mining claim is within the gen-tie line, case AZ102522512, Rincon Gold #15. The majority of the Project Area consists of natural desert with several unpaved roads. The Project Area is surrounded by areas of natural desert land and agricultural fields.

### **Specialty Designated Areas and Lands with Wilderness Characteristics**

The Project does not fall within any lands that have been inventoried as eligible for Lands with Wilderness Characteristics and is not within Wilderness-designated areas. However, the Harcuvar Mountains Wilderness is approximately 2.5 miles north of the Project. This wilderness is briefly described in the BLM Wilderness Review Arizona: Intensive Inventory of Public Lands Administered by Bureau of Land Management as:

- This unit is 10 miles north of Wenden. It is largely comprised of the Harcuvar Mountains and portions of Butler and McMullen Valleys. The topography varies from high, rounded peaks, to steep canyons that rapidly open into the bajadas in the lower valleys. The vegetation is largely grasses and yucca in the mountain areas, and palo verde, saguaro, cholla (*Cylindropuntia* spp.), ocotillo, and brittlebush on the bajadas. The unit is bounded by roads, state and private lands, a gas pipeline and a 230-kv transmission line.
- BLM made 17 boundary adjustments were required to remove roads and other impacts to the
  proposed wilderness area. The remaining area appears to be apparently natural because the
  several imprints of man's work that remain within the unit are not substantially noticeable.
  The unit's large size and diverse terrain and vegetation provide outstanding opportunities for
  solitude and primitive and unconfined recreation (BLM 1980).

Approximately 6.0 miles east of the Project area is the Harquhala Mountains Wilderness Area. According to the Bradshaw-Harquahala Resource Management Plan, the wilderness area is managed for cultural, historic, wildlife, and unique biological resources.

As part of the NEPA process, the Applicant will work with the BLM to conduct the necessary analyses to identify any indirect impacts the Project may have on this wilderness area and would avoid, minimize, and/or mitigate these impacts to the extent practicable. In particular, a viewshed and visual resource analysis will be performed from various key observation points near or at the existing wilderness areas.

### Grazing

The proposed Project Area would be located within portions of the Babcock #03006 Grazing Allotment. Depending on final facility design and configuration, existing range improvements and access may require removal or relocation. Removal of rangeland infrastructure (such as wells) would require compensation and additional coordination with applicable agencies would occur. It is also anticipated that a reduction in the total amount of animal unit months (AUM) for each allotment would be required, commensurate with the amount of forage that would no longer be available as a result of fencing and other infrastructure associated with the energy generation facility. A detailed evaluation of the potential impact of the proposed Project on rangeland resources would be conducted during the NEPA analysis and would identify mitigation measures, if necessary. As required by BLM grazing regulations, the BLM would notify permittee at least 2 years in advance of any proposed agency change in the allotment. In addition, any range improvements made by the grazing permittee may be compensated through this process.

#### **Wild Horses and Burros**

The nearest heard area is the Little Harquahala Mountains approximately 2.50miles south of the Project Area, south of U.S. Highway 60 (BLM 2023b). Effects to wild horses and burros would be analyzed during the BLM's environmental review of the Project. Should protective actions be determined to be necessary, those actions outlined as design features in the Western Solar Plan (A.2.2.4) could include:

- Installing fencing and access control;
- Providing for movement corridors;
- Delineating open range;
- Requiring traffic management measures (e.g., vehicle speed limits);
- Ensuring access to or replacement of water sources;
- Incorporating key elements to mitigate impacts on wild horses and burros in a Worker Environmental Awareness Program to be reviewed and approved by BLM; and/or
- Siting, designing, constructing, fencing, and/or improving Project access roads to minimize potential wild horse and burro collisions.

Treatment of wild horses and burros is therefore anticipated to be consistent with the goals and management actions of the RMP.

### Wildland Fire

The applicant proposes a minimum 20-foot-wide firebreak would be constructed around the perimeter of the solar facility boundary to prevent wildfire from entering or exiting the site. Construction of the firebreak would require removal of all vegetation through discing or use of a grader. The firebreak would not be constructed within the high banks or established channels of ephemeral washes. The applicant also proposes to prepare a Fire Safety Plan, outlining actions to be implemented to prevent wildfires.

### **Public Access and Recreational Impacts**

The Project will minimize adverse impacts on access and recreational opportunities on public lands (including hunting, fishing, and other fish- and wildlife-related activities).

The Project is not within a Special Recreation Management Area. The Project would be located in a desert environment, and the Project lacks permanent active water courses; therefore, there is no fishing in the Project or vicinity. The Project occurs within a dispersed recreational area, likely used by Off-highway Vehicle "Limited to Existing Roads and Trials" designation. It occurs within a "Semi-primitive" Recreational Setting designation. The Project also occurs within LHFO Extensive Recreational Management Area designation.

### **Military and Civilian Aviation**

The Project Area is not located under any military airspace or in a DOD Consultation Area (ADEQ 2023; FAA 2023). The nearest municipal airport to the Project Area is approximately 34.6 miles to the northeast in Wickenburg (FAA 2023a). The Applicant would coordinate with the BLM, military personnel, and civilian airspace managers early in the Project planning process to identify any



potential conflicts with overhead airspace use. The Applicant conducted an initial review using the Federal Aviation Administration (FAA) Notice Criteria Tool and determined that the Project does not exceed criteria to file for a determination of no hazard with the FAA (FAA 2023b).

None of the solar facilities being planned for the Project would exceed 200 feet in height and would not pose a safety hazard to military or civilian flights due to height. However, as described in the Solar PEIS, the military has indicated that structures higher than 50 feet within the vicinity of any base may present electromagnetic compatibility concerns for test missions. The nearest active military base is the Luke air force base, approximately 66 miles to the southeast. The project is not anticipated to interfere with military operations Further investigation and consultation with the DOD, where needed, would occur during the NEPA process.

### **Soil Resources and Geologic Hazards**

Based on preliminary site design, all of the land within the Project Area is below the percent slope threshold to construct a solar facility. Slopes range between 0 and 5 percent throughout the Project Area. Geotechnical studies would be conducted to identify site-specific geologic and soil conditions. The Project would incorporate erosion control measures required by agency permits, construction standards, and building codes. A detailed evaluation of the potential impact of the Project on soil resources would be conducted during NEPA analysis and would identify additional mitigation measures, if necessary. Project-specific best management practices (BMP) would be included in the Project SWPPP. In addition to the SWPPP, a Site Drainage Plan would be developed, which would also reduce the potential for soil erosion as a result of the Project.

### **Mineral Resources**

One mining claims exist within approximately 3.5 acres of the gen-tie line (BLM 2023b). Claim Number AZ102522512 occurs along the gen-tie route corridor. It is a placer mining claim and named "Rincon Gold #15. No mining claims occur within the solar array area of the Project. Mining property rights take priority over any subsequent ROW, lease, or other such granted right. Therefore, the 3.5 acres of existing mining claims within the gen-tie line corridor cannot be developed unless they are overcome through purchase or expressed waiver. The Applicant would either avoid the current mining claims, while ensuring right to access, or seek to purchase some or all of these claims in order to overcome them and allow for Project development on the land. The Project would meet the applicable programmatic design features for mineral resources adopted in the Solar PEIS and RDEP RODs.

### **Water Resources**

### Surface Waters

According to the U.S. Geological Survey (USGS) National Hydrography Dataset (NHD) (USGS 2022), the Project Area for the solar arrays and BESS supports nine stream channels totaling approximately 2.39 miles (57,402 linear feet). The gen-tie line crosses nine stream channels totaling approximately 0.05 mile (262.2 linear feet) (Figure 8). The NHD did not map any surface waterbodies, such as ponds or lakes, within the Project. All streams are listed as ephemeral. According to the USGS Watershed Boundary Dataset (USGS 2022), the Project is located within the Centennial Wash eight-digit Hydrologic Unit Code (HUC8) watershed, which is part of the larger Lower Gila-Aqua Fria HUC6 basin.

According to the USFWS National Wetlands Inventory (NWI) (USFWS 2022a), the Project Area for the solar arrays and BESS supports eight riverine waterbodies totaling approximately 26.1 acres, and the gen-tie line crosses two riverine waterbodies totaling approximately 0.12 acre (Figure 8). The riverine waterbody is listed as Riverine Intermittent Streambeds, Seasonally Flooded (i.e., R4SBC). The intermittent stream channel mapped by the NWI is consistent with the ephemeral stream channel mapped by the NHD. The NWI did not map any palustrine wetland types within the Project.

The Project would be designed to avoid impacts to waters of the U.S. (WOTUS) resulting from development. If necessary, unavoidable impacts to WOTUS would be minimized and mitigated. The Applicant would conduct a routine wetland and waters delineation in accordance with USACE methodologies and obtain jurisdictional determinations and/or CWA Section 404 permit verification letters from the USACE, if and where warranted.

### <u>Groundwater</u>

According to the AZDWR Groundwater Subbasin dataset (AZDWR 2022), the Project is located within the McMullen Valley groundwater subbasin and part of the Gila River System Adjudicated Watershed. According to the AZDWR Well Registry, no groundwater wells are located within the Project (Figure 8). The Applicant proposes to drill a water well to serve as the Project's water source. A Ground Water Monitoring and Mitigation Plan will be written in coordination with the BLM and AZDWR.

### **Floodplains**

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map panel 04012C0900C, effective August 8, 2008 (FEMA 2022), identified no mapped 100-year floodplains within the Project Area. The Project Area would avoid impacts to FEMA 100-year floodplains.

### **Ecological Resources**

The Project lies within the Sonoran Basin and Range Level III Ecoregion. This ecoregion contains scattered low mountains and has large tracts of federally owned lands, a large portion of which are used for military training. The Sonoran Basin and Range is slightly hotter than the Mojave and contains large areas of paloverde-cactus shrub and giant saguaro cactus, whereas the potential natural vegetation in the Mojave is largely creosote bush (*Larrea tridentata*). Other typical Sonoran plants include white bursage (*Ambrosia dumosa*), ocotillo, brittlebush, creosote bush, catclaw acacia (*Senegalia greggii*), cholla (*Cylindropuntia* sp.), desert saltbush (*Atriplex polycarpa*), pricklypear (*Opuntia* spp.), ironwood (*Olneya tesota*), and mesquite (*Prosopis* spp.). In this region, winter rainfall decreases from west to east, while summer rainfall decreases from east to west. Aridisols and Entisols are dominant with hyperthermic soil temperatures and extremely aridic soil moisture regimes (Griffith et al. 2014).

Within the Sonoran Basin and Range ecoregion, the Project lies within the Arizona Upland/Eastern Sonoran Basin and Arizona Upland/Eastern Sonoran Mountains Level IV Ecoregions. The Arizona Upland/Eastern Sonoran Basin ecoregion includes the broad alluvial plains, fans, and bajadas that occur between the higher relief mountain ranges. Elevations are mostly 1,500 feet above mean sea level (amsl) to 3,000 feet amsl, but are as low as 900 feet amsl in the north and as high as 3,600 feet amsl on some upper slopes. Sediments filling the basins represent combinations of fluvial, and alluvial deposits. In the plains and lower bajadas, creosote bush and bursage are still common,

although more thornscrub elements of the Sonoran Arizona Upland begin to occur here. The upper bajadas have some similarities with the vegetation communities of the mountain slopes, with more saguaro, foothills paloverde, ironwood, triangle-leaf bursage (*Ambrosia deltoidea*), ocotillo, mesquite, acacias, a variety of cacti, and some bush muhly (*Muhlenbergia porteri*) (Griffith et al. 2014).

The Arizona Upland/Eastern Sonoran Mountains ecoregion are highland areas that have more rainfall (7 to 20 inches annually) than the Sonoran Desert mountains further west and with greater amounts in summer. It is one of the highest and coldest parts of the Sonoran Desert, with elevations ranging from about 1,500 to over 4,500 feet. Vegetation includes saguaro, foothill paloverde, creosote bush, triangle-leaf bursage, limberbush (*Jatropha cardiophylla*), wolfberry (*Lycium* sp.), bush muhly, threeawns (*Aristida* sp.), pricklypear, cholla, ocotillo, organpipe cactus (*Stenocereus thurberi*), ironwood, and globe mallow (*Sphaeralcea* spp.). It supports a rich birdlife. The soil temperature regime here is thermic compared to the hyperthermic soils (Griffith et al. 2014).

The Project would minimize the impacts to vegetation by only clearing areas where absolutely needed. Solar site preparation could include actions, such as crushing vegetation, to minimize localized erosion.

### **Federal and Special Status Species**

Tetra Tech, Inc., consulted the USFWS Information for Planning and Consultation (IPaC) online tool and the AZGFD Environmental Review Tool to identify federal and state special status species that may occur within the Project Area and that may be affected by the Project (AZGFD 2022a; USFWS 2022b). Two federally listed species, yellow billed cuckoo (*Coccyzus americanus*) and northern Mexican gartersnake (*Thamnophis equesmegalops*), and one candidate species, monarch butterfly (*Danaus plexippus*), were identified as potentially occurring in or near the Project (USFWS 2022b).

Four BLM-sensitive species that are also species of greatest conservation need have been documented within 5 miles of the Project Area, and one BLM sensitive species may occur in the Project Areas based on Range Models (Table 1; AZGFD 2022), including the Sonoran desert tortoise, lowland leopard frog, California leaf-nosed bat, and cave myotis (*Myotis velifer*; AZGFD 2022a). Additionally, two species protected by the Arizona Native Plant Law, including the Johnson's fishhook cactus (*Echinomastus johnsonii*) and varied fishhook cactus (*Mammillaria viridiflora*), have occurrence records within 5 miles of the Project Area (AZGFD 2022a).

Table 1. Protected and Sensitive Species Known to Occur and Their Likelihood of Occurrence within the Project Area

| Common<br>Name           | Scientific<br>Name | Federal/State<br>Status1 | Habitat Description and Occurrence<br>Information2  | Likelihood of<br>Occurrence in the<br>Project3 |  |  |  |
|--------------------------|--------------------|--------------------------|---|--|--|--|--|
| Birds                    | Birds              |                          |   |  |  |  |  |
| Western<br>burrowing owl | Western Athene     |                          | Variable in open, well-drained grasslands, steppes, deserts, prairies, and agricultural lands, often associated with burrowing mammals. Burrowing owls are at times observed open areas, such as vacant lots near human habitation, golf courses, and airports. Not known to occur within 5 miles, but may occur based on range models. | Moderate                                       |  |  |  |



| Common<br>Name                   | Scientific<br>Name                       | Federal/State<br>Status1 | Habitat Description and Occurrence Information2  | Likelihood of<br>Occurrence in the<br>Project3 |  |  |
|----------------------------------|--|--------------------------|--|--|--|--|
| Golden eagle                     | Aquila chrysaetos                        | BGEPA, BLM S /<br>SGCN 2 | Found in open country, in prairies, arctic and alpine tundra, open wooded country, and barren areas, especially in hilly or mountainous regions. They nest on rock ledges, cliffs or in large trees. Not known to occur within 5 miles, but may occur based on range models.   | Moderate, Foraging only                        |  |  |
| Yellow-billed cuckoo             | Coccyzus<br>americanus                   | FT, BLM S / SGCN         | Riparian obligate. Highest quality habitat consists of rivers and streams of lower gradients in open valleys with a broad floodplain containing riparian woodland habitat with overstory and understory comprised of a variety of plant species (generally dominated by willow or cottonwood). Not known to occur within 5 miles and is not predicted to occur based on range models.                        | Unlikely                                       |  |  |
| Gilded flicker                   | Colaptes<br>chrysoides                   | BLM S / SGCN 2           | Occur in Sonoran Desert with giant cactus species, such as the giant saguaro, at elevations ranging from 200 to 3,200 feet. Not known to occur within 5 miles, but may occur based on range models.  | Moderate                                       |  |  |
| American peregrine falcon        | Falco peregrinus<br>anatum               | BLM S / SGCN 1           | Near cliffs (their preferred habitat) that support sufficient abundance of prey. Optimum peregrine habitat is generally considered to be steep, sheer cliffs overlooking woodlands, riparian areas or other habitats supporting avian prey species in abundance. Not known to occur within 5 miles, but may occur based on range models.   | Moderate, Foraging only                        |  |  |
| Bald eagle                       | Haliaeetus<br>Ieucocephalus              | BGEPA, BLM S /<br>SGCN 1 | They like areas with high water-to-land edge, and areas with unimpeded views, including both horizontal and vertical aspects. Areas selected for as wintering habitat will have an adequate food supply and have open water, such as river rapids, impoundments, dam spillways, lakes, and estuaries. Not known to occur within 5 miles, but may occur based on range models.                                | Low  |  |  |
| LeConte's thrasher               | Toxostoma<br>lecontei                    | BLM S / SGCN 2           | They live in low, sandy, open deserts that are home to few other bird species. Over most of their range, saltbush, shadscale, cholla cactus, creosote, yucca, mesquite, and ocotillo are common plants, but they are usually sparsely distributed in these mostly flat or rolling landscapes. Not known to occur within 5 miles, but may occur based on range models.  | Moderate                                       |  |  |
| Mammals                          | Mammals                                  |                          |  |  |  |  |
| Pale Townsend's<br>big-eared bat | Corynorhinus<br>townsendii<br>pallescens | BLM S / SGCN 1           | Summer day roosts are found in caves and mines from desertscrub up to woodlands and coniferous forests. Night roosts may often be in abandoned buildings. In winter, they hibernate in cold caves, lava tubes and mines mostly in uplands and mountains from the vicinity of the Grand Canyon to the southeastern part of the state. Not known to occur within 5 miles, but may occur based on range models. | Moderate, Foraging only                        |  |  |
| Spotted bat                      | Euderma<br>maculatum                     | BLM S / SGCN 2           | Most are captured in dry, rough desertscrub with a few captured or heard in ponderosa pine forest. This bat has been found from low desert in southwestern Arizona to high desert and riparian habitats in northwestern Arizona and  | Moderate, Foraging only                        |  |  |



| Common<br>Name                   | Scientific<br>Name             | Federal/State<br>Status1 | Habitat Description and Occurrence Information2  | Likelihood of<br>Occurrence in the<br>Project3 |  |
|----------------------------------|--------------------------------|--------------------------|--|--|--|
|                                  |                                |                          | Utah, and conifer forests in northern Arizona and other western states. Roost site characteristics and site localities are poorly known, but limited observations suggest that they prefer to roost singly in crevices and cracks in cliff faces. Cliffs and water sources are characteristic of localities where it occurs. Not known to occur within 5 miles, but may occur based on range models.   |  |  |
| Greater western bonneted bat     | Eumops perotis<br>californicus | BLM S / SGCN 2           | Lower and upper Sonoran desertscrub near cliffs, preferring the rugged rocky canyons with abundant crevices. They prefer crowding into tight crevices a foot or more deep and 2 inches or more wide. Colonies prefer crevices even deeper, to 10 or more feet. Not known to occur within 5 miles, but may occur based on range models.   | Moderate, Foraging only                        |  |
| California leaf-<br>nosed bat    | Macrotus<br>californicus       | BLM S / SGCN 2           | Mostly found in the Sonoran desertscrub; primary summer and winter range essentially the same; primarily roost in mines, caves, and rock shelters. Day roosts in mines are usually within about 80 feet of the entrance. Known to occur within 5 miles.  | Moderate, Foraging only                        |  |
| Cave myotis                      | Myotis velifer                 | BLM S / SGCN 2           | Desertscrub of creosote, brittlebush, paloverde and cacti. Roost in caves, tunnels, and mineshafts, and under bridges, and sometimes in buildings within a few miles of water. Known to occur within 5 miles.  | Moderate, Foraging only                        |  |
| Reptiles                         | '                              |                          |  |  |  |
| Sonoran desert tortoise          | Gopherus<br>morafkai           | BLM S, CCA /<br>SGCN 1   | Occurs primarily on rocky, steep slopes, incised washes, and bajadas of Mojave Desertscrub and the Arizona Upland and Lower Colorado subdivisions of Sonoran Desertscrub. Require loose soil in which to excavate shelters below rocks and boulders, beneath vegetation, on semi-open slopes, and within caliche caves of washes. May also use existing structures for shelter, such as caliche caves, crevices between rocks and boulders, and under woodrat middens known to occur within 5 miles. | High   |  |
| Northern Mexican<br>garternsnake | Thamnophis<br>eques megalops   | FT, BLM S / SGCN<br>1    | Three general habitat types are used: 1) source area ponds and cienegas; 2) lowland river riparian forests and woodlands; 3) upland stream gallery forests. Not known to occur within 5 miles and is not predicted to occur based on range models.   | Unlikely                                       |  |
| Amphibians                       |                                |                          |  |  |  |
| Arizona toad                     | Anaxyrus<br>microscaphus       | BLM S / SGCN 2           | Riparian habitats. At low elevations, found in sandy marginal zones within 100 meters or so of stream corridors, as well as adjacent terraces with cottonwoods, willows, and live oaks. Not known to occur within 5 miles, but may occur based on range models.  | Unlikely                                       |  |
| Lowland leopard frog             | Lithobates<br>yavapaiensis     | BLM S / SGCN 1           | Inhabit aquatic systems in desert grasslands to pinyon-juniper. They are habitat generalists and breed in a variety of natural and humanmade aquatic systems. Natural systems include rivers,  | Unlikely                                       |  |



| Common<br>Name                                 | Scientific<br>Name   | Federal/State<br>Status1 | Habitat Description and Occurrence<br>Information2  | Likelihood of<br>Occurrence in the<br>Project3 |  |
|--|--|--------------------------|---|--|--|
|  | permanent streams, permanent pools in intermittent streams, beaver ponds, cienegas (wetlands), and springs, while humanmade systems include earthen cattle tanks, livestock drinkers, canals, irrigation sloughs, wells, mine adits, abandoned swimming pools, and ornamental backyard ponds. Known to occur within 5 miles. |                          |   |  |  |
| Insects  |  |                          |   |  |  |
| Monarch butterfly Danaus plexippus FC / SGCN 2 |  | FC / SGCN 1              | The species is found throughout the United States. This orange and black butterfly lays eggs on milkweed ( <i>Asclepias</i> spp.). Not known to occur within 5 miles and is not predicted to occur based on range models. |  |  |

<sup>1\</sup> BGEPA = Bald and Golden Eagle Protection Act, BLM S = Bureau of Land Management Sensitive Species, CCA = Candidate Conservation Agreement, FC = Federal Candidate, FE = Federally Endangered, FT = Federally Threatened, SGCN = Species of Greatest Conservation Need. SGCN 1 = Scored "1" for vulnerability in at least one of seven criteria (federal listed as endangered or threatened under the Endangered Species Act [ESA], recently removed from the ESA but requires post-delisting monitoring; specifically covered under a signed Candidate Conservation Agreement (CCA) or Candidate Conservation Agreement Assurance (CCAA), or a Conservation Strategy and Assessment or Strategic Conservation Plan; closed season species as identified in Arizona Game and Fish Commission Orders 40-43); SGCN 2 = scored "1" for vulnerability in at least one of seven criteria, but matched none of the additional criteria for Tier 1; SGCN 3 = Species with unknown status in at least one of the seven categories but do not rise to a Tier 2 (AZGFD 2023).

- 2\ Sources: AZGFD 2022a, 2022b; eBird 2022
- 3\ Likelihood of Occurrence: Unknown –desktop information not sufficient to make a determination, Unlikely–unsuitable habitat in Project and vicinity; Low–marginally suitable habitat in Project and vicinity; Moderate–suitable habitat present in Project, or species known to occur in habitat similar to Project; High–highly suitable habitat present in Project, or known populations exist in Project vicinity.

The Arizona Native Plant Law (Arizona Revised Statutes 3-904), as administered by the Arizona Department of Agriculture (ADA), defines four categories of protected native plants: Highly Safeguarded, Salvage Restricted, Salvage Assessed, and Harvest Restricted. Highly Safeguarded native plants are those species for which removal is not allowed except with an ADA scientific permit; no collection of these plants is allowed (ADA 2023). Salvage Restricted native plants are those plants for which a salvage permit is required; collection is allowed only with a permit. The Salvage Assessed category includes those plants not included in either the Highly Safeguarded or Salvage Restricted categories for which a salvage permit is required for removal. Plants in the Harvest Restricted category are protected because they are subject to excessive harvesting or overcutting as a result of intrinsic value of their by-products, fiber, or woody parts, and a harvest permit is required. A Native Plant Survey was conducted in November 2022 for a segment of the gen-tie line that contained several protected plants under the Arizona Native Plant Law.

Further guidance on native plant inventories from the BLM entails: a general survey of native plants, including saguaro coordinates, size, and cavity information (personal communication, K. Loubere February 7, 2023).

The BLM and state also regulate and manage invasive plant species. The BLM would require development and implementation of a Restoration and Revegetation Plan and an Integrated Weed Management Plan to reduce potential impacts from invasive plants and noxious weed species.

BMPs will be applied to avoid work in migratory bird nesting season or if any ground-disturbing activities occurs during the nesting season. The Applicant will conduct applicable protected and

sensitive species habitat and species-specific surveys during the NEPA process. Additional environmental information and survey data collected, including wildlife surveys and sensitive plant surveys, will be incorporated as part of the NEPA analysis and approval process.

### **Air Quality and Climate**

The Project Area is not located within an air quality non-attainment or maintenance zones (ADEQ 2023). The Applicant would comply with all federal, state, county, and local laws and regulations related to air quality. Equipment that meets ADOT emission standards and applicable U.S. Environmental Protection Agency (EPA) Tier 3 and Tier 4 emissions requirements would be used during construction, operation, and decommissioning. The construction phase of the Project would temporarily cause fugitive dust related to grading, vehicle traffic, and other construction activities. Binding agents and chemicals may be used on access roads if authorized by the BLM.

### **Visual Resources**

According to the BLM Lake Havasu RMP, the Project is located within two VRM classes as defined on the RMP VRM map: Class II, Class III and Class IV, with the majority of the Project located within Class IV.

A VRM analysis, including several visual simulations, will be conducted prior to the NEPA review process and those studies will inform a decision on potential RMP Amendment.

### **Noise**

Noise generation from the Project would be limited to initial construction, maintenance, and decommissioning activities. The daily operation of the solar facility is expected to generate only very low levels of noise (e.g., low audible humming from inverters). Based on evaluation of recent aerial imagery, no sensitive noise receptors, such as residential, commercial, or other human structures, are located in proximity to the Project. The nearest structure is approximately 1.5 miles to the south. Further site-specific identification of sensitive noise receptors and Project-related noise and noise management considerations will be evaluated in the Project design phase and NEPA review process.

### **Paleontological Resources**

The Project Area is comprised of Holocene and Pleistocene surficial deposits consisting of strongly consolidated alluvium and aeolian deposits (AGS 1993). This unit includes coarse, poorly sorted alluvial fan and terrace deposits on middle and upper piedmonts and along large drainages; sand, silt, and clay on alluvial plains and playas; and wind-blown sand deposits (AGS 1993). Due to the young age and redistributed nature of the surficial materials, they are unlikely to contain scientifically significant paleontological resources. In the Potential Fossil Yield Classification (PFYC) system, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential. The PFYCs within the Project Area are PFYC 2 (sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant nonvertebrate fossils) or Unknown.

### **Cultural Resources**



A records search was conducted to obtain information on previous archaeological investigations and previously recorded sites within the Project Area and a 1-mile surrounding buffer (referred to as the Research area). The records search was conducted through the AZSITE online database, which includes records from the Arizona State Museum and Arizona State University and included a request for AZSITE global information system (GIS) shapefiles. Ten previous surveys were identified in the Research area, as listed in the Table 2.

Table 2. Previous Cultural Surveys Identified within the Research Area of the Project

| Report<br>Number   | Author(s)  | Report Title   | Year |
|--|--|--|------|
| 06-42.BLM  | DOI Bureau of Land<br>Management   | Unknown.   |      |
| 1979-126.ASM   | Rice, Glen   | Bouse Hills-Harcuvar-Little Harquahala 115 kV Transmission Line. Prepared by Arizona State University for the BLM Phoenix District.  |      |
| 1994-202. ASM  | Rogge et al. 1994 a, 1994b   | Cultural Resource Studies for the North-South Transfer Pipeline, West-Central Arizona: Class I Survey. Dames & Moore Intermountain Cultural Resource Series Research Paper 16A. Phoenix, Arizona.    | 1994 |
| 94-15.BLMH   | DOI Bureau of Land<br>Management   | Unknown.   | 1994 |
| 997-194.ASM  Adams, Kim  Archaeological Assessment of Arizona Public Service Company's Proposed 12 kV Power Line Extension Near Harcuvar Substation, La Paz County, Arizona. Archaeological Consulting Services Project 97-45. Tempe, Arizona. |  | 1997   |      |
| 98-5.BLMH  | DOI Bureau of Land<br>Management   | Unknown.   |      |
| 2001-450.ASM   | ASM Hart, David R. Cultural Resources Survey of a 2.1 Mile Right-of-Way Easement Near Wenden, La Paz County, Arizona. Northland Research, Inc. Report No. 01-87. Tempe, Arizona.   |  | 2001 |
| Lascaux and Dale R. Gerken Inc. Southwest Fibernet Project Fiber Optic Line Right-of-  |  |  | 2003 |
| 2009-278.ASM   | 278.ASM Barr, David M.R. and S. Jerome Hesse An archaeological survey of the proposed Cathodic Protection Station No. 2035 along EPNG line 1104, La Paz County, Arizona. SWCA Cultural Resources Report No. 08-289. SWCA Environmental Consultants, Tucson, Arizona. |  | 2009 |
| 2012-69.ASM  | Mitchell, Douglas R.   | Archaeological survey of approximately 1.3 miles for guardrail construction along Alamo Road, MP 9 to 10.3, La Paz County, Arizona. Technical Report 11-38. PaleoWest Archaeology, Phoenix, Arizona. |      |
| 2018-0252.ASM*   | Unknown.   | Harcuvar-Little Harquahala Pumping Plant and Bouse Hills Pumping Plant to Harcuvar 115-kV Transmission Line Repair Project.  |      |

<sup>\*</sup>ASM Advanced Site.

Three previously documented archaeological site were identified in the Research area. One site is a trail with an associated brownware sherd. Three grinding slicks are nearby. It was documented in 1994 and its cultural-temporal affiliation is listed as prehistoric Native American. It has been recommended not eligible for inclusion in the National Register of Historic Places (NRHP). One site is historic and is a

secondary trash deposit. One site is pre-contact and is a feature with artifacts, although considered ephemeral. The two sites are considered to be ineligible individually.

Based on the limited extent of the previous surveys and their age (over 10 years old), a new pedestrian cultural resources survey of the Project Area would be necessary to identify potentially significant resources. Proposed development on federal lands would require fulfillment of requirements associated with the NEPA and compliance with Section 106 of the National Historic Preservation Act. The Project would avoid cultural sites to the extent possible throughout the Project Area. Consultation with the BLM Field Office archaeologist would be required incompliance with Section 106 of the National Historic Preservation Act for development on BLM land.

### **Native American Concerns**

There are no tribal lands or individual Native American allotted lands in the Project Area. However, the American Indian Religious Freedom Act of 1978 and Executive Order 13007 require all federal agencies to consider the effect of their actions on traditional Native American religious and cultural values and practices. Traditional Cultural Properties (TCP) are a separate class of cultural resources. They are places that have cultural values that transcend, for instance, the values of scientific importance that are normally ascribed to cultural resources such as archaeological sites and may or may not coincide with archaeological sites. Native American tribal outreach has not yet been conducted.

As part of the NEPA process, the BLM would consult and coordinate with tribal entities to determine if any TCPs occur within or near the Project Area and whether these TCPs would be potentially impacted by the Project. It is possible that natural landmarks, such as the Harcuvar Mountains. could be significant. The Applicant will work with the BLM and tribal entities to identify resources and minimize impacts to such resources, if and where present.

### **Socioeconomic Impacts**

The Project is anticipated to create an average of 250 to 500 construction jobs, with a peak of up to 500 workers at any given time during the construction period and create up to 12 full-time-equivalent operational jobs. In addition to the jobs and spending directly required, both indirect and induced economic activity would result from development of the Project. Examples of indirect activity include supplying industries, such as welding and construction vehicle repair. Induced activity results from increases in local wages and salaries include spending on restaurants, retail goods, and childcare.

The Applicant would pay a range of taxes during construction, including sales, property, payroll, and vehicle taxes. Most construction staff and workers can be anticipated to commute daily to the job site from within La Paz County. The facility is planned to operate for 30 years with the possibility of a subsequent repowering for additional years of operation. Throughout the life of the Project, the facility would require spending on materials, equipment, and employees. If the variance is approved, a detailed evaluation of the potential impact of the Project on socioeconomics would be conducted during NEPA analysis.

### **Environmental Justice**

The EPA Environmental Justice Screen Report was used to evaluate environmental justice variables within approximately 5 miles of the Project Area (EPA 2023). The report analysis area consisted of approximately 160 square miles within EPA Region 9 and included a population of approximately 671



people. Table 3 lists the socioeconomic indicators within the report analysis area in comparison with the Arizona state average for each variable. All variables except two (Unemployment Rate and Under the Age 5 Years), are higher within the report analysis area than the Arizona state average.

Table 3. Socioeconomic Indicators for the Project Area

| Selected Variables              | Value within Selected Area (%) | Arizona State Average (%) |
|---------------------------------|--------------------------------|---------------------------|
| Demographic Index               | 56                             | 38                        |
| People of Color                 | 62                             | 46                        |
| Low Income                      | 50                             | 33                        |
| Unemployment Rate               | 2                              | 6                         |
| Limited English Speaking        | 8                              | 4                         |
| Less than High School Education | 22                             | 12                        |
| Under Age 5 Years               | 0                              | 6                         |
| Over Age 64 Years               | 32                             | 18                        |

An Environmental Justice Analysis report would be written during the NEPA analysis.

### **Transportation Impacts**

Typical traffic during the Project's construction period would consist of trucks transporting equipment and materials to and from the site and vehicles of management and construction employees. Most construction staff and workers are anticipated to commute daily to the job site from within La Paz County. During Project operations, traffic to the Project site would be limited to workers traveling to and from the site to conduct intermittent inspections and maintenance and repairs, as needed.

The on-site roadway system within the Project Area, would consist of access and internal roads. The perimeter road and interior roads would be approximately 15 feet wide, and the main access road would be approximately 25 feet wide with widths and surfacing designed to be consistent with County requirements and applicable standards. The roads would accommodate Project O&M activities, such as cleaning of solar panels, providing a fire buffer, and facilitating on-site circulation for emergency vehicles. Site access roads to the proposed Project would be constructed in accordance with County standards.

Transportation resources and potential impacts associated with the Project to OHV use and other use on BLM lands, applicable travel management planning objectives, would be evaluated during the NEPA review process in coordination with BLM.

### **Hazardous Material and Waste**

The primary wastes generated during construction, operation, and maintenance of the Project would be nonhazardous solid and liquid wastes. The Applicant would prepare a Hazardous Materials and Waste Management Plan prior to construction as well as a Spill Prevention and Emergency Response



Plan, which would address waste and hazardous materials management, including BMPs related to storage, spill response, transportation, and handling of materials and wastes. This plan would describe established standards and compliance with all applicable BLM ROW requirements and state and federal regulations for the storage and disposal of any hazardous material, including oil and fuel. Other considerations may include the following:

- Asbestos:
- Lead-based paint, solid, and batteries;
- Antifreeze;
- Pesticides;
- Unknown drums;
- Unearthed dumping materials; and
- Dumped construction debris.

#### **Health and Safety**

The Project would be designed in accordance with federal, state, and industrial standards, including Occupational Safety and Health Administration regulations and any applicable County level standards. Safety zones and setbacks for solar facilities and transmission lines would be incorporated into engineering and design.

A Health and Safety Plan would be prepared prior to construction. The plan would establish standards and describe compliance with all applicable BLM ROW requirements and federal and state occupational health and safety standards for all phases of the proposed Project. All site personnel would be required to go through a new hire orientation and follow a Worker Environmental Awareness Program, which would address proposed Project-specific safety, health, and environmental concerns.

#### National Scenic and Historic Trails, Suitable Trails, and Study Trails

No national scenic and historic trails, suitable trails, and study trails are known to occur within the Project Area. No national parks, national monuments, wildlife refuges, or other specially designated areas are located within or immediately adjacent to the Project Area. The area is a considered a semi-primitive recreational area and is often used by off-road recreational vehicles. The Applicant will work to further evaluate the presence and potential suitable or study trails during the NEPA process.

### 3.0 BLM Coordination meetings

Prospective applicants are required to schedule and participate in two preliminary meetings with the BLM before filing a ROW application (43 CFR 2804.10(a)).

### a. First Preliminary Application Review Meeting

**Pre-application Meeting:** On November 15, 2022, the BLM and the Applicant held a web-based pre-application meeting to discuss EAGL, LLC's, background and capacity, the variance process, and the proposed Project siting, and to establish a timeline for completion of the application steps. The Applicant adjusted the Project boundary based on the information provided from the BLM during this



meeting to not conflict with the Section 368-designated utility corridor and a locally designated utility, as well as to include parcels of BLM land that are designated as REDA lands within the Project Area.

#### b. Second Preliminary Application Review Meeting

The Applicant will work with the BLM to schedule and facilitate a second preliminary application review meeting with the state, federal tribal, and local governments. The expected attendees for the second preliminary application meeting are the U.S. Department of Energy, WAPA, U.S. Department of the Interior, USFWS; and Arizona State Agencies, such as AZGFD and ADA. The BLM will also invite interested tribal officials as well.

#### c. Public Outreach

After initiation of the variance process, the BLM will organize public meetings to be held for participation by all interested parties. The meeting is anticipated to occur in March 2023 and is intended to gather information on potential issues and barriers, or opportunities related to a ROW application in a variance area. The public meeting takes place before the NEPA process is initiated. However, comments received may be used to inform the NEPA process for variance requests approved for further processing by the BLM. Additional information will be added post-meetings.

#### d. Tribal Consultation

The tribes that claim affiliation with the proposed Project area could include Zuni, Salt River Pima Maricopa Indian Community, Yavapai Apache Nation, Yavapai Prescott Indian Tribe, Yaqui, Hopi, Fort Mohave Indian Tribe, Fort McDowell Yavapai Nation, Colorado Indian Tribe, Mescalero Apache, and the Chemehuevi. Consultation with Sovereign Tribal Nations is the responsibility of the BLM. The Applicant will assist the BLM in the consultation process by providing meeting material, field trips, and survey data.

#### 4.0 Land Use Disclosures

#### a. List of Rights-of-way

The BLM provided information on what is currently in the LR2000 database for current existing ROWs within the Project Area. No ROWs occur within the Project Area (personal communication, BLM 2023). A search by the BLM showed there are several existing ROWs to the west of the Project Area and to the north of the Project Area. There are ROWs on Alamo Road, Low Mountain Road, and an unnamed access road to the private land in Section 27. There is a utility ROW issued to WAPA for the transmission line system. There is also a ROW on the west side of the Project Area issued to El Paso Natural Gas for the San Juan Crossover gas line.

#### b. List of Mining Claims

One mining claim is within the gen-tie line, case AZ102522512, Rincon Gold #15. Mining property rights take priority over any subsequent ROW, lease, or other such granted right. Therefore, the 3.5 acres of existing mining claims within the gen-tie corridor cannot be developed unless they are overcome through purchase or expressed waiver. The Applicant would either avoid the current mining claim,

while ensuring right to access, or seek to purchase this claim in order to develop the land for the Project.

If the variance is approved, a mineral potential report would be prepared prior to initiation of the NEPA process. A detailed evaluation of the potential impact of the proposed Project on mineral resources would be conducted during NEPA analysis and would identify mitigation measures, if necessary.

#### c. List of Grazing Allotments and Permittees

The Project Area would be located within portions of Babcock #03006 Grazing Allotments. As required by BLM grazing regulations, the BLM would notify permittees at least 2 years in advance of any proposed agency change in the allotment (BLM 2023b).

#### d. List of Range Improvements

Depending on final facility design and configuration, existing range improvements and access may require removal or relocation. Removal of rangeland infrastructure would require compensation and additional coordination with applicable agencies would occur. It is also anticipated that a reduction in the total amount of AUMs for each allotment would be required, commensurate with the amount of forage that would no longer be available as a result of fencing and other infrastructure associated with the energy generation facility. A detailed evaluation of the potential impact of the proposed Project on rangeland resources would be conducted during the NEPA analysis and would identify mitigation measures, if necessary.

#### 5.0 Summary of Potential Resource Conflicts

#### a. Cultural Resources

A cultural resource Class I review was completed. Ten previous surveys were identified in the Project Area. Three previously documented archaeological sites were identified in the Research area. One site is a trail with an associated brownware sherd. Three grinding slicks are nearby. It was documented in 1994 and its cultural-temporal affiliation is listed as prehistoric Native American. It has been recommended not eligible for inclusion in the NRHP. One site is historic and is a secondary trash deposit. One site is pre-contact and is a feature with artifacts, although considered ephemeral. The two sites are considered to be ineligible individually.

The Applicant would work with the BLM to identify survey requirements and intensity prior to initiating the survey for the NEPA process for the Project.

#### b. Surface Water Resources

According to the USFWS NWI and USGS NHD, several drainage channel and ephemeral streams are depicted in the datasets. The Applicant proposed to conduct a routine wetland and waters delineation in accordance with USACE protocols and current EPA guidance on definitions of the WOTUS. Jurisdictional Determinations with the USACE will be conducted. No FEMA floodplains will be impacted as part of the Project development. The Applicant would work with the BLM to identify survey requirements and intensity prior to initiating the survey for the NEPA process for the Project.



#### c. Desert Tortoise

The gen-tie line lies within desert tortoise Category 1 and 3 habitats, and the northwest corner of the Project contains desert tortoise Category 3 habitat. The Project Area contains habitat suitable for Sonoran desert tortoise. Sonoran desert tortoise primarily inhabits rocky steep slopes and bajadas of Mojave desert scrub and the Arizona Upland and Lower Colorado River subdivisions of Sonoran desert scrub, and most often occurs in the paloverde-mixed cacti associations, at elevations between 900 to 4,200 feet amsl. The Category 1 desert tortoise habitat is along the gen-tie line for which the installation will likely have minimal impacts, given its proximity to an existing transmission line. Additionally, limited disturbance is anticipated for the gen-tie line construction; therefore, it would likely have minimal impacts to bighorn sheep habitat, wildlife corridor, and wildlife habitat area.

Desert tortoise Category 3 habitat area lies within the northwest portion of the Project. Desert tortoise Category 3 habitat is not essential to maintenance of viable populations, consisting of low to medium density not contiguous with medium or high density and stable or decreasing population; most conflicts may be mitigated. Further, if required by the BLM, desert tortoise mitigations would be implemented.

Although designated desert tortoise conservation areas are excluded from the BLM's Solar Energy Program, the Project Area will be surveyed and NEPA alternatives may need to account for conservation of tortoise and other sensitive species habitat.

#### d. Ecological Resources

An Ecological Resources Mitigation and Monitoring Plan, Habitat Restoration and Management Plan, Bat and Avian Protection Plan, Integrated Vegetation Management Plan, Noxious Weed and Invasive Species Plan, Site Rehabilitation and Restoration Plan, and Decommissioning and Site Reclamation Plan would be developed prior to construction and/or decommissioning and would reduce potential impacts to habitat, special status plant and wildlife species, and general wildlife. Development of plans to protect soils and water resources would also reduce potential impacts to habitat. A detailed evaluation of the potential impact of the Project on ecological resources would be conducted during NEPA analysis and would identify additional mitigation measures, if necessary.

#### e. Environmental Justice

Environmental justice is the fair treatment of people of all races, cultures, incomes, and educational levels with respect to the development and enforcement of environmental laws and regulations. The construction and operation of the Project could result in effects on local communities if it reduces income and employment opportunities, impedes economic development, or results in disproportionate human health and safety impacts.

An analysis of environmental justice variables and development of potential mitigation measures would occur as part of the NEPA review process in coordination with the BLM. This analysis would comply with Executive Order 12898 (Federal Action to Address Environmental Justice in Minority Populations and Low-income Populations) and the Council on Environmental Quality Guidelines. It would include an economic impact analysis and modeling using localized census tract data from the County, combined with the anticipated Project construction and operation-related labor and monetary expenditures. Measures to minimize effects to local communities would be identified and

may include the implementation of a Traffic Management Plan, Health and Safety Plan, and local community outreach within the communities near the Project Area to gain input on site-specific and relevant mitigation measures. However, all populations in the County, including low-income and minority populations, could benefit from the Project's temporary increase in job opportunities and labor income.

#### f. Water Use and Efficiency

The Project will be designed, constructed, and operated to optimize the specific generation technology's efficiencies with respect to water impacts.

As part of the NEPA process, the Applicant will evaluate the need and use of water as part of Project development and operation. Water will be pumped from a future on-site well and will be equipped with well meters. For a projected 18-month construction period, an estimated 50 AF per month of water will be needed for such uses as soil compaction, dust control, and sanitary needs for construction workers (water requirements for the Project are described in Section 4.1.2.16 of the POD). The majority of the construction water use is anticipated to occur during site grading. Water may also be used during operations to clean the solar panels periodically to prevent dust accumulation and maintain their efficiency in capturing solar energy. PV solar panels are among the solar technologies that use the least amount of water during operations, as compared to solar thermal or solar tower infrastructure. Water consumption required for operation of a 400-MW PV solar facility is expected to be 120,000 gallons per year.

The Applicant will work with the BLM to incorporate design features and mitigation measures that reduce water flow volume, allow water absorption into the ground, and minimize the volume and concentration of water leaving the Project as part of the NEPA process. The Applicant would also need to obtain a SWPPP through the Arizona Department of Environmental Quality. The SWPPP and the design features and mitigation measures incorporated into the Project design would minimize sediment yield from the site compared to pre-Project conditions during Project construction, operation, and maintenance.

#### g. Visual Resources

A majority portion (52 percent) of the Project Area occurs within Visual Resource Class IV, 47 percent occurs within Visual Class III, and less than 1 percent occurs within Class II. There are existing scenic disturbances within the vicinity of the Project Area in the form of powerlines and roads. However, the Project Area is currently vacant public land and the Project would introduce new built environment features.

VRM analysis, including several visual simulations and glint/glare studies, will be conducted prior to the NEPA review process and those studies will inform a decision on potential RMP Amendment.

#### h. Cumulative Impacts on Resources

Significant cumulative impacts on resources of concern are not anticipated to occur as a result of the Project (i.e., exceedance of an established threshold, such as air quality standards, etc.).

Evaluation of cumulative impacts on local resources would be evaluated and disclosed during the Project's NEPA review process.



#### 6.0 Supporting Documentation

#### a. Supporting Documents

The Applicant has also provided a Standard Form 299 and updated preliminary POD on December 2022 to the BLM in support of the Project's variance process. The Applicant paid the required fees on October 28, 2022. A revised POD has been submitted concurrently with this VFAR document in February 2023. The preliminary POD should also be referred to for relevant analysis and information pertaining to the solar variance factors being considered by the BLM. This application was entered into the BLM's system and has been assigned serial number AZA number 38757.

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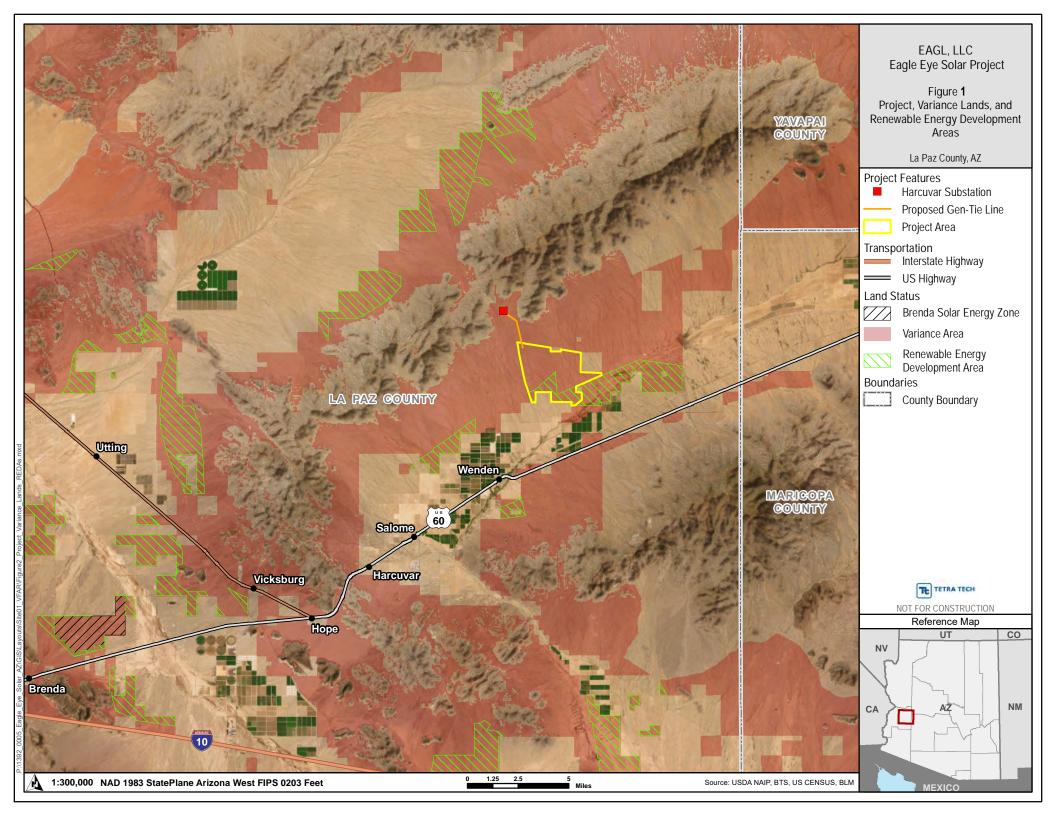
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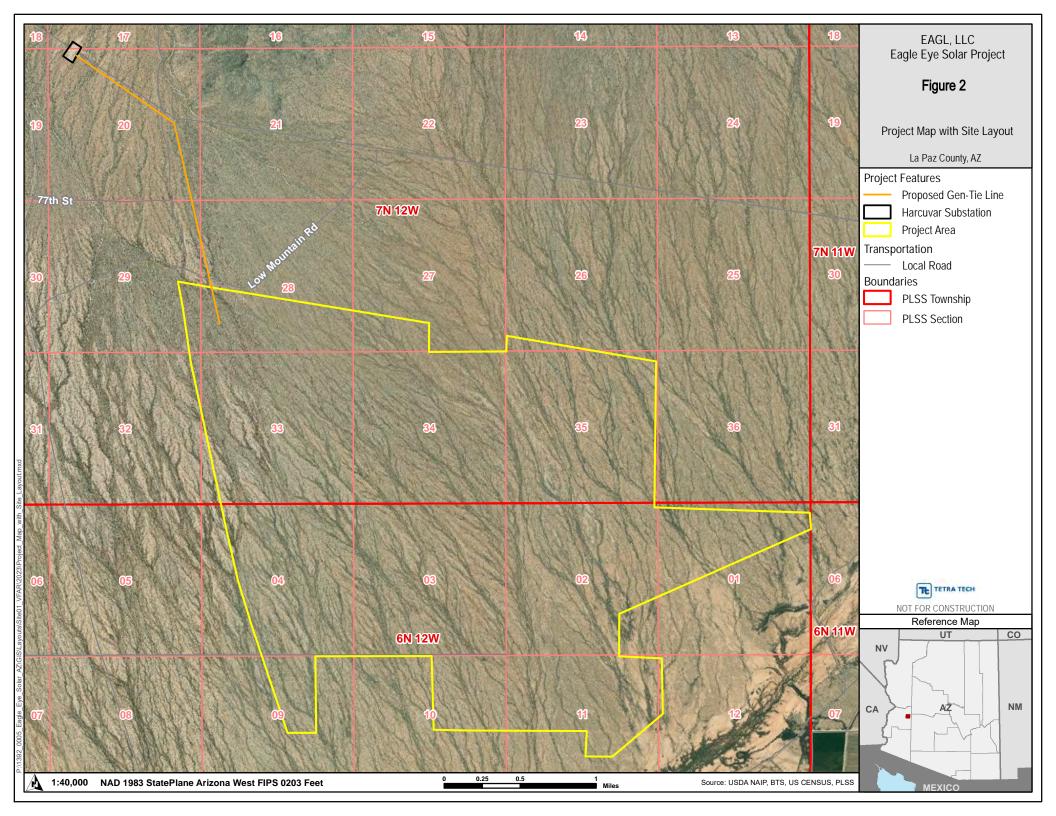


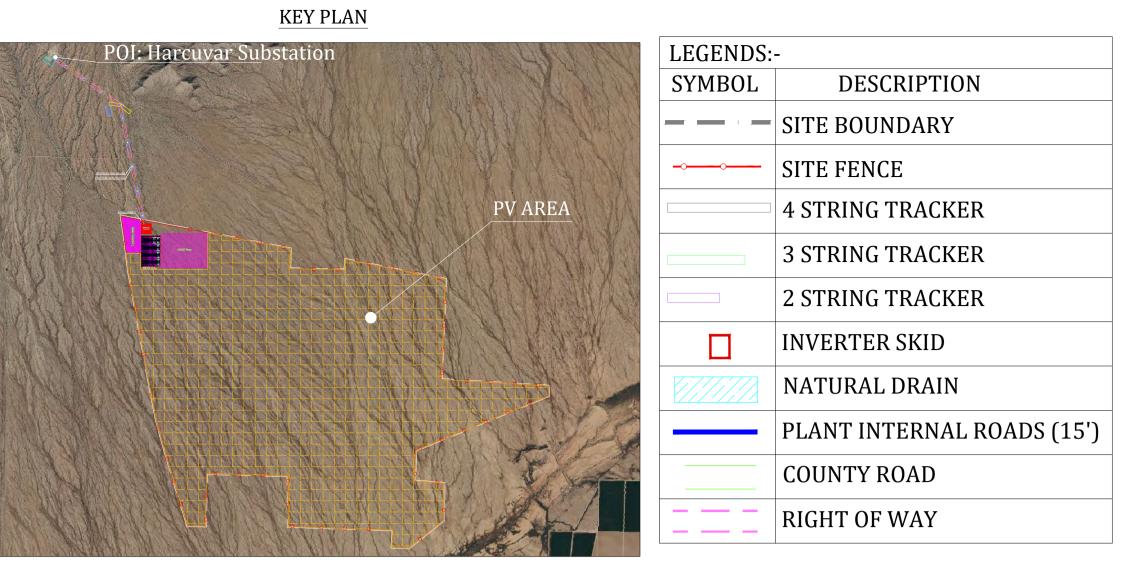
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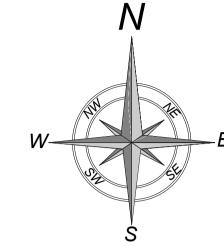
## **FIGURES**

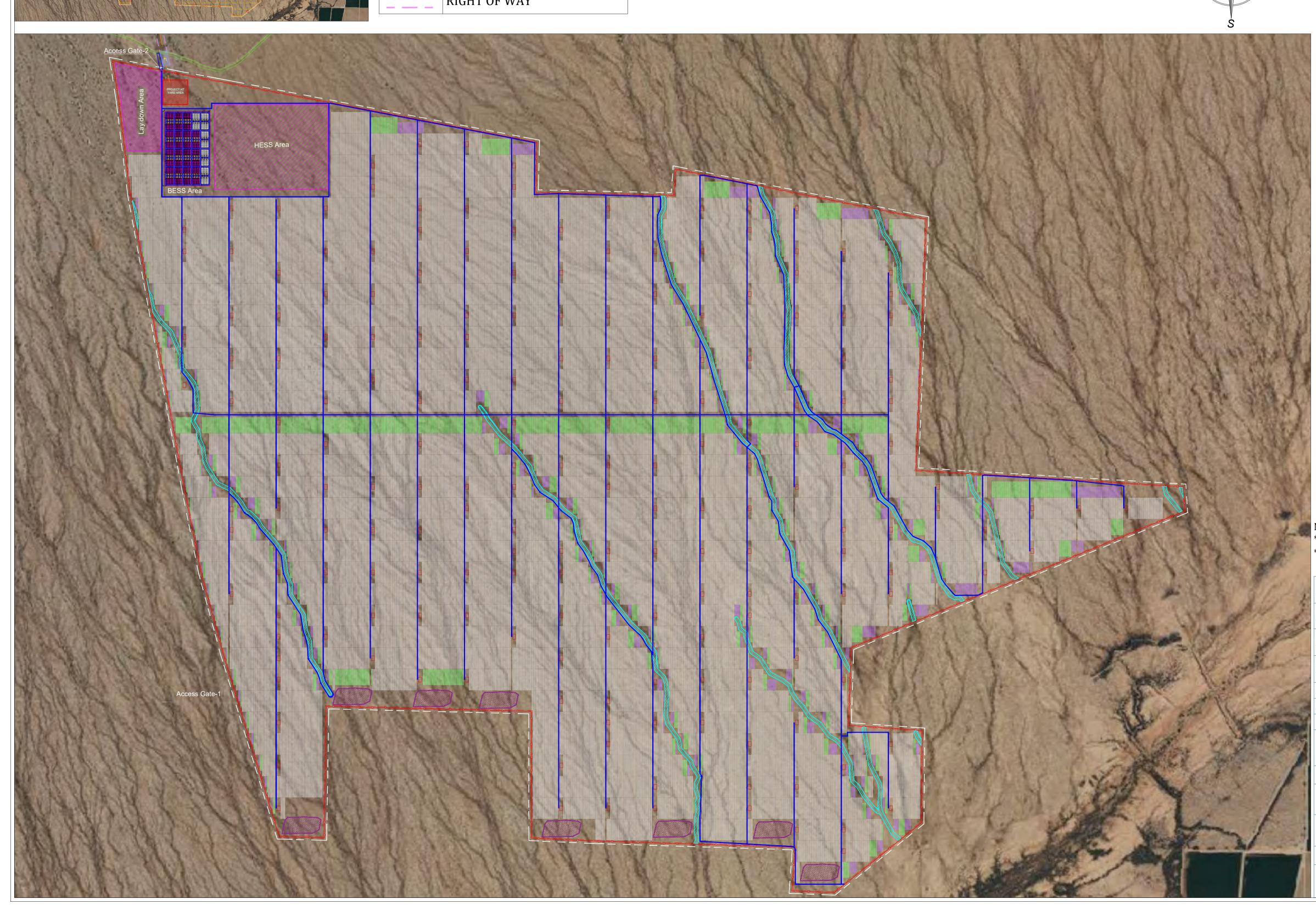






| LEGENDS:- |                              |  |  |  |  |
|-----------|------------------------------|--|--|--|--|
| SYMBOL    | DESCRIPTION                  |  |  |  |  |
|           | CONSTRUCTION PADS AREA       |  |  |  |  |
|           | PROPOSED 25' ACCESS ROAD     |  |  |  |  |
|           | PROPOSED GEN-TIE ROUTE       |  |  |  |  |
|           | EXISTING 230kV OHL ROUTE     |  |  |  |  |
|           | EXISTING OHL TOWER           |  |  |  |  |
| 0         | PROPOSED GEN TIE STRUCTURE   |  |  |  |  |
|           | PROPOSED STRINGING SITE AREA |  |  |  |  |
|           | STORM WATER BASINS           |  |  |  |  |
|           |                              |  |  |  |  |





# Project Details (Solar PVS)

| Site latitude                      | 33°53'39.89"N  |
|------------------------------------|----------------|
| Site longitude                     | 113°29'34.00"W |
| Solar PV DC capacity (max)         | 913.017 MWp    |
| Solar PV AC capacity at POI        | 400 MWac       |
| DC AC ratio at POI                 | -              |
| Evacuation voltage                 | -              |
| Module wattage                     | 525Wp          |
| Module type                        | Bifacial       |
| Module quantity                    | 1739080 Nos.   |
| Module per string                  | 28 Nos.        |
| Total strings                      | 62110 Nos.     |
| Inverter rating                    | 4MWac          |
| Inverter Type                      | Central        |
| Inverter quantity                  | -              |
| Racking type                       | ATI Tracker    |
| Pitch                              | 24.15 Feet     |
| Ground coverage ratio              | 30%            |
| Tracker Quantity_4 String          | 14336 Nos.     |
| Tracker Quantity_3 String          | 1166 Nos.      |
| Tracker Quantity_2 String          | 634 Nos.       |
| Fotal Tracker quantity             | 16136 Nos.     |
| Land area available                | 4764 acres.    |
| Land area used for<br>PV+HESS+BESS | 4764 acres.    |

\* All Dimensions Are in Feet.

<sup>\*</sup> Coordinates System : UTM ZONE 12N

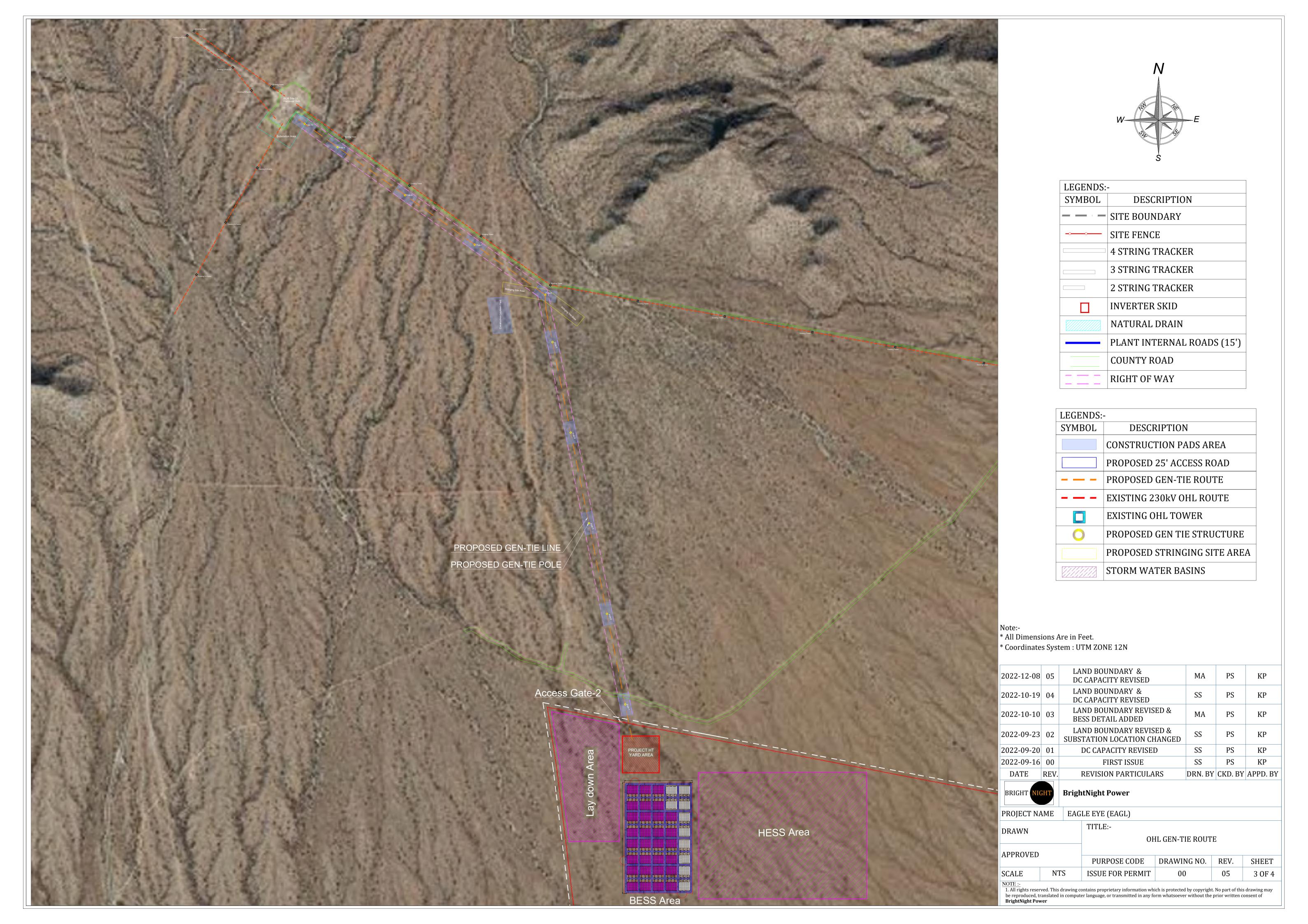
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| 2022-10-19 | 04   | LAND BOUNDARY & DC CAPACITY REVISED                 | SS      | PS      | KP       |
| 2022-10-10 | 03   | LAND BOUNDARY REVISED & BESS DETAIL ADDED           | MA      | PS      | KP       |
| 2022-09-23 | 02   | LAND BOUNDARY REVISED & SUBSTATION LOCATION CHANGED | SS      | PS      | KP       |
| 2022-09-20 | 01   | DC CAPACITY REVISED                                 | SS      | PS      | KP       |
| 2022-09-16 | 00   | FIRST ISSUE   | SS      | PS      | KP       |
| DATE       | REV. | REVISION PARTICULARS                                | DRN. BY | CKD. BY | APPD. BY |
|            |      |   |         |         |          |

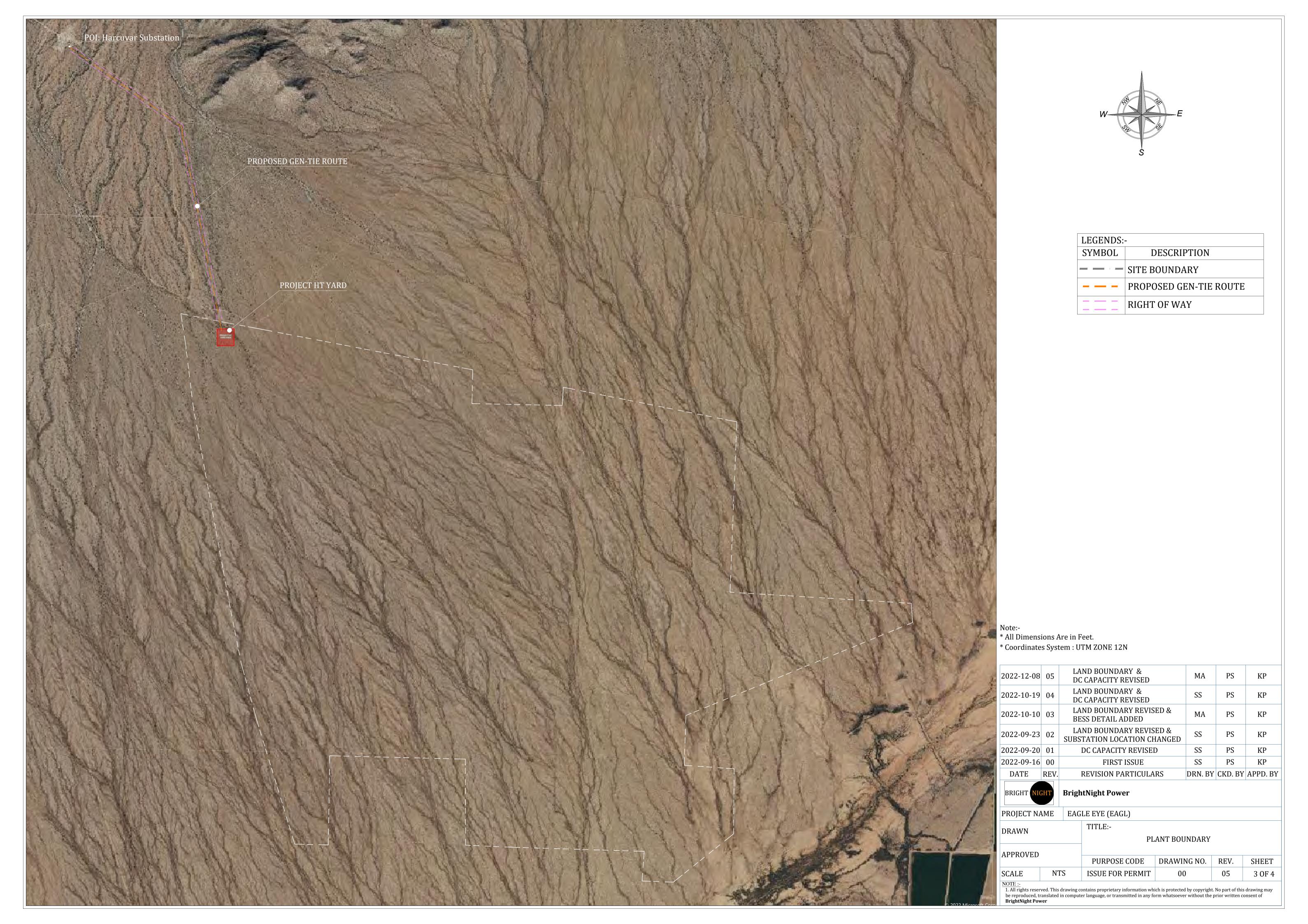


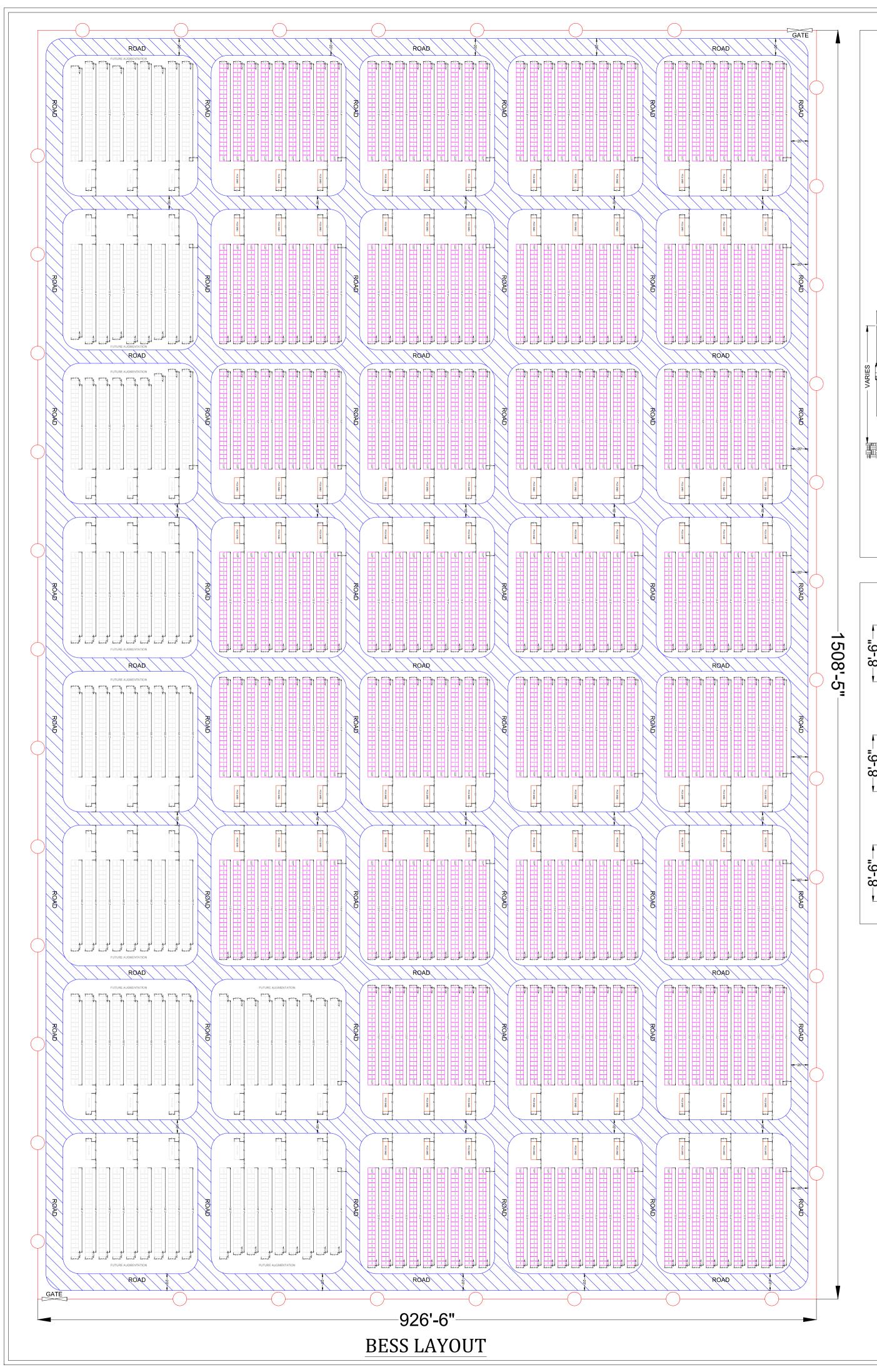
## BRIGHT NIGHT BrightNight Power

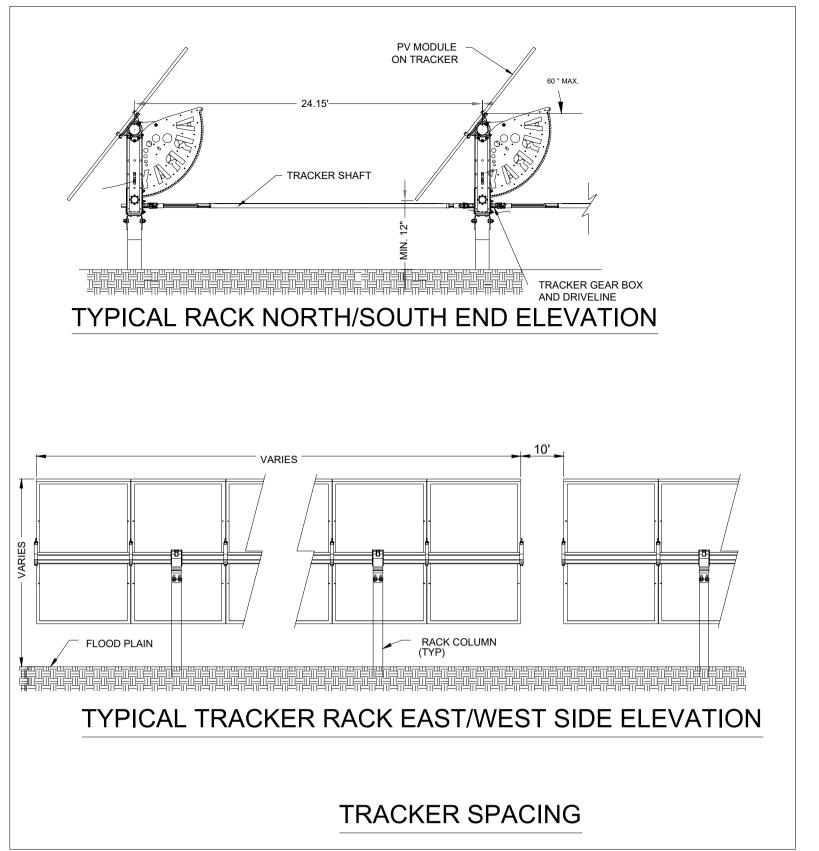
| PROJECT NA | AME       | EAG                | LE EYE (EAGL)    |      |                  |        |
|------------|-----------|--------------------|------------------|------|------------------|--------|
| DRAWN      |           | TITLE:-            |                  |      |                  |        |
|            |           | PLANT LAYOUT (PVS) |                  |      |                  |        |
| APPROVED   |           |                    |                  |      |                  |        |
|            |           | PURPOSE CODE       | DRAWING NO.      | REV. | SHEET            |        |
| SCALE      | NT        | S                  | ISSUE FOR PERMIT | 00   | 05               | 1 OF 4 |
| NOTE :-    | d. mb.: d |                    |                  | ·    | . No seed a Calc | - 1    |

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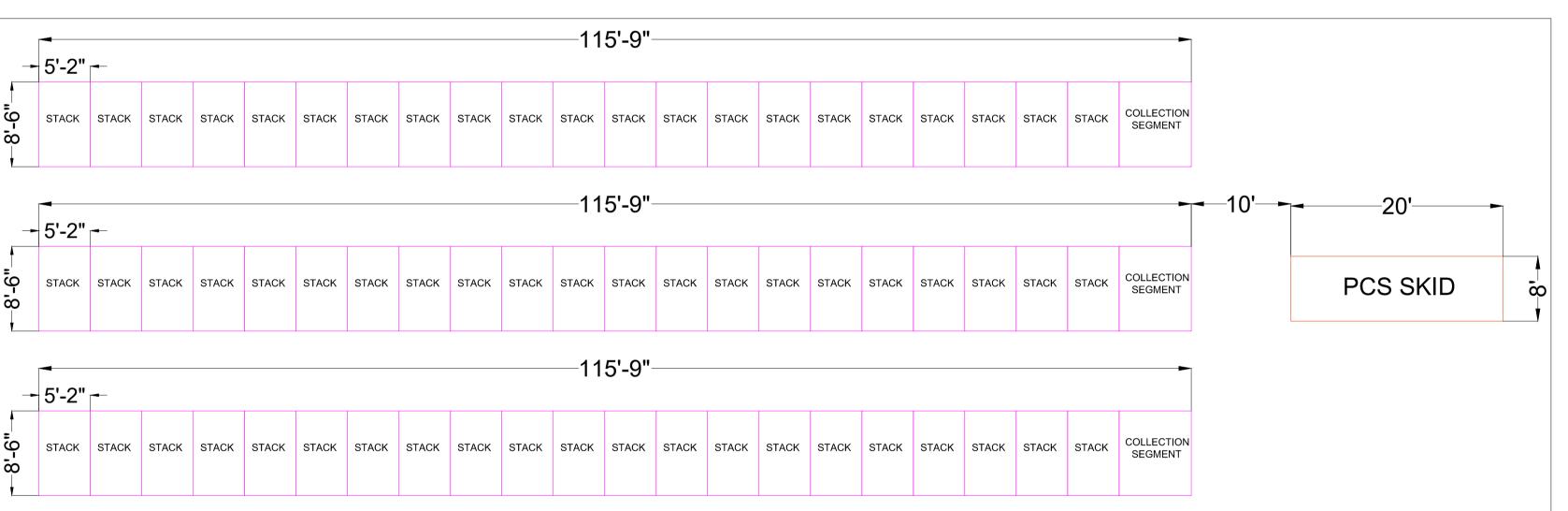




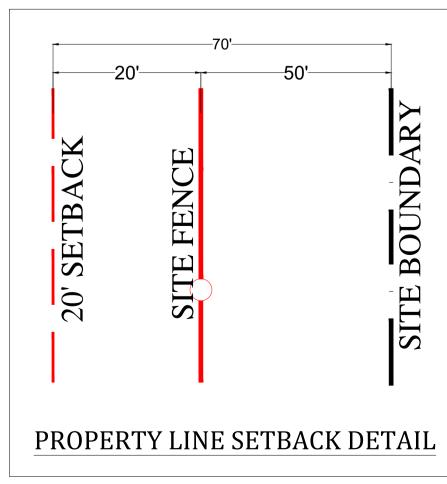


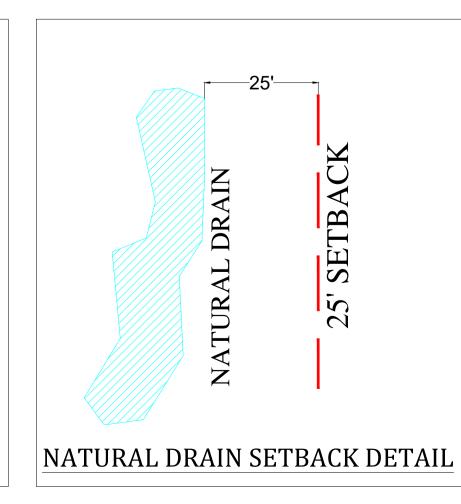


| Setback details                       |               |  |  |  |  |
|---------------------------------------|---------------|--|--|--|--|
| Setback description                   | Setback value |  |  |  |  |
| Plant property line and fence setback | 50'           |  |  |  |  |
| Wetlands / Natural drain setback      | 25'           |  |  |  |  |
| Fence and PV Array setback            | 20'           |  |  |  |  |



## TYPICAL DETAIL OF BESS PACK AND PCS





- \* All Dimensions Are in Feet.
- \* Coordinates System : UTM ZONE 12N

| 2022-12-08 | 05   | LAND BOUNDARY & DC CAPACITY REVISED                 | MA      | PS      | KP       |
|------------|------|---|---------|---------|----------|
| 2022-10-19 | 04   | LAND BOUNDARY & DC CAPACITY REVISED                 | SS      | PS      | KP       |
| 2022-10-10 | 03   | LAND BOUNDARY REVISED & BESS DETAIL ADDED           | MA      | PS      | KP       |
| 2022-09-23 | 02   | LAND BOUNDARY REVISED & SUBSTATION LOCATION CHANGED | SS      | PS      | KP       |
| 2022-09-20 | 01   | DC CAPACITY REVISED                                 | SS      | PS      | KP       |
| 2022-09-16 | 00   | FIRST ISSUE   | SS      | PS      | KP       |
| DATE       | REV. | REVISION PARTICULARS                                | DRN. BY | CKD. BY | APPD. BY |
|            |      |   |         |         |          |

BrightNight Power

PROJECT NAME EAGLE EYE (EAGL) TITLE:-DRAWN PLANT LAYOUT (PVS) APPROVED **PURPOSE CODE ISSUE FOR PERMIT** 05

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SHEET

4 OF 4

