ORIGINAL NEW APPLICATION

0000208300

Application

for a

Certificate of Environmental Compatibility

Proving Ground 500kV Interconnection Transmission Line Project

Prepared for:

State of Arizona Power Plant and Transmission Line Siting Committee

Submitted by:

Arizona Public Service Company

January 2023

L-00000D-23-0011-00214

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CHAPTER 1. INTRODUCTION

Pursuant to Arizona Revised Statutes (A.R.S.) 40-360 et seq., Arizona Public Service Company (APS or Applicant) is seeking a Certificate of Environmental Compatibility (CEC) for the proposed Proving Ground 500 kilovolt (kV) Interconnection Transmission Line Project (Interconnection Project), a generation intertie transmission line that will connect the Proving Ground Solar+Storage Project (Solar Project) to the regional electric grid at the existing jointly owned[1] Hoodoo Wash Switchyard, which is operated by APS. The Solar Project is a renewable energy development that includes a planned 250 megawatt (MW) solar photovoltaic facility with battery storage, 69kV lead lines, a step-up substation, and the new 500kV generation intertie that will connect the Solar Project to the regional grid. The entire development is located in unincorporated Yuma County, approximately 10 miles north of Dateland, Arizona.

A portion of the Interconnection Project will be co-located with the existing 500kV Hassayampa – North Gila #2 transmission line (HANG2). Construction of HANG2 was originally authorized by the Arizona Corporation Commission's Decision No. 70127 (January 23, 2008) that approved CEC-135 (CEC-135) and was later amended under Decision No. 74206 (December 3, 2013). To co-locate a portion of the Interconnection Project with HANG2, an approximately 2,000-foot-long segment of HANG2 would be repositioned within the original corridor and two single-circuit structures replaced with double-circuit structures to carry both the Interconnection Project and HANG2. Therefore, this application seeks a new CEC for the Interconnection Project that includes authorization for amending CEC-135 to allow for the use of two new double-circuit structures for co-locating the Interconnection Project with HANG2. The review and analysis of the environmental impacts of the Interconnection Project include the potential impacts related to the modifications to HANG2.

1.1 PROJECT OVERVIEW

The Interconnection Project would extend approximately 3,000 feet from the Solar Project's planned step-up substation to the existing Hoodoo Wash Switchyard. The Interconnection Project will be constructed adjacent to or within a previously established utility corridor in a relatively remote area of unincorporated Yuma County, approximately 10 miles north of Dateland, Arizona. Approximately 1,600 feet of the Interconnection Project will be on federal land administered by the Bureau of Land Management (BLM), within a BLM-designated utility corridor. The remainder of the Interconnection Project would traverse privately owned land.

The Interconnection Project is needed to connect the Solar Project to the regional electrical grid at the Hoodoo Wash Switchyard. The Applicant notes that it may refine minor design characteristics for the Interconnection Project during its final engineering phase. Representative structure diagrams for the Interconnection Project are presented in Exhibit G.

1.2 PROJECT HISTORY

The Solar Project and its original developer have undergone name changes during the planning and permitting process. As a result, some of the supporting documents cited in and/or submitted with this Application bear different names. The proposed Solar Project was originally called the "Viktoria Solar Project," and the project developer was originally Viktoria Solar, LLC, a wholly owned subsidiary of Strata Clean Energy (Strata).

[1] Hoodoo Wash Switchyard is jointly owned by APS, Imperial Irrigation District (IID), and San Diego Gas & Electric (SDG&E). APS is the operating agent for the switchyard.

Given that the Solar Project and the Interconnection Project require a right-of-way grant from the BLM, an Environmental Assessment (EA) for the facilities on BLM managed land (approximately 1.1 mile of the 69kV gen-tie lines, the step-up substation, and access roads,) was completed in August 2019, with a Finding of No Significant Impact (FONSI) and a BLM right-of-way (ROW) granted in January 2020 and October 2020, respectively. In 2021, Strata Solar Development, LLC changed its name to Strata Clean Energy, LLC and changed the name of the proposed solar photovoltaic facility from the Viktoria Solar Project to the Proving Ground Solar+Storage Project.

In the second quarter of 2022, APS entered into an agreement to acquire the Solar Project from Strata, including the Interconnection Project. As a result of the acquisition, APS is the applicant for and will be the owner of the CEC, but Strata will continue to support siting activities on behalf of APS. Strata will also continue coordination with BLM.

APS (the interconnecting transmission owner) has finalized the design approach for the Interconnection Project. The final design follows a slightly different route compared to what the BLM analyzed in its Environmental Assessment. As of December 2022, the Interconnection Project team is in the process of updating the BLM-approved ROW to reflect the adjusted route of the Interconnection Project. Because the final route is only a minor deviation from the original, BLM's review is expected to be largely administrative. APS anticipates a final decision from the BLM in the second or third quarter of 2023.

1.3 PURPOSE AND NEED

The Interconnection Project is needed to connect the Solar Project to the regional electrical transmission grid. As such, the Interconnection Project aids the state and the southwest region in meeting the need for adequate, economical, and reliable supply of renewable electric power while providing economic benefits that include construction jobs, permanent jobs, and tax revenues. Specifically, the Solar Project is expected to create 500 or more quality, high-paying construction jobs, including upwards of 30 construction management jobs. In addition to these construction jobs, at least three permanent operations and maintenance positions will be created to operate the solar facility. Further, based on an estimated investment of $450 million, property tax revenues collected on the improved value of the property will equate to approximately $20 million in additional property tax revenues.

1.4 PROPOSED ROUTE

As noted above, the Interconnection Project would extend approximately 3,000-feet between the Solar Project's step-up substation and the Hoodoo Wash Switchyard. Approximately 1,000 feet of the Interconnection Project would be co-located on structures with the existing HANG2 transmission line. The segment of HANG2 that would be modified is approximately 1,970 feet long. The Interconnection Project together with the modified portion of HANG2 are described below and shown on Figure 1:

- Starting at the Solar Project's step-up substation[2] the Interconnection Project would proceed approximately 400 feet to a new transmission structure, designated as T1 on Figure 1, below.
- From T1, the Interconnection Project would continue east to the northside of a new double circuit tower (DCT), designated on Figure 1 as R1, to be installed approximately 970 feet west of the Hoodoo Wash Switchyard. Structure R1 would replace an existing HANG2 structure.

[2] The planned Solar Project step-up substation would have a footprint of on approximately 650 × 300 feet (approximately 4.25 acres). It would include a 69kV/500kV power transformer, circuit breakers, switches, a control house, and an A-frame structure.

The Interconnection Project would be positioned on the north side of R1; HANG2 would be positioned on the southside of R1.

- From R1, the Interconnection Project and HANG2 would proceed east to T2, a new DCT, located within the southwestern corner of the Hoodoo Wash Switchyard.
- From T2, the Interconnection Project and HANG2 would split off into different paths.
- From T2, the Interconnection Project would proceed north, within the Hoodoo Wash Switchyard, to a new transmission structure, R2, that would replace an existing HANG2 structure. From R2, the Gen-Tie Line would interconnect to a new bay, constructed by APS, within the Hoodoo Wash Switchyard.
- From T2, HANG2 would proceed northeast, within the Hoodoo Wash Switchyard, approximately 900 feet to rejoin its existing alignment on an existing structure.

In total, the Interconnection Project would require approximately four new transmission structures, two of which would replace existing HANG2 structures. Within the Hoodoo Wash Switchyard, the Interconnection Project would require new interconnection equipment including a new breaker bay, circuit breakers, and switches. The capability to expand the Hoodoo Wash Switchyard was already designed into the original plans of Hoodoo Wash Switchyard.

1.5 ENVIRONMENTAL AND PUBLIC SITING PROCESS

1.5.1 Siting Process

The siting process focused on identifying a reasonably direct route to interconnect the Solar Project to the Hoodoo Wash Switchyard. The Interconnection Project team identified the proposed route based on the presence of compatible adjacent and nearby land uses, and the proximity to the Hoodoo Wash Switchyard. The Applicant sought to minimize environmental impacts and expenses by selecting a direct route, while considering existing land use and infrastructure. Co-locating a portion of the Interconnection Project with the existing HANG2 transmission line will help consolidate energy infrastructure and minimize the overall impact of the Interconnection Project.

1.5.2 Public Outreach Process

Strata, on behalf of the Applicant, has coordinated with stakeholders, including agencies and the public, to present information about the Solar Project, including the Interconnection Project, and provide multiple ways to submit comments. Public outreach was launched in November 2021 with an informational mailing to stakeholders, inviting them to attend an in-person open house. The in-person open house was held on December 8, 2021, in Dateland, Arizona.

In August 2022, the Interconnection Project team mailed a second newsletter to property owners, residents, and stakeholders, with updated information about the Interconnection Project and its development schedule. The August 2022 newsletter provided contact information for the Interconnection Project team, invited interested parties to submit comments directly to Strata, and noted that the Interconnection Project's website was updated in August 2022 with current information. In addition, APS created a siting webpage for the Interconnection Project.

Additional information regarding public outreach is described in Exhibit J of this Application.

1.6 ENVIRONMENTAL SETTING

1.6.1 Natural Environment

The Interconnection Project is located on the Palomas Plain in the Lower Colorado River Valley Subdivision of the Sonoran Desertscrub biotic community (Brown 1994).

Physiographically, the site is a flat to gently sloping plain dissected by shallow drainages, with elevation ranging from approximately 450 to 500 feet above sea level. The underlying sediments in the Palomas Plain are thick basin-fill varying from 200 to 600 feet in depth (BLM 2019). Earthquakes occur in Yuma County; however, an environmental analysis conducted for the nearby Agua Caliente Solar Project found the earthquake hazard risk to be low (Department of Energy 2010). The risk of liquefication due to earthquakes is also low (Yuma County 2019). Regional drainage is to the Gila River, approximately 3 miles south of the Project Area.

Vegetation on the site is generally sparse, with shrub spacing from several feet to tens of feet. The plant assemblage is typical of the Lower Colorado River Valley Subdivision biotic community, with creosotebush (*Larrea tridentata*) dominating the scrubland. Velvet mesquite (*Prosopis velutina*) and non-native tamarisk (*Tamarix sp.*) grow densely along one drainage near the eastern edge of the BLM property and sparsely along smaller drainages. Habitat is generally of low-quality (BLM 2020).

Vehicle tracks and dirt roads crisscross the BLM portion of the Project Area. This land may have been grazed in the past, but the grazing allotment was withdrawn in 2010 due to non-use (BLM 2010). Prior to construction of the Agua Caliente Solar Project, the private land crossed by the Interconnection Project was cultivated for agriculture. Presently, however, the private land that the Interconnection Project would cross is now an 11-acre stormwater detention basin associated with the Agua Caliente Solar Project. Following heavy precipitation events, water collected in the basin evaporates or drains to the south.

1.6.2 Built Environment and Land Use

The Interconnection Project would be north of Palomas Road, within a BLM-designated utility corridor. Two existing 500kV transmission lines (the Hassayampa–North Gila #1 [HANG1] and HANG2 lines) are parallel to Palomas Road, as is railroad line owned by the Union Pacific Railroad Co. The 2,400 acre, 290-MW Agua Caliente Solar Project and BLM's Agua Caliente Solar Energy Zone (SEZ) lie to the north and northeast, respectively. The Hoodoo Wash Switchyard lies to the east.

The Solar Project and Interconnection Project are in a relatively remote area of Yuma County, with few, if any, sensitive land uses (e.g., residences, schools, retirement homes) in the immediate vicinity. A 3,200-acre property located within a mile south of the Interconnection Project was platted in 1997 as the Dateland Ranch Subdivision. The subdivision was never developed and is now mostly owned by a renewable energy company, which is planning to build a solar energy facility on the property. A small cluster of agriculture-related buildings, including what may be a residence, is located just over a mile west of the Interconnection Project. An operations and maintenance building associated with the Agua Caliente Solar Project is located approximately 0.3 mile east of the Interconnection Project. Other than these buildings, and the utilities and infrastructure described above, the land within a 2-mile radius of the Interconnection Project is vacant desert or agricultural fields.

1.7 SUMMARY OF ENVIRONMENTAL COMPATIBILITY

The Interconnection Project is compatible with existing land uses and land management designations in the vicinity, which, as described above, focus on electrical energy generation and transmission. Specifically:

- The Interconnection Project is compatible with Yuma County's zoning ordinance in that all land in the vicinity is zoned Rural Area (RA)-40, which allows as special uses public or private utility installations. Yuma County issued a Special Use Permit for the Solar Project in December 2018; Strata is continuing to work with Yuma County as the plans for the development evolve.
- The Interconnection Project is compatible with the 2020 Yuma County Comprehensive Plan (2020 Plan), which states that, "Yuma County will provide support for the development of renewable energy sources which are in harmony with existing development and land use patterns throughout the County" (Yuma County 2015:10-8). The Interconnection Project is compatible with the Dateland/East County (DEC) Planning Area section of the 2020 Plan, which includes a policy to "Promote the construction of solar or wind power plants" (Yuma County 2015:3-80).
- The Interconnection Project is compatible with BLM's Yuma Resource Management Plan (RMP) in that all project components have been sited within a designated utility corridor. Lands and Realty Management Decision LR-034 in the RMP states that, "designated corridors are the preferred locations for major ROWs" (BLM 2010:2-173).
- The Interconnection Project is also in conformance with LR-031 in the RMP, which states that, "to the extent possible, locate new ROWs within or parallel to existing ROWs or ROW Corridors to minimize resource impacts" (BLM 2020:2-173). The Interconnection Project would parallel the HANG1 and HANG2 transmission line ROWs. As noted above, the Applicant proposes to co-locate a portion of the Interconnection Project with HANG2.
- In 2020, the BLM granted a ROW to Strata for the original concept of the Interconnection Project. Before granting that ROW, the BLM completed an Environmental Assessment (BLM 2019; included as Exhibit B-1) and issued a Finding of No Significant Impact (BLM 2020; included as Exhibit B-2). As noted above, the Strata is in the process for modifying the BLM-approved ROW to reflect the final design approach for the Interconnection Project. Since the Applicant plans to co-locate a portion of the Interconnection Project with HANG2, the modification represents an overall consolidation of utility infrastructure, compared to the originally approved ROW.
- The Interconnection Project is compatible with BLM's Arizona Restoration Design Energy Project (RDEP), which identifies low-sensitivity lands within their jurisdiction that could be suitable for renewable energy development. The Agua Caliente Solar Energy Zone (SEZ), just to the north of the Interconnection Project, was established as part of the RDEP. A SEZ is defined by the BLM as an area that the BLM has determined is well suited for utility-scale production of solar energy and within which the BLM will prioritize and facilitate utility-scale production of solar energy and associated transmission infrastructure development (BLM and U.S. Department of Energy (DOE) 2012). While the Interconnection Project route is not in the SEZ, the Interconnection Project is in a designated utility corridor adjacent to the SEZ and therefore within a large tract of federal land prioritized for energy generation and transmission.

The Interconnection Project would minimally affect the area's natural and human environment. Specifically:

- The Interconnection Project would permanently displace a relatively small amount of generally poor habitat and result in only minor impacts to wildlife and vegetation, including special status

species (see Exhibits C and D). Co-locating a portion of the Interconnection Project with HANG2 will help to minimize the Interconnection Project's overall environmental impacts. No areas of biological wealth exist in the Interconnection Project vicinity, and none would be affected. One federally listed species, the Sonoran pronghorn (*Antilocapra americana sonoriensis*), and one federal candidate species, the monarch butterfly (*Danaus plexippus*), may occur in the BLM-administered portion of the Project Area. Habitat for both species is marginal, however, and neither species is likely to be present often or in large numbers. Individuals of either species may temporarily avoid the area during construction activities.

- The Interconnection Project is compatible with the existing visual landscape of the area, which is dominated by two existing 500kV transmission lines and the Hoodoo Wash Switchyard. From a distance, elements of the Interconnection Project would be visually consistent with the existing electrical facilities (see Exhibit E for visual simulations).
- The Interconnection Project will not affect any known historic sites or structures, or archaeological sites, based on a Class III field survey of the Project Area on BLM land.
- The Interconnection Project will not affect recreation. No developed recreational facilities or parks are present within or near the proposed Project Area, and dispersed recreation in the area is likely minimal, if it occurs at all (see Exhibit F).
- The Interconnection Project is consistent with the existing soundscape of the immediate area because it would produce sounds similar to those generated by the nearby existing transmission lines, the Hoodoo Wash Switchyard, and the Agua Caliente Solar Project substation (see Exhibit I). No sensitive receptors (residences) exist within a mile of the Interconnection Project.

1.8 CONCLUSION

The Applicant is committed to avoiding where possible and minimizing where practicable environmental impacts and believes the Interconnection Project is environmentally compatible. Applicant further believes that the Interconnection Project is in the public interest because the Solar Project's contribution to meeting the need for adequate, economical, and reliable supply of electric power outweighs the impact of the Interconnection Project on the environment and ecology of the state. The Applicant therefore respectfully requests that the Power Plant and Transmission Line Siting Committee grant, and the Arizona Corporation Commission approve, a CEC for the construction of the Interconnection Project and a modification to CEC-135 to co-locate a portion of the Interconnection Project with the existing HANG2 transmission line.

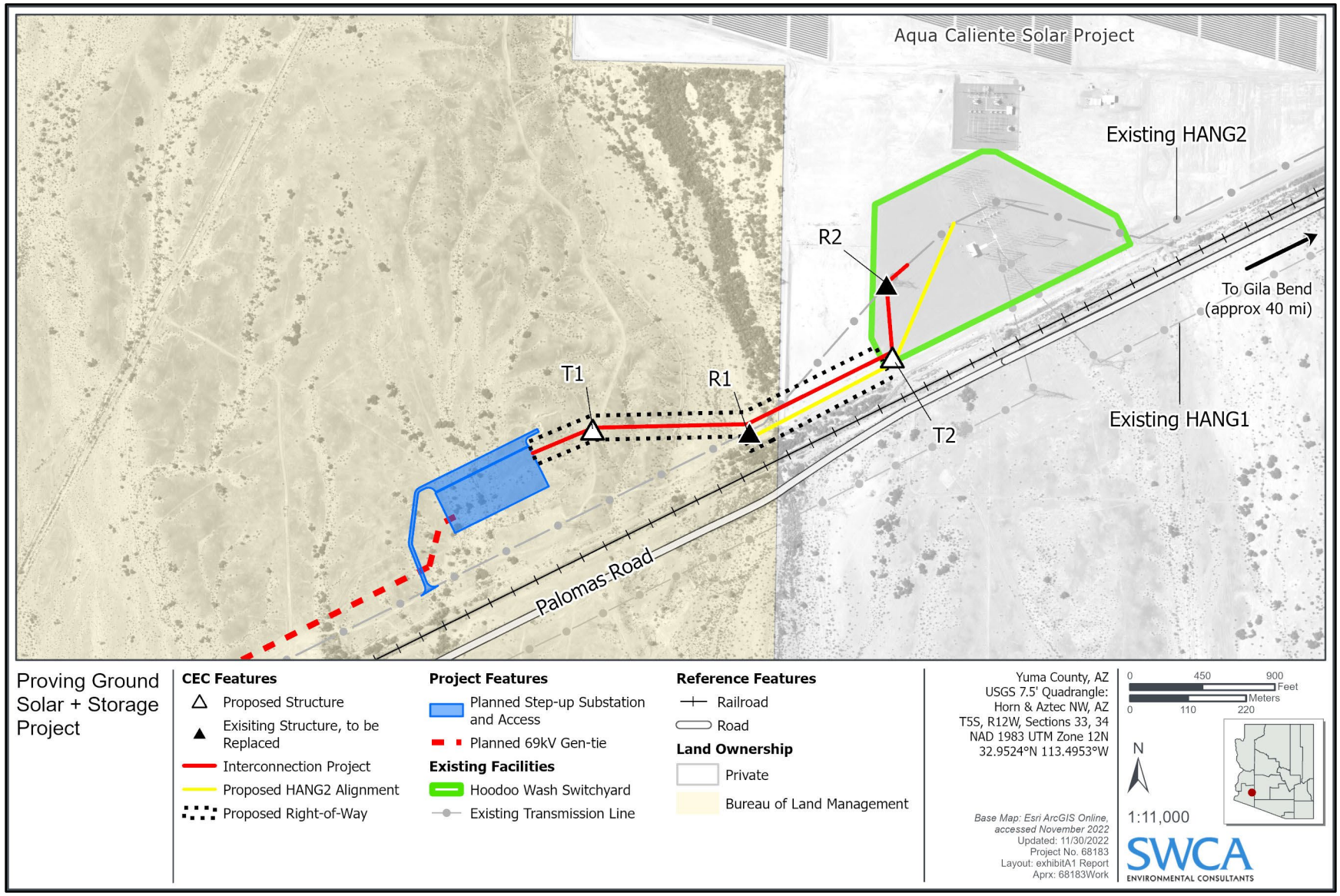

Figure 1. Interconnection Project Overview.

1.9 LITERATURE CITED

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———. 2019. Environmental Assessment, Viktoria Gen-Tie Project, DOI-BLM-AZ-C020-2019-0031-EA. August 2019. [See Exhibit B-1]

———. 2020. Viktoria Gen-Tie Project, DOI-BLM-AZ-C020-2019-0031-EA. Finding of No Significant Impact. January 23, 2020. [See Exhibit B-2]

Bureau of Land Management (BLM) and DOE. 2012. Final Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States. FES 12-24, DOE/EIS-0403. Washington, D.C.: U.S. Bureau of Land Management and U.S. Department of Energy.

DOE. 2010. Final Environmental Assessment for Department of Energy Loan Guarantee for the Agua Caliente Solar Project in Yuma County, Arizona. U.S. Department of Energy Loan Guarantee Program Office, Washington, DC. Available at EA-1797: Agua Caliente Solar Project in Yuma County, AZ | Department of Energy. Accessed March 2, 2022.

Yuma County. 2019. Yuma County Multi-Jurisdictional Hazard Mitigation Plan. Available at Yuma County Multi-jurisdictional hazard mitigation plan (yumacountyaz.gov). Accessed March 4, 2022.

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APPLICATION FOR CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

1. **Name and address of the Applicant**

   Arizona Public Service Company (APS)
   PO Box 53933
   Phoenix, Arizona 85072-3933

2. **Name, address, and telephone number of a representative of the applicant who has access to technical knowledge and background information concerning this application, and who will be available to answer questions or furnish additional information**

   Stephen Eich
   Senior Siting Consultant
   Transmission and Facility Siting
   Arizona Public Service Company
   PO Box 53933, MS 3293
   Phoenix, Arizona 85072-3933
   (602) 493-4448

3. **Date on which the applicant filed a Ten Year Plan in compliance with ARS § 40-360.02, in which the facilities for which this application is made were described**

   The Interconnection Project was included in APS's Supplemental Ten-Year Transmission System Plan, which was filed on August 1, 2022. In addition, Strata filed a Ten-Year Transmission System Plan for the Interconnection Project on April 15, 2022.

4. **Description of the proposed facility, including:**

   a. **With respect to an electric generating plant:**

      There are no thermal electrical generating plants included as part of the Interconnection Project.

   b. **With respect to a proposed transmission line:**

      i. **Nominal voltage for which the line is designed; description of the proposed structures and switchyards or substations associated therewith; and purpose for constructing said transmission line**

         (1) Nominal voltage:

         The nominal voltage for the Interconnection Project is 500kV alternating current.

         Modifying the alignment of the HANG2 transmission line would not affect its nominal voltage.

         (2) Description of the proposed structures:

         Conceptual drawings showing the typical structures are provided in Exhibit G.

         (3) Description of proposed switchyards and substations:

         The Interconnection Project will start at the Solar Project's step-up substation and terminate into a new bay at the existing Hoodoo Wash Switchyard.

The Solar Project includes a step-up substation that would increase the solar facility voltage from 69kV to 500kV. The step-up substation would be located on BLM land approximately 2,200 feet southwest of the existing Hoodoo Wash Switchyard; the step-up substation would be approximately 650 × 300 feet (approximately 4.25-acres).

(4) Purpose for constructing said transmission line:

The Interconnection Project is needed to connect the proposed Solar Project to the regional electrical transmission grid.

Modifying a portion of HANG2's existing alignment will consolidate energy infrastructure, thereby helping to minimize the Interconnection Project's overall environmental impacts.

ii. Description of geographical points between which the transmission line will run the straight-line distance between such points and the length of the transmission line for each alternative route for which the application is made

(1) Description of geographical points between which the transmission line will run:

The Interconnection Project would originate at the step-up substation in the Northeast Quarter of Section 33, Township 5 South, Range 12 West.

The Interconnection Project would end at the existing Hoodoo Wash Switchyard in the Northwest Quarter of Section 34, Township 5 South, Range 12 West.

The western terminus of segment of HANG2 that would be modified is in the Northeast Quarter of Section 33, Township 5 South, Range 12 West.

The eastern terminus of the segment of HANG2 that would be modified is in the Northwest Quarter of Section 34, Township 5 South, Range 12 West.

(2) Straight-line distance between such points:

The straight-line distance between the points of origin and termination is approximately 2,600 feet.

The straight-line distance between the end points for the segment of HANG2 that would be modified is approximately 1,800 feet.

(3) Length of the transmission line for each alternative route:

Not applicable.

iii. Nominal width of right-of-way required, nominal length of spans, maximum height of supporting structures and minimum height of conductor above ground

(1) Nominal width of right-of-way required:

The right-of-way would be up to 150 feet wide.

(2) Nominal length of spans:

For the Interconnection Project, span lengths between structures would range from approximately 400 feet to approximately 1,100 feet. The variation in span length is needed to meet site-specific engineering requirements including turns in the route.

For the segment of HANG2 that would be modified, span lengths between structures would range from approximately 900 feet to 1,000 feet.

(3) Maximum height of supporting structures:

For the Interconnection Project and the segment of HANG2 that would be modified, the maximum height of the supporting structures would be approximately 210 feet above the ground surface.

(4) Minimum height of conductor above ground:

For the Interconnection Project and the segment of HANG2 that would be modified, the minimum height of the conductor above the existing grade will be 31 feet.

iv. To the extent available, the estimated costs of proposed transmission line and route, stated separately. (If application contains alternative routes, furnish an estimate for each route and a brief description of the reasons for any variations in such estimates.)

The estimated cost for the proposed transmission line, including the Interconnection Project and modification to the existing HANG2 alignment, is $10.8 million. This includes the costs for construction of the transmission line, including the conductor and the supporting structures.

The estimated cost for land required for the proposed transmission line route is approximately $135,000.

v. Description of proposed route and switchyard locations. (If application contains alternative routes, list routes in order of applicant's preference with a summary of reasons for such order of preference and any changes such alternative routes would require in the plans reflected in (i) through (iv) hereof.)

The planned step-up substation would be located on BLM land approximately 2,200 feet southwest of the existing Hoodoo Wash Switchyard in the Northeast Quarter of Section 33, Township 5 South, Range 12 West.

As previously noted, the Interconnection Project would be approximately 3,000 feet long. The segment of HANG2 that would be modified as a result of co-locating with the Interconnection Project is approximately 1,970 feet long. The two lines would be co-located for approximately 1,050 feet.

The Interconnection Project would originate at the step-up substation and proceed to a new transmission structure, approximately 400 feet northeast of the substation. From here, the Interconnection Project would proceed east to join the existing HANG2 transmission line on a new double circuit transmission structure. Both lines would then head northeast and enter the Hoodoo Wash Switchyard. Within the Hoodoo Wash Switchyard both lines will connect to a new double circuit transmission structure; from here, the Interconnection Project would continue to the northeast to a new transmission structure before dropping down and connecting to new switchyard equipment.
The HANG2 will proceed northeast to rejoin its original alignment. Two existing HANG2 transmission structures will be replaced as part of the HANG2 realignment.

vi. For each alternative route for which application is made, list the ownership percentages of land traversed by the entire route (federal, state, Indian, private, etc.).

The proposed route for the Interconnection Project totals approximately 3,000 feet. Approximately 1,600 feet (53%) of the proposed route would traverse BLM administered land. The remainder of the Interconnection Project (1,400 feet, 47%) would traverse

privately owned land. Approximately half of the portion across privately owned land is within the Hoodoo Wash Switchyard.

The segment of HANG2 that would be modified is approximately 1,970 feet. Approximately 210 feet (11%) of that segment would be on BLM administered land. The remainder of the modified HANG2 segment (1760 feet, 89%) would be on privately owned land. A little more than half of the portion across privately owned is within the Hoodoo Wash Switchyard.

5. **List the areas of jurisdiction [as defined in A.R.S. § 40-360(1)] affected by each alternative site or route and designate those proposed sites or routes, if any, which are contrary to the zoning ordinances or master plans of any of such areas of jurisdiction.**

   The Interconnection Project and modified segment of HANG2 would be located on federal and private land. The jurisdictions regulating use of lands crossed by the Interconnection Project are with the BLM for the federal land and Yuma County for the private land. No proposed sites or routes are contrary to the zoning ordinance or master plans of either jurisdiction.

   Refer to Exhibit B for more information regarding relevant land management plans.

6. **Describe any environmental studies applicant has performed or caused to be performed in connection with this application or intends to perform or cause to be performed in such connection, including the contemplated date of completion.**

   The Applicant has evaluated available secondary and field data related to biological resources, visual resources, cultural resources, recreational resources, land use, noise levels, and communications signals to assess the potential impacts that may result from the construction, operation, and maintenance of the Interconnection Project. These evaluations are included in Exhibits B, C, D, E, F, H, and I to this application.

ARIZONA PUBLIC SERVICE COMPANY

/s/ Stephen Eich
By Stephen Eich, APS Senior Siting Consultant

I HEREBY CERTIFY that on this 5th day of January 2023, I have delivered to the Arizona Corporation Commission twenty-five (25) copies of this Application for a Certificate of Environmental Compatibility.

EXHIBIT A. LOCATION MAP AND LAND USE MAPS

In accordance with Arizona Corporation Commission Rules of Practice and Procedure R14-3-219, the applicant provides the following location maps and land use information:

> *Where commercially available**, 1) a topographic map, 1:250,000 scale, showing any proposed transmission line route longer than 50 miles and the adjacent area; and 2) a topographic map, a scale of 1:62,500, for routes shorter than 50 miles showing any proposed transmission line route and the adjacent area*
>
> *Where commercially available, a topographic map,1:62,500 scale, of each proposed transmission line route longer than 50 miles showing that portion of the route within two miles of any subdivided area. The general land use plan within the area shall be shown on a 1:62,500 map required for Exhibit A-3, and for the map required by this Exhibit A-4, which shall also show the areas of jurisdiction affected and any boundaries between such areas of jurisdiction. If the general land use plan is uniform throughout the area depicted, it may be described in the legend in lieu of on an overlay.*
>
> ***If a topographic map is not commercially available, a map of similar scale, which reflects prominent or important physical features of the area in the vicinity of the proposed site or route, shall be substituted.*

Land Use Overview

The following exhibits are required by the Arizona Corporation Commission's Rules of Practice and Procedure R14-3-219 to support the land use studies conducted for this application:

- Exhibit A-1 illustrates the Interconnection Project, underlying land ownership, and non-jurisdictional facilities for the Solar Project (i.e., a portion of the 69kV lines, step-up substation).
- Exhibit A-2 illustrates the Solar Project overall and underlying land ownership.
- Exhibit A-3 illustrates existing land use within 2 miles of the Interconnection Project.
- Exhibit A-4 illustrates planned land, as designated by the 2020 Yuma County Comprehensive Plan, within 2 miles of the Interconnection Project.

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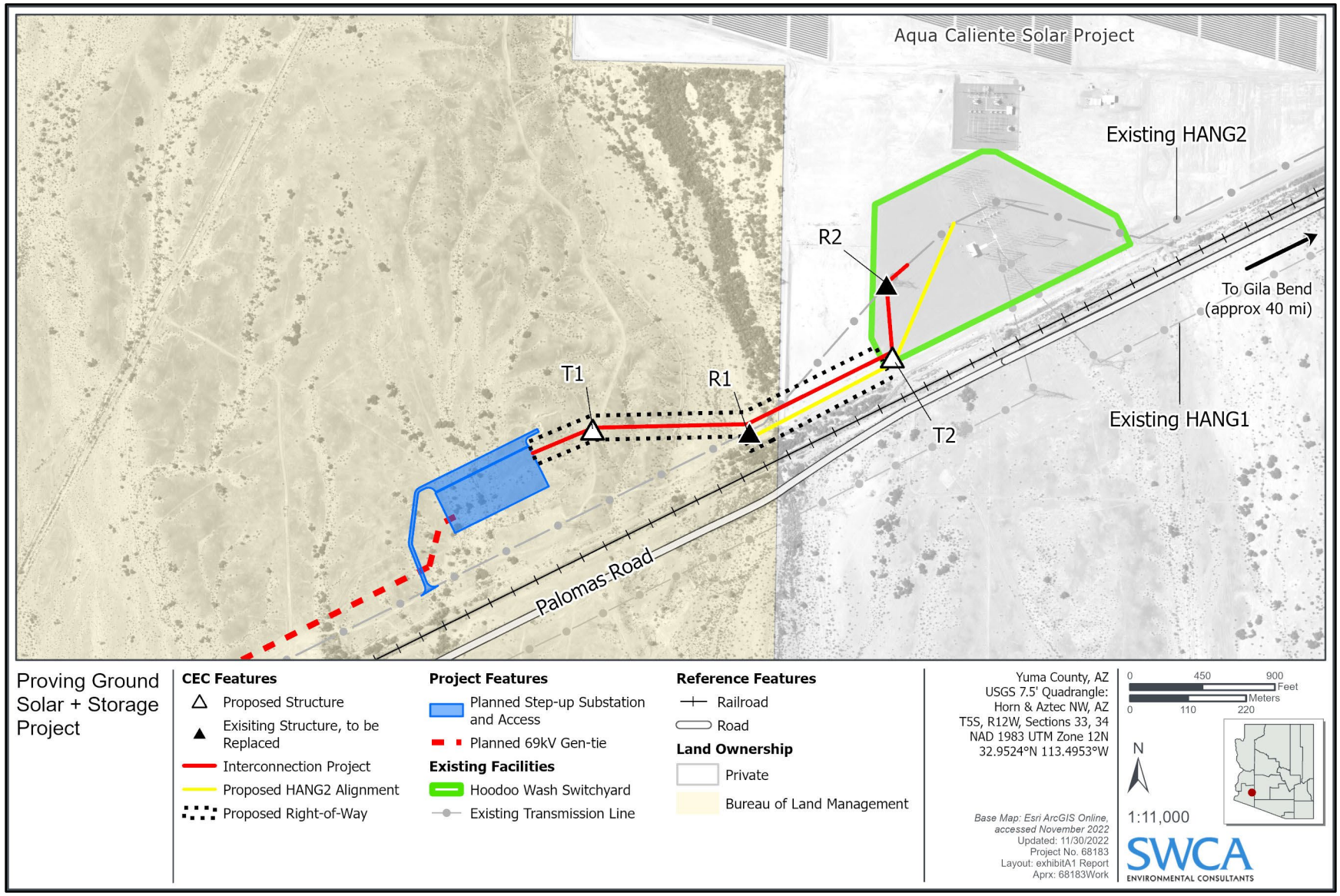

Exhibit A-1. Interconnection Project, underlying land ownership, and non-jurisdictional facilities for the Solar Project (i.e., a portion of the 69kV lines, step-up substation).

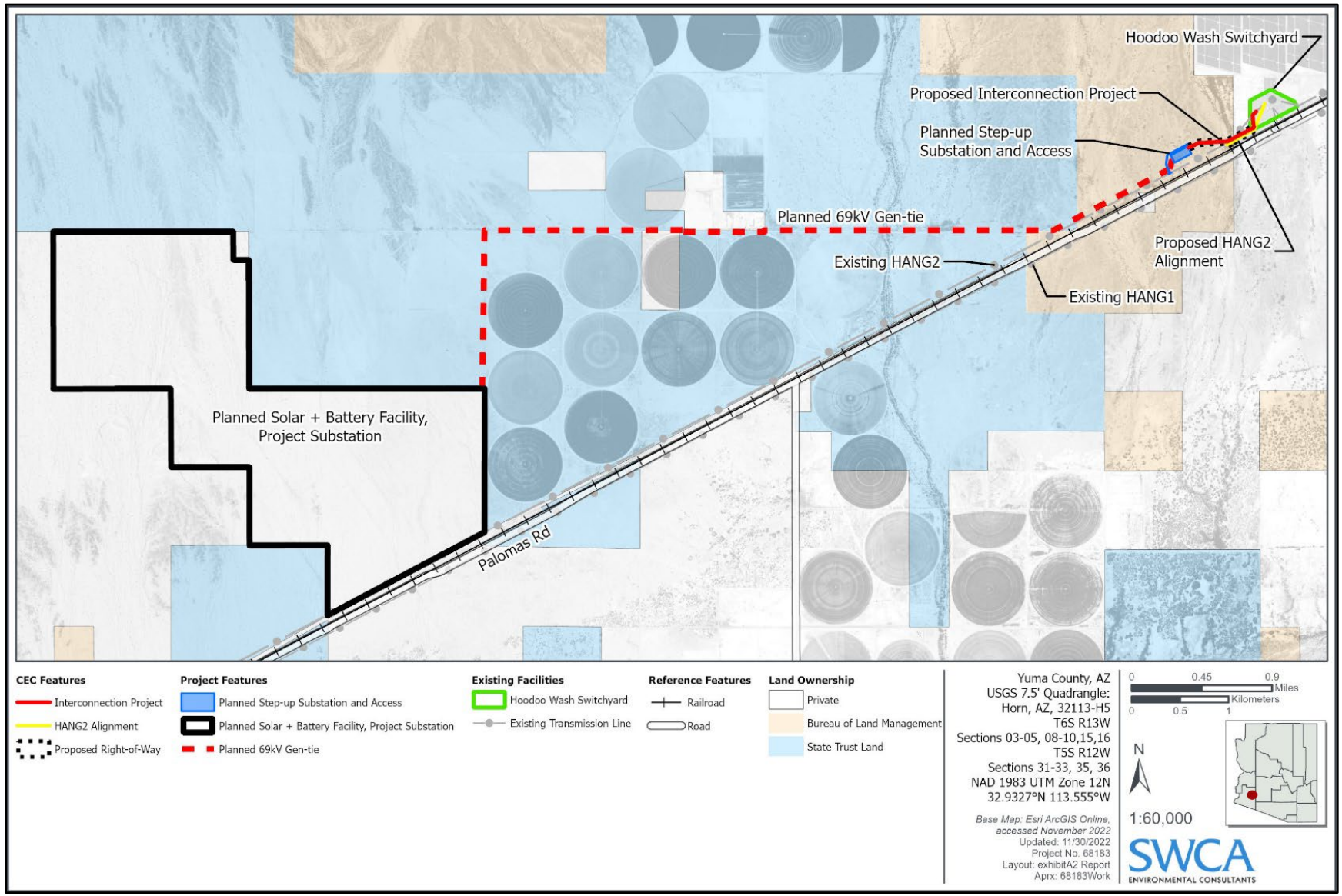

Exhibit A-2. Interconnection Project and underlying land ownership.

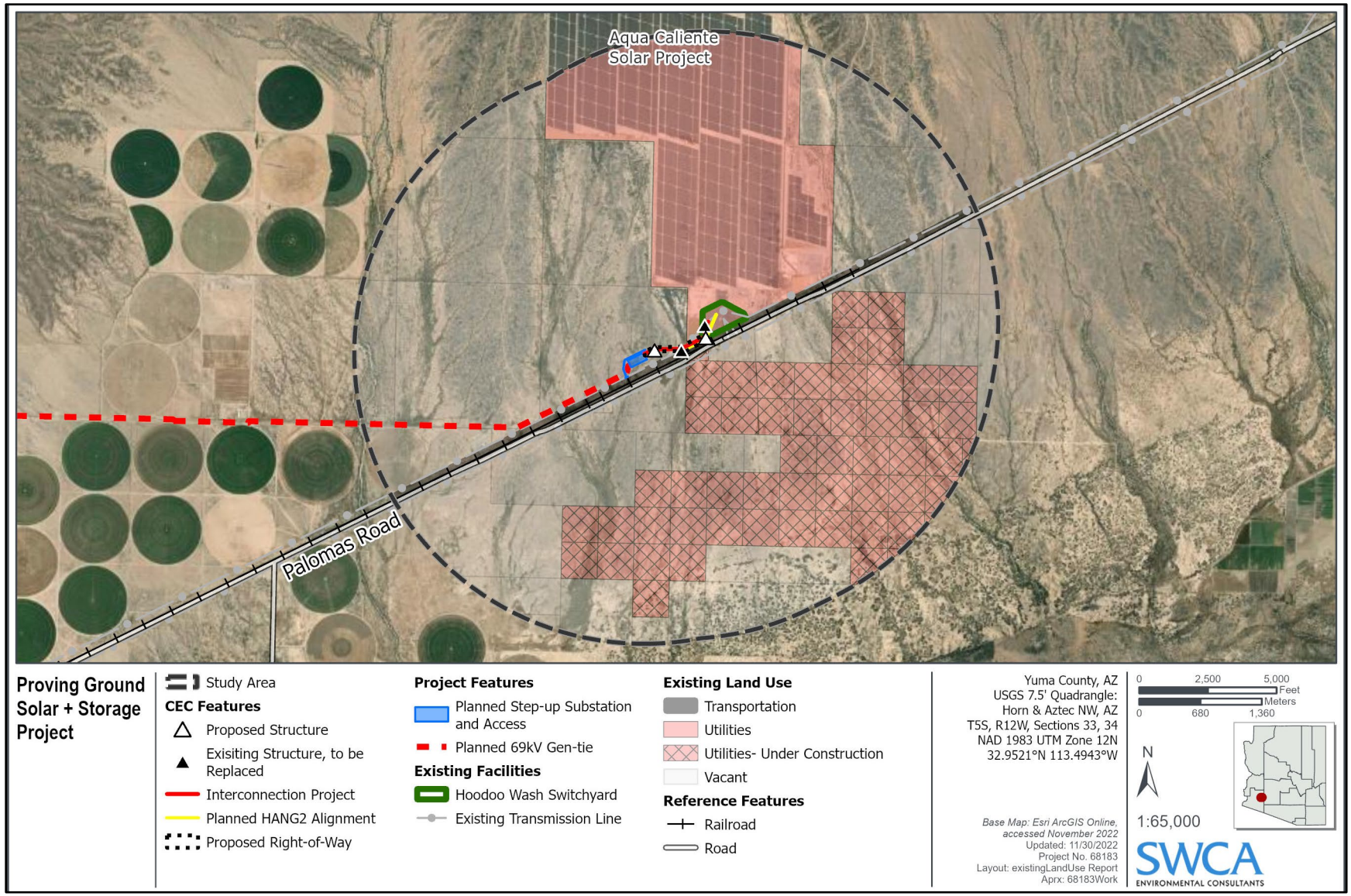

Exhibit A-3. Existing land use within 2 miles of the Interconnection Project.

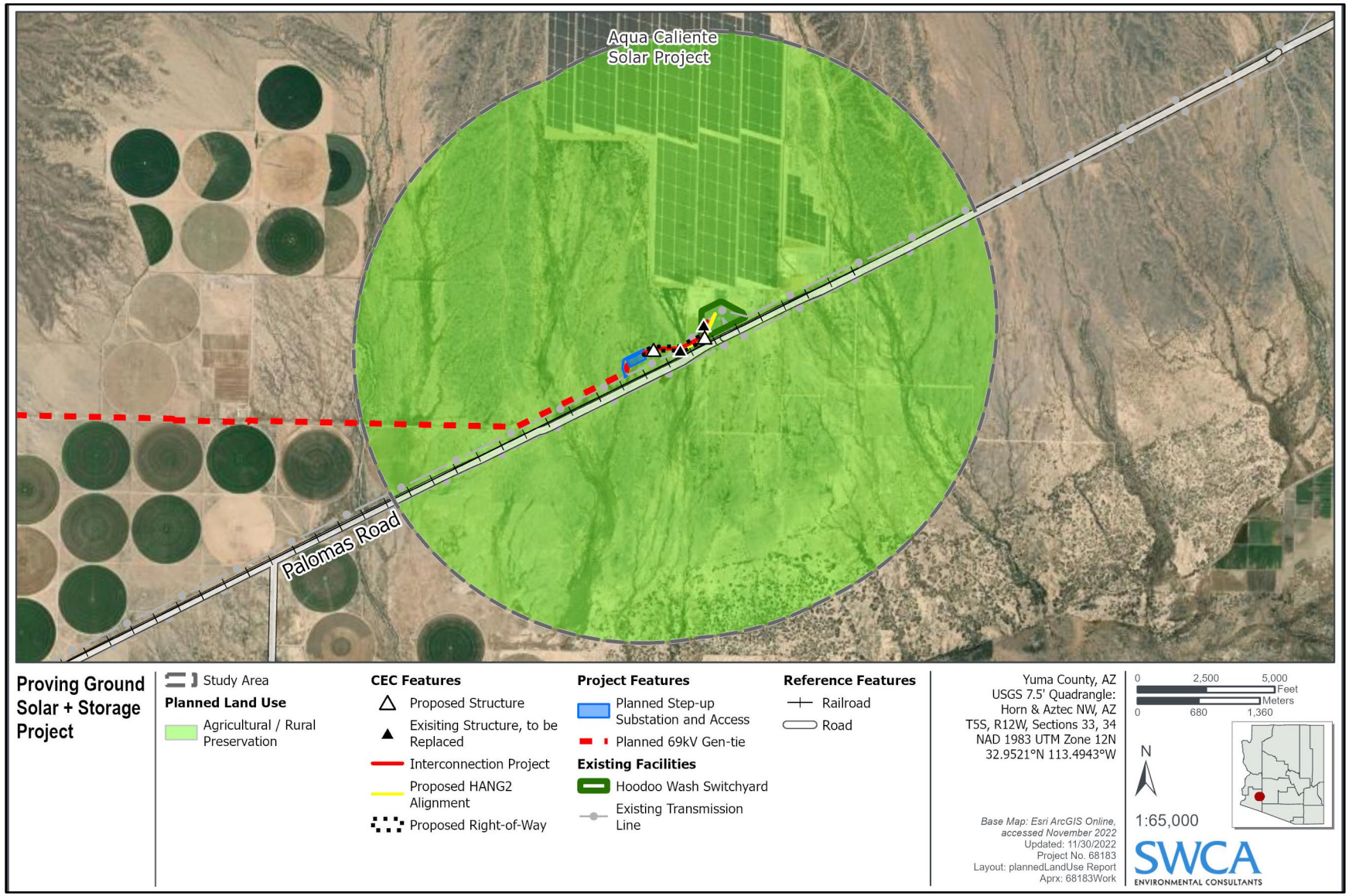

Exhibit A-4. Planned land use, as designated by the 2020 Yuma County Comprehensive Plan, within 2 miles of the Interconnection Project.

EXHIBIT B. ENVIRONMENTAL STUDIES

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

> *Attach any environmental studies which applicant has made or obtained in connection with the proposed site(s) or route(s). If an environmental report has been prepared for any federal agency or if a federal agency has prepared an environmental statement pursuant to Section 102 of the National Environmental Policy Act, a copy shall be included as a part of this exhibit*.

Introduction

The original developer of the Solar Project, Strata Clean Energy (Strata), retained SWCA Environmental Consultants (SWCA) to complete various environmental analyses for the Interconnection Project, as well as the associated step-up substation, 69kV gen-tie, and solar array area. The biological, visual, cultural, and recreational resource evaluations for the Interconnection Project are discussed in detail in the subsequent Exhibits C, D, E, and F.

A discussion of land use, including existing land use, zoning, and planned land use, is included below. Existing land and planned land use are depicted on Exhibits A-3 and A-4, respectively.

In 2019, an Environmental Assessment (EA) was prepared in connection with a request for a right-of-way (ROW) across a 1.1-mile section of Bureau of Land Management (BLM)–administered land. Additionally, Strata commissioned SWCA to complete additional environmental studies, including a biological evaluation, potential jurisdictional waters assessment, archaeological survey, and various pre-construction studies. The following sections describe those environmental studies.

Land Use Plans

BLM Land Management Plans

The BLM-administered land in the Project Area is subject to the management direction within BLM's Yuma Field Office Resource Management Plan (RMP; BLM 2010). The BLM lands crossed by the Interconnection Project are within a designated utility corridor referred to in the RMP as the "San Diego Gas and Electric Interconnection corridor." The BLM's Lands and Realty (LR) Management Decision LR-034 in the RMP states that, "designated corridors are the preferred locations for major ROWs" (BLM 2010:2-173). A ROW authorization from the BLM is required for construction on BLM land of the step-up substation and interconnection transmission line that are the subject of this Application.

The Interconnection Project is also in conformance with LR-031 in the RMP, which states that, "to the extent possible, locate new ROWs within or parallel to existing ROWs or ROW Corridors to minimize resource impacts" (BLM 2020:2-173). The Interconnection Project would be co-located with a portion of the existing HANG2 transmission line and generally parallels HANG1. Co-locating the Interconnection Project with HANG2 represents an overall consolidation of utility infrastructure within the BLM's utility corridor. As noted in the introduction, at the time of filing, the Strata was in the process of modifying its BLM-approved ROW to reflect the final design approach of the Interconnection Project.

The BLM land north of the utility corridor was established in 2013 as the Agua Caliente Solar Energy Zone (SEZ) through the Record of Decision for the Arizona Restoration Design Energy Project (ARDEP; BLM 2013). The ARDEP identified low-sensitivity lands within their jurisdiction that could be suitable for renewable energy development. An SEZ is defined by the BLM as an area that the BLM has determined is well suited for utility-scale production of solar energy and within which the BLM will prioritize and facilitate utility-scale production of solar energy and associated transmission infrastructure development (BLM and DOE 2012). The RMP was amended by the ARDEP Record of Decision to include the Agua Caliente SEZ. While the Solar Project is not proposed for construction in the SEZ, the Interconnection Project would be in a designated utility corridor adjacent to the SEZ and therefore within a large tract of federal land prioritized for energy generation and transmission.

The Interconnection Project conforms to the objectives and requirements described in both the RMP and the ARDEP.

Yuma County 2020 Comprehensive Plan

The 2020 Yuma County Comprehensive Plan (2020 Plan) is the official guide for the development of the unincorporated areas of Yuma County. The primary purpose of the 2020 Plan is to aid the county Planning and Zoning Commission and the Board of Supervisors in their decision-making responsibilities. The current plan was adopted in 2012 and updated in 2015. A 2030 Yuma County Comprehensive Plan is under development.

The 2020 Plan indicates that the Interconnection Project and surrounding areas are in the Dateland/East County Planning Area, which, at approximately 861 square miles, is the largest of nine planning areas identified in the 2020 Plan. The majority of land within the Dateland/East County Planning Area is under BLM jurisdiction, and the private land is predominately in agricultural production or open desert. Less than 1% of the land area is developed for residential uses. With a population of 257, Dateland is the largest community in the Dateland/East County Planning Area.

The land use designation for almost all the Dateland/East County Planning Area, including the Interconnection Project and its surround areas, is Agricultural/Rural Preservation (A-RP). This designation supports resource preservation districts with emphasis on protecting and preserving agricultural related resources and continued agricultural use and limiting development in rural areas that lack the basic infrastructure to support even limited low density residential development. Given that the Interconnection Project may be constructed without rezoning any of the underlying land, a Comprehensive Plan amendment is not required for the Interconnection Project.

The Dateland/East County Planning (DEC) Area Policies and Priorities are as follows:

- DEC.1: Economic development will be a key consideration when considering any future change in land use designations.
- DEC.2: Promote the construction of solar or wind power plants.
- DEC.3: New residential development should occur in proximity to existing residential development.
- DEC.4: Land use designation should promote viable levels of agricultural production and encourage the development of an aquaculture industry.
- DEC.5: Encourage appropriate buffers to mitigate conflicting land uses, including between aggregate mining and residential land use

The 2020 Plan states that "Yuma County will provide support for the development of renewable energy sources which are in harmony with existing development and land use patterns throughout the County." This statement is further supported by Energy Policies and Priorities (EPP) 6: "Support growth of renewable energy in Yuma County."

The Interconnection Project is consistent with the 2020 Plan in that it furthers the development of renewable energy in the county, and in the Dateland/East County Planning Area in particular. The Interconnection Project and its associated solar facilities also advance economic development in the county and planning area. The Interconnection Project is consistent with planning objective DEC.5, which relates to maintaining appropriate buffers between conflicting land uses. The Interconnection Project would be a complementary, energy-based land use adjacent to the existing HANG1 and HANG2 transmission lines, the Hoodoo Wash Switchyard, and the Agua Caliente Solar Project. In addition, since the private land crossed by the proposed Interconnection Project is unsuitable for agriculture, it is not inconsistent with the A-RP objective of protecting and preserving agricultural related resources and continued agricultural use in rural areas.

Yuma County Zoning Ordinance

The proposed route for the Interconnection Project is in Yuma County's Rural Area 40-Acre Minimum (RA-40) zoning district. The Yuma County Zoning Ordinance states the purpose of the RA zoning district is to "conserve and preserve farms, agricultural related resources, continued agricultural use and other open space land uses fostering orderly growth in rural areas, preventing urban and agricultural land use conflicts, and allowing rural lot development with emphasis on preserving the character of farming communities." The Yuma County Zoning Ordinance, Section 601.03(T), states that "public or private utility installations for gas, electric, water, and wastewater" are allowed in the RA-40 zoning district pursuant to an approved Special Use Permit (SUP). Strata obtained SUP for the Solar Project and associated components in December 2018.

Environmental Assessment

Pursuant to Section 102 of the National Environmental Policy Act (NEPA), an Environmental Assessment (EA) was prepared in 2019 in support of Strata's request for a ROW across a 1.1-mile section of BLM-administered land. The BLM approved a ROW for a proposed 69kV or 115kV transmission line, a step-up substation located close to the eastern boundary of the BLM section, and a short segment of a 500kV line leading into the Hoodoo Wash Switchyard. The portion of the 500kV Interconnection Project on private land was not addressed in the EA. Based on the EA, the BLM issued a Finding of No Significant Impact (FONSI) in 2020 and granted the ROW. The EA and the FONSI are included as Exhibit B-1 and Exhibit B-2, respectively.

When these actions were taken, the Solar Project was called the "Viktoria Gen-tie Project," and the EA and FONSI bear that name. Since the BLM issued the EA and FONSI, the original developer, Strata, changed the project's name from the "Viktoria Gen-Tie Project" to the "Proving Ground Solar+Storage Project." During the second and third quarter of 2022, Strata and APS refined the design for how the Interconnection Project would approach and enter the Hoodoo Wash Switchyard to avoid floodplain impacts. The modifications included moving the step-up substation approximately 1,300 feet to the southwest along the approved BLM ROW and away from the Hoodoo Wash Switchyard. Relocating the step-up substation lengthened the original 500kV interconnection route to the Hoodoo Wash Switchyard 750 feet to the currently proposed route of approximately 3,000 feet. Additionally, the updated design included co-locating a portion of the Interconnection Project with HANG2.

The step-up substation and Interconnection Project would remain within the BLM-designated utility corridor as was reviewed in the EA. As of December 2022, the Applicant and Strata were in the process of updating the BLM-approved ROW to reflect the adjusted route of the Interconnection Project. Co-locating a portion of the Interconnection Project with HANG2 represents an overall consolidation of utility infrastructure within the BLM's utility corridor.

Post-Environmental Assessment Studies (Completed or Underway)

To ensure that the environment of the revised footprint is accurately described in this application, and the potential impacts to the environment properly assessed, the Strata retained SWCA to complete additional tasks in areas that include the Interconnection Project, including the following: (1) perform a biological evaluation to identify any biological resources different from those described in the EA; (2) assess potential jurisdictional waters of the U.S. (WOTUS); and (3) conduct an archaeological survey.

Biological Evaluation

A SWCA biologist familiar with Sonoran Desert flora and fauna completed a biological evaluation of the Project Area on November 22, 2021. The biologist surveyed the Interconnection Project and determined that the plant community and habitat conditions on the site did not differ from those described in the EA.

In August 2022, SWCA completed preconstruction biological field surveys on BLM-administered land pursuant to various requirements specified in the project's Plan of Development with the BLM. These surveys included BLM-sensitive plants (including blue sand lily, sand food, scaly sand food, and Schott wire lettuce), noxious weeds (i.e., Arizona Department of Agriculture–listed weed species), and potential habitat for the Sonoran desert tortoise. Additionally, in August 2022, SWCA completed a native plant inventory and plant valuation estimate for the portion of the 69kV gen-tie ROW that crosses Arizona State Trust Land administered by the Arizona State Land Department. See Exhibits C and D for further information.

Potential Jurisdictional Waters Assessment

On September 1, 2021, November 24, and December 8, 2021, qualified biologists assessed potential WOTUS, including wetlands, in two areas: (1) the route of the approximately 5.5-mile-long proposed 69kV lines connecting the Solar Project to the step-up substation, and (2) the area encompassing the step-up substation and the Interconnection Project. The purpose of the assessment of potential WOTUS was to request to the U.S. Army Corps of Engineers (USACE) for a written determination of WOTUS in the assessment area and support project due diligence. The objective of the assessment was to (1) document whether any natural or constructed drainages within the assessment area may be WOTUS as defined under Section 404 of the Clean Water Act, and (2) determine the geographic limits of federal jurisdiction (as outlined in 33 CFR 328.4–5) of any WOTUS that may be present in the assessment area.
The assessment of potential WOTUS was completed in accordance with current guidance provided by the USACE and U.S. Environmental Protection Agency.

During the assessment, several small features observed near the Interconnection Project showed conditions indicative of swales or erosional features and were not identified as potential WOTUS.

Archaeological Survey

In April 2022, SWCA completed Class III field surveys for archaeological and cultural resources in accordance with survey methods established by the BLM. See Exhibit E for further information.

Pre-Construction Surveys

Strata contracted SWCA to conduct several preconstruction studies in areas that include the Interconnection Project or portions of the Interconnection Project. These preconstruction studies are planned for the Solar Project and the Interconnection Project and include a survey for migratory and nesting birds protected under the Migratory Bird Species Act on BLM land, a burrowing owl survey, and an air quality assessment. To meet other permitting requirements, SWCA will complete a Phase I Environmental Assessment for the entire Solar Project, including the Interconnection Project. Additionally, a traffic study will be completed as a condition of the Solar Project's Special Use Permit from Yuma County.

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Exhibit B-1. Viktoria Gen-Tie Project Environmental Assessment, BLM Case File Number AZA-037263

BLM

ENVIRONMENTAL ASSESSMENT

VIKTORIA GEN-TIE PROJECT

BLM Case File Number AZA-037263

Arizona State Office
Yuma Field Office

August 2019

January 2023

DOI-BLM-AZ-C020-2019-0031-EA

ENVIRONMENTAL ASSESSMENT

VIKTORIA GEN-TIE PROJECT

AZA-037263

BUREAU OF LAND MANAGEMENT

August 2019

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1.0 INTRODUCTION

Viktoria Solar, LLC (Viktoria Solar or Applicant), a wholly-owned subsidiary of Strata Solar Development, LLC, has submitted a right-of-way (ROW) application (No. AZA-037263) to cross federal lands managed by the Bureau of Land Management (BLM). Viktoria Solar, LLC proposes to construct a new transmission line to connect the proposed Viktoria Solar Project to the regional electric grid; the proposed line is called a "Gen-tie Line." The Viktoria Solar Project would generate up to 250 MW photovoltaic (PV) solar project with associated battery energy storage, entirely on private lands in Yuma County, Arizona (**Figure 1-1).**

The proposed Gen-tie Line would be approximately 6 miles-long, including 1.1 miles across federal lands managed by the BLM and approximately 4.9 miles across Arizona State Trust land managed by the Arizona State Land Department (ASLD). The gen-tie would be constructed at a voltage of 69 or 115 kV, double circuit, and would connect the solar project to the existing Hoodoo Wash Substation. The project would include a new step-up substation on up to 5 acres of BLM-administered land where the voltage would be converted from 69 to 500kV. A short 500kV line (approximately 750 feet) would be built on private lands from this step-up substation to interconnect to the existing Hoodoo Wash Substation. **Figure 1-2** shows the overall route of the entire gen-tie line.

On BLM, the line would be located entirely within a BLM-designated utility corridor and adjacent to other existing electric utility lines including the existing Hassayampa-North Gila #2 (HANG2) 500kV line.
The Applicant's objective is to interconnect the proposed Solar Facility to the regional electrical grid. Demand for new sources of electric energy—particularly renewable electric energy-- and the transmission infrastructure to transmit that energy to load centers, is projected to increase significantly in the coming decades. Total electricity demand continues to grow as a result of population growth, economic expansion, and the development of new technologies. Such new demand would be offset only in part by energy efficiency programs. The 2015 US Energy Information Administration (EIA) Annual Energy Outlook reference case forecasts a 25% increase in raw demand, between the years 2013 and 2040. New generation facilities are required to not only meet this demand, but to replace the output of aging existing generation facilities that are likely to be retired in this period. Furthermore, federal incentives, regional and national greenhouse gas (GHG) reduction targets, state renewable energy portfolio standards (RPS), and potential legislation are all increasing the demand for renewable energy generation. As the fastest growing region in the United States, the West provides particular evidence of this national trend. Ten of the twelve western states have adopted RPS requirements and GHG reduction goals. The proposed gen-tie project would support the development of new renewable energy facilities.

1.1 Purpose and Need for Action

BLM's purpose is to respond to the Applicant's request for the ROW authorization needed to build and maintain the proposed transmission line on BLM-managed land. This action is needed for BLM to meet its responsibilities under Section 501 of the Federal Land Policy and Management Act of 1976 (FLPMA) (43 United States Code 1761) and to balance BLM's multiple-use mandate to protect existing and future uses of public lands. The FLPMA establishes BLM's

responsibility to respond to submissions of land use applications in accordance with 43 CFR 2800, and authorizes BLM to grant, issue, or renew ROWs on public lands that it administers.

1.2 Decision to Be Made

The Authorized Officer is the Yuma Field Office Manager. The Authorized Officer will decide whether to approve, approve with modifications, or deny the ROW application.

1.3 Land Use Plan Conformance

The Proposed Action is located within the boundaries of Yuma Field Office and the portions on BLM-administered land are subject to the management direction within the *Yuma Field Office Record of Decision and Approved Resource Management Plan* (BLM 2010) (Yuma RMP). The portions of the BLM-administered lands crossed by the Proposed Action are within a utility corridor designated in the Yuma RMP. Designated corridors are the preferred locations for future linear facilities for the transport of energy such as electric transmission lines, pipelines, and other linear energy infrastructure. This specific utility corridor is referred to as the San Diego Gas and Electric Interconnection corridor. The Yuma RMP contains decisions relevant to ROWs and designated corridors. Decision LR-027 indicates that demand for ROWs would be met on a case-by-case basis. Decision LR-031 indicates that, to the extent possible, new ROWs would be located within or parallel to existing ROWs or within ROW Corridors (Decision LR-033) to minimize resource impacts. Decision LR-034 states that designated corridors are the preferred locations for major ROWs. The Proposed Action conforms to the objectives and requirements described in the Yuma RMP.

1.4 Other Applicable Requirements

The Viktoria Gen-Tie Project would be constructed on either BLM-administered public lands, State Trust lands managed by the Arizona State Lands Department (ASLD), or on private land. The Gen-tie facilities located on State lands have been approved by ASLD. In addition to the BLM and ASLD, other federal, state, and local agencies could require additional permits and approvals. Those agencies with potential jurisdiction over this Project are identified in **Table 1-1**.

1.5 Scoping and Issues

BLM conducted internal and external scoping for the project. A public meeting was held in Dateland, Arizona on July 12, 2018, to inform and solicit input from the interested public and stakeholders about the proposed solar project and gen-tie. No comments were provided on the gen-tie. BLM identified the following resources that are present in the Project vicinity or that could be potentially affected by construction and operation of the proposed Gen-tie Project:

- Lands and realty – Would the Project be consistent with applicable land use plans and designations?
- Cultural resources - What would be the impact on Register-eligible sites within the area of potential affect (APE)?
- Biological resources – What would be the impact to sensitive species or habitats?

- Hazardous materials – Are the lands crossed by the Project impacted by hazardous materials from past uses? Would the Project use hazardous materials during construction or operation that could impact local resources?

Table 1-1
Potential Permits / Approvals Required for Project

Agency/Department	Permit/Approval	Action Associated With or Required For
Federal Agencies		
Army Corps of Engineers	Nationwide Section 404 Permit No. 12 (CWA, 33 USC 1341)	Discharge of dredge/fill into Waters of the United States, including wetlands.
State Agencies		
Arizona State Land Department	Right-of-way	Construction and operation of a transmission line on Arizona State Trust land.
Arizona Corporation Commission	Certificate of Environmental Compatibility (CEC)	Approval of transmission lines 115kV and above

2.0 ALTERNATIVES

2.1 Proposed Action

Under the Proposed Action, Viktoria Solar would construct, operate, maintain, and eventually decommission the Viktoria Gen-Tie Project. The proposed transmission line would be approximately 6 miles in length, including 4.9 miles of Arizona State Trust land, 1.1 miles on BLM-managed land, and about 750 feet of private land. The proposed ROW would be 80-feet wide. Additionally, a 5-acre step up substation would be built on BLM land. From the proposed Viktoria Project Substation in the northeastern corner of the Viktoria Solar Site, the proposed Gen-tie line would cross State Trust lands for approximately 4.9 miles and enter BLM-administered lands within a designated utility corridor in Section 33, T5S, R12W. From this location, the proposed ROW would travel approximately 1.1 miles on BLM to a proposed step-up substation on BLM-administered land within the utility corridor where the line voltage would be converted from 69 or 115kV to 500kV. From the step-up substation, approximately 750 feet of 500kV line would cross private land before entering the existing Hoodoo Wash Substation in Section 34. **Figure 2-1** shows the location of the proposed Gen-tie Project on BLM-managed lands. **Table 2-1** below provides a summary of the legal description for the Project.

Table 2-1
Legal Description of Project

TOWNSHIP / RANGE	SECTIONS	ROW LENGTH	ROW ACRES
Federal Lands Managed by BLM			
5 South 12 West	33	1.1 miles	15.7[1]
State Trust Land			
5 South 12 West 5 South 13 West 6 South 13 West	31, 32 35, 36 1, 2, 3	4.9 miles	47.5
Private Land			
5 South 12 West	34	750 feet	1.4

[1] Includes 10.7 acres for ROW and 5-acre step-up substation

The permanent ROW for the transmission line on BLM-administered land would be up to 80 feet wide. No additional ROW is needed for construction. The term of the ROW for all Project features would be for 50 years and the Project would operate year-round. All temporary areas needed during construction for equipment storage and material lay-down would be located on private lands within the footprint of the solar project or the existing Hoodoo Wash Substation to the extent possible.

At a length of 1.1 miles and a width of 80 feet, the ROW for the gen-tie line would require approximately 10.7 acres of BLM-administered land. With the step-up substation of up to 5 acres in size, the total ROW on BLM-managed lands would be approximately 15.7 acres.

2.1.1 Project Facilities

The major components of the Project include the transmission line and the step-up substation. The following table (**Table 2-2**) provides an overview of the proposed facilities and summarized in the sections below. Additional detail is contained in the project Plan of Development (POD).

2.1.1.1 Transmission Facilities

2.1.1.1.1 Structures and Foundations - Transmission structures would be single poles with heights ranging from approximately 60 to 100 feet. Span lengths would typically be between 300 to 500 feet resulting in about 11 to 17 structures per mile of line. From 12 to 17 structures are anticipated on BLM-managed lands. Each structure would be installed by direct embedding the poles. **Figure 2-2** show typical structures for a double-circuit 69 kV line and a double-circuit 115 kV line. The foundation depths and diameters would depend on prevailing soil properties. A geotechnical study would be conducted prior to foundation designs.

Table 2-2
Typical Design Characteristics

Transmission Line Facilities	
Line length	Approximately 1.1 miles on BLM-managed lands Approximately 4.9 miles on State Trust land Approximately 750 feet on private land
Type of Structure	Double-circuit steel or wood pole
Typical structure height	Range from 60 to 100 feet
Typical span lengths	Range from average of 300 to 500 feet
Number of structures per mile	Range from approximately 11 to 17
Right-of-way width	80 feet on BLM-managed land
Access roads	Access spur roads approximately 12-feet wide would be built to each structure location for the new line from the existing access road along the parallel HANG2 line or as determined by the BLM
Voltage	69 or 115 kilovolts (kV)
Circuit configuration	Double-circuit (three phase per circuit)
Design ground clearance of conductor	The design would meet or exceed requirements of the National Electric Safety Code in all operating conditions. Minimum clearance is anticipated to be 30 to 35 feet at expected operating temperature.
Pole foundation depth	Up to 20 feet
Substation Facilities	
Viktoria Project Substation	Located on private lands within the solar project site
Step-up Substation	Located on BLM-managed land next to private lands at Hoodoo Wash Sub, built because Gen-tie developed at less than 500 kV
Hoodoo Wash Substation	Gen-tie would interconnect to this existing substation, located on private land
Communications Facilities	
Systems	Microwave and Fiber Optic Ground Wire (OPGW)
Functions	Communications for fault detection, line protection, supervisory control and data acquisition (SCADA), and two-way voice communication.

2.1.1.1.2 Structure Sites - Structure sites would be cleared of vegetation to prepare for construction. A portion of the area around each structure would remain available for future line maintenance. Each structure site would be approximately 50 feet by 50 feet. Final locations of structure sites would be shown on the final engineering design and would be determined by topography, best engineering practice, and environmental considerations.

2.1.1.1.3 Wire Pull Sites and Wire Splicing Sites - The pull sites are the locations where equipment is set up for pulling the conductors and shield wires. Pull sites would typically be approximately 80 feet by 150 feet with one likely located on BLM-managed land.

2.1.1.1.4 Staging Areas/Equipment Storage Areas - Staging areas and equipment storage areas would be needed for storing materials, construction equipment, and vehicles during construction. Besides the step-up substation on BLM-managed lands, any staging areas/construction material storage areas needed for the Project would be located on private land to the extent practical**.**

2.1.1.1.5 Access (Permanent and Temporary) - Access to the portions of the line on BLM-managed land would be provided by new unsurfaced spur roads from the existing access roads associated with the adjacent HANG2 line. These spur roads would total approximately 200 feet long and would be 12 feet wide. On BLM administered lands, the spur roads would be within the ROWs of the new line and the existing HANG2 line (both of which have been surveyed for sensitive resources) and would be constructed in accordance with BLM standards. The final locations of these roads would be determined during final design but would be within the proposed and existing ROWs.

2.1.1.1.6 Induced Current Mitigation - Fences or other metal structures crossed by or adjacent to overhead electrical transmission lines are subject to the influence of electromagnetic fields that may raise safety concerns as well as potential long-term corrosion damage to the facilities. Studies would be conducted and coordination would occur with the BLM for facilities on Federal land to determine the need to mitigate potential effects of induced voltage and the appropriate mitigation to be implemented (such as providing grounding for the fences).

2.1.1.1.7 Transmission Line Construction - The primary construction activities and areas of potential impact would be confined to access roads, structure locations, pull sites, and the step-up substation. Installation of the Gen-tie Project would generally be performed using the proposed construction techniques identified below and described in the POD. In addition to the description below, the design features identified in **Appendix B** would be employed as part of the Project to minimize environmental effects.

Table 2-3 summarizes the maximum temporary and permanent impact disturbance associated with the proposed Project whether built at 69 or 115 kV.

Pre-Construction Activities - Prior to construction, preconstruction survey work would be conducted locating the centerline, structure locations, ROW boundaries, pull sites, and access roads. After the locations are marked in the field, all sensitive resources identified would be flagged in the field to ensure awareness and appropriate treatment during construction. Prior to beginning work in the Project area, all contractors, subcontractors and Project personnel would receive training, regarding the appropriate work practices necessary to effectively implement the environmental mitigation measures and to comply with the applicable regulations.

Staging Areas - Construction of the Gen-tie Project would begin with the establishment of staging areas, which would be required for storing construction materials, equipment, and vehicles, and coordinating construction crews. In addition to the step-up substation on BLM-managed land, there could be one or two other staging areas These areas would be located on the private lands at each end of the gen-tie – the solar site and the existing Hoodoo wash Substation area.

Access Road Construction - Access to the ROW and structure sites would be required for both construction and long-term maintenance of the transmission line. To limit the amount of new road construction for the Project, existing access roads associated with the existing HANG2 line would be used, to the extent practical, for the transportation of material and equipment to the gen-tie line ROW. New spur roads to access structure locations along the ROW would be constructed using a bulldozer or grader as needed. The construction contractor selected to build this Project would be required to develop a specific access plan that would address use of the existing road network to transport workers, materials, and heavy equipment to the Project area.

Structure Sites - The structure sites on BLM-managed lands would have a temporary 50-foot by 50-foot workspace (all within the proposed 80-foot ROW) cleared and graded for construction. Grading for the construction and maintenance pads may not be required at all structure locations. These temporary work areas would be minimized to the maximum extent. At each structure location, an area would be cleared and graded within the above-described workspace area using equipment such as bulldozers, backhoes, etc. Following construction, sites would be re-contoured to blend into original grade, if needed.

Foundation excavations would be made using power drilling equipment such as a vehicle-mounted power auger or backhoe. Although not expected, in some instances blasting may be necessary because of the specific geologic conditions. Direct embedded poles may be backfilled with native soil instead of concrete. Construction activities would require access to the site by a power auger or drill, a crane, material trucks, and possibly ready-mix (concrete) trucks. Soil removed from foundation holes would be stockpiled in the work area and may be spread on the access road or used as fill where needed at appropriate locations within the ROW. Water would be used for soil compaction and dust abatement at each structure site and along access roads. Water for footer compaction and dust abatement would be obtained from available approved sources (such as nearby agricultural water sources) and trucked to the construction area.

Structure Assembly and Erection - Structural components and associated hardware would be transported to each structure site by truck. At each structure site, leveled areas would be large enough to facilitate the safe operation of equipment such as construction cranes. Concrete for use in constructing foundations would be dispensed from concrete mixer trucks and best management practices would be employed to minimize impacts from spilled concrete.

Conductor Installation - Prior to stringing, insulators, hardware, and stringing sheaves would be delivered to each structure site. The structures would be rigged with insulator strings and stringing sheaves at each ground wire and conductor position. Tensioners, line trucks, wire trailers, and tractors needed for stringing and anchoring the ground wire or conductor would be necessary at each site. There would be no blading at pull sites if the terrain is sufficiently level. Pull site locations would be determined during final design.

Clean-up / Reclamation - Construction sites and access roads would be kept in an orderly condition throughout the construction period by using approved enclosed refuse containers. Refuse and trash would be removed from the sites and disposed of in an approved manner. Disturbed areas that are no longer needed for future operation and maintenance would be restored to encourage natural revegetation. Revegetation would be conducted as needed using BLM specifications. The prevention of invasive species would be addressed throughout construction.

Table 2-3 Estimated Land Disturbance Viktoria Gen-tie Project (69 or 115 kV)					
Project Component	**Temporary vs. Long-Term**	**BLM Acres**	**State Acres**	**Private Acres**	**Total Acres**
Structure Sites	Temporary	1.0	4.5	0.1	5.6
	Long-Term	0.2	0.9	0	1.1
Access Roads	Temporary / Long-Term	1.0	4.5	0.1	5.6
Pull Sites	Temporary	0.3	1.3	0	1.6
Step-up Substation	Temporary / Long-Term	5.0	0	0	5.0
TOTAL DISTURBANCE	Temporary	7.3	10.3	0.2	17.8
	Long-Term	6.2	5.4	0.1	11.7

2.1.1.2 Substation Facilities

A small additional Step-Up Substation may be located on BLM-managed lands immediately west of the existing Hoodoo Wash Substation. The new Step-Up Substation would be up to 5 acres in size and would be graded with fencing around the full area of the substation. The fencing would be a minimum of 7-feet tall, chain link metal-fabric security fence with 1-foot barbed wire or razor wire on top. The proposed location and general layout of this substation is depicted on **Figure 2-3.**

2.1.1.3 Construction Schedule and Workforce

During construction of the Project, the construction workforce would average approximately 10-20 workers over an approximate 6-month construction period. Some of the construction workforce would be recruited locally and available through the existing labor pool but the majority would be specialized technical workers from outside of the local area.

2.2 No Action Alternative

Under the No Action Alternative, the BLM would deny the ROW application submitted by the Applicant. The Applicant would not be allowed to construct, operate, or maintain the proposed Gen-tie line on federal lands managed by the BLM. The BLM-managed land subject to the proposed Gen-tie route application would remain in its existing condition in the short-term but would be available for other uses (such as the development of other utility lines) that are consistent with the land use designations in the Yuma RMP. Since the land is within a designated utility corridor near the Agua Caliente Solar Energy Zone, the lands could be developed to support other energy-related projects.

If the proposed Gen-tie line across public lands for this Project is not developed, the gen-tie line could be constructed in another location that does not utilize federal lands to facilitate the interconnection needed for the Solar Facility. Therefore, if BLM were to deny the ROW application, the Viktoria Solar Project would still move forward utilizing a gen-tie line location that does not require BLM approval.

A gen-tie alternative was developed that would eliminate the need to cross BLM-managed land. Under this route alternative, the route would deviate from the proposed route in Section 32 west of BLM-managed land, turning south across Palomas-Hyder Road and then east on State lands in Section 5, crossing east and then north on private lands adjacent to the BLM boundary in Section 4, and continuing

north on private land adjacent to the BLM boundary in Section 34 where it would cross Palomas-Hyder road into the Hoodoo Wash Substation. This non-BLM route is shown on **Figures 1-2** and **2-1**. The step-up substation would be located on private land just west of the Hoodoo Wash Substation.

This alternative would add about 1.6 miles to the route (3.5 miles vs 1.9 miles it would replace on the proposed route) and would increase impacts accordingly; it would require two crossings of Palomas-Hyder Road, and it would require multiple crossings of existing utility lines located within the designated utility corridor.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the existing environmental conditions and the potential impacts of the Proposed Action and No Action Alternatives. **Table 3-1** outlines all the resources considered by BLM (including the four issues identified in Section 1.4), indicates whether the Proposed Action has the potential to result in a change in each relative to existing conditions, and provides the rationale for eliminating or carrying each resource forward for further analysis. Only those resources identified as present in the Project area and may be affected are discussed in detail in this chapter. Cumulative impacts are discussed where appropriate for each resource.

Table 3-1
Resources and Rationale for Elimination or Detailed Analysis

Resource	Not Present	Present, Not Affected	Present, May Be Affected	Rationale
Air Quality / Climate Change			X	See Section 3.2 Air Quality and Climate Change
Areas of Critical Environmental Concern	X			No ACECs are in or near the project area. The nearest, Sears Point ACEC, is about 10 miles away
Cultural Resources			X	See Section 3.3 Cultural Resources.
Environmental Justice / Socioeconomics			X	See Section 3.7 Socioeconomics.
Farmlands	X			No prime or unique farmlands occur in the Project area.
Hazardous Materials / Waste			X	See Section 3.8 Public Health and Safety.
Land Use and Realty			X	See Section 3.1 Land Use and Realty.
Livestock Grazing	X			No grazing allotment occurs on the BLM-managed lands in the Project area. The BLM grazing allotment in this area was withdrawn in 2010 RMP from non-use.
Noise		X		Short-term construction activities could generate noise, but ambient sound levels would not be permanently increased.
Paleontology	X			No known fossil localities occur within or within one mile of the analysis area.
Recreation		X		Little to no recreation use in corridor with existing utilities
Geology and Soils			X	See Section 3.4 Geology and Soils.
Vegetation			X	See Section 3.5 Biological Resources
Visual resources			X	See Section 3.6 Visual Resources.
Water resources			X	See Section 3.9 Water Resources.
Wild and scenic rivers	X			No wild and scenic rivers are located in vicinity.
Wilderness	X			The nearest wilderness area is about 15 miles away
Wildlife (including special-status species)			X	See Section 3.6 Biological Resources

3.1 Land Use / Realty

3.1.1 Affected Environment

As depicted on **Figure 3-1,** approximately 1.1 miles of the 6-mile Viktoria Gen-tie Project and potential step-up substation would be located on federal lands with the majority of the gen-tie located on State lands. The surrounding area includes federal, State, and private lands dominated by utility, agricultural, and open land uses. Two existing 500kV lines occur within the federally designated utility corridor; the Hassayampa – North Gila #2 500kV Line (HANG2) is immediately south of and parallels the proposed gen-tie route and the Palo Verde – North Gila (PVNG) is just south and parallel to HANG2. The proposed and existing transmission lines parallel the Palomas-Hyder Road and an abandoned segment of the Union Pacific Railroad. **Figure 3-2** shows the currently existing industrial and utility land uses in the Project area.

The portion of the Gen-tie line would be located within a designated utility corridor. Designated corridors are the preferred locations for major linear utility ROWs. This specific designated utility corridor is referred to as the San Diego Gas and Electric Interconnection corridor. **Figure 3-3** shows the boundaries of the designated utility corridor relative to the proposed Gen-tie Project.

3.1.2 Environmental Consequences

Proposed Action

The Proposed Action conforms to the objectives and requirements of the relevant land use plan that covers the federal lands that would be crossed by the Project. The proposed Gen-tie line would be located on lands designated by the BLM's Yuma RMP as a utility corridor where linear utility projects are preferred to be located. The proposed Gen-tie Line would be consistent with this designation. In addition, the Proposed Action would not cross or interfere with the existing Hassayampa to North Gila 500 kV line and the HANG2 500 kV line (AZA-019254) that are located within this corridor.

No Action

Under the No Action Alternative, the Gen-tie line would not be built on BLM-administered lands but would be built on non-federal land, requiring two crossings of Palomas-Hyder Road, two crossings of the existing 500kV transmission lines located within the designated utility corridor, and a crossing of the abandoned Union Pacific Railroad.

3.2 Air Quality / Climate Change

3.2.1 Affected Environment

Air Quality

The Clean Air Act (CAA) established the principal framework for national, state, and local efforts to protect air quality in the U.S. Under the CAA, time-averaged standards known as national ambient air quality standards (NAAQS) have been established for six primary air pollutants The State of Arizona has adopted the NAAQS to regulate air pollution in the state. The Project area is in not within 62 miles (100 kilometers) of an airshed given special protection (Class I area) and is in attainment for all national ambient air quality standards (NAAQS).

Climate Change

Greenhouse gases (GHGs) are chemical compounds in the atmosphere that allow incoming short-wave solar radiation but absorb long-wave infrared radiation re-emitted from the earth's surface, trapping

heat. GHG emissions have increased over the past decades. However, due to the rural nature of the proposed Project area, the increase in emissions is not as large as more developed areas. Current activities in the Project area generate low levels of GHG emissions and are primarily associated with vehicles and farm equipment.

3.2.2 Environmental Consequences

Proposed Action

Air quality impacts associated with development of the Gen-tie Project would occur primarily during construction. The primary pollutants emitted during construction are fugitive dust (associated with site preparation, road development, transmission line installation, vehicle and equipment use on unpaved surfaces), and exhaust emissions (associated with major equipment usage, construction worker commute traffic, and truck deliveries to the project site). Construction impacts would be short duration.

GHG impacts associated with Gen-tie Project would include emissions resulting from fuel combustion associated with heavy construction equipment and vehicle and truck use. These activities, which are the primary source of greenhouse emissions associated with development of the Project, would be short term and temporary. Because the Gen-tie Project would interconnect the 250 MWs of renewable energy generated by the Viktoria Solar Project, the Project would indirectly help reduce GHG emissions by offsetting energy produced by fossil fuel sources.

No Action

Under the No Action Alternative, the Gen-tie line would not be built on BLM-administered lands but would be built on non-federal land. The impacts to air quality and climate change would be about the same, but slightly higher than described for the Proposed Action due to the additional line length and complexity of construction (crossing the road, railroad, and other utility lines).

3.3 Cultural Resources

3.3.1 Affected Environment

A Class I cultural resources survey was conducted; Arizona State Museum (ASM) and BLM project files were examined to determine if previously recorded cultural resources were within the Project area on BLM-managed land and a one-mile buffer. Fourteen previous archaeological surveys have been performed within one mile resulting in eleven (11) archaeological sites being recorded three of which were considered potentially eligible. A Class III cultural resources survey was conducted on the Gen-tie Line route and substation site on BLM-managed land and the ROW on State Trust land. No newly recorded archaeological sites were present on BLM-managed land or State Trust land and no Isolated Occurrences (IOs) were recorded. The gen-tie route on BLM-managed land crosses two previously recorded historic-period roads and both were recommended ineligible to the National Register of Historic Places.

3.3.2 Environmental Consequences

Proposed Action

No new sites or IOs occur within the proposed gen-tie ROW on BLM-managed or State Trust lands. None of the 11 sites identified within the one-mile buffer of the proposed ROW would be impacted by the Project because most are outside the APE. Three ineligible historic roads (two on BLM and one on State Trust) would be spanned by the line. In addition, a portion of the historic Camp Horn would be crossed by the line on State Trust lands, but these areas have been developed for agriculture and site remnants do not exist. There are no known historic sites or structures or archaeological sites that would be affected by the proposed Project.

If previously unrecorded cultural resources are encountered during development of the gen-tie line, the cultural resource measures identified in **Appendix B** would be implemented to mitigate potential effects.

No Action

Under the No Action Alternative, the Gen-tie line would not be built on BLM-administered lands but would be built on non-federal land. The impacts to cultural resources would be similar to what is described for the Proposed Action, except the No Action would be longer. The site densities along this alternative would be expected to be similar to what was encountered along the proposed route because it crosses similar landforms. If cultural resources are encountered during development of the gen-tie line along this route, the cultural resource measures identified in **Appendix B** would be implemented to mitigate potential effects.

3.4 Geology and Soils

3.4.1 Affected Environment

The Project area is located within the western portion of the Palomas Plain, which is bounded on the southwest by the Palomas Mountains. In this area, the mountain ranges bounding the basins are all oriented to the northwest and bedrock is comprised of granitic, metamorphic rocks and volcanic rocks. The subsurface geology in the Project area is underlain by recent alluvial sediments varying from 200 to 600 feet thick that overly a thick sequence of volcanic rocks that extend to a depth of at least 2,500 feet. The seismic hazard potential for the Yuma region is Seismic Zone 4 which is subject to ground shaking but the earthquake hazard risk for the area has been determined to be low by the Arizona Geologic Survey.

The soils in the Project area are gravely and associated with alluvial sediments. Soils are dominated by Ligurta-Cristobal complex, 2 to 6 percent slopes, Carrizo very gravelly sand, and Harqua-Tremant Complex. Wind erosion susceptibly for the dominant soil types is low to moderate. The soils in the Project area are not classified as prime or unique farmland.

3.4.2 Environmental Consequences

Proposed Action

The geology and soils hazards in the area are limited. The potential for ground shaking, liquefaction, and expansive soils are low. Soil disturbance would occur at the structure sites, step-up substation site, and along the access roads. Vegetation cover would be removed in the areas of soil disturbance and soil compaction from heavy construction equipment could occur during construction.

The potential for soil erosion during construction would be limited by the very flat topography and small amount of ground disturbance. The total soil disturbance is estimated to be approximately 17.8 acres of which about 11.7 acres would be impacted permanently. On BLM-managed lands, approximately 7.3 acres would be disturbed with about 1.1 acres of this amount only disturbed temporarily during construction. Erosion would be controlled on-site by compliance with the mitigation described in **Appendix B**. Therefore, the potential soil erosion impact would be minor.

No Action

Under the No Action Alternative, BLM would not approve the proposed ROW authorization. Therefore, no direct impacts on soils or geology would occur on BLM-administered land. Soil disturbance on non-BLM land from the alternative route would be anticipated to be similar but would be approximately 27.8 acres total (about 10 acres more than Proposed Action) due to the longer route.

3.5 Biological Resources

A biological survey of the Project area was conducted to identify habitats and species on or near the Project. The Gen-tie Project area is immediately adjacent to the existing HANG2 transmission line.

3.5.1 Affected Environment

3.5.1.1 Vegetation

Native Sonoran Desert vegetation communities in this part of the Sonoran Desert are dominated by what is characterized as the Sonoran Desertscrub Ecosystem (Brown 1994). The Lower Colorado River Valley Subdivision – Creosotebush-White Bursage Series is the dominant native feature on native lands in the area. Ephemeral drainages (xeroriparian areas) also occur in significant washes in the area. The Gen-tie ROW contains vegetation typical for the Sonoran Desert, with mesquite-tamarisk and creosote bush the dominant species. Descriptions of the various covertypes can be found below and **Figure 3-4** depicts their location and extent. The majority of plant species observed are native, but several non-native species are common.

Mesquite – Tamarisk - This covertype within the Gen-tie corridor was comprised of dense stands of honey mesquite (*Prosopis glandulosa*) and tamarisk (*Tamarix ramosissima*), primarily near and west of the Hoodoo Wash substation. The understory in this covertype is dominated by Sahara mustard (*Brassica tournefortii*), arrowweed (*Pluchea sericea*), and big galleta grass (*Hilaria rigida*). Soils were fine clays to silts and showed evidence of some pooling in low areas, but no evidence of sustained inundation or regular flow. Overall vegetative cover is 90-100%.

Xero-Riparian - Xero-riparian covertypes were exclusively associated with ephemeral drainage features. The overstory in these areas was dominated by honey mesquite, tamarisk, blue palo verde, and ironwood. Understory species included Sahara mustard, arrowweed, atriplex, big galleta grass, and brittlebush. Soils were variable and showed evidence of scour, sediment sorting and shelving as a result of ephemeral water flow.

Creosotebush – White Bursage - This covertype within the Gen-tie corridor was relatively low in overall plant diversity, being dominated almost exclusively by creosotebush and white bursage. Overall plant cover was between 5% and 25%. Soils in this covertype ranged from loose silty soils in low spots to compacted areas of gravel and cobbles similar to desert pavement.

3.5.1.2 Wildlife

Wildlife resources that have the potential to occur within the vicinity of the Project are predominantly associated with Sonoran Desertscrub habitats and nearby agricultural lands. Species occurrence, abundance, and distribution are strongly influenced by the presence of surface water, topography, and habitat types within the area that are dominated by creosote bush uplands with palo verde and ironwood dominating washes and nearby lands that include disturbed lands and irrigated agricultural land.

3.5.1.3 Sensitive Species

Special status plant and wildlife species are subject to regulations under the authority of federal and state agencies. Special status species include those species that are listed by the U.S. Fish and Wildlife Service (USFWS) as federal endangered, threatened, proposed, or candidate species under the Endangered Species Act of 1973 (ESA), Section 4, as amended; listed by the BLM as sensitive species; listed by the Arizona Game and Fish Department (AGFD); or are protected under the Arizona Native Plant Law administered by the Arizona Department of Agriculture (AZDA).

A review for potential occupancy by special status species was performed for the gen-tie ROW. The list of species considered was derived from the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Conservation (IPaC) system (USFWS 2018) and familiarity with other similar nearby projects. This information provided a basis for species that might be present in the vicinity of the Project. **Appendix C** presents the special status plant species potentially occurring within the region, listed by common name, scientific name, and status.

An AGFD On-line Project Evaluation Program (PEP) search was completed for the Project on August 10, 2018 (AGFD 2018). The information provided in the PEP is used to guide preliminary decisions and assessments of proposed land development, management, and conservation projects, while incorporating fish and wildlife resource needs or features. The ecology and habitat requirements of each special status species were reviewed and used to evaluate the potential for occurrence of each species and to analyze the potential effects of the Project. The species with potential to occur in the Project area are described below.

Special Status Plants - **Appendix C** identifies the special status plant species that were considered for analysis. No state or federally listed plant species have the potential to occur in or around the project area. Six species of BLM sensitive plants were considered but none are expected to occur based on habitat and/or elevation.

Appendix C also identifies plant species listed as Salvage Restricted in accordance with Arizona's Native Plant Law (Arizona Department of Agriculture 2014). A total of 12 species protected under Arizona Native Plant Law as Salvage Restricted were analyzed for potential occurrence (Arizona Revised Statutes, Chapter 7). Habitat requirements and potential for occurrence for those species are described in or around the Project area. For six of the 12 species analyzed, either no suitable habitat was found in or immediately adjacent to the Project area, or the Project area is located below the species' known elevation range. Suitable habitat is present for six of the species.

Special Status Wildlife

Sonoran Pronghorn - The Sonoran pronghorn (*Antilocapra americana sonoriensis*) is a federally endangered subspecies of the pronghorn antelope that inhabits a variety of Sonoran Desert habitats. This species relies on detecting and fleeing from predators. As such, this species prefers flat to gently rolling terrain with open sight-lines. Creosotebush habitats, in particular, are frequented by the species, though habitats with greater shade availability are necessary during the summer. The species is nomadic and requires large expanses of contiguous habitat to survive. Sonoran pronghorn have been released from pens in King Valley on the nearby Kofa National Wildlife Refuge as part of a captive breeding program to increase the Sonoran pronghorn population. To facilitate conservation efforts, all Sonoran pronghorn found anywhere they may roam following release from the captive breeding pen, within a defined area bounded by Interstate 10 to the north and Interstate 8 to the south, are designated "non-essential, experimental" by the U.S. Fish and Wildlife Service (Federal Register Vol. 76, pages 25593 – 25611). There are no fences to hinder movement of Sonoran pronghorn between the release site area in King Valley and the proposed project area.

The native habitats associated with the Project represent potentially suitable habitat for this species, but it provides little to no forage for Sonoran pronghorn. Sonoran pronghorn are known to move through the area and have been observed in the project area. However, the proximity of these habitats to active solar energy and agricultural operations make consistent or regular occupancy of these areas by the species unlikely. Instead, Sonoran pronghorn would be expected to preferentially use the large amounts of native habitat located on all sides of the Project area that are less impacted by ongoing human activities.

Migratory Birds - Several species of migratory birds have a high potential to use the Project area. Avian use of the Project area could include wintering, foraging, transit, and/or nesting. Migratory birds and their nests are federally protected under the Migratory Bird Treaty Act. The areas within the active agricultural fields themselves do not represent suitable nesting habitat due to the regular disturbance associated with active farming. Native habitats associated with the Gen-tie route offer potentially suitable nesting substrate for several species.

Burrowing Owl - The Burrowing Owl (BUOW) is primarily restricted to the western United States and Mexico. Habitat for the Burrowing Owl includes dry, open, short-grass areas often associated with burrowing mammals (Haug et al. 1993). Agricultural areas may benefit the species and appear to represent preferred habitat in some areas (DeSante et al. 2004). Burrowing Owls are opportunistic feeders, consuming a diet that includes arthropods (typically insects), small mammals, small birds, and occasionally amphibians and reptiles (Haug et al. 1993). Urbanization has greatly reduced the amount of suitable habitat for this species. Other contributions to the decline of this species include the poisoning of squirrels and prairie dogs, and collisions with automobiles. The open native desert habitats along the Gen-tie route (especially creosotebush – white bursage) represent suitable habitat for this species. No Burrowing Owls or potentially suitable burrows were observed during surveys along the Gen-tie corridor.

3.5.2 Environmental Consequences

3.5.2.1 Proposed Action

Vegetation - Ground disturbance and modifications to these habitats from development of the proposed Gen-tie line would occur at the substation sites, structure locations, the roads used to access

the structures, and at stringing /pull sites. The Project endpoints / substations would be built on previously disturbed land. **Table 3-5** shows the acres of the various vegetation types in the project area that would be impacted by the Project.

Table 3-5
Vegetation Disturbance (acres)
ROW on BLM-managed Land

Vegetative Covertypes	Step-up Substation	Gen-Tie Line	Total Vegetation Disturbance
Creosotebush-White Bursage Scrub	3.0	8.8	11.8
Mesquite-Tamarisk	2.0	0.4	2.4
Xero-Riparian	0	1.0	1.0
Total	**5.0**	**10.2**	**15.2**

The Project would permanently impact only those areas associated with the substation site, structure locations, and access roads and the majority of the project-related impacts would be temporary and short-term in nature. With implementation of the proposed measures described in **Appendix B**, there would be no expected change in species composition and very little impact to the vegetation communities at the actual pole locations as a result of construction or operation. Therefore, the Project would have a minor direct impact on ecosystems and biological communities.

Invasive Weed Species and Noxious Weeds - The spread of invasive weed species and/or noxious weeds is not likely to occur as a result of construction of the proposed Project due to the lack of noxious weeds observed during field reconnaissance. In addition, the application of the mitigation measures for weed control identified in **Appendix B** would further limit the potential introduction and spread of noxious weeds.

Wildlife - The Project would result in the temporary and permanent disturbance of low-quality wildlife habitat that is immediately adjacent to an existing solar facility and is traversed by multiple roads. Construction-related impacts would be temporary and short-term and may include the temporary loss of habitat and displacement of resident wildlife species along the Gen-tie, possible injury or death of small burrowing reptiles or mammals during ground-disturbing activities, temporary impacts on wildlife movement, and noise-related disturbance. With implementation of proposed measures (**Appendix B**), direct impacts on wildlife associated with the Project would be short-term and minor. Operation of the facilities would include periodic maintenance activities along existing disturbed areas with minimal direct impacts to wildlife.

Agricultural development, industrial development, and other related infrastructure has converted and degraded areas of natural vegetation (wildlife habitat) near the Project Area. The Project would permanently impact a very small area and the majority of the project-related impacts would be temporary and short-term in nature. Therefore, the Project would result in a negligible impact on wildlife. If construction occurs during the breeding season for migratory birds (approximately February 1 to August 31), a pre-construction nest survey would be conducted 30 days prior to construction by a qualified biologist and active nests would be avoided. Therefore, there would be no impacts to active nests.

During operation of the line, there could be a potential for increased raptor roost sites on poles, which can increase predation rates on certain prey species. The Gen-tie line would be constructed following

industry practices aimed at reducing avian electrocutions, thereby significantly reducing electrocution risk to raptors and other migratory birds (APLIC 2006 and 2012). The lines could also create a slight collision risk to birds. However, due to the degraded nature of the habitats, the amount of industrial and agricultural development in the Project area, and the lack of high-quality foraging and migration areas in the Project area, this risk would be low and would represent a minor adverse impact on these species. To minimize risk to migratory birds, the lines would be constructed following industry suggested practices aimed at reducing avian collisions and electrocutions (APLIC 2006 and 2012).

Sensitive Species - Of the special status plant species having some potential to occur within the Project Site, none have been recorded in or within 5 miles of the Project Site (AGFD 2018). Additionally, either the elevation of the Project Study Area is outside of the range for these plants and/or none were observed during field surveys. The Project would therefore have no direct or indirect impacts on threatened, endangered, and State-protected plants. The Project would permanently impact a very small area and the majority of the Project-related impacts would be temporary and short-term in nature.

With the exception of Sonoran pronghorn, there are no suitable habitats or known occurrences within 5 miles for federally threatened, endangered, or candidate wildlife species in the Project area (AGFD 2018 and USFWS 2018) so there would be no impacts on these species from implementation of the Project. Nineteen other special status wildlife species have the potential to occur in the Project Area (6 bats, 2 small mammals, kit fox, 9 migratory birds, and banded gila monster).

Construction-related impacts for Sonoran pronghorn would be temporary and short-term and may include temporary loss of habitat and displacement of individuals, temporary impacts on foraging behaviors, and noise-related disturbance. However, because Sonoran pronghorn would be expected to preferentially use the large amounts of native habitat located on all sides of the Project area that are less impacted by ongoing human activities, the likelihood that pronghorn would be present during the short construction period is low. However, there is the potential for workers to encounter Sonoran pronghorn in the project area; therefore, the **Workers Environmental Awareness Program** would include materials and discussion of conservation measures for the Sonoran pronghorn such as how to avoid harassment and maintain a clean work place. Due to the small scale of potential impacts to Sonoran pronghorn and their habitat, and the unlikelihood that Sonoran pronghorn would be present during construction, the proposed action may affect, but is not likely to adversely affect the nonessential experimental population of Sonoran pronghorn.

There is no roosting or maternal roost habitat for bats in or near the Project Area. Very little potential foraging habitat would be removed and construction would not occur during foraging periods, so only minor short-term impacts to bats are expected.

While none were observed on the ROW, BUOW, small mammal, kit fox, and banded gila monster habitat (burrows and foraging habitat) could potentially be directly impacted by construction activities. Construction-related impacts would be temporary and short-term and may include temporary loss of habitat and displacement of individuals, possible injury or death during ground-disturbing activities, temporary impacts on foraging behaviors, and noise-related disturbance. Burrow surveys would be conducted prior to construction to identify potential burrows for these species. Burrows would be avoided or excavated per species-specific requirements if they cannot be avoided.

Very little foraging habitat for special status migratory birds would be removed. If construction occurs during the nesting season, a pre-construction protocol survey 30 days prior to construction would be conducted to ensure that any active nests are avoided. If active nests cannot be avoided, an appropriate avoidance buffer would be established (per USFWS guidelines) and construction would not occur within that buffer until the nest becomes inactive. If a BUOW, they could be relocated per AGFD guidance by an approved permit holder and rehabilitation center. Therefore, any direct impacts associated with the Project would be a short-term minor impact on special status migratory birds.

To further minimize risks to special status migratory birds, the lines would be constructed following industry suggested practices aimed at reducing avian collisions and electrocutions (APLIC 2006 and 2012). If avian line interactions become an issue, the issue would be quickly evaluated and a solution developed using appropriate state-of-the art measures.

3.5.2.2 No Action

Under the No Action Alternative, BLM would not approve the proposed ROW authorization. Therefore, no direct impacts on biological resources would occur on BLM-administered land. A gen-tie line could be constructed in another location that does not utilize federal lands to facilitate the interconnection needed for the solar project so direct impacts would occur on non-federal land and indirect impacts would be generally the same as the Proposed Action.

3.6 Visual Resources

3.6.1 Affected Environment

Visual resources consist of the landforms, vegetation, rock and water features, and cultural modifications that create the visual character and sensitivity of a landscape. These factors also contribute to the public sensitivity of the landscape to visual change.

About 1.1 miles of the gen-tie line would be located on federal lands managed by the BLM. The BLM's Visual Resource Management (VRM) system guides visual resources management on BLM-administered lands. The process involves a scenic quality evaluation, sensitivity level analysis, and a delineation of distance zones each described in more detail below. Based on these three factors, BLM-administered lands are placed into one of four visual resource inventory classes. These inventory classes represent the relative value of the visual resources, with Classes I and II being the most valued, Class III representing a moderate value, and Class IV being of least value.

Scenic Quality is the relative worth of a landscape from a visual perception point of view. The attributes of land form, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications are used to evaluate the scenic quality of a landscape. These contribute to scenic quality classifications of C (low), B (moderate), and A (high). Scenic Quality in the Project area is low to moderate because of the presence of the existing energy infrastructure (substations and transmission lines and solar development).

Sensitivity addresses the level of interest or concern of the public regarding maintenance of scenic quality. The level of public concern for maintaining scenic quality is rated high, medium, and low. Sensitivity is low in this area because much of it is already developed for solar and electrical uses (energy infrastructure) as well as agriculture. The Project area is remote, Palomas Road receives relatively little traffic, and there are very few residents in the broad surrounding area.

Distance Zone is a subdivision of the landscape as viewed from an observer position and describes the proximity of viewers to the subject landscape. Landscapes are generally subdivided into three distance zones based on relative visibility from travel routes or observation points. Distance zones typically include foreground, middle-ground, and background. The distance zone for viewers in the Project area would generally be middle-ground as it would usually be viewed by travelers on Palomas Road.

Contrast Rating is a method of analyzing the potential visual impacts of proposed management activities and provides a comparison of existing scenic quality, sensitivity, and distance zone to the proposed activity. The degree of contrast is classified as low, moderate, or high. It would be rated low for this Project area because of the remoteness of the area and the existing solar / electric infrastructure and agricultural development in the area.

The area of BLM-administered land where the Project is proposed is designated VRM Class III with a scenic quality rating of B, a sensitivity rating of medium, and located in the foreground / middle-ground distance zone. Visual management objectives are predefined for each VRM class and the objectives for Class III are to provide for management activities that partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate and management activities may attract attention but should not dominate the view of the casual observer.

3.6.2 Environmental Consequences

Proposed Action

Effects to visual resources from the development of the Project would result in minor changes to the views in the immediate vicinity. The proposed Project would introduce new elements into the landscape, but would not appreciably alter the existing form, line, color, and texture that characterize the existing landscape. This is because of the significant amount of existing electric infrastructure that occurs in the immediate area of Palomas / Hyder Road, the primary location from which viewers might see the Project.

The Project would include structures 60 to 100 feet tall. These Project structures could be seen by viewers traveling along Palomas / Hyder Road but would be expected to be indistinguishable from all of the other existing transmission structures in the immediate area. Other existing land uses visible from Palomas / Hyder Road include the adjacent abandoned railroad and associated berm in the foreground, the existing transmission lines (PVNG and HANG2), and the Hoodoo Wash Substation in the middleground, and distant mountains in the background. While the proposed project would increase the amount of structures in the landscape, it's likely there would be a low chance of attracting the attention of the casual observer.

The presence of the Project on BLM-administered lands would be consistent with the visual objectives for the VRM designation for the Project area.

Areas within the step-up substation would be artificially lighted at night but only when necessary to enhance the safety of Project personnel. Any night-lighting would be designed to meet the requirements of Yuma County.

No Action

Under the No Action Alternative, BLM would not approve the ROW authorization and the Gen-tie line would not be built on BLM-managed lands. Therefore, no direct impacts on visual resources would occur

on BLM-administered land. A gen-tie line could be constructed in another location that does not utilize federal lands to facilitate the interconnection needed for the solar project so indirect impacts on visual resources would be generally the same as the Proposed Action.

3.7 Socioeconomics

3.7.1 Affected Environment

The Dateland/East County Planning Area, the portion of Yuma County where the Project would be located consists primarily of agricultural lands and undeveloped Sonoran Desert. The existing communities in the planning area are small, remote and rural and historically have had an economic base of farming, agricultural production, and associated railroad activities. Between 2000 and 2010, the population of this part of Yuma County (Dateland/East County Planning Area) declined by 322 individuals. The 2010 U.S. Census reported a population of 815 in this planning area (Yuma County 2015).

3.7.2 Environmental Consequences

Proposed Action

During construction of the Gen-tie Project, the construction workforce would average approximately 10-20 workers over an approximate 6-month construction period. Some of the construction workforce would be recruited locally and available through the existing labor pool but the majority would be specialized technical workers from outside of the local area.

During construction activities, the Gen-tie Project would directly generate employment for the number of workers identified above. In addition, the construction labor force would generate local demand for goods and services during the construction period. Operating and maintaining the Gen-tie line would not require any permanent full-time employees. Periodic inspection would be conducted on approximately an annual basis and maintenance would be conducted when needed. There would be no indirect or direct socioeconomic impacts associated with operation and maintenance activities.

Indirectly, the Viktoria Solar Project that would be interconnected by the Gen-tie Project would provide additional socioeconomic benefits to the surrounding area and Yuma County. The solar project would require an average of up to 400 workers during the construction phase which is expected to last about 24 months. Upon commercial operation it would maintain four to six full-time on-site employees, but would also require some off-site employees who would perform remote technical operational control functions.

In addition, the solar project would provide a significant tax base for the County similar to the existing Agua Caliente Solar Project located just north of the existing Hoodoo Wash Substation which generates approximately $6 million in property taxes annually and is the second largest taxpayer in Yuma County.

3.8 Public Health and Safety

3.8.1 Affected Environment

A search of federal and state records indicates no present or past contamination from underground storage tanks, landfills, or hazardous waste sites or generators within the proposed ROW or within a half mile of its boundaries. The general area crossed by this line includes lands formerly used for at least three military ranges during World War II (BLM 2013). These ranges consisted of the East Artillery Range and two combat ranges used for .30-caliber small arms training. Several buried crates containing

grenades and rifles were found during planting operations at the White Wing Ranch north of the portion of the gen-tie on federal land following the Army's departure from the area. Local residents claim to have observed a number of exploded and unexploded ordnance in the area, including 20-mm projectiles and cartridges, 2.36-inch bazooka rockets, 81-mm mortars, 25-pound practice bombs, and .50-caliber bullets and cartridges. Therefore, it is possible that the proposed ROW could contain both exploded and unexploded ordnance.

3.8.2 Environmental Consequences

Construction of the proposed gen-tie line would occur over an up to 6-month period. During the construction phase of the gen-tie, small amounts of hazardous materials such as fuels and lubricants would be in use on the ROW. To ensure worker health and safety and no impacts to the environment, no storage of hazardous materials would be allowed on the ROW and fueling or maintenance of construction equipment would not be conducted on the ROW unless emergency repair is necessary. An **Emergency Evacuation and Response Plan** would be developed and submitted to the BLM prior to construction and implemented by the construction contractor to provide directions for responding during an emergency for workers on the ROW.

When the gen-tie is brought on-line and starts to transmit electricity, electromagnetic fields (EMF) would be generated in proximity to the line. Currently, there is no agreement among scientists regarding the potential health risk related to EMFs. Public exposures to magnetic fields associated with the gen-tie line would be negligible because of the distances to homes and occupied buildings.

Electrically energized equipment and conductors associated with transmission lines would represent electrical hazards. Proper signage and fencing would be provided at the project substations to prevent access to these electrical hazards by unauthorized individuals.

Unexploded ordnance that could possibly be located within the ROW could pose a risk of explosion during ground-disturbing operations, which could result in injury or death of construction workers. Strategies to address the possible presence of unexploded ordnance would be developed as part of a **Hazardous Materials Management Plan** that would be prepared and submitted to BLM by the proponent of the proposed Project. With implementation of the management actions, design features, and BMPs that would be included as part of this plan and the other measures described in **Appendix B**, impacts are expected to be negligible.

3.9 Water Resources

3.9.1 Affected Environment

The portion of the Project area on federal lands includes braided washes and channels created by ephemeral streams. Ephemeral surface water flows in a southerly direction through the washes and channels eventually discharging to the Gila River. Some of drainages within the proposed ROW have been modified by an earthen berm designed for flood control on the former farmlands that are now the site for the existing adjacent Agua Caliente Solar Project. Most of these drainages represent small erosional features or swales and these features do not exhibit ordinary high-water mark (OHWM) indicators or continuous bed and bank and are not likely to be considered potentially jurisdictional.

One feature and a few linear washes were identified as being potentially jurisdictional within the gen-tie survey area. These are associated with ephemeral washes including one that runs along the boundary of the BLM-managed lands and the private lands where the existing Hoodoo Wash Substation is located.

This wash appears to consolidate surface flows from the west when they hit the earthen berm and direct them due south along the boundary of the private land. **Figure 3-5** depicts the location and extent of potentially jurisdictional features along the gen-tie route.

Areas along the major washes including one at the boundary between the BLM-administered lands and the existing Hoodoo Wash Substation site have been designated as potential floodplains by the Federal Emergency Management Agency (FEMA) as shown on **Figure 3-6**.

Groundwater occurs in the Project area in both alluvial deposits and basin fill and groundwater is primarily unconfined. Depth to groundwater in the area generally ranges from 600 to 1800 feet.

3.9.2 Environmental Consequences

Proposed Action

Constructing the Gen-tie Project would potentially have a temporary effect on water quality during construction because of the increased sediment loads and possible minor leaks from construction equipment. Water used during construction would be obtained from existing local sources.

The proposed development of the Gen-tie Line would avoid disturbance within the OHWM zone for the identified potentially jurisdiction feature. If avoidance is not possible during final design, it is likely that impacts to the jurisdictional features would be covered under one or more Nationwide Permits.

Because Project construction would disturb more than 1 acre of land, the project would provide notice under the Arizona Pollutant Discharge Elimination System Construction General Permit and a stormwater pollution prevention plan (SWPPP) would be prepared and implemented. The SWPPP is to minimize the transport of sediment through stormwater and erosion-control best management practices (BMPs). The Proposed Action would have short-term, negligible direct and indirect impacts on water quality because of the relatively small area of disturbance, the short construction period, and BMPs that would minimize or eliminate any potential effects on water resources.

The proposed Gen-tie Project would not be expected to impact the potential 100-year floodplains including the one located at the eastern edge of the proposed ROW on federal land. This is because these areas would be spanned by the gen-tie and the small substation would be designed to be outside the floodway. The Project would not impact groundwater because the depth to groundwater is substantially deeper than the depth of excavation needed for the structures.

No Action

No construction on BLM-administered lands would occur under the No Action Alternative, and no direct or indirect impacts on water resources on federal lands would occur. A gen-tie line could be constructed in another location that does not utilize federal lands to facilitate the interconnection needed for the Solar Facility so direct impacts to water resources would occur on non-federal land and indirect impacts would be generally the same as the Proposed Action.

3.10 Cumulative Impacts

Cumulative effects, as defined in 40 CFR 1508.7, are “the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of which agency (federal or non-federal) or person undertakes such other

actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." Only past, present, and reasonably foreseeable future actions that incrementally add to the potential adverse cumulative impacts of the Proposed Action and No Action Alternatives are considered. Beneficial impacts are not considered. Short-term effects, such as construction-related impacts, are assumed not to contribute to cumulative effects.

The analysis identifies past actions that are closely related either in time (temporal) or space (geographical proximity) to the Proposed Action (the 6-mile gen-tie line), present actions ongoing concurrently at the time this EA was being prepared, and reasonably foreseeable future actions that are highly likely to occur.

Reasonably foreseeable projects are those for which an application has been submitted to the appropriate agency, are currently undergoing environmental review, or will be pursuing environmental review in the near future.

The Cumulative Impact Analysis Area includes a 1-mile buffer around the proposed gen-tie line. Past and present projects in the area include the existing Agua Caliente Solar Project and the Hoodoo Wash Substation located on private lands adjacent to the proposed gen-tie. This 290 MW PV solar project and substation cover approximately 2,400 acres and were developed on lands previously used for agriculture. In addition, two 500kV transmission lines (PVNG and HANG2), the Palomas-Hyder Road, and the Union Pacific Railroad are located within the designated BLM utility corridor where the proposed gen-tie would be located. Additionally, portions of the area are developed for agricultural use.

Reasonably foreseeable projects include the proposed Viktoria Solar Project, the proposed White Wing Solar Project and potential future development of the Agua Caliente SEZ.

The proposed gen-tie project would interconnect the Viktoria Solar Project, a 250 MW PV solar energy generating facility located on private lands on the western end of the gen-tie line, to the regional electrical grid. The Viktoria Solar Project has been approved by Yuma County and would be constructed on approximately 2,050 acres of currently undeveloped but previously disturbed desert lands. Poor quality native habitats would be affected. Limited grading would be needed to develop and install the solar field. Construction would create fugitive dust which would be controlled by the application of water. The design and construction of all buildings, solar arrays, and associated infrastructure would be consistent with Yuma County building standards.

The White Wing Solar Project has been approved by Yuma County and is a 210 MW PV solar energy generating facility proposed to be constructed on approximately 1,450 acres of private lands currently in agriculture north of and adjacent to the existing Agua Caliente Solar Project. At full build-out, the project would have approximately 900 acres covered by PV solar panel arrays and, like the other solar projects in the area, design and construction would be consistent with Yuma County standards. No native habitats would be affected and limited grading would be needed. Construction would create fugitive dust and water for dust control and all other water requirements would be supplied by existing on-site wells.

The Agua Caliente SEZ allocates 2,550 acres of BLM-managed land immediately north of the designated corridor where the gen-tie would be located for the development of solar energy and associated infrastructure. The BLM estimates that over 300 MWs of solar energy could be developed on this land. Future development of solar projects within the SEZ would result in soil disturbance and removal of

native habitats. Washes would be avoided to the extent possible to limit losses of these habitats and changes to hydrology. Development of the SEZ would result in employment opportunities for construction and, to a lesser extent, operation. Some dispersed recreation occurring on these lands would be displaced.

It is possible that state and private lands in the vicinity could also be developed for solar energy projects. If so, these projects would result in impacts similar to the other existing and proposed solar projects.

The effects of the Proposed Action together with the effects of these past, present, and reasonably foreseeable future actions would result in additional impacts to the resources described above. Cumulative impacts would include dust, emissions, soil disturbance, loss of habitat, visual impacts, water use, and fencing which could adversely affect pronghorn movement. Additionally, cultural resources could be destroyed during construction, or the setting and context of cultural features could be destroyed. None of these impacts would result in potentially significant impacts.
Under the No Action Alternative, cumulative impacts would be substantially similar.

4.0 PREPARERS

The following agencies/organizations and people contributed to the preparation of this EA:

4.1 BLM

Eddie Arreola, Arizona State Office, Project Management
Codey Carter, Wildlife
Nancy Favour, Arizona State Office, NEPA
Brandon Colvin, Arizona State Office, Visuals
Leslie Mead, Arizona State Office, Cultural Resources
Matt Basham, Arizona State Office, Cultural Resources
Vanessa Briceno, Yuma Field Office, Realty

4.2 ENValue

Randy Schroeder, Principal / Project Manager
Pat Golden, Senior Biologist
Rachel Clark, Senior GIS Analyst
Jim Moses, Senior Archaeologist, Antigua

5.0 CONSULTATION

During the development of this EA, the BLM consulted and coordinated with several additional agencies and other entities to gather relevant input and information. The primary entities are listed below:

Agencies

- Arizona Game and Fish Department
- Arizona State Historic Preservation Office
- Arizona State Land Department
- Department of Defense
- US Fish and Wildlife Service
- Yuma County

Tribes

- Cocopah Indian Tribe
- Colorado River Indian Tribes
- Fort McDowell Yavapai Nation
- Fort Mojave Indian Tribe
- Fort Yuma Quechan Tribe
- The Hopi Tribe
- Pueblo of Zuni
- Tohono O'odham Tribal Nation
- Yavapai-Apache Nation
- Yavapai-Prescott Indian Tribe

6.0 REFERENCES

Bureau of Land Management (BLM). 2010. Yuma Field Office Record of Decision and Approved Resource Management Plan (Yuma RMP). [Online] Located at: http://www.blm.gov/az/st/en/info/nepa/environmental_library/arizona_resource_management/YFO/YFO-ROD.html. Accessed March, 2016.

BLM. 2013. Final Environmental Impact statement (EIS) and Record of Decision (ROD) for the Arizona Restoration Design Energy Project (RDEP). [Online] Located at: http://www.blm.gov/az/st/en/prog/energy/arra_solar/docs.html.

County of, Yuma. 2015. 2020 Comprehensive Plan Adopted in 2012, and updated in 2015. [Online] Located at: http://www.yumacountyaz.gov/departments-and-services/development-services/laws-guidelines/2020-comprehensive-plan Accessed May, 2016.

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APPENDIX A

FIGURES

LIST OF FIGURES

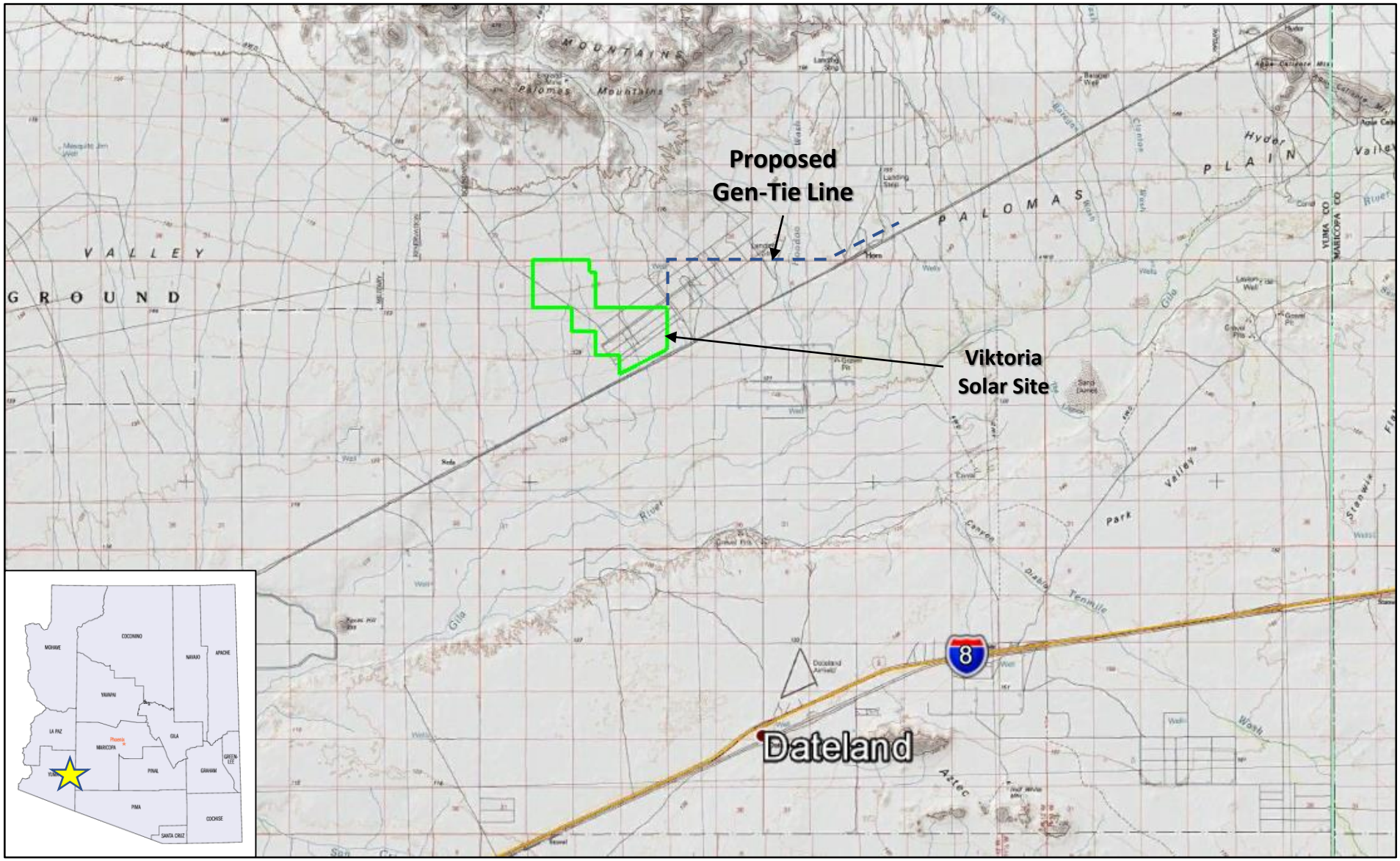
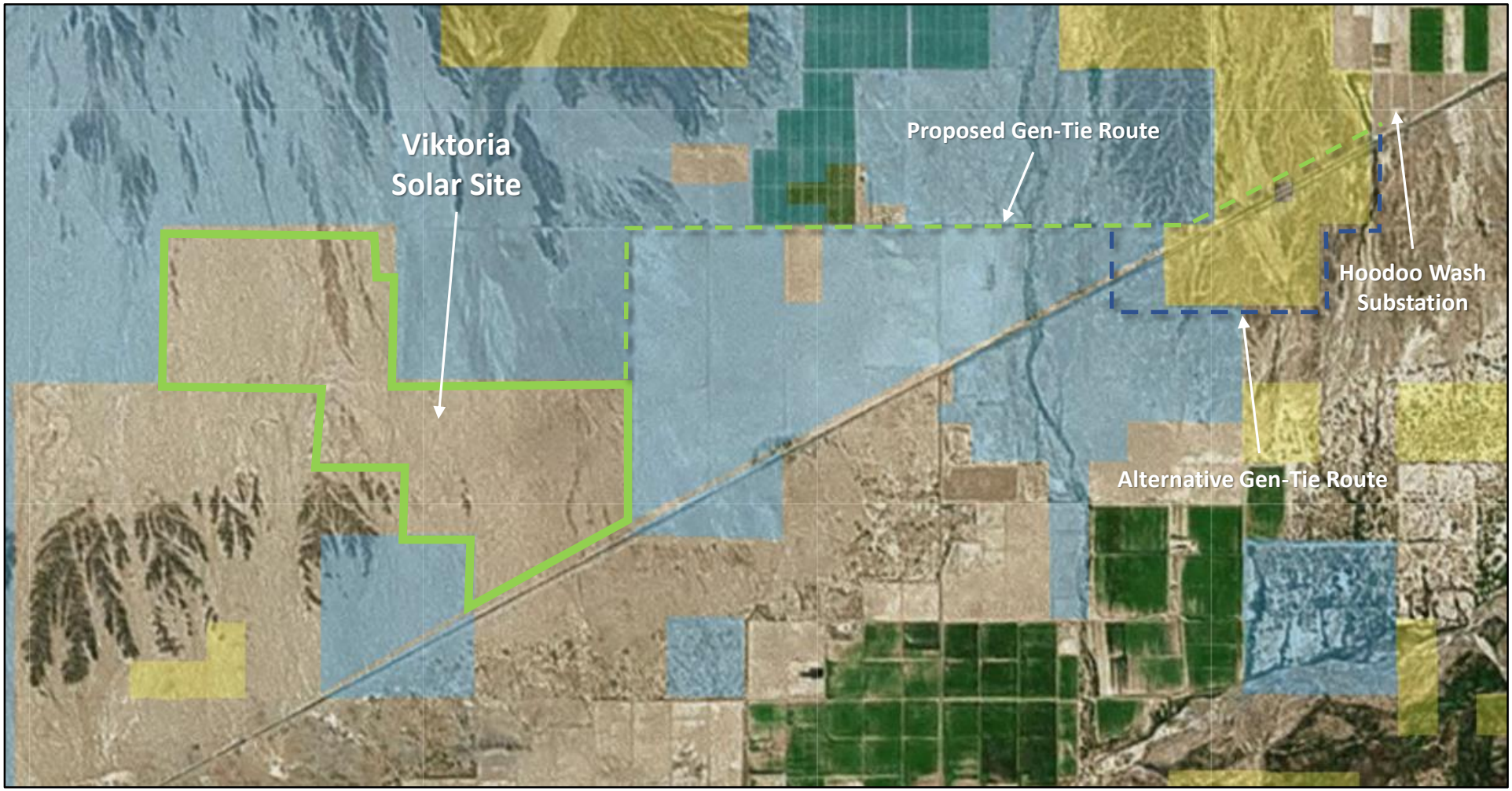


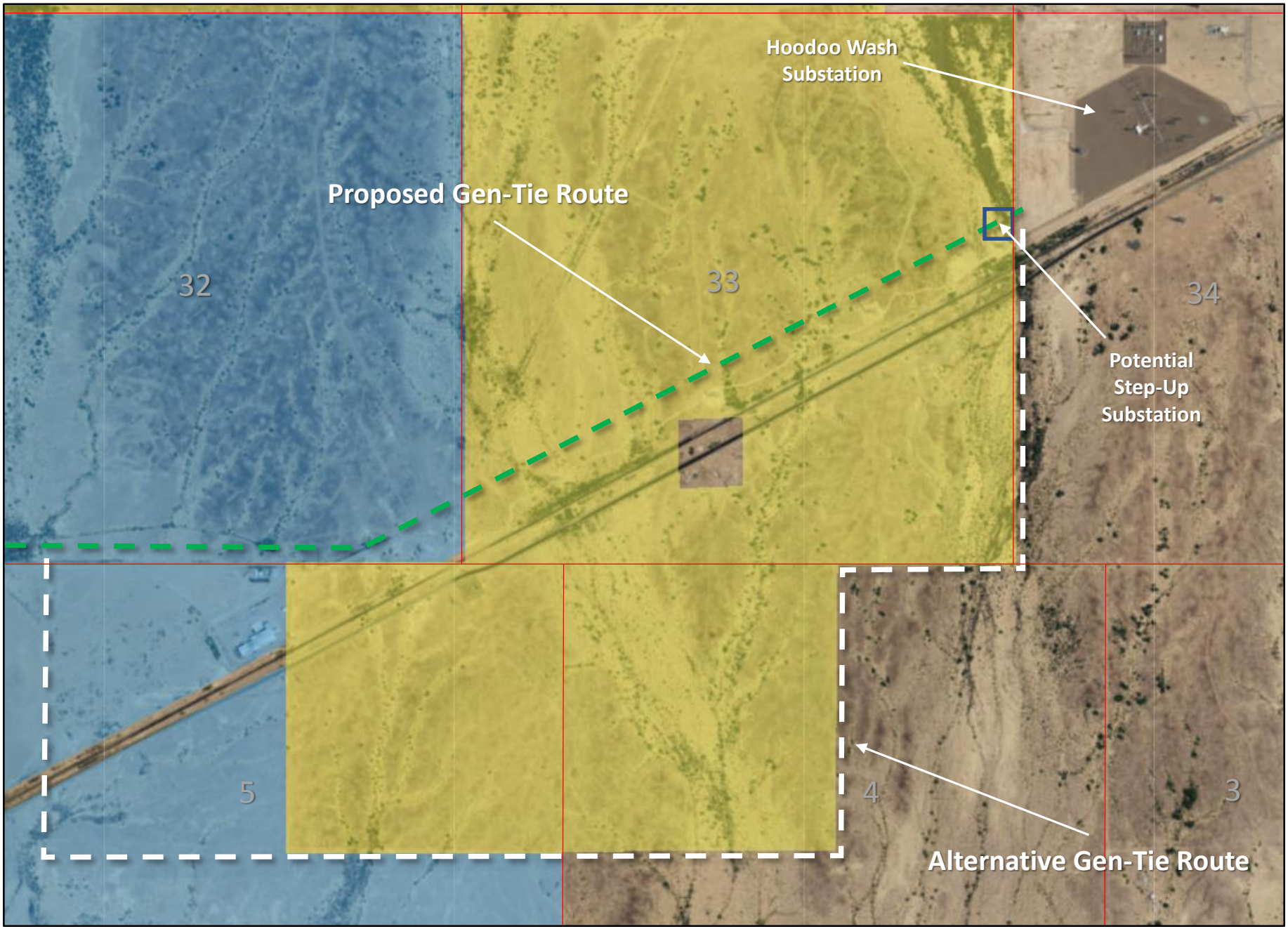
Figure 1-1
Viktoria Solar Gen-Tie Line
General Location Map



State

BLM

Figure 1-2
Overview of Viktoria Solar Gen-Tie Routes



State

BLM

Figure 2-1

Viktoria Gen-Tie Route Options

Figure 2-2
Double-Circuit 69kV Steel-Pole Structure

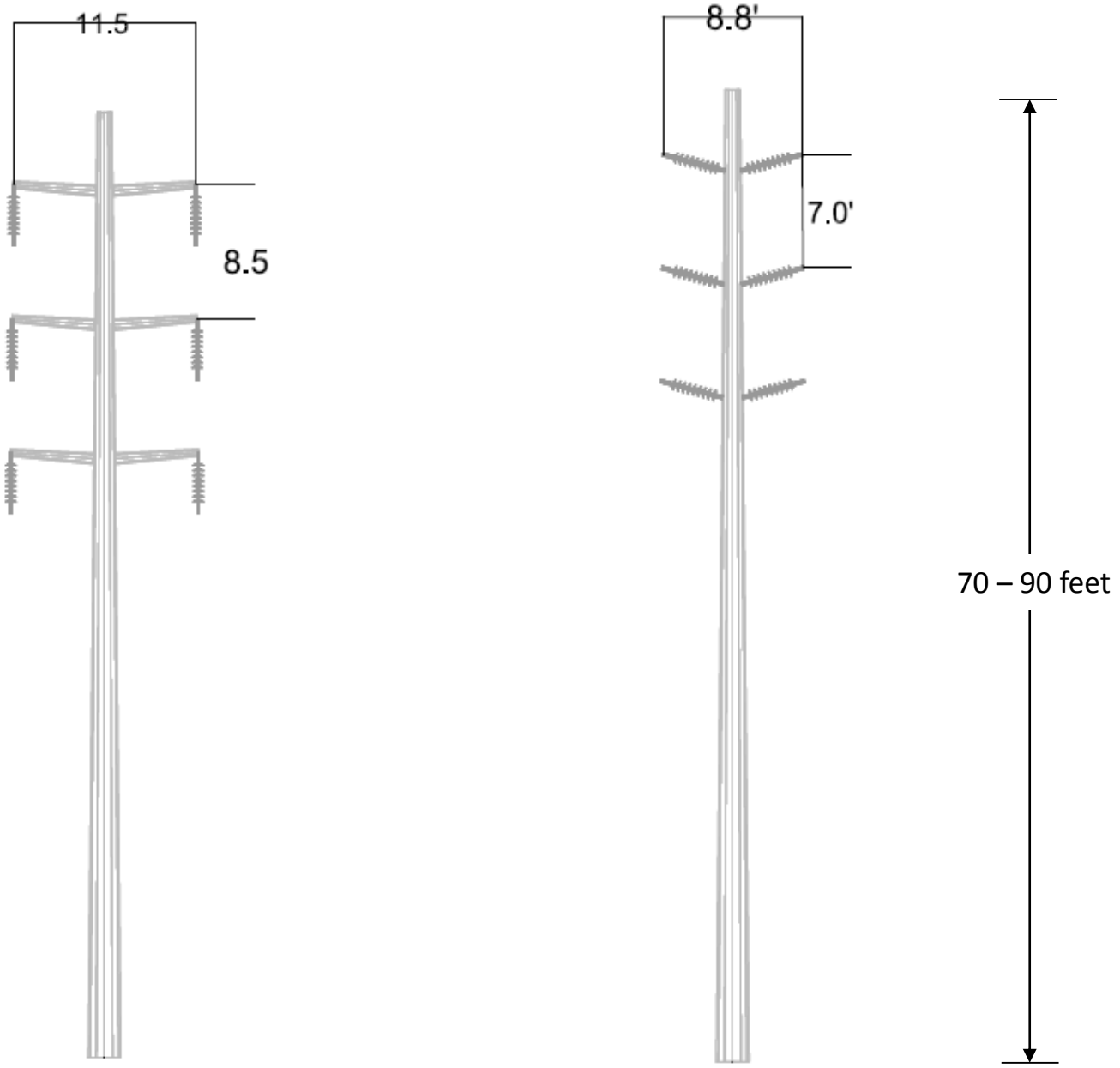


Figure 2-2A
Double-Circuit 115kV Steel-Pole Structure

Figure 2-3A
Step-Up Substation Location

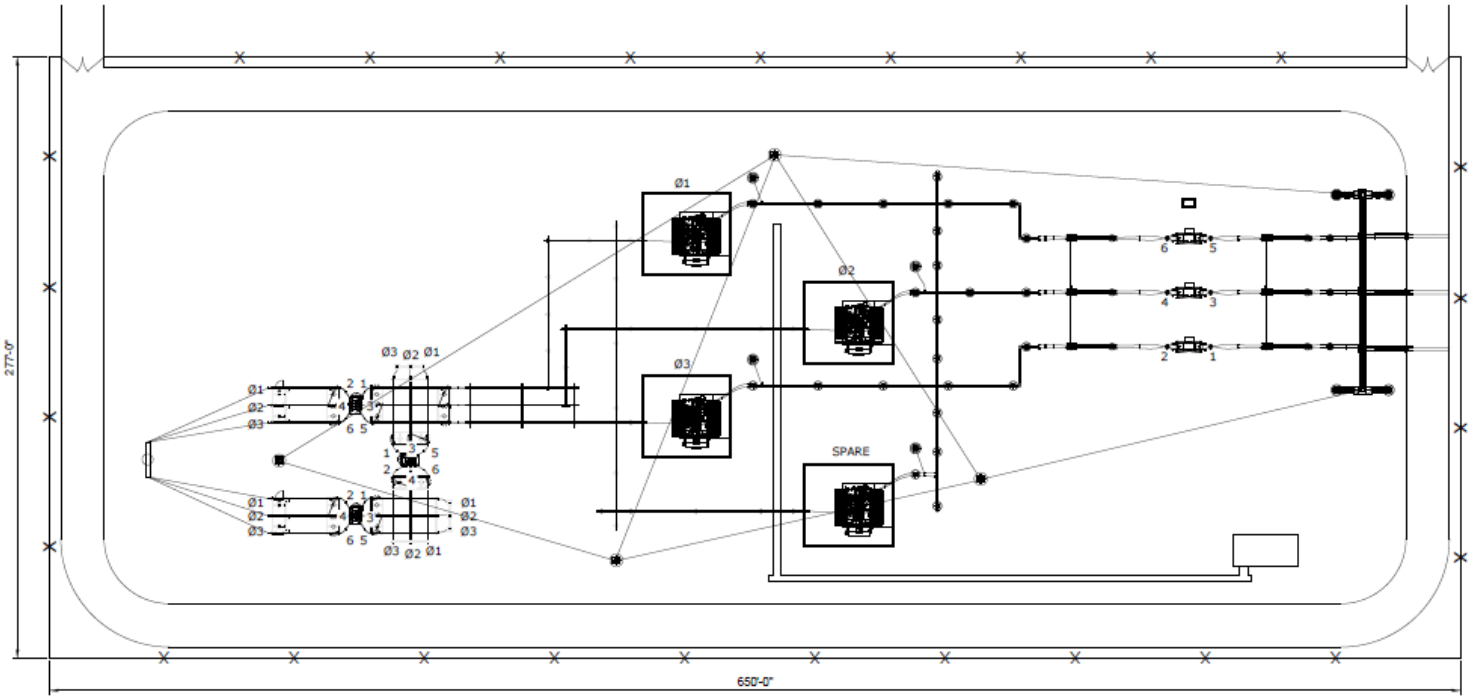


Figure 2-3B
Step-Up Substation Layout

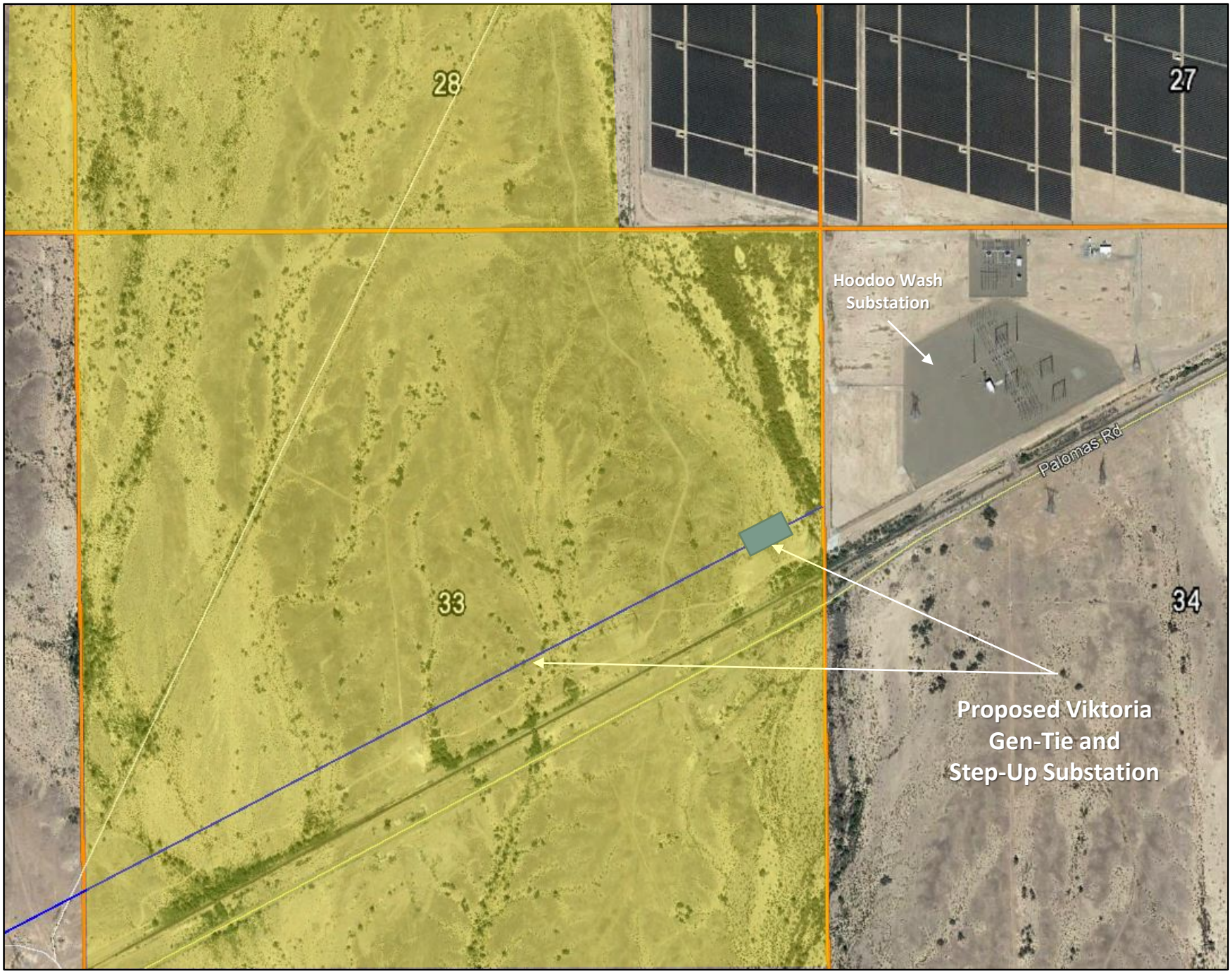


Figure 3-1
Proposed Project on BLM

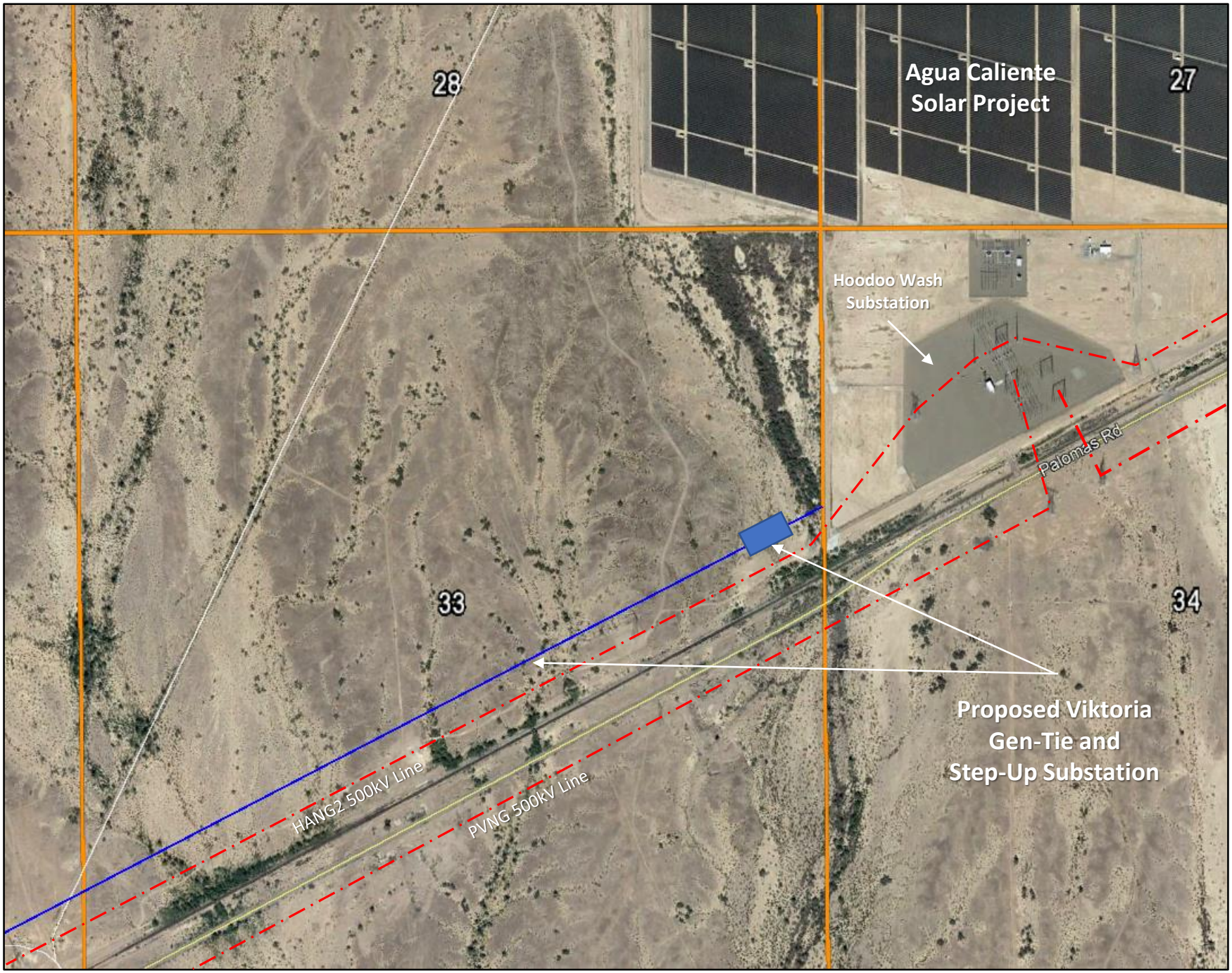


Figure 3-2
Existing Electrical Infrastructure

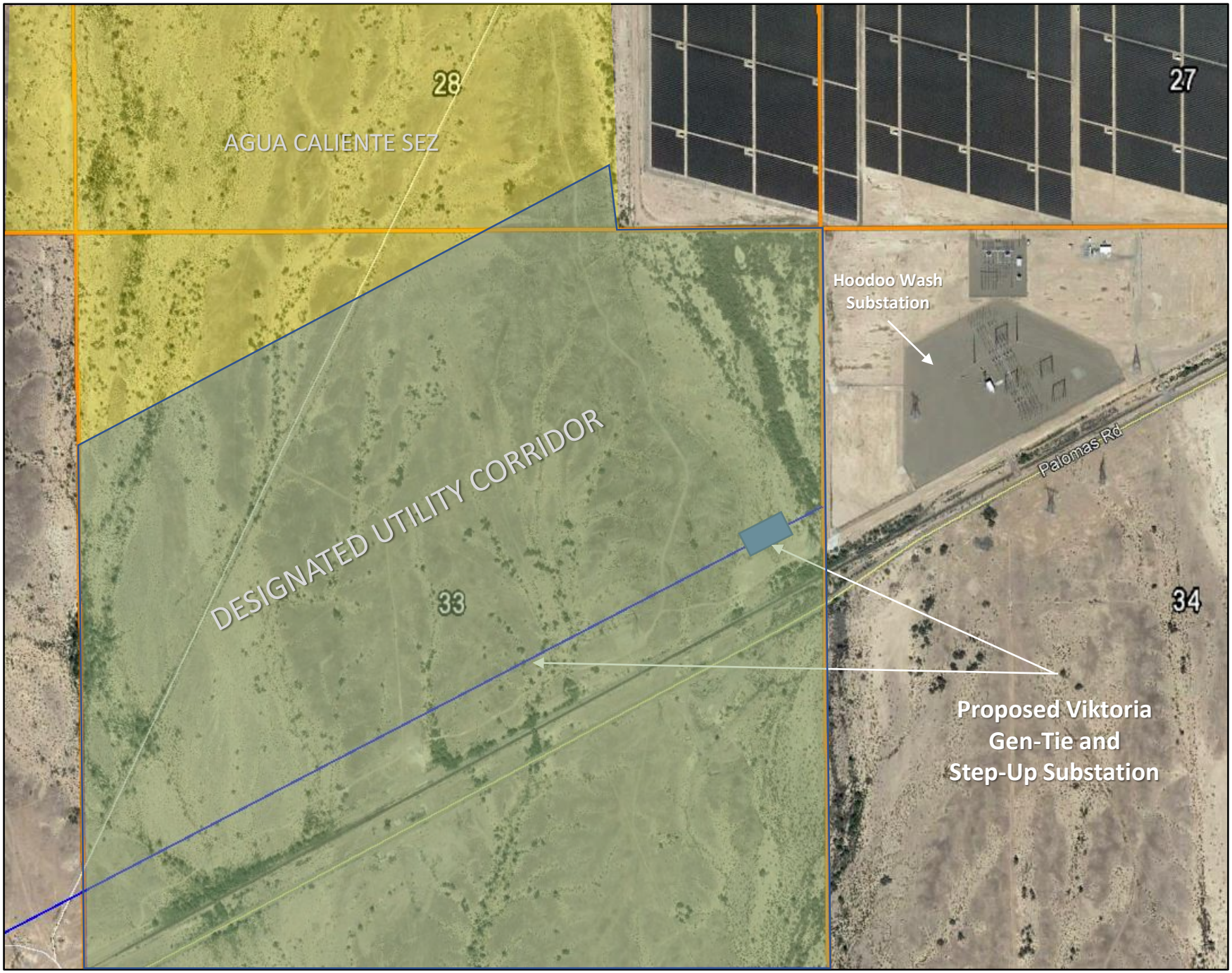
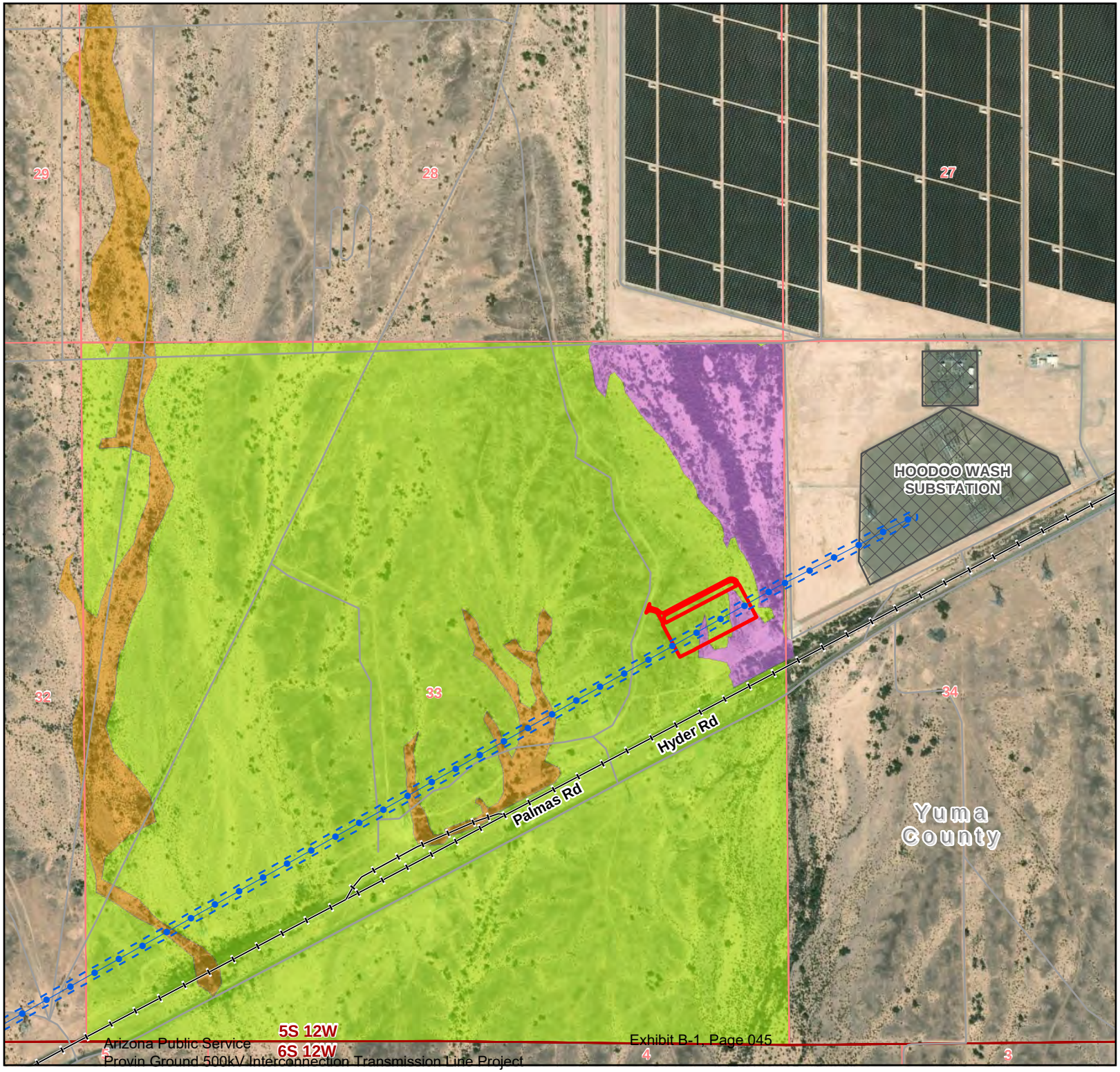


Figure 3-3
Location of Designated Utility Corridor



Legend

- Road
- Railroad
- Proposed Gen-tie
- Proposed Gen-tie ROW - 80ft
- Proposed Step-Up Substation
- Hoodoo Wash Substation
- County Boundary
- Township / Range Boundary
- Section Boundary

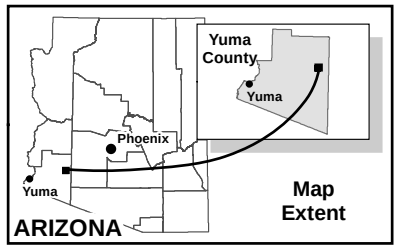
Vegetation Covertypes

- Creosotebush-White Bursage Scrub
- Mesquite-Tamarisk
- Xero-Riparian

0 500 1,000 1,500

Feet

State Plane Coordinate System
North American Datum 1983
Arizona West
Linear Unit: Foot US

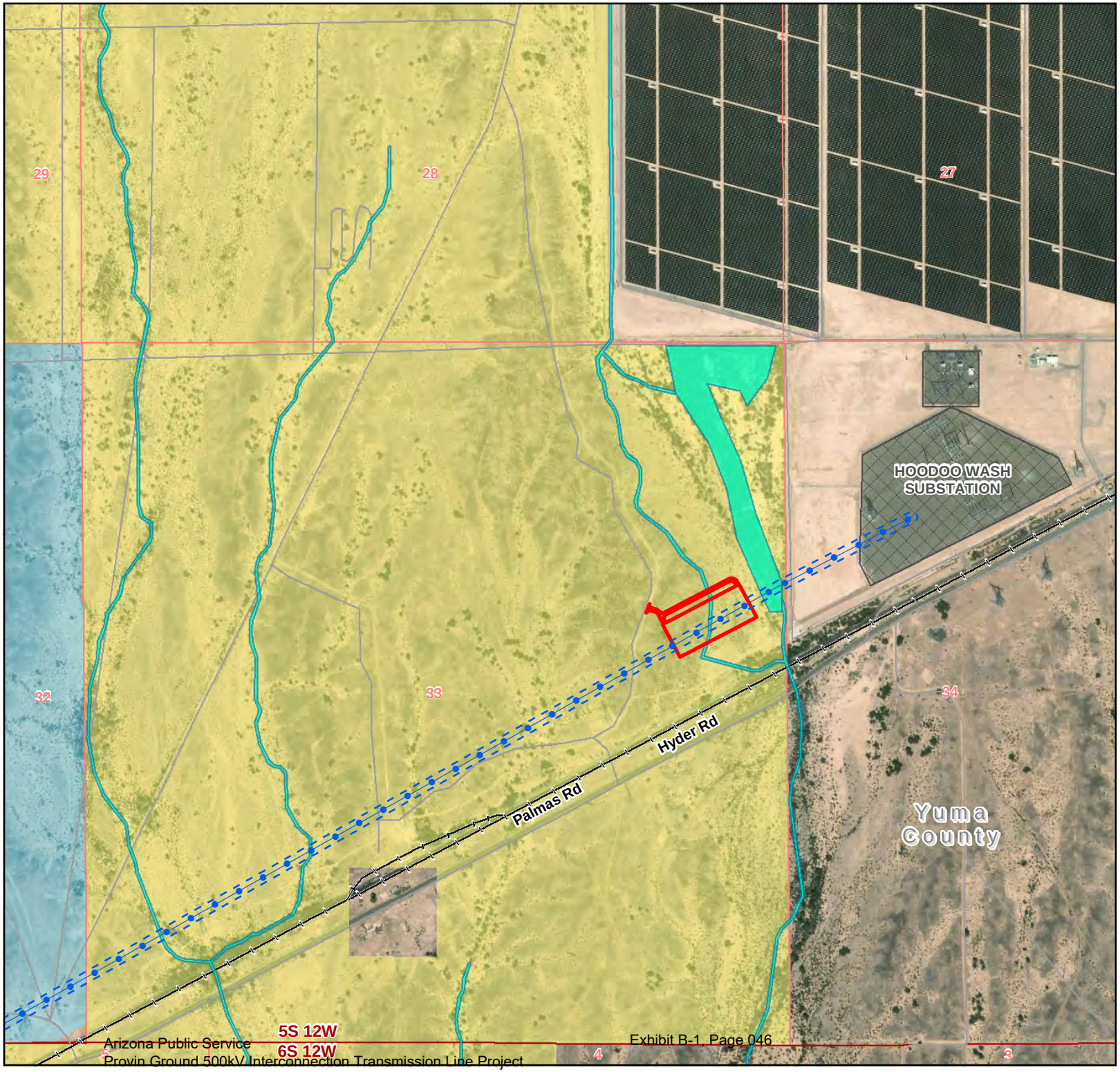


VIKTORIA GEN-TIE PROJECT

Figure 3-4
Vegetation Covertypes

Map Extent: Yuma County, Arizona
January 2023

Date: 09.05.18 | Author: rnc



Legend

- Road
- Railroad
- Proposed Gen-tie
- Proposed Gen-tie ROW - 80ft
- Proposed Step-Up Substation
- Hoodoo Wash Substation
- NWI Wetlands
- County Boundary
- Township / Range Boundary
- Section Boundary

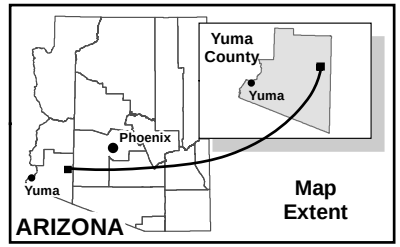
Jurisdictional Land Ownership

- Bureau of Land Management Land
- State Land
- Private Land (No Shading)

0 500 1,000 1,500

Feet

State Plane Coordinate System
North American Datum 1983
Arizona West
Linear Unit: Foot US

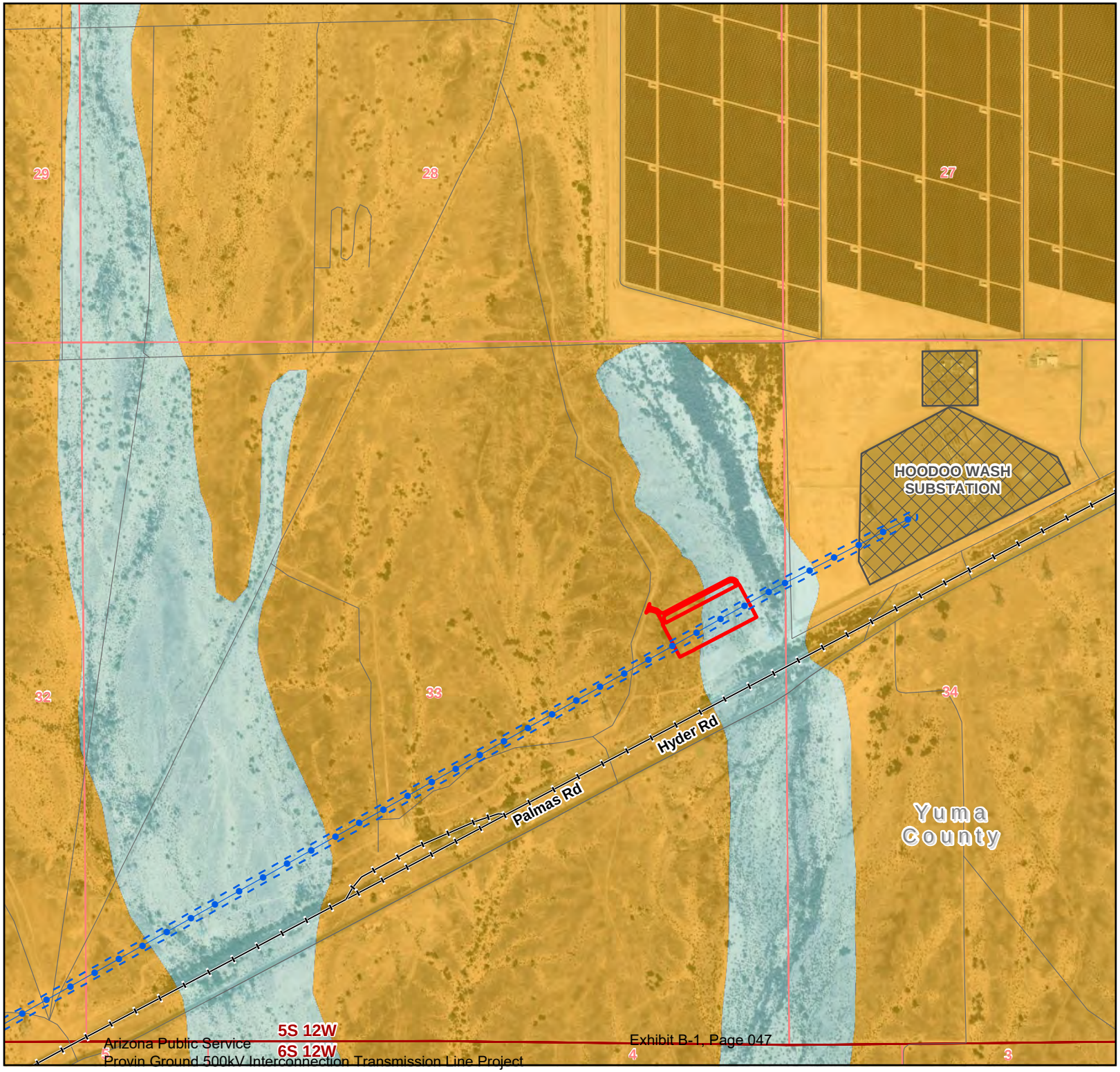


VIKTORIA GEN-TIE PROJECT

Figure 3-5
NWI Wetlands

Map Extent: Yuma County, Arizona
January 2023

Date: 09.05.18 | Author: rnc



Legend

- Road
- Railroad
- Proposed Gen-tie
- Proposed Gen-tie ROW - 80ft
- Proposed Step-Up Substation
- Hoodoo Wash Substation
- County Boundary
- Township / Range Boundary
- Section Boundary

FEMA Flood Hazard Zones*

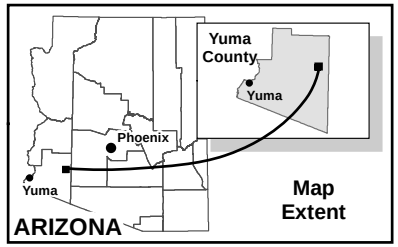
- Zone A - 1% Annual Chance Flood Hazard (100-Year Flood)
- Zone X - Area of Minimal Flood Hazard

* Source: FEMA.gov

0 500 1,000 1,500

Feet

State Plane Coordinate System
North American Datum 1983
Arizona West
Linear Unit: Foot US



VIKTORIA GEN-TIE PROJECT

Figure 3-6
FEMA Floodplains

Map Extent: Yuma County, Arizona
January 2023

Date: 09.05.18 | Author: rnc

APPENDIX B

MITIGATION MEASURES INCLUDED AS PART OF PROPOSED ACTION

DESIGN FEATURES Included as part of Proposed Project
BIOLOGICAL RESOURCES
Vegetation
Adverse effects on vegetation disturbance during construction would be minimized as practicable.
1) During construction, travel would be restricted to the existing access roads according to the shortest feasible path to minimize impacts to vegetation communities. 2) Existing access roads would be used to the maximum extent allowable and construction of new access roads would be limited to the extent practicable. 3) To the maximum extent possible, vegetation removal and trimming would be limited to that necessary for safe construction, fire control, and to meet electrical safely requirements. 4) To the extent possible, grading and grubbing of vegetative cover would be avoided on all spur roads and structure pad locations, and all vehicular traffic would drive within field designated overland routes.
The following prescriptions would prevent the spread of invasive weeds into previously uninfested areas in the designated construction right-of-way.
1) Prior to initiating construction activities, all clearing and grading equipment would have the tires, axles, frame, running boards, under carriages, and soil holding areas inspected for excess mud and noxious weeds, and would be washed and cleaned off-site, as needed, to prevent noxious weed species transport to previously-uninfested areas. 2) A qualified weed specialist, range ecologist, or arid botanist would survey the structure pad locations, stringing and tensioning sites, new road locations, existing access roads that require improvements, and construction material staging areas prior to construction to identify any listed noxious species infestations. If an infestation above the average density compared to immediately surrounding areas is identified, the infestation area would be clearly delineated and staked prior to project construction and an appropriate buffer would be maintained. The lead environmental compliance monitor would ensure that construction-related activities are prohibited within these designated exclusion zone(s). Where avoidance is infeasible, please refer to measures listed below. 3) Before beginning construction activities in unavoidable infestation exclusion zones, these infestations would be controlled through acceptable mechanical (e.g., topsoil excavation and removal), cultural, or herbicide applications. 4) If direct control methods or removal of noxious weed infestations in construction disturbance areas is not feasible, the noxious plants may be cut and disposed of (e.g., burned at an acceptable and permitted location) or destroyed in a manner that is acceptable to the BLM. 5) Project environmental construction personnel would educate construction personnel on noxious weed identification and the legal requirement of controlling and preventing the spread of noxious weed infestations.
Wildlife
Applicant would compensate for habitat modifications per coordination with responsible resource agencies.
1) Project mitigation may include habitat purchase and/or in-lieu fees or other measures provided to compensate for permanent loss of habitat for special-status species.
Construction activities and vehicle operation would be conducted to minimize potential disturbance of wildlife.
1) Seasonal restrictions would be applied where necessary. 2) Vehicle speed would be limited along the ROW and access roads to 15 to 20 mph in sensitive habitats. In addition, construction and maintenance employees would also be advised that care should be exercised when commuting to and from the Project area to reduce road mortality. 3) Vehicle operation by construction workers would be prohibited outside of the ROW, including construction work and employee access, except where specified by the BLM or where roads already exist. 4) Stockpiling of equipment and parking of vehicles would be undertaken to the maximum extent allowable on previously disturbed areas near the construction zone.

5) Construction would be planned to attempt to utilize the minimum number and types of vehicles and equipment necessary on the ROW.
Applicant would minimize electrocution and collision potential for raptors with the following measures.
1) Design would space conductors and ground wires sufficiently apart so that raptors cannot contact two conductors or one conductor and a ground wire to cause electrocution (APLIC 1996). 2) Design would also incorporate appropriate methods to reduce the risks of avian collisions (APLIC 2012).
Applicant would conduct pre-construction surveys prior to project initiation
1) Prior to Project construction activities, the potential removal or clearing of any tree or shrub would be evaluated. Affected areas would be avoided during the passerine and raptor nesting season (e.g., February 1 to August 31) if possible. If avoidance is not possible, nest surveys and clearance would be conducted prior to the nesting season.
Special Status Species
Applicant would survey and avoid and/or salvage special-status species plants in areas to be disturbed by project activities.
1) A comprehensive focused survey designed with appropriate agency consultation would be conducted prior to construction and Project-related activities to identify any special-status plant populations on proposed structure pads, spur roads, pulling and splicing sites, staging areas, or any other construction sites that would be temporarily or permanently disturbed. 2) If special-status plant(s) are identified during the pre-construction surveys, vegetation communities and plant locations would be delineated on aerial photography and incorporated into the construction plan. In addition, exclusion zones would be marked around identified populations and would be marked in the field with stakes and flagging. Where feasible, minor realignments may be implemented to avoid those populations within the designated structure pad and spur road locations. 3) Where avoidance is infeasible, a Plant Salvage Plan would be developed and submitted for approval from the appropriate responsible agencies.
Applicant would implement the following measures to decrease the likelihood of incidental take of special status wildlife species and impacts to critical habitat.
1) Identify all critical habitats for designated sensitive species. 2) Flag or otherwise mark the outer boundaries of the project construction areas where necessary to define the limit of work activities. 3) Minimize habitat degradation within key habitats by limiting travel to existing roads and surface disturbance to previously disturbed areas. 4) Implement a worker education program. 5) Where sensitive species are observed in areas of disturbance, provide appropriately trained and/or qualified personnel to observe or otherwise address where needed. Pulling, staging, and equipment storage sites in this segment, where construction activities would be intense and extended over time, may be temporarily fenced to keep individual of sensitive species from construction zones.
Waters of the U.S.
1) Where applicable, a survey of "waters of the U.S." would be completed and submitted to the COE. If construction activities result in the placement of fill material or divert, obstruct, or change the natural flow of the bed or channel, a Nationwide 12 Permit may be required prior to project construction activities, and applicable Nationwide 12 Permit requirements would be followed. 2) Additional compensatory, restoration, or avoidance mitigation measures may be identified by regulatory agencies as part of the permitting process and would be implemented into this POD.
CULTURAL RESOURCES
Applicant would prepare a Treatment Plan for avoiding and mitigating unavoidable direct adverse effects on resources eligible for National Register listing.
1) Treatment of cultural resources would follow the procedures established for compliance with Section 106 of the NHPA in consultation with Tribes and AZSHPO. Treatment plans for tribal resources would be developed separately and confidentially as dictated by tribal preference.

2) Prior to construction, a Class III pedestrian inventory would be undertaken of all applicable lands that have not been previously surveyed or identified by BLM as requiring inventory to identify properties that are eligible for the NRHP.
3) A Treatment Plan would be prepared to identify methods of avoiding or mitigating effects. A cultural resources evaluation report would be submitted to BLM for review and consultation purposes, as part of the development of the Treatment Plan.
4) Adverse effects to cultural resources would be avoided to the extent possible. Final design of the Proposed Project (for example, structure placement and work areas) would include measures to avoid National Register eligible sites where feasible. The final list of sites to be avoided during construction would be specified in the Treatment Plan. The Treatment Plan would also include detailed measures to ensure this avoidance is implemented during construction.
5) An Unanticipated Discovery Plan would be developed to outline procedures to be undertaken if unexpected resources are encountered during the course of construction.
6) A cultural resources monitor would be available at all times to respond within 48 hours to cultural resource issues that arise during construction.
7) Consultation would be conducted with concerned Native American groups to determine if the archaeological sites have additional sensitivities as TCPs.

AIR QUALITY

The following mitigation measures would be implemented during the construction of the Proposed Project to reduce the exhaust emissions of CO, NO_X, VOC, SO_X, and PM_{10}.

1) Heavy duty off road diesel engines or generators over 50 horsepower would meet appropriate standards for off-road or stationary equipment and would be properly tuned and maintained to manufacturers' specifications to ensure minimum emissions under normal operations.

The following mitigation measures would be implemented for the Proposed Project to reduce fugitive dust emissions (including PM_{10}):

1) Apply water or chemical dust suppressants to unstable disturbed areas and/or unpaved roadways in sufficient quantity and frequency to maintain a stabilized surface.
2) Water or water-based chemical additives would be used in such quantities to control dust on areas with extensive traffic including unpaved access roads. Water, organic polymers, lignin compounds, or conifer resin compounds would be used depending on availability, cost, and soil type.
3) Surfaces permanently disturbed by construction activities would be covered or treated with a dust suppressant within five days of the completion of activities at each site of disturbance.
4) Vehicle speeds on unpaved roadways would be restricted to 15 to 25 mph in areas where doing so would lessen the impact on air quality.
5) Vehicles hauling dirt would be covered with tarp or other means.

WATER RESOURCES

Where applicable, the Project would provide a Notice of Intent to be covered by an Arizona or EPA Construction General Stormwater Permit and a stormwater pollution prevention plan (SWPPP) would be prepared. The SWPPP would include:

1) An outline of the areas of vegetative soil cover or native vegetation onsite that would remain undisturbed during the construction project.
2) An outline of all areas of soil disturbance including cut or fill areas which would be stabilized during the rainy season by temporary or permanent erosion control measures, such as seeding, mulch, or blankets, etc.
3) An outline of the areas of soil disturbance, cut, or fill which would be left exposed during any part of the rainy season, representing areas of potential soil erosion where sediment control BMPs are expected to be used during construction.
4) A proposed schedule for the implementation of erosion control measures.
5) A description of the BMPs and control practices to be used for both temporary and permanent erosion control measures.

Waterways, wells, and springs adjacent to construction areas would be protected.

1) Surveys of the route would be conducted prior to construction to identify surface waters, springs, and wells and their depths within 1,000 feet of construction activities. Construction activities would be limited in the following manner: (1) construction activities would not be carried out within 100 feet of a water way, spring or well without using BMPs; (2) blasting would be prohibited within 500 feet of a well; and (3) only size limited blasting would be authorized within 1,000 feet of a well. If damage occurs to a well or spring, the affected area would be repaired by the contractor.
2) The use or storage of hazardous material near a water way, well, or spring would be prohibited. Additionally, special precautions would be implemented to prevent spills or discharges of hazardous materials and wastes.
3) Dewatering activities for structure foundations or other deep excavations would be planned to minimize the effect on surface waters, wells, and springs.

GEOLOGY AND SOILS

The Project would be designed to prevent damage resulting from seismic activity in the Project area.

1) Measures would be taken to the extent possible to avoid sites for transmission structures that are located within known fault zones.
2) A geotechnical engineering investigation consistent with geologic and engineering standards would be conducted for the Proposed Project by a licensed geotechnical engineer.
3) All practicable precautions would be taken to design and construction of transmission structures and new substations, substation facility improvements, and equipment to withstand the projected ground shaking in the area.

Construction, operation, and maintenance activities would be restricted or controlled when the soil is too wet to adequately support construction or maintenance equipment (i.e., when heavy equipment creates ruts in excess of 4 inches deep over a distance of 100 feet or more in wet or saturated soils). Where the soil is deemed too wet, one or more of the following measures would apply:

1) When feasible, reroute all construction or maintenance activities around the wet areas while ensuring that the route does not cross sensitive resource areas.
2) If wet areas cannot be avoided, implement BMPs for use in these areas during construction and improvement of access roads, and their subsequent reclamation. This includes use of wide-track or balloon-tire vehicles and equipment, or other weight dispersing systems approved by the appropriate resource agencies. It also may include use of geotextile cushions, pre-fabricated equipment pads, and other materials to minimize damage to the substrate where determined necessary by resource specialists. If BMPs cannot be successfully applied to wet or saturated soil areas, construction or routine maintenance activities would not be allowed in these areas until the Project environmental monitor(s) determine it is acceptable to proceed.
3) This standard would not apply in areas with silty soils, which easily form depressions even in dry weather.

Areas of expansive soils would be mitigated to minimize damage from shrink / swell actions on equipment foundations.

1) Prior to construction, soils would be evaluated to determine if they are expansive and if they may have potential effects on the proposed facilities. Where they represent a potential hazard, solutions recommended by the Project's geotechnical engineer, such as excavation and replacement of the expansive soils with compacted backfill, would be required.

Short-term erosion and sedimentation would be reduced and topography and vegetation would be quickly restored in disturbed areas as practicable to pre-construction conditions in all areas required and approved by BLM and private landowners.

Monitoring of the erosion control measures would continue until reclamation efforts are considered complete and successful. Measures to be implemented during the Project construction and reclamation are listed below.

Implementation of the following environmental protection practices would minimize the effects of grading, excavation, and other surface disturbances in all Project areas. Schedules and specifications on the use of these features would be included in the final construction plan.

1) Limit vehicular traffic associated with construction to designated roads, material yards, wire set-up sites, and access roads designated in the final POD.
2) Limit disturbance/removal of soils and vegetation to the minimum area necessary for access and construction.
3) Where soil disturbance is necessary, areas would be bladed and the top two inches of soil would be stockpiled, wherever possible, for use on temporary disturbance areas.
4) Adhere to a construction methodology that mitigates impacts to less than significant levels in sensitive areas during severe weather events.
5) Inform construction personnel before they are allowed to work on the Project of environmental concerns, pertinent laws and regulations, and elements of the erosion control plan. This could be presented in a worker environmental awareness program (WEAP) training.
6) Minimize grading to the extent possible. When required, grading would be conducted away from watercourses/washes to reduce the potential of material entering the watercourse.
7) Slope and berm graded material, where possible, to reduce surface water flows across the graded area.
8) Replace excavated materials in disturbed areas and minimize the time between excavation and backfilling.
9) Direct the dewatering of excavations onto stable surfaces to avoid soil erosion.
10) Use detention basins, certified weed-free straw bales, or silt fences, where appropriate.
11) Use drainage control structures, where necessary, to direct surface drainage away from disturbance areas and to minimize runoff and sediment deposition downslope from all disturbed areas. These structures include culverts, ditches, water bars (berms and cross ditches), and sediment traps.
12) Implement other applicable BMPs to minimize erosion-related impacts during construction and improvement of access roads, and their subsequent reclamation.
13) Implement applicable erosion control/stabilization measures where needed as soon as practicable after construction is complete.

VISUAL RESOURCES

The following mitigation measures would be implemented to minimize visual impacts where appropriate:

1) Non-specular materials (conductor and structure materials) would be used to minimize reflections and glare.
2) After Project construction is complete, ground surfaces within the transmission line right-of-way and areas outside the right-of-way that are disturbed during project construction would be restored to their approximate pre-construction conditions, as outlined in the Final Construction Plan.
3) Staging areas would be revegetated as necessary, according to the Reclamation Plan.
4) Existing rock formations and vegetation would be retained whenever possible.
5) Access roads and the spur roads would be constructed at appropriate angles from the originating primary travel route to minimize extended, in-line views of newly graded terrain. This mitigation is dependent upon the ability to safely construct, maintain, and utilize the road/route.

TRAFFIC AND TRANSPORTATION

The following measures would be implemented to minimize impacts to traffic and roads:

1) Ensure that where equipment is transported on public roadways, it is highly visible by placing signage and traffic control crews to ensure that motorists are aware of the presence of crossing or slow-moving construction vehicles.
2) Ensure that during and following construction, any damage to existing roadways caused by construction vehicles is repaired, as necessary, to maintain safe driving conditions.

PUBLIC HEALTH AND SAFETY

Detailed information about the use, storage and disposal of hazardous materials would be provided in the Health and Safety Plan that would be developed by the construction contractor.

A Fire Prevention and Response Plan (FPRP) would be developed and implemented during construction, operation, and maintenance of the proposed transmission line.

APPENDIX C

SENSITIVE SPECIES IN THE PROJECT AREA

SENSITIVE SPECIES
WITH POTENTIAL TO BE LOCATED WITHIN
VIKTORIA GEN-TIE PROJECT AREA

This appendix contains a summary of the sensitive species that could be potentially present in the Viktoria Gen-Tie project area. Tables C-1, C-2, and C-3 list the sensitive plant and wildlife species that could occur in the area.

Descriptions of special status species are listed below:

- Endangered species (federal) are those species in danger of extinction throughout all or a significant portion of their range.
- Threatened species (federal) are those species likely to become endangered in the foreseeable future.
- Proposed species (federal) are those species recommended for listing under Section 4 of the ESA.
- Candidate species (federal) are those species for which the USFWS has sufficient information on their biological status and threats to propose them as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities. Candidate species are not protected under the ESA.
- USFWS Species of Concern is an informal term that refers to those species that the USFWS believes need of concentrated conservation actions. Conservation actions, such as monitoring, vary depending on the health of the populations and degree and types of threats. USFWS Species of Concern receive no legal protection under the ESA and the use of the term does not necessarily mean that the species will eventually be proposed for listing as a threatened or endangered species.
- BLM Sensitive Species are species that may require special conservation / management considerations to reduce the future likelihood for future listing under the ESA.
- AGFD Species of Greatest Conservation Need (SGCN) are species determined to be vulnerable in at least one of the following eight criteria: extirpated from Arizona, federal or state status, declining status, disjunct status, demographic status, concentration status, fragmentation status, and distribution status.
- AZDA Highly Safeguarded or Salvage Restricted Native Plants are those plants which are protected under the Arizona Native Plant Law (NPL) and fall into these categories: Highly Safeguarded (no collection allowed); Salvage Restricted (collection allowed only with permit); Export Restricted (transport out of state prohibited); Salvage Assessed (permits required to remove live trees); and Harvest Restricted (permits required to remove plant by-products).

Table C-1
Special Status Plant Species with the Potential to Occur within 3 Miles of the Project

Species		Protection Status[1]			Potential to Occur in Project Study Area (Justification)[5]
Common name	Scientific name	ESA[2]	Arizona SGCN[3]	BLM[4]	
Blue Sand Lily	*Triteleiopsis palmer*	--	--	SS	No (Habitat)
Kearney Sumac	*Rhus kearneyi*	--	--	SS	No (Habitat)
Kofa Mountain Barberry	*Berberis harrisoniana*	--	--	SS	No (Habitat)
Parish Onion	*Allium parishii*	--	--	SS	No (Elevation)
Sand Food	*Pholisma sonorae*	--	--	SS	No (Habitat)
Schott Wire Lettuce	*Stephanomeria schottii*	--	--	SS	No (Habitat)

[1] E=Endangered, T=Threatened, C=Candidate, EP, NE=Experimental Population, Non-Essential, SC=Species of Concern, DM= Delisted taxon, recovered, and being monitored for the first five years, SS=BLM Sensitive Species; SGCN=Species of Greatest Conservation Need – 1A species scored 1 for Vulnerability in at least one of the 8 categories and matches at least one of the following:
[2] Federally listed as endangered or threatened under the ESA, Candidate under the ESA, covered by a Conservation Agreement (CA) with assurances, recently moved from ESA and requires post-delisting monitoring, closed season species (no take permitted) as identified by AGF Commission Orders 40, 41, 42, 43. 1B species scored 1 for Vulnerability in at least one of the 8 categories, but match none of the above criteria.
[3] AGFD 2016
[4] BLM Sensitive Species enumerated within the Agua Caliente Solar Energy Zone
[5] Elevation means the species does not have the potential to occur because the Project Site is not within its elevation requirements. Habitat means the Project Site is within the species elevation requirements but there is no suitable or potential habitat for the species. References are provided in the References Section.
Other Sources: Corman et al. 2005, eflora 2013

Table C-2
Salvage Restricted Plants Potentially Occurring in or Around the Project Area

Scientific Name	Common Name	Habitat Preferences/ Requirements	Flowering Period	Potential to Occur
Allium parishii	Parish Onion	Open rock and sandy slopes associated with desert mountain ranges. Primarily a Mojave Desert species.	April-May	No suitable habitat in or immediately adjacent to the Project area.
Carnegiea gigantea	Saguaro	Rocky or gravelly soils associated with slopes, canyons and washes.	May-June	Suitable habitat is present in the Project area associated with the Gen-tie route. Species was well represented within and around the Project area.
Cylindropuntia echinocarpa	Silver Cholla	Inhabits a variety of habitats including canyons, Mojavean and Sonoran Desert shrublands on soils ranging from sandy to gravelly.	March-June	Suitable habitat is present in the Project area associated with native habitats.
Cylindropuntia ramosissima	Pencil Cholla	Typically found in washes and bajadas with soils ranging from sandy-loam to desert pavement and volcanic substrates.	April-August	Suitable habitat is present in the Project area associated with native habitats.
Echinocactus polycephalus var. polycephalus	Clustered Barrel Cactus	Rocky to gravelly slopes including rocky flats, bajadas and rock ledges.	July-August	Suitable habitat is present in the Project area associated with native habitats.
Ferocactus cylindraceus var. cylindraceus	California Barrel Cactus	Rocky or gravelly soils including slopes, canyons, alluvial fans, and wash margins. Usually on igneous or limestone substrates (AZGFD 2005d).	April-June (occasionally later in response to rain)	Suitable habitat is present in the Project area associated with native habitats.
Fouquieria splendens	Ocotillo	Shallow, rocky soils, often on south facing slopes.	March-June (occasionally later in response to rain)	Suitable habitat is present in the Project area associated with native habitats.
Lophocereus schottii	Senita	Fine sandy soils of desert valleys and plains. In the U.S., only known from a few small populations in the extreme southern portion of Arizona, especially Organ Pipe National Monument.	April-August	No suitable habitat is present within the Project area. Project area is well north of the nearest known occurrences of the species.
Rhus kearneyi	Kearney Sumac	Found on slopes arid in canyons and drainages.	January-March	No suitable habitat in or immediately adjacent to the Project area.
Stephanomeria schottii	Schott Wire-Lettuce	Restricted to semi-stabilized sand dunes of the Gran Desierto region.	March-May	No suitable habitat in or immediately adjacent to the Project area.
Triteleiopsis palmeri	Blue Sand Lilly	Sandy areas, including dunes in low deserts.	February-May	No suitable habitat in or immediately adjacent to the Project area.
Washingtonia filifera	California Fan Palm	Found in desert oases, this species requires constant water. Only known from a few locations in Arizona.	Late Spring-Early Summer	No suitable habitat in or immediately adjacent to the Project area.

Table C-3
Special Status Species with the Potential to Occur within 3 Miles of the Project

Species		Protection Status[1]			Potential to Occur in Project Study Area (Justification)[4]
Common Name	Scientific name	ESA[2]	Arizona SGCN[3]	BLM[4]	
Mammals					
Harris' Antelope Squirrel	*Ammospermophilus harrisii*	--	1B	--	No (Habitat)
Sonoran Pronghorn	*Antilocapra americana sonoriensis*	E	1A	--	Yes
American Beaver	*Castor Canadensis*	--	1B	--	No (Habitat)
Pale Townsend's Big-eared Bat	*Corynorhinus townsendii pallescens*	SC	1B	SS	No (Elevation)
Spotted Bat	*Euderma maculatum*	SC	1B	--	Yes (Foraging Only)
Greater Western Bonneted Bat	*Eumops perotis californicus*	SC	1B	SS	No (Habitat)
Western Yellow Bat	*Lasiurus xanthinus*	--	1B	--	No (Habitat)
California Leaf-nosed Bat	*Macrotus californicus*	SC	1B	SS	Yes (Foraging Only)
Cave Myotis	*Myotis velifer*	SC	1B	--	Yes (Foraging Only)
Yuma Myotis	*Myotis yumanensis*	SC	1B	--	Yes (Foraging Only)
Pocketed Free-tailed Bat	*Nyctinomops femorosaccus*	--	1B	--	Yes (Foraging Only)
Desert Bighorn Sheep	*Ovis Canadensis nelson*	--	1B	--	No (Habitat)
Arizona Pocket Mouse	*Perognathus amplus*	--	1B	--	No (Elevation)
Little Pocket Mouse	*Perognathus longimembris*	--	1B	--	Yes (None Observed)
Brazilian Free-tailed Bat	*Tadarida brasiliensis*	--	1B	--	Yes (Foraging Only)
Harquahala Southern Pocket Gopher	*Thomomys bottae subsimilis*	SC	1B	--	Yes (None Observed)
Kit Fox	*Vulpes macrotis*	--	1B	--	Yes (None Observed)
Birds					
Wood Duck	*Aix sponsa*	--	1B	--	No (Habitat)
Sprague's Pipit	*Anthus spagueii*	--	1A	--	No (Habitat)
Golden Eagle	*Aquila chrysaetos*	--	1B	SS	Yes (Foraging Only)
Western Burrowing Owl	*Athene cunicularia hypugaea*	SC	1B	SS	Yes (None Observed)
American Bittern	*Botaurus lentiginosus*	--	1B	SS	No (Habitat)
Ferruginous Hawk	*Buteo regalis*	SC	1B	SS	Yes (Foraging Only)
Mountain Plover	*Charadrius montanus*	SC	1B	--	No (Habitat)
Yellow-billed Cuckoo	*Coccyzus americanus occidentalis*	T	1A	--	No (Habitat)
Gilded Flicker	*Colaptes chrysoides*	--	1B	--	Yes (None Observed)
Cactus Ferruginous pygmy-owl	*Glaucidium brasilianum cactorum*	--	--	SS	No (Habitat)
Gila Woodpecker	*Melanerpes uropygialis*	--	1B	--	Yes (None Observed)
Lincoln's Sparrow	*Melospiza lincolnii*	--	1B	--	Yes (None Observed)
Abert's Towhee	*Melozone aberti*	--	1B	--	Yes (Observed)
Bald Eagle	*Haliaeetus leucocephalus*	SC	1A	SS	No (Habitat)
Savannah Sparrow	*Passerculus sandwichensis*	--	1B	--	Yes (Observed)
Yuma Clapper Rail	*Rallus longirrostris yumanensis*	E	1A	--	No (Habitat)
Le Conte's Thrasher	*Toxostoma lecontei*	--	1B	SS	Yes (None Observed)
Pacific Wren	*Troglodytes pacifus*	--	1B	--	No (Habitat)
Arizona Bell's Vireo	*Vireo bellii arizonae*	--	1B	--	No (Habitat)
Amphibians					
Sonoran Desert Toad	*Incilius alvarius*	--	1B	--	No (Habitat)
Lowland Leopard Frog	*Lithobates yavapaiensis*	SC	1A	SS	No (Habitat)
Reptiles					
Sonoran Desert Tortoise	*Gopherus agassizii (Sonoran population)*	-	1A	SS	No (Habitat)

Table C-3
Special Status Species with the Potential to Occur within 3 Miles of the Project

Species		Protection Status[1]			Potential to Occur in Project Study Area (Justification)[4]
Common Name	Scientific name	ESA[2]	Arizona SGCN[3]	BLM[4]	
Banded Gila Monster	*Heloderma suspectum cinctum*	--	1A	--	Yes (None Observed)
Yuma desert fringe-toed lizard	*Uma rufopunctata*	--	--	SS	No (Habitat)

[1] E=Endangered, T=Threatened, C=Candidate, EP, NE=Experimental Population, Non-Essential, SC=Species of Concern, DM= Delisted taxon, recovered, and being monitored for the first five years, SS+BLM Sensitive Species; SGCN=Species of Greatest Conservation Need – 1A species scored 1 for Vulnerability in at least one of the 8 categories and matches at least one of the following:
[2] Federally listed as endangered or threatened under the ESA, Candidate under the ESA, covered by a Conservation Agreement (CA) with assurances, recently moved from ESA and requires post-delisting monitoring, closed season species (no take permitted) as identified by AGF Commission Orders 40, 41, 42, 43. 1B species scored 1 for Vulnerability in at least one of the 8 categories, but match none of the above criteria.
[3]AGFD 2018
[4] BLM Sensitive Species enumerated within the Agua Caliente Solar Energy Zone
[5] Elevation means the species does not have the potential to occur because the Project Site is not within its elevation requirements. Habitat means the Project Site is within the species elevation requirements but there is no suitable or potential habitat for the species. References are provided in the References Section.
Other Sources: Corman et al. 2005, eflora 2013

Exhibit B-2. Viktoria Gen-Tie Project, DOI-BLM-AZ-C020-2019-0031-EA, Finding of No Significant Impact

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
YUMA FIELD OFFICE

Viktoria Gen-Tie Project

DOI-BLM-AZ-C020-2019-0031-EA

FINDING OF NO SIGNIFICANT IMPACT

I, the undersigned authorized officer, considering the criteria provided by 40 CFR 1508.27 and the information contained in the Viktoria Gen-Tie Environmental Assessment (DOI-BLM-AZ-C020-2019-0031-EA), and as explained further below, find that the proposed action will not significantly affect the quality of the human environment and does not exceed those effects as described in the EA and the ROD and Resource Management Plan (RMP) for the Yuma Field Office (2010). Therefore, an environmental impact statement does not need to be prepared.

CONTEXT

Viktoria Solar, LLC proposes to construct approximately 1.1 miles of new gen-tie line and a small step-up substation on about 5 acres on federal lands managed by the BLM (collectively referred to as the Viktoria Gen-tie Project) to connect the proposed Viktoria Solar Project (a 250 MW photovoltaic solar project) to the regional electric grid. The Gen-tie Project would facilitate the development of renewable energy in furtherance of regional renewable energy goals and requirements.

Both Project endpoints would be located on private lands. Viktoria Solar has submitted a right-of-way (ROW) application for the Gen-tie Project line to cross approximately 1.1 miles of BLM-administered land. In addition, an associated small 5-acre step-up substation would be developed on BLM-administered lands. On these federal lands, the line and substation would be located within a BLM-designated utility corridor.

Designated corridors are the preferred locations for future linear facilities for the transport of energy such as electric transmission lines, pipelines, and other linear energy infrastructure. The proposed action conforms to the objectives and requirements described in the Yuma RMP.

INTENSITY

The following discussion is organized around the ten Significance Criteria described at 40 CFR 1508.27. The following have been considered in evaluating intensity for this proposal:

1. **Impacts that may be both beneficial and adverse:**

The gen-tie project would be located on federal lands within a designated utility corridor and adjacent to existing electric transmission lines and it would have short-term impacts resulting from construction. Up to 7.3 acres of soils and generally low-quality habitats would be affected and there could be a potential temporary increase in erosion. Impacts would be mitigated by implementation of identified best management practices and mitigation measures. Access to recreational opportunities on nearby federal lands would not be affected following construction. The visual impacts from the line following construction would be consistent with existing solar and transmission facilities in the area and the management and Class IV visual designations on these lands. Development of the line would provide short-term employment opportunities during construction and would result in access to additional renewable energy.

2. **Degree of effect on public health and safety:**

No effect to public health and safety is expected. Public exposures to magnetic fields associated with the gen-tie line would be negligible because of the distances to the closest homes and occupied buildings in the area (over 1.5 miles). No storage of hazardous materials will be allowed on the ROW and fueling or maintenance of construction equipment will not be conducted on the ROW unless emergency repair is necessary.

3. **Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas:**

There are no park lands, prime farmlands, wild and scenic rivers, or ecologically critical areas in the project area. No cultural resources were identified in the area to be impacted. The potential for unanticipated archaeological resources to be present or affected by construction would be low. There is one small potential wetland feature in the project area but it would be spanned by the line and impacts to this feature would be minimized.

4. **Degree to which the possible effects on the quality of the human environment are likely to be highly controversial:**

The proposed action will not affect the quality of the human environment or be highly controversial. No negative comments or concerns were identified during scoping for the project.

5. **Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risk:**

The degree to which the quality of the human environment will be affected is negligible and BLM-administered lands will continue to be managed in the same manner as designated in the Yuma RMP. The details of the proposed project are well-defined and straight-forward. Consequently, the effects of the proposed action are not highly uncertain or involve unique or unknown risks.

6. **Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:**

The proposed action neither establishes a precedent for future BLM actions with significant effects nor represents a decision in principle about a future consideration. The proposed action would serve to meet the goals for the development of renewable energy and be consistent with the management designations on the BLM-administered lands crossed by the project.

7. **Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:**

No individually or cumulatively significant impacts were identified for the proposed action. Any adverse impacts identified for the proposed action, in conjunction with any adverse impacts of other past, present, or reasonably foreseeable future actions will result in negligible impacts to the affected resources.

8. **Degree to which the action may adversely affect district, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources:**

The proposed action will not adversely affect cultural resources listed on the NRHP or cause significant loss or destruction of resources.

9. **Degree to which the action may adversely affect an endangered or threatened species or its critical habitat:**

The proposed action will not adversely affect endangered or threatened species or designated critical habitat. With the exception of the Sonoran pronghorn, there are no suitable habitats or known occurrences within 5 miles for federally threatened, endangered, or candidate species in the Project area (AGFD 2018 and USFWS 2018) so there would be no impacts on these species from implementation of the Project. Sonoran pronghorn are designated as a “non-essential, experimental” population in this area. Construction-related impacts for Sonoran pronghorn would be temporary and short-term and may include temporary loss of habitat and displacement of individuals, temporary impacts on foraging behaviors, and noise-related disturbance. However, because Sonoran pronghorn would be expected to preferentially use the large amounts of native habitat located on all sides of the Project area that are less impacted by ongoing human activities, the likelihood that pronghorn would be present during the short construction period is

low. Due to the small scale of potential impacts to Sonoran pronghorn and their habitat, and the unlikelihood that Sonoran pronghorn would be present during construction, the proposed action may affect, but is not likely to adversely affect the nonessential experimental population of Sonoran pronghorn.

10. Whether the action threatens a violation of federal, state, or local environmental protection law:

The proposed action violates no federal, state, or local environmental protection laws. It has been approved by the State and local agencies having jurisdiction.

Aron King
Field Manager
Yuma Field Office

1/23/2020
Date

EXHIBIT C. AREAS OF BIOLOGICAL WEALTH

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

> *Describe any areas in the vicinity of the proposed site or route which are unique because of biological wealth or because they are habitats for rare and endangered species. Describe the biological wealth or species involved and state effects, if any, the proposed facilities will have thereon.*

Introduction

Areas of biological wealth and the rare and endangered species that may occur at or in the vicinity of the proposed Interconnection Project were identified through a biotic resource review using the following resources:

- The U.S. Fish and Wildlife Service (USFWS) official species list for the proposed Project Area obtained from the USFWS online Information for Planning and Consultation (IPaC) System (see Exhibit C-1).
- Species information obtained from the Arizona Game and Fish Department (AGFD) Online Environmental Online Review Tool (see Exhibit C-2).
- Land cover, elevation data, and species descriptions from a variety of sources.

A biological survey of a variation of the Interconnection Project was conducted in support of the 2019 Environmental Assessment (EA) completed for the Solar Project (then referred to as the Viktoria Gen-Tie Project) (see Exhibit B-1). The findings of that survey and an analysis of species' occurrence in the area are reported in the EA. Because the engineering approach for the Interconnection Project was finalized after the EA, on November 22, 2021, SWCA surveyed the Interconnection Project route for flora and fauna. SWCA confirmed that habitat characteristics and conditions for the Interconnection Project are consistent with those reported in the EA for the original route. In August 2022, SWCA completed biological field surveys on BLM land for BLM-sensitive plants (including blue sand lily, sand food, scaly sand food, and Schott wire lettuce), noxious weeds (i.e., Arizona Department of Agriculture [ADA]–listed weed species), and potential habitat for the Sonoran desert tortoise and western burrowing owl.

Laws and Policies

Applicable laws and policies regarding special-status species in Arizona include the following:

The USFWS administers the Endangered Species Act of 1973 (ESA), as amended. The ESA protects wildlife species listed as threatened or endangered from "take" (generally, directly, or indirectly harming or disturbing listed species). However, the ESA does not provide the same take protections of listed plant species, except on federal land. The ESA also allows for the designation of critical habitat for listed species, although designation of critical habitat is not required. Critical habitat is an administrative designation of a defined area with specific characteristics important to the survival and recovery of a listed species. Designation of critical habitat can affect federal actions, but not state or private actions without a federal nexus.

The Migratory Bird Treaty Act (MBTA) provides for the protection of migratory birds and prohibits their unlawful take or possession. The act bans "taking" any native birds; "taking" can mean killing a wild bird or possessing parts of a wild bird, including feathers, nests, or eggs. Exceptions are allowed for hunting game birds and for research purposes, both of which require permits.

The Bald and Golden Eagle Protection Act (BGEPA) prohibits any form of possession or taking of bald eagles (*Haliaeetus leucocephalus*) or golden eagles (*Aquila chrysaetos*). A 1962 amendment to the MBTA created a specific exemption for possession of an eagle or eagle parts (e.g., feathers) for religious purposes of Indian tribes. The amendment provided for not only the preservation of the golden eagle, but also the preservation of Native American cultural practices.

The AGFD manages and conserves wildlife in Arizona. Nearly all take of wildlife is regulated in some manner through the hunting and fishing license system. Arizona does not have a counterpart to the federal ESA but a list of rare species (Wildlife Species of Concern [WSC]) was created in 1996 without creating any specific statutory protections for those species (AGFD 1996). However, hunting regulations are used to provide some protection. While this is no longer a valid category, AGFD continues to track these species due to an existing Memorandum of Understanding (MOU) between the USFWS and AGFD. Generally, no hunting or capture of those species is allowed, with some exceptions for managed recreational fisheries of native fish (AGFD 2017), and recreational capture of certain reptiles (AGFD 2015).

Arizona prepared a Comprehensive Wildlife Conservation Strategy (CWCS) in 2006 (AGFD 2006), later renamed the State Wildlife Action Plan (SWAP), through a state-federal partnership and grant program. The SWAP was updated in 2012 (AGFD 2012). The SWAP identifies Species of Greatest Conservation Need (SGCN), in several tiers. Tier 1A includes ESA-listed species and other rare species. Tier 1B includes species that are not listed but are regionally rare or declining, species with a U.S. range primarily in Arizona that are dependent on conservation efforts within the state, and other species with identified conservation issues that may warrant management action. Tier 1C includes species with substantial data gaps and unknown conservation status, but where conservation concern may be warranted. Other tiers include species that are common, widespread, or in stable populations. This exhibit addresses Tier 1A, 1B, and 1C SGCNs. Species identified as WSC in 1996 are included as SGCNs in the SWAP and are addressed as SGCNs in Table C-l and discussed here in Exhibit C in the Summary of Potential Effects.

Native plants in Arizona are managed by the ADA under the Arizona Native Plant Law (ANPL) (Arizona Administrative Code R3-3-208), which regulates harvest, salvage, and transport of plants. Harvest or salvage of most plant species may be permitted or required, and fees may be assessed on state land. Plants listed in the Highly Safeguarded category may only be taken or salvaged for scientific or conservation purposes.

The ADA administers the state noxious weed law under Arizona Administrative Code R3-4-245. A revised list of noxious weed species was approved in January 2020 (ADA 2020).

Inventory

SWCA biologists with expertise in the biology of flora and fauna of the region surveyed the vicinity of the Interconnection Project on November 22, 2021.[3] The biologists documented existing conditions and

[3] In August 2022, SWCA biologists completed resource surveys on BLM-administered land in support of a revised ROW request. The biological surveys on BLM land included the segment of the Interconnection Project across BLM land and confirmed the assessment results of earlier surveys completed specifically for the Interconnection Project.

noted habitat features that may be pertinent to special-status species in the vicinity of the Interconnection Project.

On September 21, 2022, the USFWS IPaC database was queried to generate an unofficial list of ESA-listed species that have the potential to occur in the Study Area (USFWS 2022) (see Exhibit C-1). Also on September 21, 2022, the AGFD Online Environmental Review Tool was queried to generate a list of special-status species with records within 5 miles of the Interconnection Project and a list of SGCN with modeled suitable habitat intersecting the Interconnection Project (AGFD 2022) (see Exhibit C-2).

Results

No areas of biological wealth were identified within 5 miles of the Interconnection Project.

The USFWS and AGFD identified several special-status species that are known to occur or could occur within 5 miles of the Interconnection Project. These species and the likelihood of their being present in the vicinity of the Interconnection Project are addressed below in three sections: (1) Federally Listed and Candidate Species, (2) Other Special-Status Species, and (3) State-Protected Native Plant Species.

Federally Listed and Candidate Species

Four listed or candidate species were identified by the USFWS as having the potential to occur in the vicinity of the Interconnection Project: monarch butterfly (*Danaus plexippus*), Sonoran pronghorn (*Antilocapra americana sonoriensis*), yellow-billed cuckoo (*Coccyzus americanus*), and Yuma Ridgway's rail (*Rallus obsoletus yumanensis*) (Table C-1).

Table C-1. Federally Listed or Candidate Species That May Be Present in the Project Area

Common Name (*Scientific Name*)	Protection Status*	Habitat	Occurrence Status
Sonoran Pronghorn *Antilocapra americana sonoriensis*	E, XN	Sonoran desertscrub within broad, intermountain, alluvial valleys with creosote-bursage and paloverde–mixed cacti associations.	May occur. See below.
Monarch Butterfly *Danaus plexippus*	C	Habitat is complex. Generally, breeding areas are virtually all patches of milkweed (Asclepias sp.). The species occurs throughout Arizona during the summer and migrates to winter in Mexico and California, though small numbers do overwinter in the low deserts of southwestern Arizona.	May occur. See below.
Yellow-billed Cuckoo *Coccyzus americanus*	T	Riparian woodland vegetation.	Unlikely to occur; habitat in the Interconnection Project vicinity is unsuitable.
Yuma Ridgway's Rail *Rallus obsoletus yumanensis*	E	Freshwater and brackish marshes.	Unlikely to occur; habitat in the Interconnection Project vicinity is unsuitable.

Note: Table lists the species named in the USFWS online IPaC system (USFWS 2022; see Exhibit C-1).

* C = Candidate; E = Endangered; T = Threatened; XN = Experimental Nonessential population.

Based on field observations and knowledge of the area, only two of these four species, the Sonoran pronghorn and the monarch butterfly, are likely to occur in the vicinity of the Interconnection Project.

Suitable habitat is not present for the other two species. Additional information about the Sonoran pronghorn and monarch butterfly is provided below.

SONORAN PRONGHORN

The Sonoran pronghorn, one of four pronghorn subspecies, is listed by the USFWS as endangered. Sonoran pronghorn occupy a variety of Sonoran Desert habitats, including the creosotebush-dominated ecological community found in the Project Area. To survive, pronghorn rely on detecting and fleeing from predators, so prefer flat to gently rolling terrain with open sightlines. Being nomadic, they require large expanses of contiguous habitat to survive. The sparsely vegetated habitat in and around the Project Area provides little forage for Sonoran pronghorn, but the species is known to occur there (BLM 2019; see Exhibit B-1).

While listed as endangered, populations of pronghorn that are part of reintroduction programs are designated "Experimental Nonessential." Experimental Nonessential populations, if located outside a national wildlife refuge or a national park, are treated as proposed for listing rather than endangered. Any pronghorn found within a defined area in Arizona south of Interstate 10 and north of Interstate 8, an area that includes the proposed Interconnection Project, is considered Experimental Nonessential. This is because Sonoran pronghorn have been released from captive breeding pens on the Kofa National Wildlife Refuge about 35 miles northwest of the Interconnection Project (Federal Register Vol. 76, pages 25593–25611).

MONARCH BUTTERFLY

The monarch butterfly became a candidate for listing under the ESA in 2020. This species breeds in and migrates through low desert habitats in Yuma County, most commonly between September and mid-May (Morris et al. 2015). Blooming milkweeds, particularly *Asclepias subulate*, provide the favored nectar for monarch butterflies in the region, but the butterflies have also been observed feeding on other nectar plants and a variety of trees in bloom such as velvet mesquite (*Prosopis velutina*) (Morris et al. 2015). Milkweeds have not been identified at the Interconnection Project, making it marginal habitat for the species. But other flowering plants used but less preferred by the species, including velvet mesquite, do grow there.

Other Special-Status Species

Other special-status species that may occur at the Interconnection Project fall into the following four categories:

- Eagles protected by the Bald and Golden Eagle Protection Act (BGEPA).
- Birds of Conservation Concern (BCC), which are bird species, beyond those designated as federally threatened or endangered, that represent the USFWS's highest conservation priorities. The relevant BCC for this analysis are those identified by the USFWS (2022) as occurring in the Project Area.
- BLM Sensitive species are native species found on BLM-administered lands for which the BLM has the capability to significantly affect the conservation status of the species through management. BLM Sensitive species include those for which: (1) there is information that a species has recently undergone, is undergoing, or is predicted to undergo a downward trend such that the viability of the species or a distinct population segment of the species is at risk across all or a significant portion of the species range, or; (2) the species depends on ecological refugia or specialized or unique habitats on BLM-administered lands, and there is evidence that such areas

are threatened with alteration such that the continued viability of the species in that area would be at risk. SWCA biologists did not identify any special-status BLM plant species during the field surveys conducted in August 2022.

- Species of Greatest Conservation Need (SGCN) in Arizona, which are species identified by the AGFD as warranting heightened attention because of low and declining populations. SGCN are prioritized into tiers. Tier 1A species are those for which the AGFD has entered into an agreement or has legal or other contractual obligations or that warrant the protection of a closed season. This tier includes all federally threatened and endangered species. Tier 1B represents the remainder of the species meeting the AGFD's vulnerability criteria. Tier 1C species are those for which existing data were insufficient to score one or more vulnerability criteria.

The species in these categories (other than those also designated as federally threatened or endangered, which are addressed above) that were identified by the AGFD (2022) as having occurrence records or predicted habitat modeled within 5 miles of the Project Area are listed below in Table C-2. Each species in Table C-2 has been evaluated for its potential occurrence in the Project Area based on field surveys, familiarity with the area, and available information sources.

Table C-2. Occurrence Status of Other Relevant Special-Status Species

Common Name (*Scientific Name*)	Protection Status*			Habitat	Occurrence Status in the Project Area
	USFWS	BLM	AZ SGCN		
Amphibians					
Lowland Leopard Frog *Lithobates yavapaiensis*	SC	S	1A	Aquatic systems in desert grasslands up to pinyon-juniper.	Unlikely to occur; habitat in the Project Area is unsuitable.
Sonoran Desert Toad *Incilius alvarius*	–	-	1B	Desert, cropland, grassland, and shrubland.	May occur; suitable habitat is present in the Project Area.
Birds					
Abert's Towhee *Melozone aberti*	–	-	1B	Riparian woodlands or mesquite bosques.	May occur; a mesquite bosque is present in the Project Area.
American Bittern *Botaurus lentiginosus*	–	-	1B	Freshwater marshes and wetlands with dense vegetation.	Unlikely to occur; habitat in the Project Area is unsuitable.
Arizona Bell's Vireo *Vireo bellii arizonae*	–	-	1B	Riparian habitat.	Unlikely to occur; habitat in the Project Area is unsuitable.
Bald Eagle *Haliaeetus leucocephalus*	SC, BGEPA	S	1A	Large bodies of water with fish for prey; primarily nests in large trees in riparian areas.	Unlikely to occur; habitat in the Project Area is unsuitable.
Brewer's Sparrow *Spizella breweri*	–	-	1C	Desert grasslands.	May occur; overwinters in the vicinity.
Costa's Hummingbird *Calypte costae*	–	-	1C	Desertscrub near washes.	May occur; suitable habitat is present in the Project Area.
Ferruginous Hawk *Buteo regalis*	SC	S	1B	Open deserts with abundance of mammal species.	May occur; suitable habitat is present in the Project Area.
Gila Woodpecker *Melanerpes uropygialis*	BCC	-	1B	Desertscrub with saguaros, riparian woodlands with mature trees.	Unlikely to occur; habitat in the Project vicinity is unsuitable.
Gilded Flicker *Colaptes chrysoides*	C	S	1B	Desertscrub with saguaros, riparian woodlands with mature trees.	Unlikely to occur; habitat in the Project Area is unsuitable.
LeConte's Thrasher *Toxostoma lecontei*	BCC	S	1B	Desertscrub dominated by creosotebush.	May occur; suitable habitat is present in the Project Area.

Common Name (*Scientific Name*)	Protection Status*			Habitat	Occurrence Status in the Project Area
	USFWS	BLM	AZ SGCN		
Lincoln's Sparrow *Melospiza lincolnii*	–	-	1B	Dense, brushy areas, often near water.	May occur; overwinters in the vicinity.
Lucy's Warbler *Leiothlypis luciae*	–	-	1C	Mesquite bosques and xeroriparian washes.	May occur; suitable habitat is present in the Project Area.
Mountain Plover *Charadrius montanus*	SC	-	1B	Disturbed uplands at elevations of 3,000–8,000 feet.	Unlikely to occur; the Project Area is outside the species' elevation range.
Pacific Wren *Troglodytes pacificus*	–	-	1B	Dense coniferous forests associated with rivers and streams.	Unlikely to occur; habitat in the Project Area is unsuitable.
Savannah Sparrow *Passerculus sandwichensis*	–	–	1B	Grasslands to open desert.	May occur; overwinters in the vicinity.
Sprague's Pipit *Anthus spragueii*	SC	–	1A	Grasslands to open desert in southeastern Arizona.	Unlikely to occur; the Project Area is outside the species' range.
Wood Duck *Aix sponsa*	–	–	1B	Streams and ponds with trees and other dense vegetation.	Unlikely to occur; habitat in the Project Area is unsuitable.
Mammals					
American Beaver *Castor canadensis*	–	-	1B	Permanent streams, some larger river stretches.	Unlikely to occur; habitat in the Project Area is unsuitable.
Brazilian Free-Tailed Bat *Tadarida brasiliensis*	–	-	1C	A variety of habitats, including desertscrub; roosts in caves, tunnels, and buildings.	No roosting habitat in the vicinity but may occasionally forage on the site.
California Leaf-Nosed Bat *Macrotus californicus*	SC	S	1B	A variety of habitats, including desertscrub; roosts in mines, caves, and rock shelters.	No roosting habitat in the vicinity but may occasionally forage on the site.
Cave Myotis *Myotis velifer*	SC	S	1B	A variety of habitats, including desertscrub; roosts in caves, mines, under bridges, and in buildings.	No roosting habitat in the vicinity but may occasionally forage on the site.
Greater Western Bonneted Bat *Eumops perotis californicus*	SC	S	1B	A variety of habitats, including desertscrub; roosts in cliff crevices.	No roosting habitat in the vicinity but may occasionally forage on the site.
Harris' Antelope Squirrel *Ammospermophilus harrisii*	–	-	1B	Creosotebush-bursage or saltbush-creosotebush vegetative community.	May occur; suitable habitat is present in the Project Area.
Kit Fox *Vulpes macrotis*	–	-	1B	Open, flat desert terrain that features soft or sandy soils.	May occur; suitable habitat is present in the Project Area.
Little Pocket Mouse *Perognathus longimembris*	–	-	1B	Firm sandy soil, overlain with pebbles, on slopes with widely spaced shrubs.	May occur; suitable habitat is present in the Project Area.
Pale Townsend's Big-Eared Bat *Corynorhinus townsendii pallescens*	SC	S	1B	A variety of habitats, including desertscrub; in Arizona roosts in caves, lava tubes, and mines at elevations of 550–7,520 feet.	Unlikely to occur; the Project Area is outside the species' elevation range.
Pocketed Free-Tailed Bat *Nyctinomops femorosaccus*	–	-	1B	Near any water source, including irrigation canals and stock tanks; roosts in rock crevices in high cliffs.	Unlikely to occur; habitat in the Project Area is unsuitable.
Spotted Bat *Euderma maculatum*	SC	S	1B	A variety of arid habitats associated with prominent rock features and water sources; roosts in crevices and caves in tall cliffs.	Unlikely to occur; habitat in the Project Area is unsuitable.

Common Name (*Scientific Name*)	Protection Status*			Habitat	Occurrence Status in the Project Area
	USFWS	BLM	AZ SGCN		
Yuma Myotis *Myotis yumanensis*	SC	–	1B	A variety of habitats, including desertscrub; roosts in cliffs, caves, mines, and buildings.	No roosting habitat in the vicinity but may occasionally forage on the site.
Reptiles					
Gila Monster *Heloderma suspectum*	–	–	1A	Desertscrub near rocky foothills, bajadas, and canyons.	Unlikely to occur; habitat in the Project Area is unsuitable.
Resplendent Shovel-Nosed Snake *Chionactis annulata*	–	–	1C	Sandy washes, dunes, sandy flats, or rocky foothills with areas of loose sandy material.	May occur; suitable habitat is present in the Project Area.
Sonoran desert tortoise *Gopherus morafkai*	–	S	1A	Rocky habitats, bajadas, and washes within Sonoran desertscrub.	Unlikely to occur; habitat in the Project Area is unsuitable. SWCA did not observe any signs of desert tortoise (individuals, scat, or burrows) during the field surveys conducted in August 2022.

Notes: Table C-2 lists the special-status species named in the Arizona Online Environmental Review Tool (AGFD 2022, see Exhibit C-2) and the Viktoria Gen-tie Project EA (BLM 2019, see Exhibit B-1). BCC species identified in the USFWS online IPaC resource list for the Project Area.

* Status abbreviations: BCC = Bird of Conservation Concern; BGA = Bald and Golden Eagle Protection Act; S = Sensitive; SC = Species of Concern; SGCN = Species of Greatest Conservation Need, an Arizona state classification.

** Identified as potentially occurring in the Agua Caliente Solar Energy Zone north of the Project Area (BLM 2015).

ADDITIONAL BLM SENSITIVE SPECIES

While the AGFD did not identify the western burrowing owl (*Athene cunicularia hypugaea*), a BLM Sensitive species, as potentially occurring in the vicinity of proposed Interconnection Project, the BLM is requiring preconstruction field surveys for the species on the portion of the Solar Project on BLM land.

Two BLM Sensitive plant species—blue sand-lily (*Triteleiopsis palmeri*) and Schott wire-lettuce (*Stephanomeria schottii*)—were identified as potentially occurring in the Agua Caliente Solar Energy Zone north of the Project Area (BLM 2015). These species are unlikely to occur in the Project Area, however, because they grow in sand dunes and sandy soil, and the soils in the Project Area are loam, gravelly loam, and very gravelly loam (Natural Resources Conservation Service 2022).

STATE-PROTECTED NATIVE PLANTS

The ANPL (Arizona Revised Statutes 3-904) identifies a lengthy list of plant species—largely cacti, agaves, yuccas, and desert trees—that are susceptible to removal for collection, landscaping, sale, or other commercial uses. The ANPL states that these plants shall not be taken, transported, or possessed from any land without permission and a permit from the ADA; it also requires notification prior to land clearing even if the plants will be destroyed. Protected native plants classified under the ANPL are present in the Project Area.

NOXIOUS WEEDS

Arizona maintains a list of noxious weeds in three categories, Class A, Class B, and Class C (ADA 2020). Class A species are those that are not known to occur in Arizona and are of limited distribution, and are of high priority for quarantine, control, or mitigation. Class B noxious weeds are species known to occur but of limited distribution in Arizona and may be high priority pests for quarantine, control, or mitigation if a

significant threat to crop, commodity, or habitat exists. Class C noxious weeds are species of plants that are widespread but may be recommended for active control based on risk assessment.

Noxious weeds are known to occur in the vicinity of the Interconnection Project (iMap Invasives 2022). Noxious weeds including buffelgrass, johnsongrass, and tamarisk were observed within the Project Area during the August 2022, field survey. Measures will be taken to avoid spreading noxious weeds during construction and operation of the Interconnection Project.

Assessment of Potential Effects

Areas of Biological Wealth

No areas of biological wealth were identified within 5 miles of the Interconnection Project, so none would be affected by the proposed Interconnection Project.

Federally Listed and Candidate Species

Sonoran Pronghorn

The sparse vegetation in the vicinity of the Interconnection Project provides little forage for Sonoran pronghorn, and a relatively small amount of this poor habitat would be permanently lost. Therefore, long-term impacts to Sonoran pronghorn would be negligible. Most potential impacts to the Sonoran pronghorn would be limited to the construction period when noise and human activity could cause individuals to alter their movement patterns and temporarily avoid the area.

Mitigation: While it is unlikely that workers would encounter Sonoran pronghorn near or at the Interconnection Project, it could happen; therefore, a Workers Environmental Awareness Program will be developed that includes materials and discussion of conservation measures for the Sonoran pronghorn, such as how to avoid harassment.

Monarch Butterfly

A relatively small amount of poor habitat for the monarch butterfly would be permanently lost because of the Interconnection Project. If individuals of the species are present during construction and are disturbed, they will simply move away.

Mitigation: None needed.

Other Special-Status Species

Burrow-Dwelling Species – In addition to permanently losing a relatively small amount of habitat, kit foxes, small mammals, and reptiles could potentially be impacted by construction activities. Such impacts may include temporary loss of habitat and displacement of individuals, possible injury or death during ground-disturbing activities, temporary impacts on foraging behaviors, and noise-related disturbance.

Mitigation: Burrow surveys will be conducted prior to construction to identify potential burrows for these species. Burrows will be avoided or excavated per species-specific requirements if they cannot be avoided.

Birds – Potential threats to birds include damage to active nests, eggs, and nestlings during construction.

Mitigation: Prior to the start of construction activities, qualified biologists will survey the Project Area to locate nests for species protected under the MBTA. All active nests and those of undetermined status will be flagged in the field to facilitate relocation and will be buffered from ground-clearing activities until the nest is known to be inactive. Nests that can be determined to be inactive will be removed.

Transmission lines pose a risk of collisions and electrocution for birds, particularly eagles and other raptors.

Mitigation: To minimize that risk, the Applicant will construct the proposed transmission line following the guidelines outlined in *Suggested Practices for Raptor Protection on Powerlines: The State of the Art in 2006* (Avian Power Line Interaction Committee [APLIC] 2006) and *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* (APLIC 2012).

Bats – No roosting or maternal roost habitat for bats occurs in the vicinity, so roosting behavior would not be affected by the Interconnection Project. Construction would generally occur during the day, so construction-related noise and activity is unlikely to affect bat foraging, commuting, or migrating behavior to an appreciable degree, if at all. Lighting at the step-up substation would add to artificial lighting in the vicinity of the existing Hoodoo Wash Switchyard and Agua Caliente Solar Project and may result in minor alterations in bat foraging, commuting, and migrating behavior. Some bat species appear to be attracted to light, and others avoid it (Stone et al. 2015).

Mitigation: None needed.

Plants – SWCA did not observe any BLM sensitive plant species during the August 2022 field surveys.

Mitigation: None needed.

State-Protected Native Plants

Potential effects of the proposed Interconnection Project on state-protected plant species include direct removal during vegetation clearing activities.

Mitigation: Because clearing of private and BLM lands is subject to the ANPL's Notice of Intent (NOI) requirements, a general survey will be conducted identifying all species protected by the ANPL that occur in the Project Area. An NOI form will be submitted to the ADA using the plant list generated from the survey.

Noxious Weeds

Measures will be taken to avoid introducing or spreading noxious weeds as a result of constructing the Interconnection Project; therefore, the Interconnection Project would be unlikely to contribute to an increase of noxious weeds, in extent or abundance, in the vicinity of the Interconnection Project.

Conclusion

Based on the assessment in this exhibit, the Interconnection Project would have low impacts to areas of biological wealth and rare and endangered species and would be environmentally compatible.

No areas of biological wealth were identified within 5 miles of the Interconnection Project, so none would be affected by the proposed Interconnection Project.

One ESA-listed species, the endangered Sonoran pronghorn, and one candidate species, the monarch butterfly, have the potential to be present within the Project Area. Only minor impact to individuals of these species would be expected to occur.

Several additional special status species, including BLM Sensitive species and Arizona Species of Greatest Conservation Need, may occur in the Project Area. The mitigation measures identified above for burrow-dwelling species, birds, and bats would minimize risks to these species, and only minor impact to individuals of these species would be expected to occur.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arizona Ecological Services Field Office
9828 North 31st Ave
#c3
Phoenix, AZ 85051-2517
Phone: (602) 242-0210 Fax: (602) 242-2513

In Reply Refer To:
Project Code: 2022-0087665
Project Name: Proving Ground Gen-Tie Project

September 21, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The Fish and Wildlife Service (Service) is providing this list under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). The list you have generated identifies threatened, endangered, proposed, and candidate species, and designated and proposed critical habitat, that *may* occur within the One-Range that has been delineated for the species (candidate, proposed, or listed) and it's critical habitat (designated or proposed) with which your project polygon intersects. These range delineations are based on biological metrics, and do not necessarily represent exactly where the species is located. Please refer to the species information found on ECOS to determine if suitable habitat for the species on your list occurs in your project area.

The purpose of the Act is to provide a means whereby threatened and endangered species and the habitats upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of Federal trust resources and to determine whether projects may affect federally listed species and/or designated critical habitat. A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.
If the Federal action agency determines that listed species or critical habitat *may be affected* by a federally funded, permitted or authorized activity, the agency must consult with us pursuant to 50 CFR 402. Note that a "may affect" determination includes effects that may not be adverse and that may be beneficial, insignificant, or discountable. An effect exists even if only one individual

or habitat segment may be affected. The effects analysis should include the entire action area, which often extends well outside the project boundary or "footprint." For example, projects that involve streams and river systems should consider downstream affects. If the Federal action agency determines that the action may jeopardize a *proposed* species or may adversely modify *proposed* critical habitat, the agency must enter into a section 7 conference. The agency may choose to confer with us on an action that may affect proposed species or critical habitat.

Candidate species are those for which there is sufficient information to support a proposal for listing. Although candidate species have no legal protection under the Act, we recommend that they be considered in the planning process in the event they become proposed or listed prior to project completion. More information on the regulations (50 CFR 402) and procedures for section 7 consultation, including the role of permit or license applicants, can be found in our Endangered Species Consultation Handbook at: http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF.

We also advise you to consider species protected under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712) and the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668 *et seq.*). The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when authorized by the Service. The Eagle Act prohibits anyone, without a permit, from taking (including disturbing) eagles, and their parts, nests, or eggs. Currently 1,026 species of birds are protected by the MBTA, including the western burrowing owl (*Athene cunicularia hypugaea*). Protected western burrowing owls can be found in urban areas and may use their nest/burrows year-round; destruction of the burrow may result in the unpermitted take of the owl or their eggs.

If a bald eagle or golden eagle nest occurs in or near the proposed project area, our office should be contacted for Technical Assistance. An evaluation must be performed to determine whether the project is likely to disturb or harm eagles. The National Bald Eagle Management Guidelines provide recommendations to minimize potential project impacts to bald eagles (see https://www.fws.gov/birds/management/project-assessment-tools-and-guidance/guidance-documents/eagles.php and https://www.fws.gov/birds/management/managed-species/eagle-management.php).

The Division of Migratory Birds (505/248-7882) administers and issues permits under the MBTA and Eagle Act, while our office can provide guidance and Technical Assistance. For more information regarding the MBTA, BGEPA, and permitting processes, please visit the following web site: https://www.fws.gov/birds/management.php. Guidance for minimizing impacts to migratory birds for communication tower projects (e.g. cellular, digital television, radio, and emergency broadcast) can be found at https://www.fws.gov/migratorybirds/pdf/management/usfwscommtowerguidance2016update.pdf.

The U.S. Army Corps of Engineers (Corps) may regulate activities that involve streams (including some intermittent streams) and/or wetlands. We recommend that you contact the Corps to determine their interest in proposed projects in these areas. For activities within a National Wildlife Refuge, we recommend that you contact refuge staff for specific information

Exhibit C-1a. U.S. Fish and Wildlife Service IPaC Report

about refuge resources, please visit https://www.fws.gov/southwest/refuges/ to locate the refuge you would be working in or around.

If your action is on tribal land or has implications for off-reservation tribal interests, we encourage you to contact the tribe(s) and the Bureau of Indian Affairs (BIA) to discuss potential tribal concerns, and to invite any affected tribe and the BIA to participate in the section 7 consultation. In keeping with our tribal trust responsibility, we will notify tribes that may be affected by proposed actions when section 7 consultation is initiated. For more information, please contact our Tribal Coordinator, John Nystedt, at 928/556-2160 or John_Nystedt@fws.gov.

We also recommend you seek additional information and coordinate your project with the Arizona Game and Fish Department. Information on known species detections, special status species, and Arizona species of greatest conservation need, such as the western burrowing owl and the Sonoran desert tortoise (*Gopherus morafkai*) can be found by using their Online Environmental Review Tool, administered through the Heritage Data Management System and Project Evaluation Program (https://www.azgfd.com/wildlife/planning/projevalprogram/).

We appreciate your concern for threatened and endangered species. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. If we may be of further assistance, please contact our Flagstaff office at 928/556-2157 for projects in northern Arizona, our general Phoenix number 602/242-0210 for central Arizona, or 520/670-6144 for projects in southern Arizona.

Sincerely,
/s/

Mark A. Lamb
Acting Field Supervisor
Attachment

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arizona Ecological Services Field Office
9828 North 31st Ave
#c3
Phoenix, AZ 85051-2517
(602) 242-0210

Exhibit C-1b. U.S. Fish and Wildlife Service IPaC Report

Project Summary

Project Code: 2022-0087665
Project Name: Proving Ground Gen-Tie Project
Project Type: Transmission Line - New Constr - Above Ground
Project Description: Gen-Tie for a proposed solar energy project
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@32.95182295,-113.49158816230519,14z

Counties: Yuma County, Arizona

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Sonoran Pronghorn *Antilocapra americana sonoriensis* Population: Wherever found, except where listed as an experimental population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4750	Endangered

Birds

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened
Yuma Ridgway"s Rail *Rallus obsoletus yumanensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3505	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Exhibit C-1c. U.S. Fish and Wildlife Service IPaC Report

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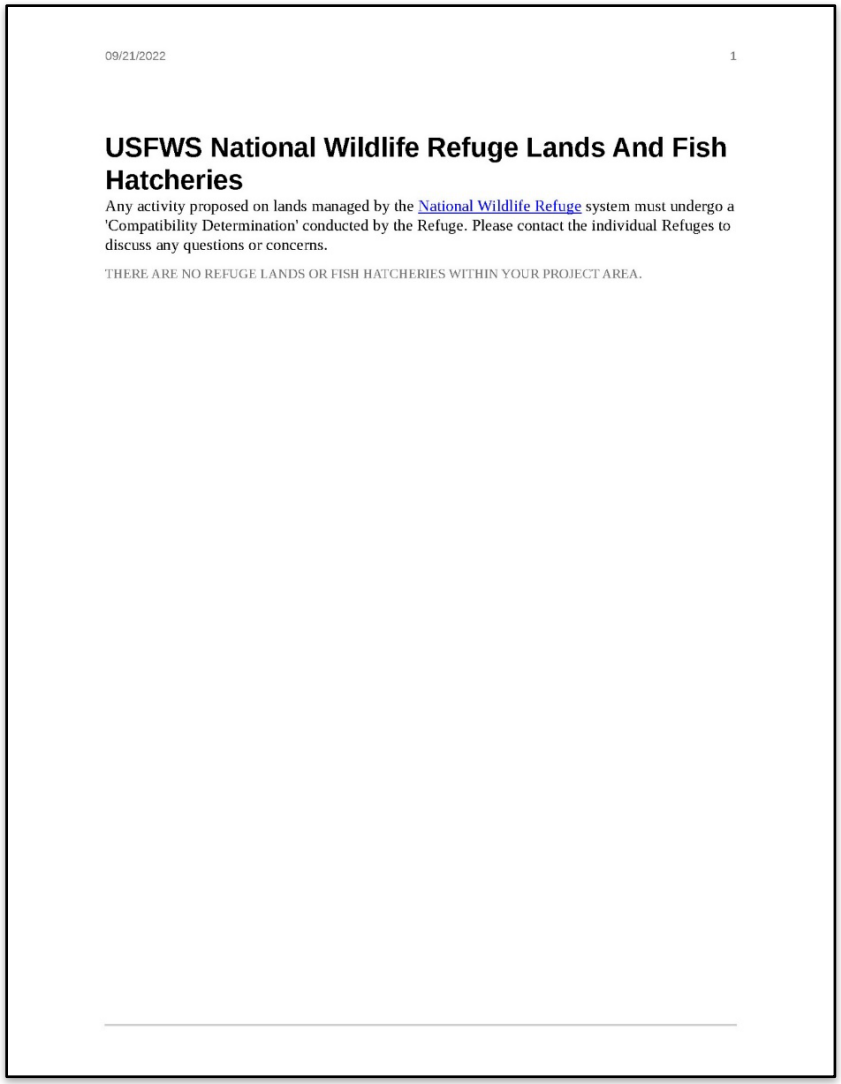
Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



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USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Exhibit C-1d. U.S. Fish and Wildlife Service IPaC Report

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Gila Woodpecker *Melanerpes uropygialis* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/5960	Breeds Apr 1 to Aug 31
Le Conte's Thrasher *toxostoma lecontei* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8969	Breeds Feb 15 to Jun 20

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

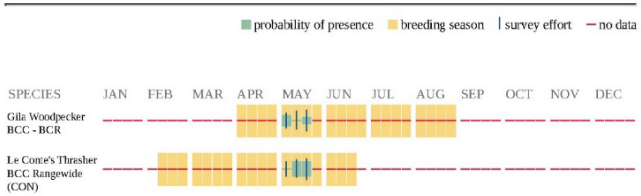
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Exhibit C-1e. U.S. Fish and Wildlife Service IPaC Report

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act

requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

Exhibit C-1f. U.S. Fish and Wildlife Service IPaC Report

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Wetlands

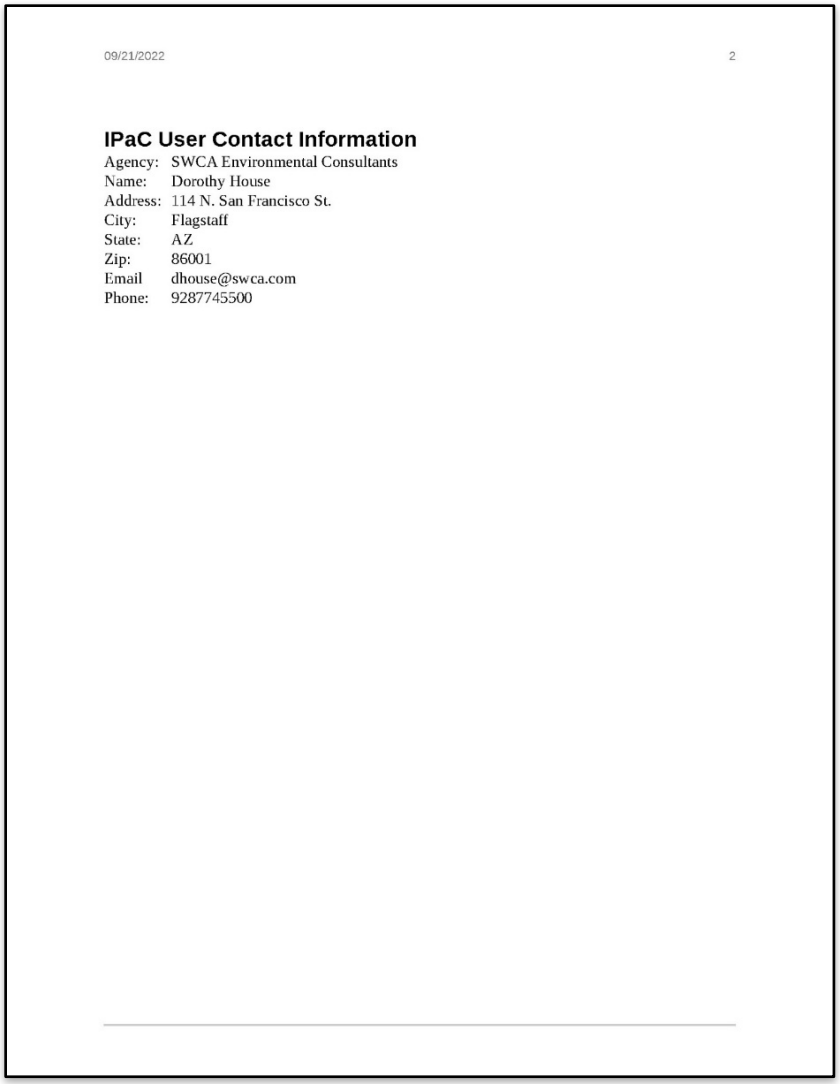
Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

Exhibit C-1g. U.S. Fish and Wildlife Service IPaC Report



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IPaC User Contact Information

Agency: SWCA Environmental Consultants
Name: Dorothy House
Address: 114 N. San Francisco St.
City: Flagstaff
State: AZ
Zip: 86001
Email dhouse@swca.com
Phone: 9287745500

Exhibit C-1h. U.S. Fish and Wildlife Service IPaC Report

Arizona Environmental Online Review Tool Report

Arizona Game and Fish Department Mission
To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

Project Name:
Proving Ground Gen-Tie

Project Description:
Proving Ground gen-tie for proposed solar energy project.

Project Type:
Energy Storage/Production/Transfer, Energy Transfer, Power line/electric line (new)

Contact Person:
dorothy house

Organization:
SWCA Environmental Consultants

On Behalf Of:
PRIVATE

Project ID:
HGIS-17338

Please review the entire report for project type and/or species recommendations for the location information entered. Please retain a copy for future reference.

Disclaimer:

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HabiMap Arizona data, specifically Species of Greatest Conservation Need (SGCN) under our State Wildlife Action Plan (SWAP) and Species of Economic and Recreational Importance (SERI), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

Locations Accuracy Disclaimer:
Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

Exhibit C-2a. AGFD Online Environmental Review Tool Results

Recommendations Disclaimer:

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Departments review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:
   Project Evaluation Program, Habitat Branch
   Arizona Game and Fish Department
   5000 West Carefree Highway
   Phoenix, Arizona 85086-5000
   Phone Number: (623) 236-7600
   Fax Number: (623) 236-7366
   Or
   PEP@azgfd.gov
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies

Arizona Game and Fish Department
Project ID: HGIS-17338
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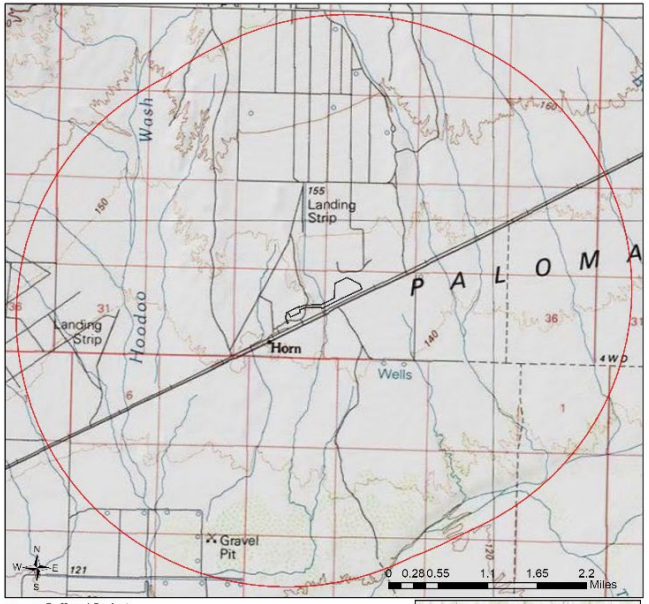
Proving Ground Gen-Tie

USA Topo Basemap With Locator Map



Buffered Project Boundary

Project Boundary

Project Size (acres): 46.53

Lat/Long (DD): 32.9539 / -113.4896

County(s): Yuma

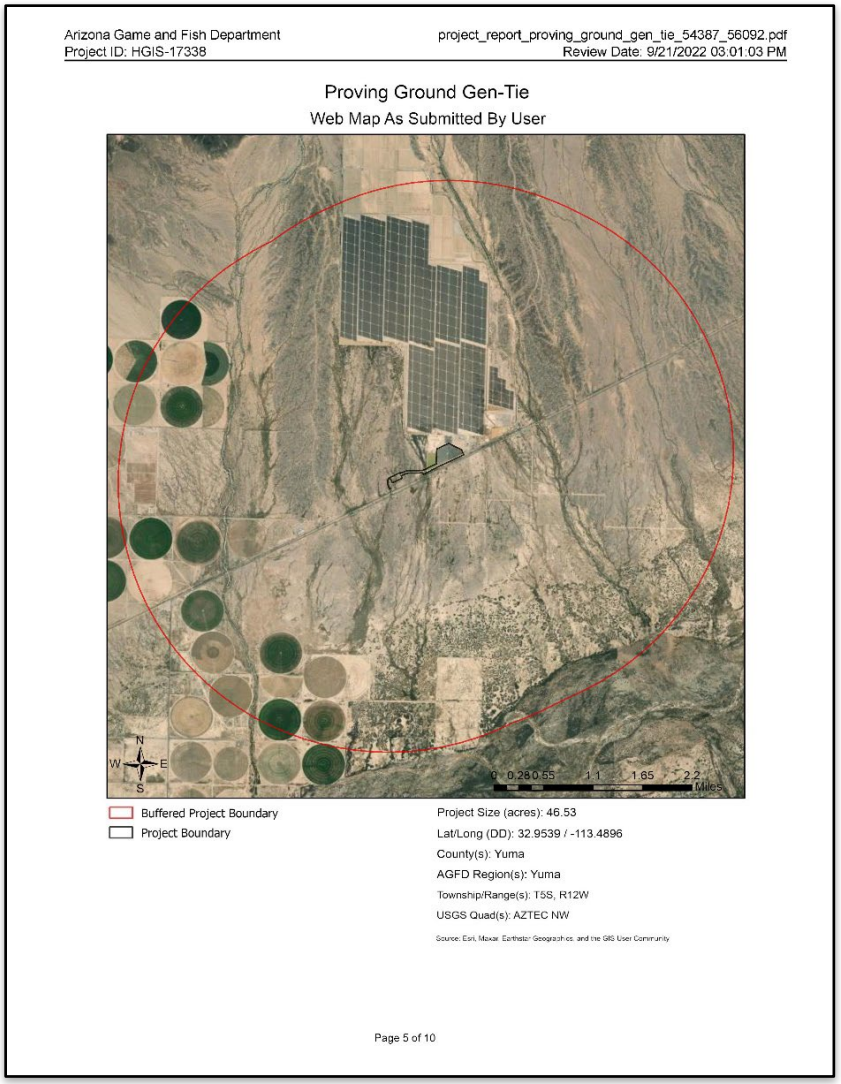
AGFD Region(s): Yuma

Township/Range(s): T5S, R12W

USGS Quad(s): AZTEC NW

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Exhibit C-2b. AGFD Online Environmental Review Tool Results



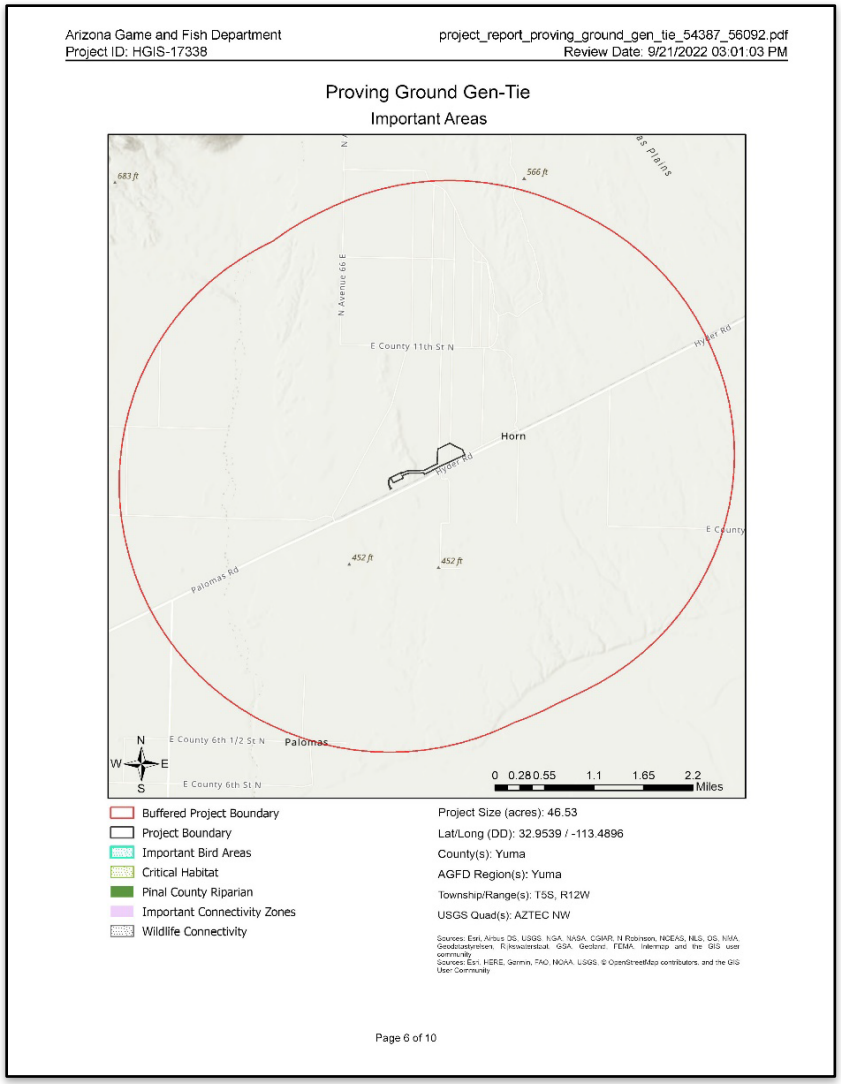


Exhibit C-2c. AGFD Online Environmental Review Tool Results

Arizona Game and Fish Department
Project ID: HGIS-17338

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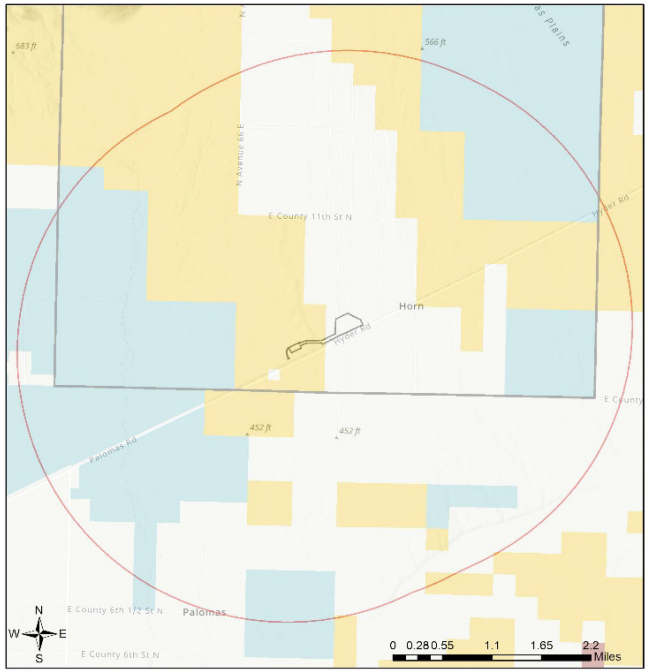
Proving Ground Gen-Tie

Township/Ranges and Land Ownership



- Buffered Project Boundary
- Project Boundary
- AZ Game & Fish Dept.
- BLM
- BOR
- Indian Res.
- Military
- Mixed/Other
- National Park/Mon.
- Private
- State & Regional Parks
- State Trust
- US Forest Service
- Wildlife Area/Refuge
- Township/Ranges

Project Size (acres): 46.53
Lat/Long (DD): 32.9539 / -113.4896
County(s): Yuma
AGFD Region(s): Yuma
Township/Range(s): T5S, R12W
USGS Quad(s): AZTEC NW

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Arizona Game and Fish Department
Project ID: HGIS-17338

project_report_proving_ground_gen_tie_54387_56092.pdf
Review Date: 9/21/2022 03:01:03 PM

Special Status Species Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Antilocapra americana sonoriensis	Sonoran Pronghorn	LE,XN		S		1A
Chionactis annulata	Resplendent Shovel-nosed Snake					1C

Note: Status code definitions can be found at https://www.azgfd.com/wildlife/planning/wildlifeguidelines/statusdefinitions/
.

No Special Areas Detected
No special areas were detected within the project vicinity.

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Aix sponsa	Wood Duck					1B
Ammospermophilus harrisii	Harris' Antelope Squirrel					1B
Anthus spragueii	Sprague's Pipit	SC				1A
Botaurus lentiginosus	American Bittern					1B
Buteo regalis	Ferruginous Hawk	SC		S		1B
Calypte costae	Costa's Hummingbird					1C
Castor canadensis	American Beaver					1B
Charadrius montanus	Mountain Plover	SC				1B
Colaptes chrysoides	Gilded Flicker			S		1B
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1B
Euderma maculatum	Spotted Bat	SC	S	S		1B
Eumops perotis californicus	Greater Western Bonneted Bat	SC		S		1B
Haliaeetus leucocephalus	Bald Eagle	SC, BGA	S	S		1A
Heloderma suspectum	Gila Monster					1A
Incilius alvarius	Sonoran Desert Toad					1B
Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S		1A
Macrotus californicus	California Leaf-nosed Bat	SC		S		1B
Melanerpes uropygialis	Gila Woodpecker					1B
Melospiza lincolnii	Lincoln's Sparrow					1B
Melozone aberti	Abert's Towhee		S			1B
Myotis velifer	Cave Myotis	SC		S		1B
Myotis yumanensis	Yuma Myotis	SC				1B
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					1B
Oreothlypis luciae	Lucy's Warbler					1C
Passerculus sandwichensis	Savannah Sparrow					1B
Perognathus longimembris	Little Pocket Mouse	No Status				1B
Spizella breweri	Brewer's Sparrow					1C

Exhibit C-2d. AGFD Online Environmental Review Tool Results

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Tadarida brasiliensis	Brazilian Free-tailed Bat					1B
Toxostoma lecontei	LeConte's Thrasher			S		1B
Troglodytes pacificus	Pacific Wren					1B
Vireo bellii arizonae	Arizona Bell's Vireo					1B
Vulpes macrotis	Kit Fox	No Status				1B

Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Callipepla gambelii	Gambel's Quail					
Odocoileus hemionus	Mule Deer					
Puma concolor	Mountain Lion					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	Mourning Dove					

Project Type: Energy Storage/Production/Transfer, Energy Transfer, Power line/electric line (new)

Project Type Recommendations:
Minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects and pathogens. Precautions should be taken to wash and/or decontaminate all equipment utilized in the project activities before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds at https://www.invasivespeciesinfo.gov/unitedstates/az.shtml and the Arizona Native Plant Society https://aznps.com/invas for recommendations on how to control. To view a list of documented invasive species or to report invasive species in or near your project area visit iMapInvasives - a national cloud-based application for tracking and managing invasive species at https://imap.natureserve.org/imap/services/page/map.html.

- To build a list: zoom to your area of interest, use the identify/measure tool to draw a polygon around your area of interest, and select "See What's Here" for a list of reported species. To export the list, you must have an account and be logged in. You can then use the export tool to draw a boundary and export the records in a csv file.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

For any powerlines built, proper design and construction of the transmission line is necessary to prevent or minimize risk of electrocution of raptors, owls, vultures, and golden or bald eagles, which are protected under state and federal laws. Limit project activities during the breeding season for birds, generally March through late August, depending on species in the local area (raptors breed in early February through May). Conduct avian surveys to determine bird species that may be utilizing the area and develop a plan to avoid disturbance during the nesting season. For underground powerlines, trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herpetofauna (snakes, lizards, tortoise) from entering ditches. In addition, indirect affects to wildlife due to construction (timing of activity, clearing of rights-of-way, associated bridges and culverts, affects to wetlands, fences) should also be considered and mitigated.

Based on the project type entered, coordination with State Historic Preservation Office may be required (https://azstateparks.com/).

Based on the project type entered, coordination with U.S. Fish and Wildlife Service (Migratory Bird Treaty Act) may be required (https://www.fws.gov/office/arizona-ecological-services).

Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

Exhibit C-2e. AGFD Online Environmental Review Tool Results

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EXHIBIT D. BIOLOGICAL RESOURCES

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

> *List the fish, wildlife, plant life, and associated forms of life in the vicinity of the proposed site or route and describe the effects, if any, the proposed facilities will have thereon.*

Ecological Setting

The proposed Interconnection Project is located on the western Palomas Plain in the Lower Colorado River Valley Subdivision of Sonoran Desertscrub biotic community (Brown 1994).

Physiographically, the area is a gently sloping plain dissected by shallow drainages, with elevation ranging from approximately 450 to 500 feet above mean sea level. Drainage is to the south and intermittent. Vegetation is generally sparse, with shrub spacing from several feet to tens of feet (Griffith 2014). The climate is hot and arid. Summer highs in the region average 100–110 degrees Fahrenheit (°F) but can exceed 120°F. Rainfall averages around 5 inches a year. Summer rains tend to be downpours of up to an inch or more per hour. Winter rains tend to be gentle. The land receives near constant daylight sun (Cabeza Prieta Natural History Association 2022).

Habitat in the Project Area is generally of low quality (BLM 2020). Vehicle tracks and dirt roads crisscross the BLM portion of the Interconnection Project site, which may have been grazed in the past, but the grazing allotment was withdrawn in 2010 due to non-use (BLM 2010). The private land crossed by the Interconnection Project would include an 11-acre stormwater detention basin adjacent to the Hoodoo Wash Switchyard. Following heavy precipitation events, water collected in the basin evaporates or drains to the south.

Vegetation and Wildlife

The plant assemblage of the Project Area is typical of the Lower Colorado River Valley Subdivision biotic community (Brown 1994). Vegetation is generally sparse, with shrub spacing from several feet to tens of feet. Creosotebush and other desert shrubs dominate most of the site, while xeroriparian trees (mesquite and non-native tamarisk) grow sparsely along small drainages and densely near the eastern edge of the BLM property. Plant species potentially occurring in the Project Area are listed in Table D-1 at the end of this exhibit.

Wildlife species potentially found in this biotic community include a long list of mammals, birds, and reptiles (Brown 1994; Corman and Wise-Gervais 2005; Glinski 1998; Hoffmeister 1986; Stebbins 2003). The species potentially occurring in the Project Area are listed in Tables D-2 through D-4.

Summary of Potential Effects

Plant Species

Native vegetation characteristic of the Lower Colorado River Valley Subdivision biotic community is extensive in southern Arizona, and the acreage of disturbance as a percentage of the remaining habitat in

Yuma County is very small. Construction of the Interconnection Project may result in removal of a relatively small area of vegetation (e.g., for creation structure sites, pull pads, access roads); the removal of vegetation for construction will not result in significant impacts to the vegetation communities as a whole. Standard Best Management Practices (BMPs) will be employed during construction to minimize the introduction and spread of noxious weeds.

Wildlife Species

Wildlife species listed in Tables D-2 and D-4 may be affected by the Interconnection Project in ways discussed below, but none of the species are likely to be substantially affected.

- Construction-related activity and noise may disturb wildlife species in the area and cause them to avoid or move away from the site or temporarily alter their behavior in other ways (e.g., remain underground). Once construction is completed, it is expected that wildlife will return to the area and resume normal behavior patterns.
- Ground-dwelling animals (e.g., mice and reptiles) in areas of ground disturbance could be injured or killed during construction.
- Ground- and shrub-nesting birds could be disturbed during construction, and their nests, eggs, or young could be destroyed. To avoid this, if construction occurs during the nesting season, a pre-construction protocol survey 30 days prior to construction would be conducted to ensure that any active nests in vegetation or on the ground are avoided. If active nests cannot be avoided, an appropriate avoidance buffer would be established (per U.S. Fish and Wildlife Service guidelines), and construction would not occur within that buffer until the nest becomes inactive.
- Removal of vegetation associated with clearing portions of the transmission line right-of-way, installing transmission structures, and construction of the step-up substation would result in a small loss of habitat that could provide nesting sites, cover, and/or forage for bird and mammal species or their prey. In temporarily disturbed areas along the Interconnection Project, species composition of birds and mammals using those areas may change over time as vegetation species and structure recover. The acreage of vegetation to be cleared is small; however, particularly when compared to the large amount of comparable habitat available in the vicinity of the Interconnection Project. Removal of vegetation is expected to have negligible effects on wildlife species.
- Transmission lines do not appear to affect most wildlife movements (Goodwin 1975; Lee and BPA Biological Studies Task Team 1989; Thompson 1977).
- The effects of exposure to electromagnetic fields (EMF) by birds nesting near power lines is largely unknown; however, in one study, Fernie at al. (2000) found that EMF exposure affected the reproductive success of American kestrels (*Falco sparverius*), increasing fertility, egg size, embryonic development, and fledging success, but reducing hatching success.
- Transmission lines pose a risk of collisions and electrocution for birds, particularly eagles and other raptors. To minimize that risk, the Applicant will construct the proposed transmission line following the guidelines outlined in "*Suggested Practices for Raptor Protection on Powerlines: The State of the Art in 2006*" (Avian Power Line Interaction Committee [APLIC] 2006) and *Reducing Avian Collisions with Power Lines: The State of the Art in 2012*" (APLIC 2012).
- Impacts of the Interconnection Project to bats in flight are expected to be negligible because bats are well adapted to avoid stationary objects by using echolocation.

Tables - Species Potentially Occurring in the Project Area

Table D-1. Native Plant Species Potentially Occurring in the Project Area

Common Name	Scientific Name	Common Name	Scientific Name
African Mustard	*Brassica tournefortii*	Hairy Desert Sunflower	*Geraea canescens*
Bladder Sage	*Salazaria mexicana*	Jumping Cactus	*Cumulopuntia boliviana*
Brittlebush	*Encelia farinose*	London Rocket	*Sisymbrium trio*
Brownplume Wire-Lettuce	*Stephanomeria pauciflora*	Low Woollygrass	*Dasyochloa pulchella*
Cattle Saltbush	*Atriplex polycarpa*	Mesquite	*Prosopis* spp.
Chinchweed	*Pectis papposa*	Ocotillo	*Fouquieria spenders*
Cholla Cactus	*Cylindropuntia* spp.	Pincushion Cactus	*Mammillaria* spp.
Creosotebush	*Larrea tridentate*	Prickly Pear Cactus	*Opuntia engelmannii*
Datura	*Datum stramonium*	Purple Threeawn	*Aristida purpurea*
Desert Mistletoe	*Phoradendron californicum*	Rhatany	*Krameria* spp.
Devil's Spineflower	*Chorizanthe rigida*	Russian Thistle	*Salsola australis*
Engelmann's Hedgehog Cactus	*Echinocereus engelmannii*	Skeletonweed	*Eriogonum deflexum*
Fiddlehead	*Amsinckia intermedia*	Teddy Bear Cholla	*Opuntia bigelovii*
Filaree	*Erodium cicutarium*	Triangleleaf Bursage	*Ambrosia deltoidea*
Fishhook Barrel Cactus	*Ferocactus wislizeni*	White Bursage	*Ambrosia dumosa*
Fourwing Saltbush	*Atriplex canescens*	Wolfberry	*Lycium* spp.
Galleta Grass	*Hilaria jamesii*	Woolly Tidestromia	*Tidestromia lanuginosa*
Globe Mallow	*Sphaeralcea* spp.		

Table D-2. Mammal Species Potentially Occurring in the Project Area

Common Name	Scientific Name	Common Name	Scientific Name
Arizona Pocket Mouse	*Perognathus amplus*	Harris' Antelope Squirrel	*Ammospermophilus harrisii*
Badger	*Taxidea taxus*	Kit Fox	*Vulpes macrotis*
Bailey's Pocket Mouse	*Perognathus baileyi*	Little Pocket Gopher	*Perognathus longimembris*
Big Brown Bat	*Eptesicus cuscus*	Merriam's Kangaroo Rat	*Dipodomys merriami*
Big Free-Tailed Bat	*Nyctinomops macrotis*	Mule Deer	*Odocoileus hemionus*
Black-Tailed Jackrabbit	*Lepus californicus*	Pallid Bat	*Antrozous pallidus*
Bobcat	*Fells Rufus*	Pocketed Free-Tailed Bat	*Nyctinomops femorosaccus*
Botha's Pocket Gopher	*Thomomys bottae*	Raccoon	*Procyon lotor*
Brazilian Free-Tailed Bat	*Tadarida brasiliensis*	Rock Pocket Mouse	*Perognathus intermedius*
Cactus Mouse	*Peromyscus eremicus*	Round-Tailed Ground Squirrel	*Xerospermophilus tereticaudus*
California Myotis	*Myotis californicus*	Sonoran Pronghorn	*Antilocapra americana sonoriensis*
Canyon Mouse	*Peromyscus crinitus*	Southern Grasshopper Mouse	*Onychomys torridus*

Common Name	Scientific Name	Common Name	Scientific Name
Cave Myotis	*Myotis velifer*	Southern Yellow Bat	*Dasypterus ega*
Coyote	*Canis latrans*	Spotted Bat	*Euderma maculatum*
Deer Mouse	*Peromyscus maniculatus*	Western Harvest Mouse	*Reithrodontomys megalotis*
Desert Cottontail	*Sylvilagus audubonii*	Western Pipistrelle	*Pipistrellus hesperus*
Desert Kangaroo Rat	*Dipodomys deserti*	Western Spotted Skunk	*Spilogale gracilis*
Desert Pocket Mouse	*Perognathus penicillatus*	White-Throated Wood Rat	*Neotoma albigula*
Desert Wood Rat	*Neotoma lepida*		

Table D-3. Bird Species Potentially Occurring in the Project Area

Common Name	Scientific Name	Common Name	Scientific Name
Abert's Towhee	*Melozone aberti*	House Sparrow	*Passer domesticus*
American Kestrel	*Falco sparverius*	Inca Dove	*Columbina inca*
Anna's Hummingbird	*Calypte anna*	Killdeer	*Charadrius vociferus*
Ash-throated Flycatcher	*Myiarchus cinerascens*	Ladder-backed Woodpecker	*Dryobates scalaris*
Barn Owl	*Tyro alba*	Lark Bunting	*Calamospiza melanocorys*
Barn Swallow	*Hirundo rustics*	Lark Sparrow	*Chondestes grammacus*
Bell’s Vireo	*Vireo bellii*	Le Conte's Thrasher	*Toxostoma lecontei*
Bendire's Thrasher	*Toxostoma bendirei*	Lesser Goldfinch	*Spinus psaltria*
Black Phoebe	*Sayornis nigricans*	Lesser Nighthawk	*Chordeiles acutipennis*
Black-chinned Hummingbird	*Archilochus alexandri*	Loggerhead Shrike	*Lanius ludovicianus*
Black-headed Grosbeak	*Pheucticus melanocephalus*	Lucy's Warbler	*Oreothlypis luciae*
Black-tailed Gnatcatcher	*Polioptila melanura*	MacGillivary's Warbler	*Geothlypis tolmiei*
Black-throated Sparrow	*Amphispiza bilineata*	Mourning Dove	*Zenaida macroura*
Blue Grosbeak	*Passerina caerulea*	Nashville Warbler	*Leiothlypis ruficapilla*
Brewer's Sparrow	*Spizella breweri*	Northern Cardinal	*Cardinalis cardinalis*
Bronzed Cowbird	*Molothrus aeneus*	Northern Harrier	*Circus cyaneus*
Brown-crested Flycatcher	*Myiarchus tyrannulus*	Northern Mockingbird	*Mimus polyglottos*
Brown-headed Cowbird	*Molothrus ater*	Orange-crowned Warbler	*Leiothlypis celata*
Bullock's Oriole	*Icterus bullockii*	Pacific-slope Flycatcher	*Empidonax difficilis*
Baltimore Oriole	*Icterus galbula*	Phainopepla	*Phainopepla nitens*
Cactus Wren	*Campylorhynchus brunneicapillus*	Prairie Falcon	*Falco mexicanus*
Canyon Wren	*Catherpes mexicanus*	Pyrrhuloxia	*Cardinalis sinuatus*
Cinnamon Teal	*Spatula cyanoptera*	Red-tailed Hawk	*Buteo jamaicensis*
Cliff Swallow	*Hirundo pyrrhonota*	Red-winged Blackbird	*Agelaius phoeniceus*
Common Ground-dove	*Columbina passerina*	Rock Dove	*Columba livia*
Common Poorwill	*Phalaenoptilus nuttallii*	Rock Wren	*Salpinctes obsoletes*
Common Raven	*Corvus corax*	Say's Phoebe	*Sayornis soya*
Cooper's Hawk	*Accipiter cooperii*	Song Sparrow	*Melospiza melodic*

Common Name	Scientific Name	Common Name	Scientific Name
Costa's Hummingbird	*Calypte costae*	Townsend's Warbler	*Setophaga townsendi*
Crissal Thrasher	*Toxostoma crissale*	Turkey Vulture	*Catharses aura*
Curve-billed Thrasher	*Toxostoma curvirostre*	Vaux's Swift	*Chaetura vauxi*
Elf Owl	*Micrathene whitneyi*	Verdin	*Auriparus flaviceps*
European Starling	*Sturnus vulgaris*	Vermilion Flycatcher	*Pyrocephalus rubinus*
Gambel's Quail	*Callipepla gambelii*	Warbling Vireo	*Vireo gilvus*
Gila Woodpecker	*Melanerpes uropygialis*	Western Burrowing Owl	*Athene cunicularia hypugaea*
Gilded Flicker	*Colaptes chrysoides*	Western Kingbird	*Tyrannus verticalis*
Gray Flycatcher	*Empidonax wrightii*	Western Meadowlark	*Sturnella neglecta*
Great Horned Owl	*Bubo virginianus*	Western Screech Owl	*Opus kennicottii*
Greater Roadrunner	*Geococcyx californianus*	Western Tanager	*Piranga ludoviciana*
Great-tailed Grackle	*Quiscalus mexicanus*	White-crowned Sparrow	*Zonotrichia leucophrys*
Green-tailed Towhee	*Pipilo chlorurus*	White-throated Swift	*Aeronautes saxatalis*
Hermit Thrush	*Catharus guttatus*	White-winged Dove	*Zenaida asiatica*
Hooded Oriole	*Icterus cucullatus*	Wilson's Warbler	*Cardellina pusilla)*
Horned Lark	*Eremophila alpestris*	Yellow Warbler	*Setophaga petechia*
House Finch	*Haemorhous mexicanus*	Yellow-rumped Warbler	*Setophaga coronata*

Table D-4. Reptile Species Potentially Occurring in the Project Area

Common Name	Scientific Name
American Bullfrog	*Lithobates catesbeianus*
Arizona Coral Snake	*Micruroides euryxanthus*
Arizona Glossy Snake	*Arizona elegans noctivaga*
Black-Tailed Rattlesnake	*Crotalus molossus*
Checkered Garter Snake	*Thamnophis marcianus*
Common Chuckwalla	*Sauromalus ater*
Common Kingsnake	*Lampropeltis getula*
Common Side-Blotched Lizard	*Uta stansburiana*
Common Zebra-Tailed Lizard	*Callisaurus draconoides*
Couch's Spadefoot	*Scaphiopus couchii*
Desert Collared Lizard	*Crotaphytus bicinctores*
Desert Horned Lizard	*Phrynosoma platyrhinos*
Desert Iguana	*Dipsosaurus dorsalis*
Desert Spiny Lizard	*Sceloporus magister*
Desert Tortoise	*Gopherus morafkai*
Gila Monster	*Heloderma suspectum*
Gopher Snake	*Pituophis catenifer*
Great Plains Toad	*Anaxyrus cognatus*

Common Name	Scientific Name
Long-Nosed Leopard Lizard	*Gambelia wislizenii*
Long-Tailed Brush Lizard	*Urosaurus gracious*
Mojave Rattlesnake	*Crotalus scutulatus*
Night Snake	*Hypsiglena torquata*
Ornate Tree Lizard	*Urosaurus ornate*
Red Racer	*Masticophis flagellum*
Red-Spotted Toad	*Anaxyrus punctatus*
Rosy Boa	*Lichanura trivirgata*
Sonoran Desert Toad	*Bufo alvarius*
Sonoran Mud Turtle	*Kinosternon sonoriense*
Sonoran Sidewinder	*Crotalus cerastes cercobombus*
Southwestern Black-Headed Snake	*Tantilla hobartsmithi*
Speckled Rattlesnake	*Crotalus mitchellii*
Spiny Softshell	*Apalone spinifera*
Spotted Leaf-Nosed Snake	*Phyllorhynchus decurtatus*
Variable Sandsnake	*Chilomeniscus stramineus*
Western Banded Gecko	*Coleonyx variegatus*
Western Blind Snake	*Leptotyphlops humilis*
Western Diamond-Backed Rattlesnake	*Crotalus atrox*
Western Ground Snake	*Sonora semiannulata*
Western Long-Nosed Snake	*Rhinocheilus lecontei*
Western Lyre Snake	*Trimorphodon biscutatus*
Western Patch-Nosed Snake	*Salvadora hexalepis*
Western Shovel-Nosed Snake	*Chionactis occipitalis*
Whiptail	*Aspidoscelis tigris*
Woodhouse's Toad	*Anaxyrus woodhousii*

Conclusion

Based on the assessment in this exhibit, the Interconnection Project would have low impacts to biological resources and would be environmentally compatible (see Summary of Potential Effects above).

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EXHIBIT E. SCENIC AREAS, HISTORIC SITES AND STRUCTURES, AND ARCHAEOLOGICAL SITES

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

> *Describe any existing scenic areas, historic sites and structures or archaeological sites in the vicinity of the proposed facilities and state the effects, if any, the proposed facilities will have thereon.*

Scenic Areas and Visual Resources

Overview

This section of Exhibit E addresses the inventory of and potential effects to scenic or visual resources in relation to construction and operation of the Interconnection Project. Specifically, this portion of Exhibit E includes a description of the methodology for assessing visual resources, an inventory of scenic resources and sensitive viewers near the Interconnection Project, and a discussion of the potential effects of the Interconnection Project.

Methodology

The purpose of the visual impact assessment is to identify and characterize the level of visual modification in the landscape that would result from the construction and operation of the Interconnection Project. Visual impacts are typically described in terms of the visual contrast created by a project, which can potentially affect both scenic quality and sensitive viewers. Scenic quality refers to the general characteristics and inherent aesthetic value of the landscape as a resource, regardless of specific viewers. The term "sensitive viewers" refers to specific individuals and/or groups whose views could be affected by a project. The methods used to conduct this visual impact assessment are consistent with past visual resource studies conducted for similar projects that have been approved by the Siting Committee.

The Interconnection Project team developed an inventory of visual resources in the vicinity of the Interconnection Project by reviewing publicly available geographic information system (GIS) data, aerial photography, and completing on-site field verification and photographic documentation. A desktop review was conducted to identify any sites in the vicinity of the Interconnection Project that meet the following definition of "scenic area" provided in the Arizona Administrative Code at R17-3-701(A)(1)(i):

> *. . . any area of particular scenic beauty or historical significance as determined by the federal, state, or local officials having jurisdiction thereof, and includes interests in land which have been acquired for the restoration, preservation, and enhancement of scenic beauty.*

Scenic areas so defined would include such sites as national or state parks and monuments, designated scenic overlooks, and wild and scenic river segments.

To assess how the Interconnection Project may visually modify the existing landscape, SWCA developed photo-realistic visual simulations of project components from representative positions referred to as key observation points (KOPs). In selecting KOPs, SWCA visited the area in June 2022, to evaluate

potentially sensitive vantage points from which the Interconnection Project would be visible. SWCA ultimately selected two KOPs; existing conditions were photographed from each KOP for the purpose of creating visual simulations.

- KOP-1 is located approximately 1 mile northeast of the step-up substation and represents views from westbound travelers on Palomas Road.
- KOP-2 is located approximately 0.15 mile south of the step-up substation and represents views from eastbound travelers on Palomas Road.

Photo-realistic simulations of the project components were made using ArcGIS, Google Earth Pro, Autodesk products (AutoCAD and 3DS Max), and Adobe Photoshop software for each KOP (see Exhibits E-1 and E-2). Developing visual simulations involves creating a three-dimensional model of project components, positioning the modeled components on a digital elevation model of the area, and superimposing the resulting model onto the KOP photographs of existing conditions, at the correct scale and distance. Date and time-of-day inputs determine shadows and reflected light, and the software accounts for distance and haze to increase accuracy of viewing conditions.

Using the resulting visual simulations, the Interconnection Project team evaluated the potential for impacts to both scenic quality and sensitive viewers by evaluating the visual contrast the Interconnection Project would have with the existing landscape. A visual contrast analysis involves a qualitative discussion of anticipated changes in contrast between the existing landscape and the proposed facilities. Factors taken into consideration for such an analysis include distance of the proposed project elements from the viewer, existing landforms, vegetation, and built features present in the landscape. Visual contrast is described in terms of the degree of perceivable change in the basic design elements of form, line, color, texture, and scale that would be evident by the introduction of a particular project.

The level of perceived contrast between the proposed facilities and the existing landscape is classified using the following definitions:

- None: The contrast is not visible or perceived.
- Weak: The resulting contrast can be seen but does not attract attention.
- Moderate: The resulting contrast begins to attract attention and begins to dominate the characteristic landscape.
- Strong: The resulting contrast demands attention, would not be overlooked, and is dominant in the landscape.

“Sensitive viewers” refers to individuals for whom a project may be visible and may be sensitive to potential changes in the scenery. Regarding sensitive viewers, perceived contrast is dependent on several factors, including viewing distance, duration of view, viewing condition, and degree of visibility. When combined, these factors indicate the overall visual dominance of a new features in a landscape.

“Viewing distance” refers to the viewer’s distance from a particular feature. The assessment of visual impacts is predicated on the fact that a person’s ability to discern details decreases as viewing distance increases. The duration of view refers to the length of time and associated viewing angle; generally, a viewer’s attention is attracted to a higher degree as the duration of view increases. Viewing conditions refer to whether the viewer is looking down at a feature from a superior position, looking up at a feature from an inferior position, or viewing it from a similar elevation (i.e., a neutral view). “Degree of visibility” refers to whether views of a feature are open and unobstructed, or partially to fully obstructed by the existing landscape (i.e., topography, vegetation, or built features). The degree of visibility also

refers to whether a feature would be visible against the sky (i.e., skylined) or viewed against a backdrop of landforms, vegetation, and/or built features.

In general, residential and recreational viewers are considered to have higher sensitivities to visual changes in a landscape, while viewers moving along travel routes are considered to have low to moderate sensitivities (unless traveling along a designated scenic travel route).

Inventory Results

No designated scenic areas are in the vicinity of the Interconnection Project.

The landscape surrounding the Interconnection Project is characterized by a flat plain stretching into the distance with low mountains defining the horizon in several directions. The plain appears sparsely vegetated with shrubs; in places small trees (e.g., mesquite and tamarisk) grow densely along Palomas Road. From the vantage point of the road, the foreground is dominated by a railroad track elevated above road level, telephone and electrical distribution lines, the lattice steel towers and conductors of two 500kV transmission lines (i.e., HANG1 and HANG2), and the Hoodoo Wash Switchyard. On the north side of the road, the solar panels of the Agua Caliente Solar Project present a relatively low, but often discernible profile.

A small cluster of agriculture-related buildings, including what may be a residence, is located just over 1 mile west of the Interconnection Project. An operations and maintenance building associated with the Agua Caliente Solar Project is located approximately 0.3 mile east of the Interconnection Project. Other than these buildings, some apparently abandoned structures, and the utilities and infrastructure described above, the land within a 2-mile radius of the Interconnection Project is vacant desert or agricultural fields.

Visual Contrast Analysis and Potential Effects

Impacts to scenic resources were evaluated by assessing changes to the characteristic landscape (i.e., contrasts with existing conditions) that would result from the construction of the proposed Interconnection Project.

Construction activities associated with the installation of the Interconnection Project would introduce temporary visual contrasts to the form, line, color, and texture of the existing characteristic landscape. During construction, contrasts would result from removal of vegetation, fugitive dust, and temporary storage of equipment and materials. In addition, vehicles and equipment would be visible during construction. In general, contrasts related to construction would be weak to moderate, depending on the viewer's distance from the construction site and vantage point—vegetation along the road and the railroad track embankment often obscure the view. The type of heavy equipment in use (e.g., cranes) and level of activity would also influence visual contrast.

Once constructed, transmission equipment for the Interconnection Project (e.g., structures, conductors) would be similar in form, line, color, and texture as compared to existing electrical infrastructure in the area (see Exhibits E-1 and E-2). Given that the area is relatively flat with few obstructions, the Interconnection Project would be visually consistent with existing transmission infrastructure from virtually every direction. Viewers would just see more of the same concentrated in a relatively small area. Impacts to sensitive viewers would be low.

Most of the Interconnection Project falls within Bureau of Land Management (BLM)–administered land; in the BLM's Finding of No Significant Impact for an earlier – but similar – interconnection design, the BLM found that "the visual impacts from the line following construction would be consistent with

existing solar and transmission facilities in the area and the management and Class IV visual designations on these lands" (BLM 2020; Exhibit B-2). BLM's Visual Resource Management (VRM) Class IV designation allows "the level of change to the characteristic landscape to be high. Management activities may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting" (BLM 2022).

The Applicant further submits that co-locating a portion of the Interconnection Project on double-circuit towers with the existing HANG2 transmission line minimizes potential visual impacts by consolidating electrical infrastructure and reducing the number of new transmission structures.

Conclusion

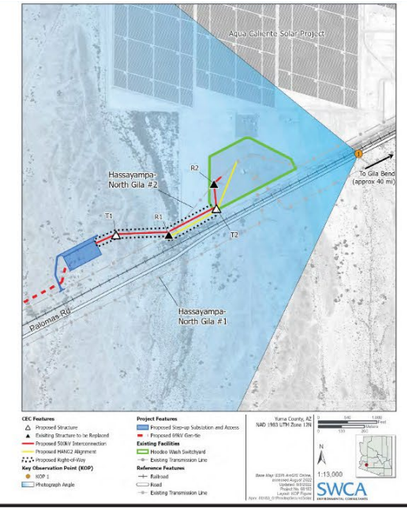
Overall, the Interconnection Project would be similar in form, line, color, texture, and scale as compared to existing electrical infrastructure, including HANG1 and HANG2, the Hoodoo Wash Switchyard, and the Agua Caliente Solar Project. Therefore, constructing the Interconnection Project would result in a weak degree of visual contrast.

Existing Condition KOP 1: View from Palomas Road looking southwest

Simulated Condition KOP 1: View from Palomas Road looking southwest

Proving Ground Solar | June 2022
Simulation from KOP 1: View from Palomas Road looking southwest

Viewing Location



Typical 500kV Structures

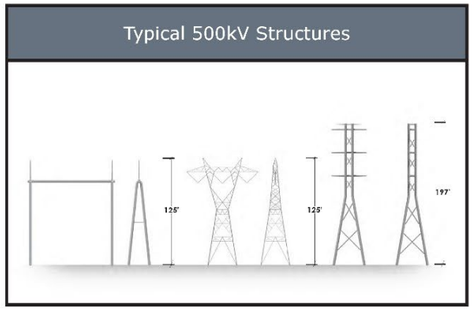


Photo Date and Time: August 31, 2021, 9:00 am

View Location: Approximate distance to nearest new structure from photo location is 0.45 miles.

Simulations were prepared using information provided by Strata Clean Energy. Structure locations, colors, and heights may be different based on final engineering and design.

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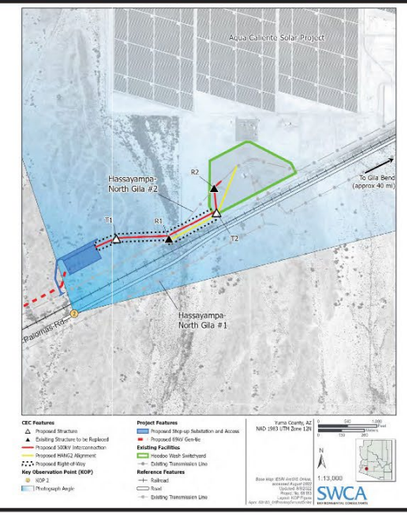
Exhibit E-1. Photosimulation showing the Interconnection Project from KOP-1.

Existing Condition KOP 2: View from Palomas Road looking northeast

Simulated Condition KOP 2: View from Palomas Road looking northeast

Proving Ground Solar | June 2022
Simulation from KOP 2: View from Palomas Road looking northeast

Viewing Location



Typical 500kV Structures

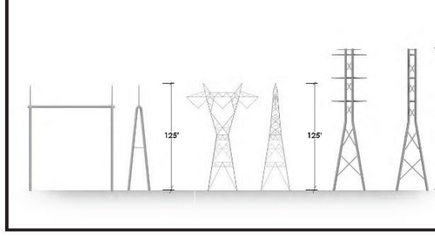


Photo Date and Time: August 31, 2021, 9:00 am

View Location: Approximate distance to nearest new structure from photo location is 0.23 miles.

Simulations were prepared using information provided by Strata Clean Energy. Structure locations, colors, and heights may be different based on final engineering and design.

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Exhibit E-2. Photosimulation showing the Interconnection Project from KOP-2.

Historic Sites and Structures, and Archaeological Sites

As required by the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219, SWCA Environmental Consultants (SWCA) assessed the potential effects of the proposed Interconnection Project on historic sites and structures and archaeological sites. The assessment also was prepared to support Arizona Corporation Commission compliance with the State Historic Preservation Act (Arizona Revised Statutes 41-861 through 41-864), which requires state agencies to consider impacts of their programs on historic properties listed in or eligible for listing in the Arizona Register of Historic Places (ARHP), and to provide the State Historic Preservation Office (SHPO) an opportunity to review and comment on the actions that affect such historic properties.

To be eligible for the ARHP, a property must be at least 50 years old (less, if they have special significance) and have national, state, or local significance in American history, architecture, archaeology, engineering, or culture. It should also possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet at least one of the four following criteria:

- Criterion (a): be associated with an event that made a significant contribution to the broad pattern of history
- Criterion (b): be associated with the life of a historically significant person
- Criterion (c): embody a distinctive characteristic of a type, period, or method of construction, represent the work of a master, possesses high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction
- Criterion (d): have yielded or be likely to yield important pre-historical or historical information.

Methodology

SWCA archaeologists completed a Class I inventory of approximately 133 acres of land managed by the Bureau of Land Management (BLM) that included approximately 5.85 acres of the proposed Interconnection Project area. The purpose of the Class I inventory was to identify any previously recorded cultural features on BLM land that might be affected by components of the Proposed Proving Ground Solar+Storage Project. The archaeologists also conducted a Class III field survey of the 133-acre area (survey area) on March 15–16, 2022. The archaeologists covered 100% of the survey area using parallel transects spaced no more than 15 meters apart.

Data sources searched as part of the Class I inventory include a files review at the BLM Yuma Field Office, the Arizona State Museum (ASM) Archaeological Records Office, ASM's GIS-based site record system (AZSITE), the National Register of Historic Places database, and General Land Office plat maps and historic-era topographic maps.

Results

No previously recorded or new archaeological sites were identified within the 133-acre survey area; however, 11 prehistoric and historic isolated occurrences (IOs) were recorded during the field survey. The IOs are recommended ineligible and do not meet the current ASM site definition criteria. In addition, two sites, the Horn Railroad Station and Camp Horn, a World War II infantry divisional training camp, are depicted in AZSITE as overlapping with the survey area. The Horn Railroad Station has been recommended eligible for inclusion in the ARHP, while Camp Horn has been recommended ineligible. No evidence of the Horn Railroad Station is present in the survey area, but the remains of Horn Railroad

Station are visible from the survey area on the southeast side of the railroad tracks. The portion of Camp Horn in the survey area has been destroyed from ongoing agricultural activities.

No previously recorded or new archaeological sites were identified within or overlap with the Interconnection Project portion of the survey area; however, one of the 11 IOs, a cluster of glass and ceramic insulators and broken glass, was recorded within the Interconnection Project area. The Horn Railroad Station is approximately 0.4 mile southwest of the Interconnection Project area, while the Camp Horn site is approximately 1.8 miles to the west.

Assessment of Effects

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the ARHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties include, but are not limited to, the following:

- Physical destruction of or damage to all or part of the property
- Removal of the property from its historic location
- Change of the character of the property's use of physical features within the property's setting that contribute to its historic significance
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic characteristics
- Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe
- Transfer, lease, or sale of a property out of government ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance

DIRECT EFFECTS

No cultural resources were identified within the Interconnection Project area, and none would be directly affected by the Project.

INDIRECT EFFECTS

The records review identified one eligible historic property approximately 0.4 mile from the Interconnection Project. Four transmission/distribution lines and associated infrastructures currently exist in the surrounding area, and the construction of the Interconnection Project would introduce another, similar visual element to the area. This addition would not diminish the integrity of the characteristics of the property for which it has been recommended eligible for the ARHP.

Conclusion

Considering the above information, the Interconnection Project is not expected to have any impacts on any cultural resources.

Literature Cited

Bureau of Land Management (BLM). 2020. Viktoria Gen-Tie Project, DOI-BLM-AZ-C020-2019-0031-EA. Finding of No Significant Impact. January 23, 2020.

———. 2022. Bureau of Land Management Visual Resource Management Classes. Available at: https://blmwyomingvisual.anl.gov/vr-mgmt/blm/. Accessed March 14, 2022.

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EXHIBIT F. RECREATION

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-Exhibit 1, the intent of this exhibit is to:

> *State the extent, if any, the proposed site or route will be available to the public for recreational purposes, consistent with safety considerations and regulations and attach any plans the applicant may have concerning the development of the recreational aspects of the proposed site or route.*

No developed recreational facilities or parks are present within or near the Interconnection Project.

Hunting is permitted on the portion of the Project Area on Bureau of Land Management land, which falls within the Arizona Game and Fish Department's (AGFD's) Game Management Unit 41. Game species identified by the AGFD as possibly occurring in the Project Area include mule deer (*Odocoileus hemionus*), Gambel's quail (*Callipepla gambelii*), white-winged dove (*Zenaida asiatica*), and mourning dove (*Zenaida macroura*) (see Exhibit C-2). While dispersed recreation like hunting may take place in or near the Interconnection Project, given the area's relatively poor habitat and proximity to utilities and Palomas Road, recreational use is likely minimal, if it occurs at all.

The Applicant has no plans for developing or facilitating recreational opportunities along the Interconnection Project.

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EXHIBIT G. CONCEPTUAL DRAWINGS OF TRANSMISSION FACILITIES

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

> *Attach any artist's or architect's conception of the proposed plan or transmission line structures and switchyards, which applicant believes may be informative to the committee.*

Exhibit G-1: Proposed 500kV tubular structure

Exhibit G-2: Typical 500kV monopole structure

Exhibit G-3: Typical 500kV lattice structure

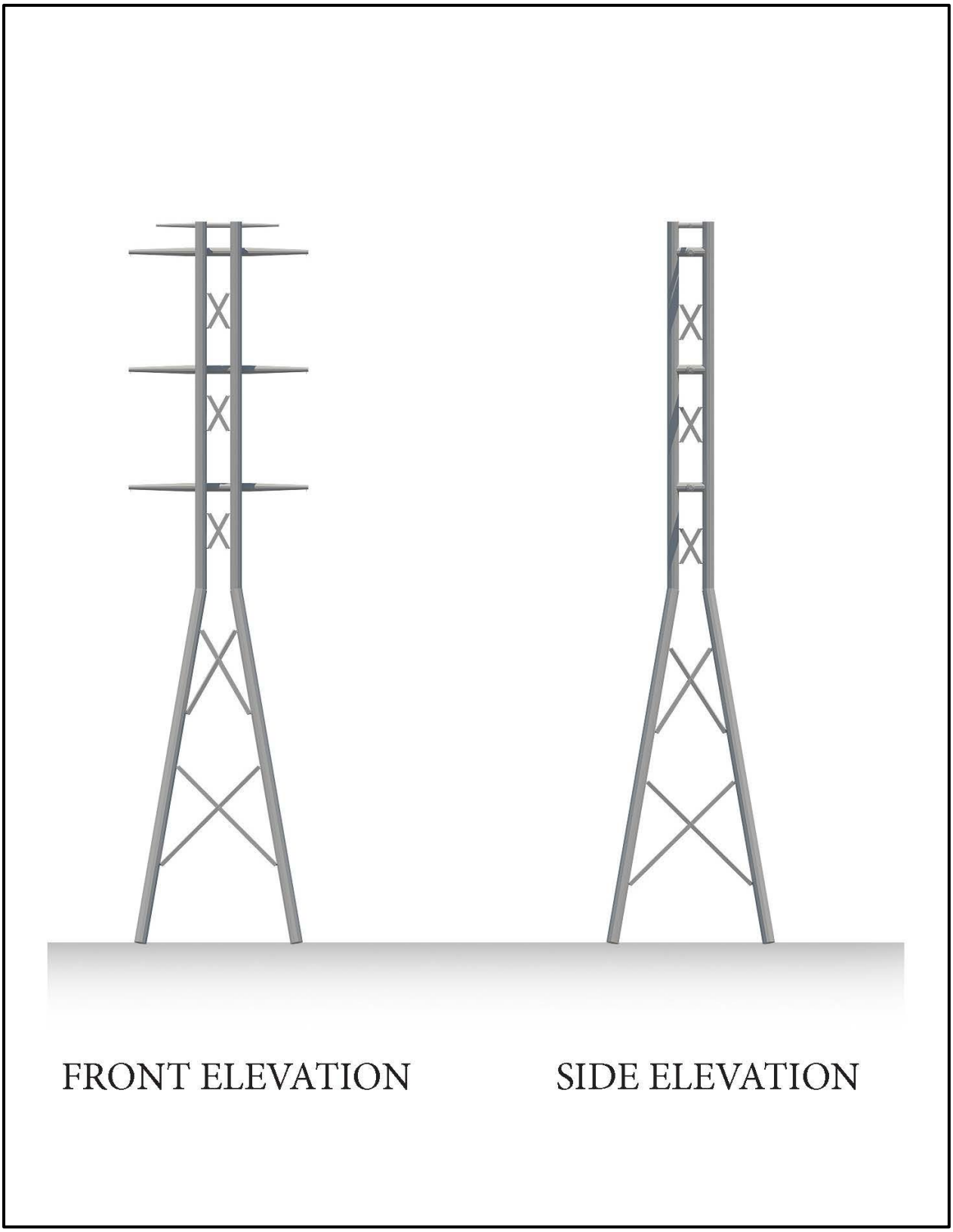

Exhibit G-1. Proposed 500kV tubular structure diagram.

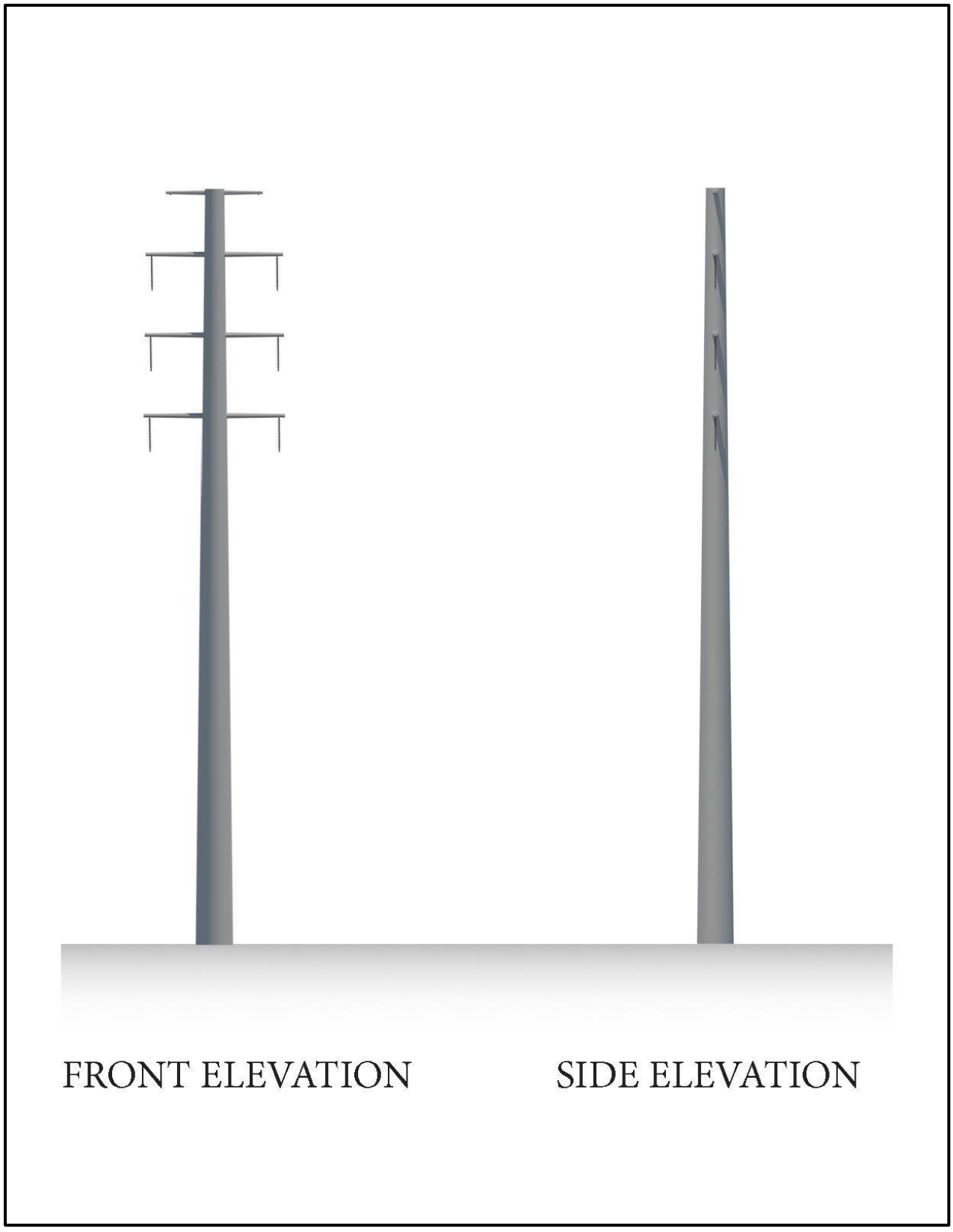

Exhibit G-2. Typical 500kV monopole structure.

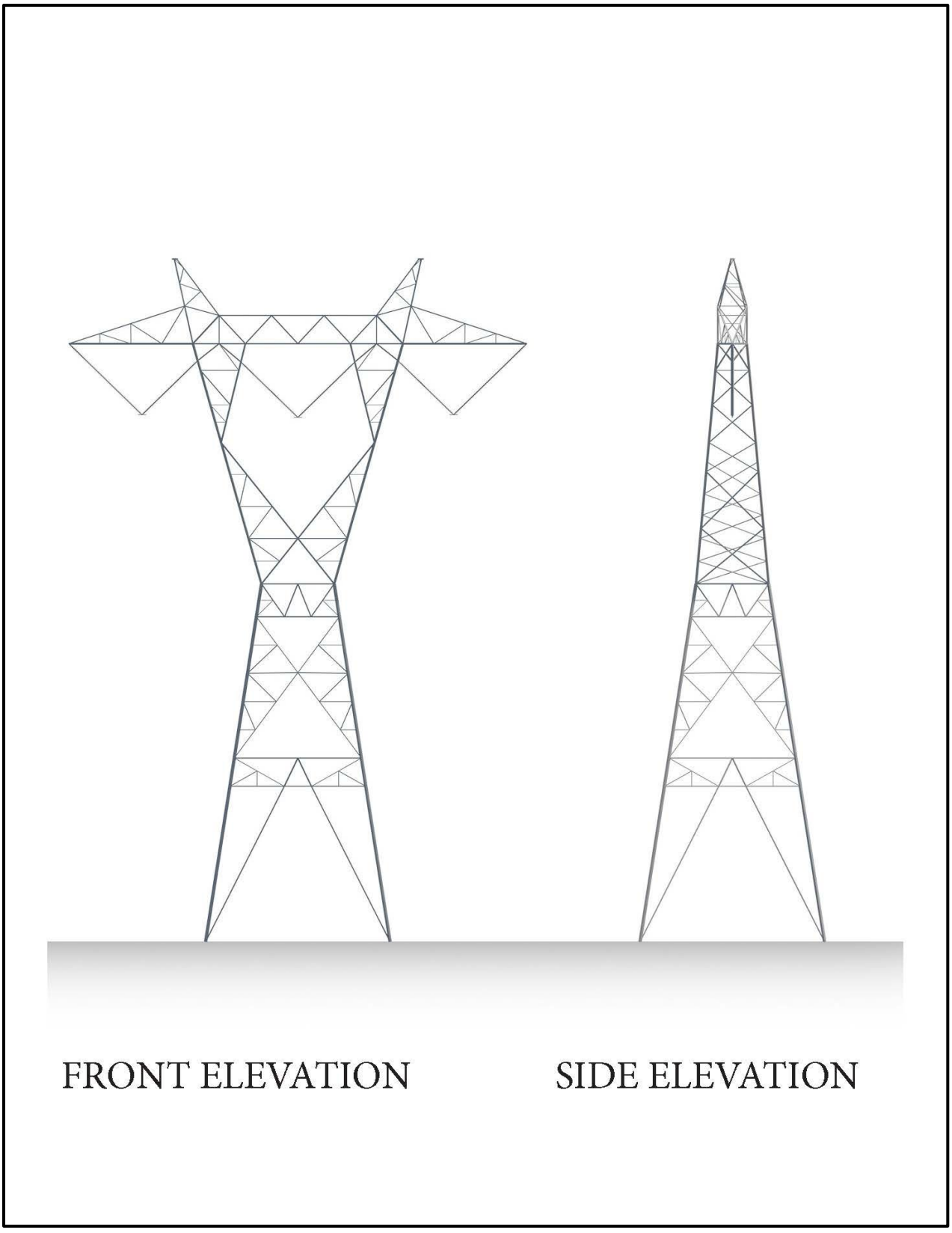

Exhibit G-3. Typical 500kV lattice structure.

EXHIBIT H. EXISTING PLANS

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-220, Ex. H:

> *To the extent applicant is able to determine, state the existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site or route.*

Overview

Land use in and around the Interconnection Project is mapped in Exhibits A-2 and A-3 and discussed in Exhibit B. SWCA Environmental Consultants (SWCA) reviewed the 2020 Yuma County Comprehensive Plan and online interactive maps from Yuma County, which include planning and zoning information. To identify the existing plans of state, local government, and private entities, the Interconnection Project team mailed a letter requesting information on planned/future development in the vicinity of the Interconnection Project to a list of agency and jurisdictional entities. In addition, the Interconnection Project team reviewed publicly available information regarding other renewable energy developments with a stated intention to interconnect at the Hoodoo Wash Switchyard. Overall, no existing plans for other developments were identified that would be incompatible with the Interconnection Project.

Outreach Letters

In August 2022, the Interconnection Project team mailed letters to a broad group of stakeholders (listed in Table H-1) to provide information about the Interconnection Project and request new or additional information regarding planned developments. Exhibit H-1 provides a copy of the letter. Exhibit H-2 includes a written response from the Arizona Department of Game and Fish.

Table H-1. Entities that Received Letters with Information on the Interconnection Project

Contact Name	Title	Jurisdiction/Agency/Entity
Ginger Ritter	Project Evaluation Supervisor	Arizona Game and Fish Department
Ruben Ojeda	Manager, Right-of-Way Section	Arizona State Land Department
Alejandro Figueroa	Director	Yuma County Economic Development & Intergovernmental Affairs
Joshua Scott	Director	Yuma County Public Works
Kathryn Leonard	State Historic Preservation Officer	State Historic Preservation Office
Aron King	Yuma Manager	Bureau of Land Management
Randall Crist	Interim Director	City of Yuma
Shelly Hook	Development Project Coordinator	City of Yuma
Raul Amavisca	District Maintenance Superintendent	Arizona Department of Transportation
*	*	Wellton-Mohawk Irrigation and Drainage District
Jason Spitzkoff	Manager of Transmission Planning, Transmission Contracts and Services, and Facilities Siting	Arizona Public Service

Contact Name	Title	Jurisdiction/Agency/Entity
*	*	U.S. Fish and Wildlife Service, Arizona Ecological Services
Craig Sellers	Development Services Director	Yuma County Department of Development Services

* indicates that the letter was addressed to the jurisdiction/agency/entity in general, rather than to a specific person.

Existing Plans for Other Developments

In addition to the Solar Project, the Interconnection Project team is aware of two planned utility-scale solar energy developments in the vicinity of the Interconnection Project—the White Wing Ranch and McFarland Solar Projects— that have received Special Use Permits (SUPs) from Yuma County. Both projects are sited on private land, and both have applied for interconnection with the Hoodoo Wash Switchyard.

White Wing Ranch Solar Project

The White Wing Ranch Solar Project is a proposed photovoltaic solar energy generation and storage project located north of the existing Agua Caliente Solar Project. Planned by a subsidiary of the developers of the adjacent Agua Caliente Solar Project, White Wing Ranch received a SUP from Yuma County in March 2016 and applied for a Certificate of Environmental Compatibility for its 3.5-mile transmission line and associated substation facilities in August 2016 (White Wing Ranch North, LLC 2016). The status of the White Wing Ranch Solar Project is unknown to the Interconnection Project team.

McFarland Solar Project

The McFarland Solar Project is a proposed 500 MW photovoltaic solar energy generation and storage project located south of the Interconnection Project (and south of Palomas Road) (ACC 2022).
The Interconnection Project team understands that the McFarland Solar Project received at least three SUPs for various phases of development. To accommodate the McFarland Solar Project's request to interconnect to the Hoodoo Wash Switchyard, APS submitted a request to the ACC in January 2022 to amend CEC-52, which originally authorized construction of HANG-1 (ACC 2022). In March 2022, the ACC approved the requested amendment to CEC-52 thus allowing construction of the McFarland Solar Project to proceed (ACC 2022).

Other

Another four proposed solar and/or storage projects in Yuma County are in the queue for interconnection to the Hoodoo Wash Switchyard, listed in Table H-2, below (California Independent System Operator Corporation 2022).

Table H-2. Proposed Interconnections to the Hoodoo Wash Switchyard

Project	Queue Date	Type-1	Type-2	Net MWs to Grid	On-line Date
Houdini	4/15/2019	Storage	Photovoltaic	450	5/31/2023
Elisabeth	4/15/2020	Photovoltaic	Storage	350	12/31/2024
Remy	4/15/2021	Storage	Photovoltaic	300	12/1/2025

Project	Queue Date	Type-1	Type-2	Net MWs to Grid	On-line Date
Winged Dove Storage	4/15/2021	Storage	–	400	4/15/2025

Furthermore, Elisabeth Solar, LLC, an affiliate of Leeward Renewable Energy, LLC, the owner of the existing Agua Caliente Solar Project, has three leases pending for a total of 8,427 acres of Bureau of Land Management land surrounding the Agua Caliente Solar Project, incorporating the entirety of the 2,560-acre Agua Caliente Solar Energy Zone (Solar Energy Zones 2022).

August 9, 2022

Re: Request for information regarding existing plans for developments in the vicinity of the proposed Proving Ground interconnection transmission line in Yuma County

Dear Interested Party,

Arizona Public Service Company (APS) plans to apply to the Arizona Corporation Commission for a Certificate of Environmental Compatibility (CEC) for an electrical transmission line that Strata Clean Energy (previously known as Viktoria Solar, LLC) plans to construct in support of a solar energy facility in Yuma County, Arizona. APS and Strata request any information you may have related to existing plans for developments in the vicinity of the proposed transmission line.

Strata is planning to build Proving Ground Solar+Storage, a 250-megawatt (MW) solar photovoltaic generating facility with battery storage (project), an approximately 6-mile-long double circuit 69-kilovolt (69kV) generation intertie transmission line (gen-tie), a step-up substation, and an interconnection transmission line from the step-up substation to the Hoodoo Wash Switchyard on the north side of Palomas Road, north of Dateland, Arizona. The interconnection line would be an approximately 3,000-foot-long, 500kV transmission line. The project will be located on approximately 2,050 acres of privately owned land. The gen-tie and step-up substation will be located on rights-of-way from the Arizona State Land Department and Bureau of Land Management; the 500kV interconnecting line will be located on rights-of-way from the Bureau of Land Management and across private property.

The proposed 500kV interconnection transmission line and a 5-mile buffer are shown on the enclosed figure. Additional up-to-date information is available on the project's website: swcavirtualpublicinvolvement.com/proving-ground or aps.com/provingground.

APS and Strata request any information you may have regarding other planned development within the 5-mile buffer area. The requested information is required by the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219, which states:

To the extent applicant is able to determine, state the existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site or route.

If you are aware of any development plans within the identified buffer area that you can share with us, we will be very appreciative. Comments or questions can be delivered to Collin Ramsey at cramsey@strataceanenergy.com, 949-842-8132, or Strata Clean Energy, LLC, 800 Taylor St., Suite 200 Durham, NC 27701.

Sincerely,

Collin Ramsey
Senior Development Manager
Strata Clean Energy

Attachment (map)

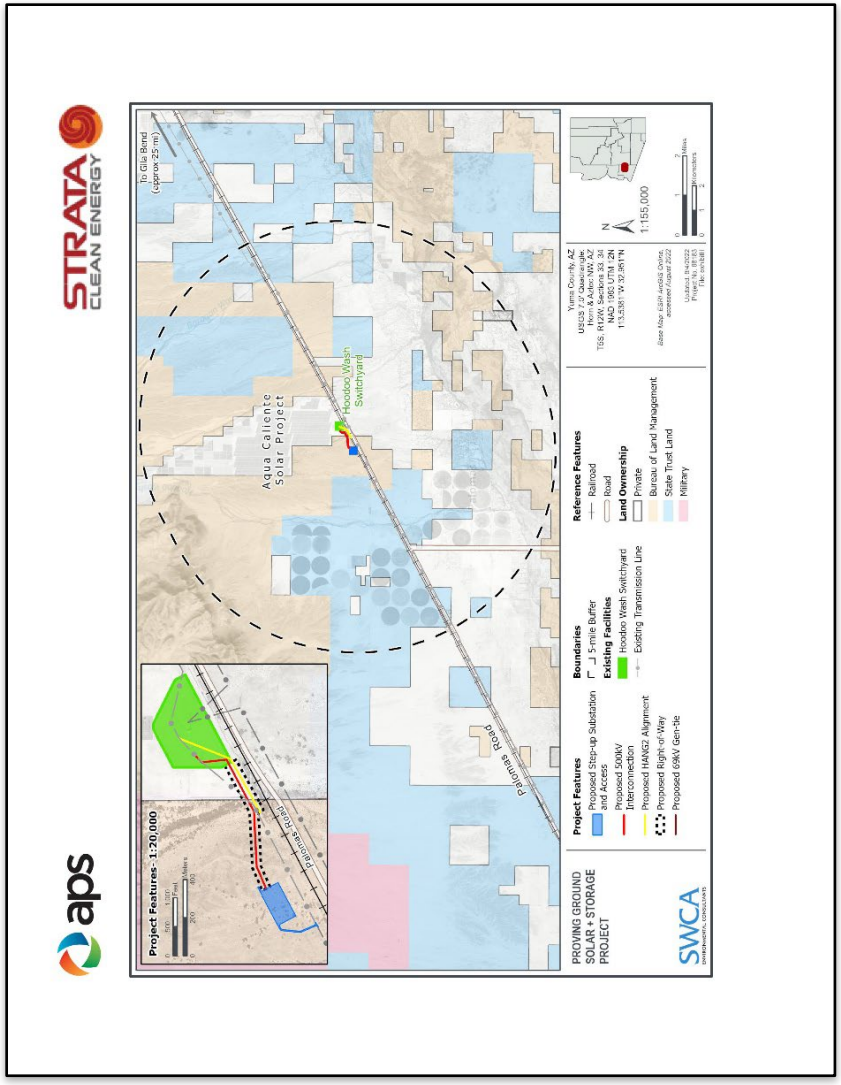

Exhibit H-1. Example August 2022 Exhibit H letter.

September 13, 2022

Mr. Collin Ramsey
Strata Clean Energy, LLC
800 Taylor Street, Suite 200
Durham, North Carolina 27701

Electronically submitted to cramsey@stratacleanenergy.com and
ProvingGroundSolar@swca.com

RE: APS Proving Ground Solar+Storage Generation Intertie Transmission Line

Dear Mr. Ramsey:

The Arizona Game and Fish Department (Department) appreciates the opportunity to review the notice of intent to file an application for a Certificate of Environmental Compatibility (CEC) to the Arizona Corporation Commission for the proposed Proving Ground Solar+Storage project. The Department understands the 250MW photovoltaic (PV) solar and storage project is proposed for 2,050 acres of private land. The proposed 6-mile 69kV generation intertie transmission line (gen-tie), step-up substation, and 3,000-foot 500kV transmission line to the Hoodoo Wash Switchyard would occur on Arizona State Land Department and Bureau of Land Management lands.

Under Title 17 of the Arizona Revised Statutes, the Department, by and through the Arizona Game and Fish Commission (Commission), has jurisdictional authority and public trust responsibilities to conserve and protect the state fish and wildlife resources. In addition, the Department manages threatened and endangered species through authorities of Section 6 of the Endangered Species Act and the Department's Section 10(a)(1)(A) permit. It is the mission of the Department to conserve and protect Arizona's diverse fish and wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

The Department recognizes the importance of planning efforts that contribute to the county and the state's economic growth needs and opportunities to develop renewable energy locations. The Department recognizes that appropriate coordination, proper planning, and voluntary implementation of best management practices allow projects to be developed that avoid, minimize, or offset potential impacts to wildlife habitat and populations. For your consideration, the Department provides the following comments on the project based on the agency's statutory authorities, public trust responsibilities, and special expertise related to wildlife resources and recreation:

- The endangered Sonoran pronghorn could occur in the project area and adjacent lands. Sonoran pronghorn have specific habitat requirements based on their life history and survival strategy. The Department would like to work with Strata and SWCA to minimize any potential impacts to this species and requests coordination prior to construction activities in order to exchange information on current Sonoran pronghorn use in the project area. If pronghorn are detected during project activities, please notify the U.S. Fish and Wildlife Service (USFWS) Arizona Ecological Services Office (AESO)[1] and the Department's Sonoran Pronghorn Program Lead (jbright@azgfd.gov) as soon as possible.
- Birds of prey, such as raptors, owls, vultures, and eagles, are vulnerable to powerline strikes and electrocution during construction and operation of transmission lines; power poles can also serve as perches for birds of prey. The Department recommends incorporating design features to minimize impacts to these important species, including following standards established by the Avian Power Line Interaction Committee (APLIC), which can be found in *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*[2] and *Reduced Avian Collisions with Power Lines: The State of the Art in 2012*[3]. Tuk Jacobson, the Department's Raptor Coordinator, can provide further information on specific design features and best management practices; he can be contacted at raptors@azgfd.gov or 623-236-7575.
- Avian species that are regulated under the Migratory Bird Treaty Act (MBTA) and protected under state law may nest within the project area. Breeding season for birds in the project vicinity is generally January through late June. If it is anticipated the project will not be in compliance with the MBTA, the Department recommends contacting the USFWS for technical assistance and compliance options. Additionally, if any nesting raptors are detected, the Department recommends planning construction activities for the non-breeding season or coordinating with the Department's Raptor Coordinator on appropriate set-backs from active raptor nests.
- If trenching will occur for the proposed project, the Department recommends that trenching and backfilling crews be close together to minimize the amount of open trenches at any given time. Where trenches cannot be back-filled immediately, the Department recommends escape ramps be constructed at least every 90 meters. Escape ramps can be short lateral trenches or wooden planks sloping to the surface. The Department recommends that slopes be less than 45 degrees (1:1) and trenches that have been left open overnight be inspected to remove animals prior to backfilling.
- Artificial lighting could impair the ability of nocturnal animals to navigate (e.g., owls, migratory birds, bats, and other nocturnal mammals), and may affect wildlife behavior and populations (Davies et. al. 2013[4]). The Department recommends using only the minimum amount of light needed for safety. The Department encourages the use of motion sensing lighting and narrow spectrum lighting as often as possible to lower the range of species affected by lighting. All lighting should be shielded, canted, or cut to ensure that light reaches only areas needing illumination.
- Washing and/or decontaminating equipment before entering and leaving the site can minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects, and pathogens. See the Arizona Department of

azgfd.gov | 928.342.0091
YUMA OFFICE: 9140 E. 28TH ST., YUMA AZ 85365

[1] https://www.fws.gov/office/arizona-ecological-services/contact-us
[2] https://www.aplic.org/uploads/files/2643/SuggestedPractices2006(LR-2).pdf
[3] https://www.aplic.org/uploads/files/15518/Reducing_Avian_Collisions_2012watermarkLR.pdf
[4] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657119

Exhibit H-2a. Written response from the Arizona Game and Fish Department.

Agriculture website[5] for a list of prohibited and restricted noxious weeds and the Arizona Native Plant Society[6] for recommendations on how to control them. To view a list of documented invasive species or to report invasive species in or near your project area, visit iMapInvasives[7], which is a national cloud-based application for tracking and managing invasive species.

- The Department's *Wildlife Compatible Fencing Guidelines*[8] provide information on how fencing impacts wildlife, ways to design fencing to prevent wildlife entanglement and impalement, and to ensure wildlife movement is not restricted. Department personnel are available as resources to help determine appropriate fencing design and layout that will achieve its objective while reducing impact to wildlife, such as leaving a 6–8-inch gap between the ground surface and bottom of the fence to allow for smaller wildlife species to move freely through the area and make use of any habitat within the project boundaries.

Thank you for the opportunity to provide input on the APS Proving Ground Solar+Storage Generation Intertie Transmission Line. For further coordination, please contact Tiffany Sprague at tsprague@azgfd.gov or 623-236-7222.

Sincerely,

Michael Sumner
Regional Supervisor, Yuma

cc:

Tyler Williford, Region IV Habitat, Evaluation, and Lands Program Supervisor
Ginger Ritter - Project Evaluation Program Supervisor
Tiffany Sprague - Project Evaluation Program Specialist

AZGFD #M22-08243714

[5] https://agriculture.az.gov/pestspest-control/agriculture-pests/noxious-weeds
[6] https://aznps.com/invas
[7] https://imap.natureserve.org/imap/services/page/map.html
[8] https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/planningFor/wildlifeFriendlyGuidelines/110125_AGFD_fencing_guidelines.pdf

Exhibit H-2b. Written response from the Arizona Game and Fish Department.

Literature Cited

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EXHIBIT I. NOISE AND INTERFERENCE

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-220, Ex. I:

> *Describe the anticipated noise emission levels and any interference with communication signals which will emanate from the proposed facilities.*

Exhibit I describes typical high-voltage transmission electrical and noise discharges, including corona discharge, audible noise, and electromagnetic fields (EMF). This exhibit also discusses acceptable noise discharges and expected impacts from the proposed Interconnection Project.

Corona

Corona is a type of electrical discharge caused by the ionization of fluid, such as air, surrounding a conductor carrying high voltage (e.g., a 500kV transmission line); certain levels of corona are associated with all energized transmission lines. The corona associated with an energized conductor can be sufficiently concentrated to produce a tiny electric discharge, resulting in very small amounts of sound, radio noise, heat, and chemical reactions of the air components. Several factors, including conductor voltage, shape, diameter, and surface irregularities (i.e., scratches, nicks, and dust) can affect a conductor's electrical surface gradient and its corona performance (EPRI 1982). Its effects vary based on voltage, height of the conductors above ground, and meteorological conditions, among others. Consequently, during periods of rain and foul weather, corona discharges increase. Because corona effects are very localized and minor, corona effects are expected to be negligible given the predominantly rural nature of the area and general lack of sensitive receptors.

Audible Noise

Audible noise is directly related to the amount of corona discharged from a conductor. When corona is discharged, a small audible noise is released. During wet or foul weather conditions the noise increases because the water droplets intake and release electrical discharges, creating a faint crackling or humming noise (EPRI 1982).

A typical measurement of audible sounds ranges between 0 A-weighted decibels (dBA) and 120 dBA, with noises over 120 dB having the potential to harm the human eardrum. In general, the total noise level from individual sources is derived logarithmically rather than arithmetically (decibels are logarithmic units). For example, if the two sound levels were equal (e.g., 30 dBA) at a given point, the resulting sound level would increase by just 3 dB (i.e., equal to 33 dBA rather than 60 dBA). If the two sound levels were not equal, the louder sound would increasingly mask the softer sound until the difference reached 10 dBA. At that point, the louder sound would completely mask the softer sound, and there would be no increase in the perceived sound level. Table I-1 shows reference noise sources and the sound levels in dBA associated with each (U.S. Department of Health and Human Services 2021).

Table I-1. Approximate Amount of dBA from Typical Events

Event	A-weighted Decibels (dBA)
Fireworks show	140–160
A jet taking off	140
Emergency vehicle sirens	110–129
Headphones, sporting events, and concerts	94–110
Motorcycle or lawnmower	80–110
Normal conversation	60–70
Whisper	20–30

*This table assumes a typical distance of the listener from each scenario. For example, a whisper or starting a lawn mower would occur within 3 feet of the listener. A listener watching a fireworks show or a jet take off would be within approximately 200 feet.

Existing Sound Levels

The Interconnection Project is in a remote rural region characterized by open desert; scattered, large-scale agricultural operations; and (increasingly) solar energy generation facilities and high-voltage transmission lines. Ambient sound levels in rural areas have been found to range from 23 to 37 dBA (mean 30 dBA) during nighttime hours and from 33 to 47 dBA (mean 40 dBA) during daytime hours (Eldred 1982). According to the U.S. Environmental Protection Agency (1981), this range roughly equates to the sound of a soft whisper at 15 feet (30 dBA) to light auto traffic at 100 feet (50 dBA).

The soundscape in the vicinity of the Interconnection Project is generally quiet, with the most obvious noise coming from intermittent traffic on Palomas Road. Additional sources of noise in the vicinity include the existing electrical infrastructure (e.g., the Hoodoo Wash Switchyard, Agua Caliente Solar Project step-up substation, HANG1 and HANG2).

The existing transmission lines can also produce noise from corona discharge. Under dry weather conditions, the audible noise from corona is minor and rarely noticed. During wet and humid conditions, which are atypical in Yuma County, water drops can collect on the conductors and increase corona activity. Under these conditions, a crackling or humming sound may be heard in the immediate vicinity of the line.

Noise-Sensitive Receptors

Noise is evaluated in terms of its potential impact on noise-sensitive receptors. Noise-sensitive receptors are locations where people reside or where the presence of unwanted sound may adversely affect the use of the land. Noise-sensitive receptors typically include residences, schools, libraries, churches, hospitals, nursing homes, auditoriums, parks, and outdoor recreation areas.

The closest noise-sensitive receptor to the Interconnection Project site is a possible residence located within a cluster of agriculture-related buildings just over 1 mile to the southwest. The potential residence is approximately 580 feet from the existing HANG2 transmission line, 1,100 feet from the existing HANG1 transmission line, and 5,800 feet from the proposed Interconnection Project.

Anticipated Noise During Project Construction

Ground-based equipment needed to construct a transmission line usually includes heavy earthmoving vehicles, cranes, compressors, generators, and trucks. The maximum instantaneous construction noise

levels from these sources typically range from 80 to 90 dBA at 50 feet from any work site (Crocker and Kessler 1982). At 5,800 feet from the Interconnection Project, where the closest potential noise-sensitive receptor is located, the sound level would approximate the maximum typical ambient rural sound level of 47 dBA, a negligible effect.

Anticipated Noise During Project Operation

The Interconnection Project involves a 500kV transmission line, which can be expected to have similar audible characteristics as the existing, nearby electrical infrastructure (e.g., the Agua Caliente step-up substation, Hoodoo Wash Switchyard, HANG2). As noted above, the cumulative effect of two similar noise sources tends to result in a total noise level perceived by a receptor that is only slightly louder than either source individually. Where two sound levels are not equal, the louder sound tends to mask the lesser source. Where audible sounds generated by the Interconnection Project would overlap those of existing electrical facilities, the resultant sound levels would increase by only small amounts. Noise generated by the Interconnection Project would likely be undetectable at the nearest potential noise-sensitive receptor (a residential property), located approximately 5,800 feet from the Interconnection Project.

Communication Signal Interference

Continuous radio frequency emissions can be generated during normal operations of transmission lines. These emissions can cause interference to AM radio and television signal reception on nearby properties. Objectionable radio frequency noise is generally a product of unintended sparking but can also be produced by corona (McDonald 2012). Such interference is commonly caused by loose hardware on the transmission line or its structures and may be remedied by maintenance activities (California Public Utilities 2005).

Transmission lines do not interfere with cellular phone tower operations or microwave communication paths. This is demonstrated by the fact that cellular phone antennas and microwave receivers are commonly mounted on transmission structures to take advantage of the added height afforded by the structures.

Existing Sources of Signal Interference

Radio frequency emissions from the existing electrical infrastructure have the potential to interfere with radio reception along Palomas Road, which is paralleled by 500kV lines (i.e., HANG1 and HANG2) on each side. The nearest potential residence to the Interconnection Project may experience radio interference from the same two transmission lines, which are approximately 580 and 1,100 feet, respectively, from the building.

Potential Project Effects

The Interconnection Project is not expected to cause signal interference where none currently exists. No residences are within 1 mile of the proposed Interconnection Project, and the one potential residence in the general area is far closer to the two existing 500kV transmission lines than it would be to the proposed Interconnection Project. If residents are not currently experiencing interference from the existing lines, they would not experience interference from the far more distant proposed Interconnection Project. For travelers on Palomas Road, radio frequency emissions from the existing 500kV transmission lines along Palomas Road would likely mask any interference from the proposed Interconnection Project.

Electric Fields

According to the National Institute of Environmental Health Sciences (NIEHS), EMF are naturally occurring when any substance has an electrical current running through it, including power lines, electrical wiring, and other electrical equipment. Electric and electromagnetic fields are found naturally occurring in the world in the range of 12 to 150 kV/meter. Electric fields created by televisions and other video display units typically occur in the range of 20 kV/meter (NIEHS 2002).

As shown in Exhibit I-1, electric fields and magnetic fields dissipate rapidly as distance increases away from a transmission line. For example, Exhibit I-1 indicates that, for a typical 500kV transmission line, electric fields occur in the range of 7.0 kV/meter directly beneath the line, 3.0 kV/meter at 65 feet, 1.0 kV/meter at 100 feet, and 0.1k V/meter at 300 feet. The nearest public roadway is Palomas Road, approximately 390 feet south of the Interconnection Project. Although the Interconnection Project would cross publicly accessible Bureau of Land Management land, there are no recreation paths or other features that would attract individuals to the area.

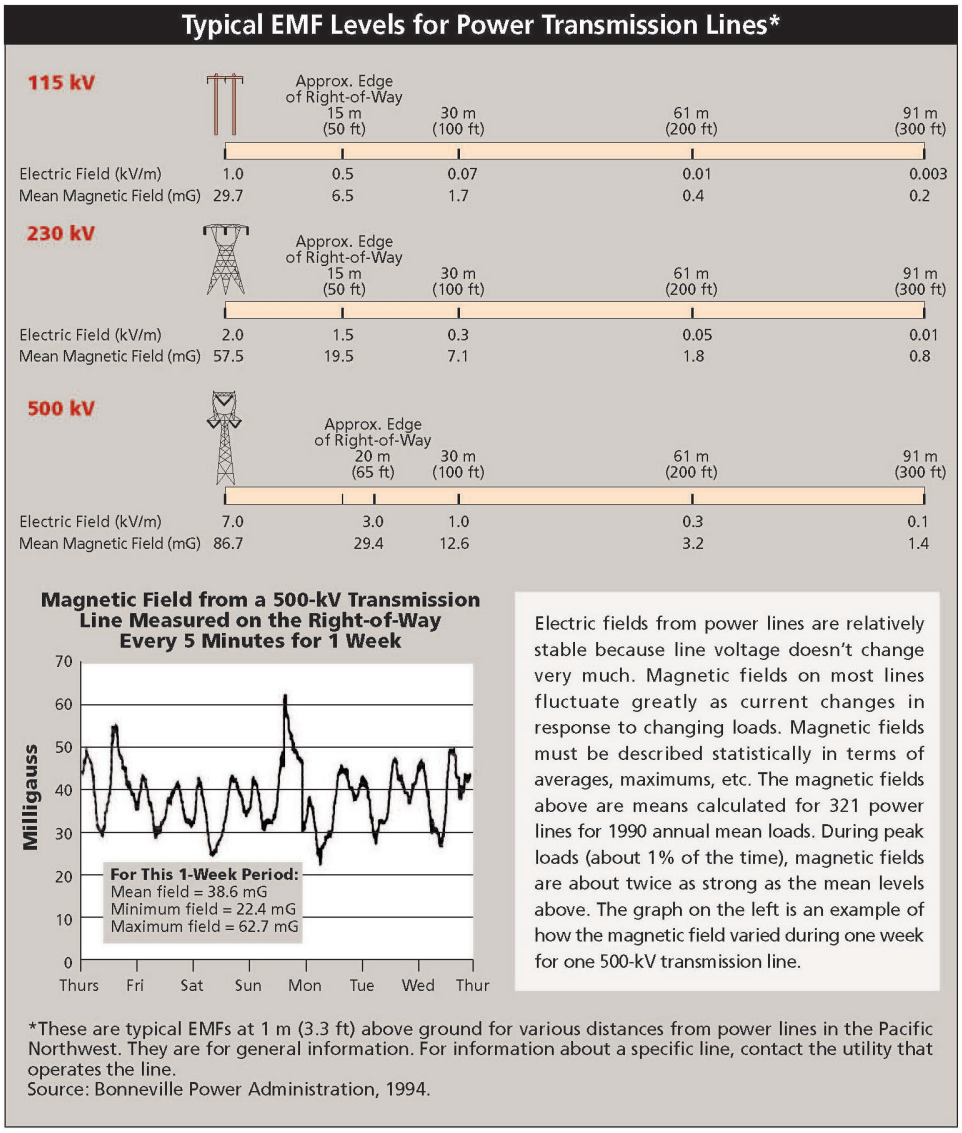

Exhibit I-1. Typical EMF Levels for power transmission lines.

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EXHIBIT J. SPECIAL FACTORS

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

> *Describe any special factors not previously covered herein, which applicant believes to be relevant to an informed decision on its application.*

Introduction

This exhibit describes the public involvement program that was conducted for the Interconnection Project. These outreach efforts provided information about the Interconnection Project to agencies and community members, and solicited feedback, comments, and information.

Public Involvement Program Summary

The Interconnection Project team initiated the public involvement program to provide community members and relevant jurisdictions and agencies with the opportunity to provide comments and relay information or potential concerns. The public involvement program followed a comprehensive communication strategy designed to reach stakeholders near the Interconnection Project. The public involvement program included the following items, each described in more detail below: jurisdictional and agency briefings, newsletter mailings, a newspaper advertisement, an in-person open house, a website for the Interconnection Project, and a dedicated telephone line and email address.

In general, the public involvement program involved two phases of outreach and engagement. The first phase of public outreach led up to an in-person open house in December 2021. In the second quarter of 2022, APS and Strata finalized the interconnection approach for the Interconnection Project and APS entered into an agreement to acquire the Solar Project from Strata. The Interconnection Project team conducted a second phase of public outreach in August 2022 to announce APS's involvement with the Interconnection Project and describe the routing updates for the Interconnection Project. The following sections describe the Interconnection Project's public involvement program.

Agency and Local Officials Briefings

Throughout the Interconnection Project's development, Strata briefed various agency representatives, public officials, and elected officials on Solar Project's purpose, scope, and development timeline. In general, the purpose of the briefings was to provide information on the Solar Project overall, answer questions, and request feedback. These meetings enabled Strata to identify stakeholder issues, consider suggestions during the planning process, and relay information on developments in the Interconnection Project.

Project Newsletters

The public involvement program involved mailing newsletters to the 21 entities identified by the Yuma County Assessor's Office as owning property within 2 miles of the proposed Interconnection Project. In general, the purpose of the newsletters was to provide information on the Interconnection Project,

request comments, and announce important milestones. In addition to property owners, each newsletter was mailed to representatives from the following agencies/organizations:

- Bureau of Land Management
- Yuma County Economic Development and Intergovernmental Affairs
- Yuma County Public Works
- Arizona State Land Department
- Arizona Department of Transportation
- State Historic Preservation Office
- Wellton-Mohawk Irrigation and Drainage District
- City of Yuma
- Arizona Game and Fish Department

First Newsletter

The Interconnection Project team mailed the first newsletter on November 17, 2021, to property owners and the above-listed agencies/organization. The purpose of the November 2021 newsletter was to (1) introduce and describe the Solar Project (including the Interconnection Project), (2) invite recipients to attend an in-person open house to learn more about and comment on the Solar Project and the Interconnection Project, and (3) identify several additional opportunities to provide comments. These opportunities included a website address, a mailing address, an email address, and a voicemail number. Recipients were asked to submit comments by December 15, 2021. The November 2021 newsletter also included a "Project Overview" map, which focused on the 500kV interconnection facilities (i.e., the step-up substation, Interconnection Project, and Hoodoo Wash Switchyard). A copy of the November 2021 newsletter is included as Exhibit J-1.

Second Newsletter

As noted above, the Interconnection Project team conducted a second phase of public outreach in August 2022. As part of the second phase of public outreach, an additional newsletter was mailed to property owners and the above-listed agencies/organization within 2 miles of the Interconnection Project and key stakeholders. The purpose of the August 2022 newsletter was to introduce APS's involvement with the Solar Project and again request comments. The newsletter included a web address to the project-specific website, a link to a web address to an APS webpage developed for the Interconnection Project and contact information for key members of the Interconnection Project team. The August 2022 newsletter also included an updated "Project Overview" map, which focused on the 500kV interconnection facilities, including the finalized approach for the Interconnection Project. A copy of the August 2022 newsletter is included as Exhibit J-2.

Third Newsletter (Future)

The Applicant plans to mail a third newsletter in January 2023 that will again describe the Interconnection Project and announce the location, date, and time of the Interconnection Project's Siting Committee hearings. This mailing will be sent to the same mailing list used for previous newsletters.

Newspaper Advertisement for the In-Person Open House

The Interconnection Project team placed a legal advertisement in the *Yuma Sun*, a newspaper of general circulation in the vicinity of the Interconnection Project, on December 1, 2021. The purpose of the newspaper advertisement was to announce the Interconnection Project, provide notice of the in-person public open house (scheduled for December 8, 2021), provide opportunities for public comment, and provide key contact information for the Interconnection Project team. The newspaper advertisement also included a website address where additional information about the Interconnection Project was available.

A copy of the newspaper legal advertisement is included as Exhibit J-3.

In-Person Open House

The Interconnection Project team hosted an in-person open house for the Interconnection Project on December 8, 2021, in Dateland, Arizona. The meeting used an informal "open house" style format, allowing community members to attend at their convenience, review displays, and speak with members of the Interconnection Project team. An official sign-in sheet was available to record attendees.

Materials provided at the open house included a set of 12 posters and an informational handout, both of which presented the same information (see Exhibit J-4). That information included a description of the Interconnection Project, a summary of the Arizona Corporation Commission's CEC process, photographic simulations for showing various design approaches for the Interconnection Project from two locations on Palomas Road, and information about where to go to learn more about the Interconnection Project and submit comments. Comment forms and pre-addressed envelopes were also made available (see Exhibit J-5). Two members of the public attended the open house, and both attended to inquire about potential employment opportunities associated with the proposed project.

Project Website

The Interconnection Project team created and maintained a website dedicated to the Interconnection Project (swcavirtualpublicinvolvement.com/proving-ground) to provide stakeholders with current information about the Interconnection Project. The website was initially launched ahead of the December 2021 open house. The website included basic project information (including a discussion of site selection factors, permitting requirements, and the development schedule), visual simulations showing the Interconnection Project from vantage points on Palomas Road, a comment submittal form, and contact information for key members of the Interconnection Project team. The website allowed interested parties to visit and review the materials at their convenience. A copy of the website information is included in Exhibits J-6a through J-6h.

August 2022 Website Updates

As noted above, the Interconnection Project team conducted a second phase of public outreach in August 2022. As part of the second phase of public outreach, the Interconnection Project team updated the website, and announced website updates in the above-described "Second Newsletter." The website updates included a current description of the Interconnection Project, an explanation of APS's involvement with the Interconnection Project, a map showing the updated interconnection approach for the Interconnection Project, and a pre-recorded overview presentation. The overview presentation involved a PowerPoint slide deck with a pre-recorded narration for each slide. A copy of the overview presentation slide deck is included as Exhibits J-7a through J-7c.

APS Webpage

In August 2022, APS also created a webpage for the Interconnection Project (aps.com/provingground). The APS webpage contained the same information as provided on the above-described website. A copy of the website information is included in Exhibits J-8a through J-8d.

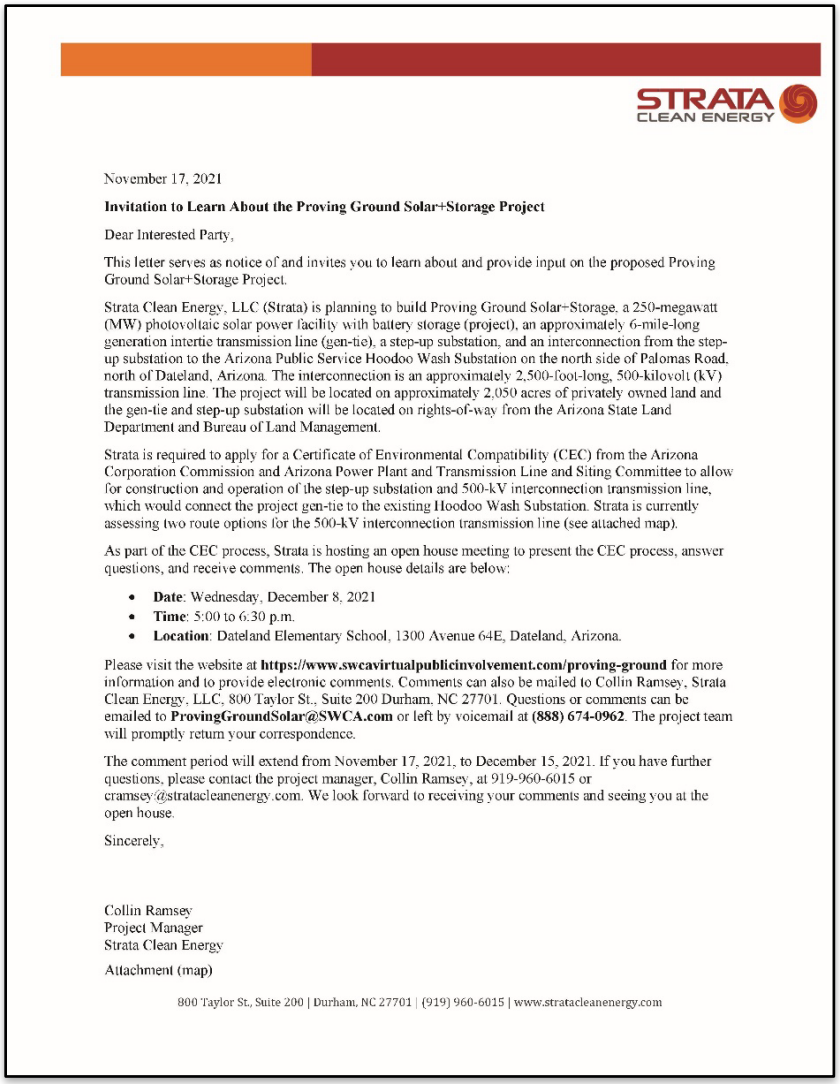
Dedicated Telephone Line and Email

The Interconnection Project team created a dedicated voicemail and email address for the Interconnection Project. The voicemail recording included basic information and invited interested parties to leave comments or questions. The telephone number was provided in the above-described newsletter mailings, newspaper advertisement, and the Project website.

The Interconnection Project team implemented a procedure to distribute voicemails and emails to an appropriate person and promptly reply to comments, questions, or concerns.

Public Comment

Throughout the public involvement program, the Interconnection Project team solicited comments from the public. As of December 2022, the Interconnection Project team has not received any public comments.



STRATA CLEAN ENERGY

November 17, 2021

Invitation to Learn About the Proving Ground Solar+Storage Project

Dear Interested Party,

This letter serves as notice of and invites you to learn about and provide input on the proposed Proving Ground Solar+Storage Project.

Strata Clean Energy, LLC (Strata) is planning to build Proving Ground Solar+Storage, a 250-megawatt (MW) photovoltaic solar power facility with battery storage (project), an approximately 6-mile-long generation intertie transmission line (gen-tie), a step-up substation, and an interconnection from the step-up substation to the Arizona Public Service Hoodoo Wash Substation on the north side of Palomas Road, north of Dateland, Arizona. The interconnection is an approximately 2,500-foot-long, 500-kilovolt (kV) transmission line. The project will be located on approximately 2,050 acres of privately owned land and the gen-tie and step-up substation will be located on rights-of-way from the Arizona State Land Department and Bureau of Land Management.

Strata is required to apply for a Certificate of Environmental Compatibility (CEC) from the Arizona Corporation Commission and Arizona Power Plant and Transmission Line and Siting Committee to allow for construction and operation of the step-up substation and 500-kV interconnection transmission line, which would connect the project gen-tie to the existing Hoodoo Wash Substation. Strata is currently assessing two route options for the 500-kV interconnection transmission line (see attached map).

As part of the CEC process, Strata is hosting an open house meeting to present the CEC process, answer questions, and receive comments. The open house details are below:

- **Date**: Wednesday, December 8, 2021
- **Time**: 5:00 to 6:30 p.m.
- **Location**: Dateland Elementary School, 1300 Avenue 64E, Dateland, Arizona.

Please visit the website at **https://www.swcavirtualpublicinvolvement.com/proving-ground** for more information and to provide electronic comments. Comments can also be mailed to Collin Ramsey, Strata Clean Energy, LLC, 800 Taylor St., Suite 200 Durham, NC 27701. Questions or comments can be emailed to **ProvingGroundSolar@SWCA.com** or left by voicemail at **(888) 674-0962**. The project team will promptly return your correspondence.

The comment period will extend from November 17, 2021, to December 15, 2021. If you have further questions, please contact the project manager, Collin Ramsey, at 919-960-6015 or cramsey@stratacleanenergy.com. We look forward to receiving your comments and seeing you at the open house.

Sincerely,

Collin Ramsey
Project Manager
Strata Clean Energy

Attachment (map)

800 Taylor St., Suite 200 | Durham, NC 27701 | (919) 960-6015 | www.stratacleanenergy.com

Exhibit J-1. First Newsletter (November 2021).

August 9, 2022

Re: Invitation to Learn About the Proving Ground Solar+Storage Project

Dear Interested Party,

The Proving Ground Solar+Storage Project has continued to progress through permitting and development. Recently, in Q2 2022, Arizona Public Service Company (APS) entered into an agreement to acquire the project from Strata. The next stage in the project's permitting process is to apply for a Certificate of Environmental Compatibility (CEC) from the Arizona Corporation Commission and Arizona Power Plant and Transmission Line Siting Committee (Line Siting Committee). APS is the applicant for, and will be the owner of, the CEC; however, Strata will continue to site the project on behalf of APS. We anticipate that public hearings for the CEC will occur in February 2023. As we prepare our CEC application, we invite you to learn more about the project and submit any questions or comments you may have.

The Proving Ground Solar+Storage project involves a 250-megawatt (MW) solar photovoltaic generating facility with battery storage, an approximately 6-mile-long generation intertie transmission line (gen-tie), a step-up substation, and an interconnection transmission line from the step-up substation to the Hoodoo Wash Switchyard on the north side of Palomas Road, north of Dateland, Arizona. The interconnection line would be an approximately 3,000-foot-long, 500-kilovolt (500kV) transmission line. The solar photovoltaic facility will be located on approximately 2,050 acres of privately owned land; the gen-tie and step-up substation will be located on rights-of-way from the Arizona State Land Department and Bureau of Land Management. The proposed step-up substation and 500kV interconnection transmission line are shown on the enclosed figure.

Please visit the website at: swcavirtualpublicinvolvement.com/proving-ground or aps.com/provingground for additional information. Comments may be submitted directly through the website, emailed to ProvingGroundSolar@swca.com, leaving a voicemail at 928-202-4621, or mailed to Collin Ramsey, Strata Clean Energy, LLC, 800 Taylor St., Suite 200 Durham, NC 27701. The project team will promptly return your correspondence. We look forward to hearing from you.

Sincerely,

Collin Ramsey
Senior Development Manager
Strata Clean Energy

Attachment (map)

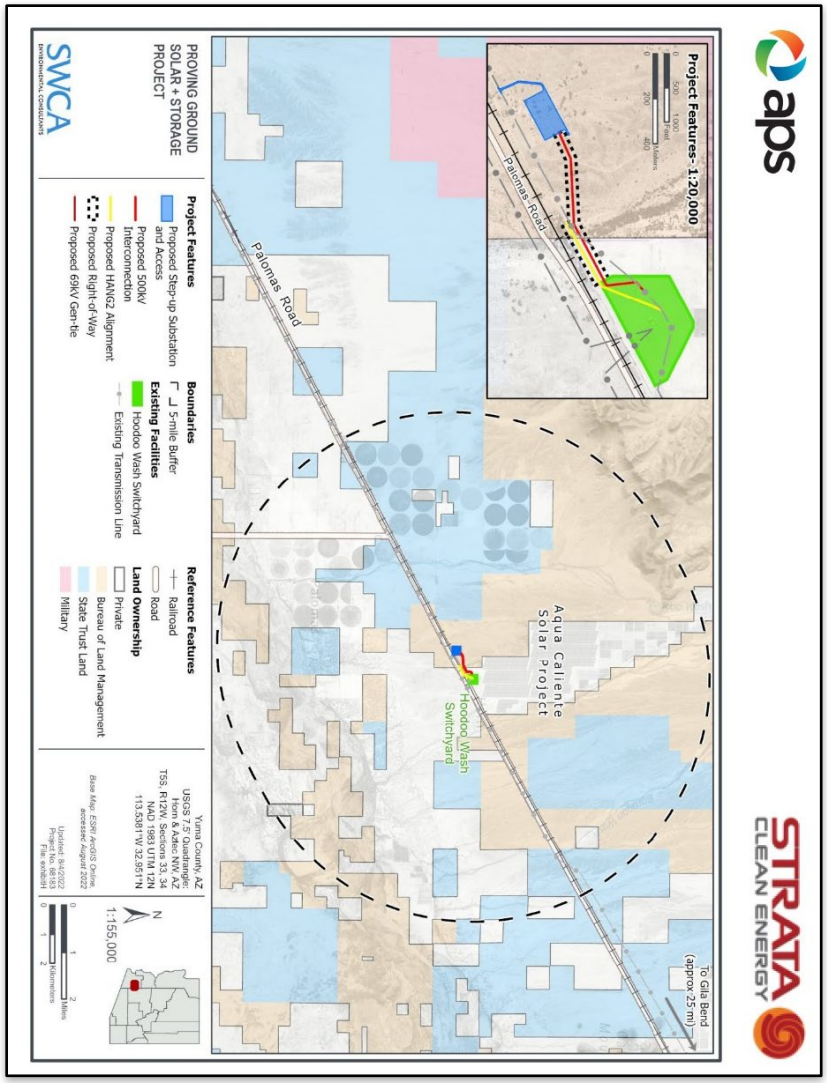


Exhibit J-2. Second Newsletter (August 2022).

C2 YUMA SUN, WEDNESDAY, DECEMBER 1, 2021

PUBLIC NOTICES

To place your ad, call (928) 539-6813 • Mon-Fri 8-5 • or email: legals@yumasun.com YumaSun

Annexation

Access all public notices published in print at yumasun.com/sections/public-notices

As well as public notices throughout the state: www.publicnoticeads.com/az

You can view all current and archived notices on this site.

Articles Organization

ARTICLES OF ORGANIZATION HAVE BEEN FILED IN THE OFFICE OF THE ARIZONA CORPORATION COMMISSION FOR

I. Name: **Blessed Victory Transport, LLC**

II. The address of the known place of business is: 4458 W. 26th St., Yuma, AZ 85364

III. The name and street address of the Statutory Agent is: Jose Victoriano Alcalde Moran, 4458 W. 26th St., Yuma, AZ 85364

B. Management of the limited liability company is reserved to the members. The names and addresses of each person who is a member are: Jose Victoriano Alcalde Moran, 4458 W. 26th St., Yuma, AZ 85364, member
Yuma Sun: November 29, 30, 2021 & Dec. 1, 2021 - 56901

ACC FILE NO. L-23295655

NOTICE

Articles of Organization have been filed in the office of the Arizona Corporation Commission for:

I. NAME

The name of the limited liability company is **Lee Farms Labor, LLC.**

Notice Of Hearing

Street, Yuma, Arizona.

Rezoning Case No. 21-26: Kevin Burge, agent for Avenue 5E Farm De LLC, requests the rezoning of a parcel 10.0 gross acres in size from Rural Area-10 acre minimum to Suburban Site Built-2 acre minimum, Assessor's Parcel Number 748-20-001 located at the southeast corner of the alignment of Avenue 4¾ E and County 14½ Street, Yuma, Arizona.

For further information about this hearing, please contact the Yuma County Planning & Zoning Division, 2351 West 26th Street, Yuma, Arizona (928) 817-5000, or TDD (Arizona Relay Service), call in 1-800-367-8939, and call back-1-800-842-4681. Handicapped individuals with special accessibility needs should contact the County at the number above at least 2 working days prior to the hearing with special need requirements.
Yuma Sun: December 1, 2021 - 57097

Notice To Creditors

NOTICE TO CREDITORS
No. S1400PB202100336
IN THE SUPERIOR COURT OF THE STATE OF ARIZONA IN AND FOR THE COUNTY OF YUMA

In the Matter of the Estate of **DORATHA EDITH GROSECLOSE**, Deceased.
NOTICE IS HEREBY GIVEN that Gordon Gregory Groseclose has been appointed Personal Representative of this Estate. All persons having claims against the Estate are required to present their claims within four months after the date of the first publication of this notice or the claims will be forever barred. Claims must be presented by delivering or mailing a written statement of the claim to the Personal Representative in care of The

Trustees Sales

senior to the Deed of Trust. The Trustee shall not express an opinion as to the condition of title. All persons whose interest in the Trust Property is subordinate in priority to that of the above described Deed of Trust may be subject to having such subordinate interest terminated by this Trustee's Sale. Sale Information: 602-749-7000 Dated: 11/1/2021 Empire West Title Agency, LLC an Arizona limited liability company /s/ Sheri L. Morris, Trustee Sale Officer We are assisting the Beneficiary to collect a debt and any information we obtain will be used for that purpose. Manner of Trustee Qualification: 33-803 A.R.S. (A)(1) Regulator: The Department of Financial Institutions State Of Arizona } } ss. County of Maricopa } On 10/29/2021 before me, the undersigned notary public, personally appeared Sheri L. Morris, Trustee Sale Officer, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the instrument the person or the entity upon behalf of which the person acted, executed the instrument. Witness my hand and official seal. Commission Expires: 2/19/23 /s/ P. J. Marino Notary Public
Yuma Sun: December 1, 8, 15, 22, 2021 - 56369

TS#: 097214-AZ Order #: 210484684 **NOTICE OF TRUSTEE'S SALE** The following legally described trust property will be sold, pursuant to the power of Sale under that certain Deed of Trust dated 11/3/2008 and recorded on 11/13/2008, as Instrument No. 2008-33052, in the office of the County Recorder of Yuma County, Arizona, NOTICE! IF YOU BELIEVE THERE IS A DEFENSE TO THE TRUSTEE SALE OR IF YOU HAVE AN OBJECTION TO THE

Trustees Sales

place of business of the Trustee. Sale Date: **2/3/2022 Sale Time: 12:00 PM** Sale Location: ON THE STEPS AT THE YUMA COUNTY COURTHOUSE, EAST ENTRANCE, LOCATED AT 168 SOUTH 2ND AVENUE, YUMA, AZ 85364 ACCORDING TO THE DEED OF TRUST OR UPON INFORMATION SUPPLIED BY THE BENEFICIARY, THE FOLLOWING INFORMATION IS PROVIDED PURSUANT TO A.R.S. SECTION 33-808(C): ORIGINAL TRUSTOR: **RAMON P. MARIN** 7240 S. LAGUNA DAM ROAD YUMA, AZ 85365 ORIGINAL PRINCIPAL BALANCE AS SHOWN ON DEED OF TRUST: **$172,500.00** CURRENT BENEFICIARY: REVERSE MORTGAGE FUNDING LLC c/o Celink 3900 Capital City Blvd Lansing, MI 48906 CURRENT TRUSTEE: Clear Recon Corp 3707 East Southern Avenue Mesa, AZ 85206 Phone: (866) 931-0036 Visit this Internet Web site: WWW.STOXPOSTING.COM Automated Sale Line: (844) 477-7869 Dated: 10/26/2021 CLEAR RECON CORP Hamsa Uchi, Authorized Signatory for Trustee State of California) ss. County of San Diego) On 10/26/2021 before me, Renata Byra Notary Public, personally appeared HAMSA UCHI who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. IN WITNESS WHEREOF I hereunto set my hand and official seal. Renata Byra My Comm. Expires Feb

Public Notices

ground for more information and to provide electronic comments. Comments can be mailed to Collin Ramsey, Strata Clean Energy, LLC, 800 Taylor St., Suite 200 Durham, NC 27701. Questions or comments can be emailed to **ProvingGroundSolar@SWCA.com** or left by voicemail at **(888) 674-0962.** The project team will promptly return your correspondence.

The comment period will extend from November 17, 2021, to December 15, 2021. If you have further questions, please contact the project manager, Collin Ramsey, at 919-960-6015 or cramsey@stratacleanenergy.com. We look forward to receiving your comments and seeing you at the open house.
Yuma Sun: December 1, 2021 - 56868

Summons

Summons/Stephen J. Metz/Carol Metz
Person/Attorney Filing: Kathryn Battock Mailing Address: 5010 East shea Blvd. Suite 155 City, State, Zip Code: Scottsdale, AZ 85254 Phone Number: (602) 560-2410 E-Mail Address: admin@pmblaw.org State Bar Number: 023090, Issuing State: AZ In The Superior Court Of The State Of Arizona In And For The County Of Yuma Country Roads RV Village Property Owners Association, Inc. Plaintiff(s) v. Stephen J. Metz, et al. Defendant(s). Case No. S1400CV202100658 Summons To: Stephen J. Metz, Carol Metz Warning: This An Official Document From The Court That Affects Your Rights. Read This Summons Carefully. If You Do Not Understand It, Contact An Attorney For Legal Advice. 1. A lawsuit has been filed against you. A copy of the lawsuit and other court papers were served on you with this

Summons

"Response" the other party may be given the relief requested in his/her Petition or Complaint. To file your *"Answer"* or *"Response"* take, or send, the *"Answer"* or "Response" to the: Yuma County Justice Center, Clerk of the Superior Court, 250 West 2nd Street, Suite B, Yuma, Arizona 85364
Mail a copy of your *"Response"* or *"Answer"* to the other party at the address listed on the top of this Summons.
3. If this *"Summons"* and the other court papers were served on you by a registered process server or the Sheriff, within the State of Arizona, your *"Response"* or *"Answer"* must be filed within TWENTY (20) CALENDAR DAYS from the date you were served, not counting the day you were served. If this *"Summons"* and the other papers were served on you by a registered process server or the Sheriff outside the State of Arizona, your Response must be filed within THIRTY (30) CALENDAR DAYS from the date you were served, not counting the day you were served. Service by a registered process server or the Sheriff is complete when made. Service by Publication is complete thirty (30) days after the date of the first publication.
4. You can get a copy of the court papers filed in this case from the Petitioner at the address listed at the top of the preceding page, from the Clerk of the Superior Court's Customer Service Center at: Yuma County Justice Center, Clerk of the Superior Court, 250 West 2nd Street, Suite B, Yuma, Arizona 85364
5. If this is an action for dissolution (divorce), legal separation or annulment, either or both spouses may file a *Petition for Conciliation* for the purpose of determining whether there is any mutual interest in preserving the marriage or for Mediation to attempt to settle disputes concerning legal decision-making (custody) and parenting time issues regarding minor children

Exhibit J-3a. Newspaper Legal Advertisement – published in the *Yuma Sun* (December 2021).

The name and address of the statutory agent is:
Ryan Lee
6126 W. County 11th Street
Yuma, AZ 85364

IV. MEMBERS

Management of the limited liability company is reserved to the member. The name and address of the sole member of the limited liability company is as follows:
Lee Family Dynasty Trust dated July 21, 2015
6126 W. County 11th Street
Yuma, AZ 85364
Member

DATED this 22nd day of November, 2021.

/s/ Larry W. Suciu
Larry W. Suciu

Yuma Sun: November 29, 30, 2021 & Dec. 1, 2021 - 56701

Notice Of Hearing

NOTICE OF PUBLIC HEARING

The Yuma County Board of Supervisors will hold a public hearing on December 20, 2021 at 9:00 a.m. in the Board of Supervisors' Auditorium, 198 South Main Street, Yuma, Arizona to consider the following items:

Minor Amendment Case No. 21-08: Albert Ceja, agent for Cash Now Homes LLC, requests to change the land use designation of a parcel 22,870 square feet in size from Industrial to Urban Density Residential, Assessor's Parcel Number 666-26-007, located at 2305 East 15th Street, Yuma, Arizona.

Rezoning Case No. 21-23: Vianey Vega, agent for Jose Jaime & Lina Gomez, requests the rezoning a parcel approximately 5 gross acres in size from Rural Area-10 acre minimum to Light Industrial-2 acre minimum, Assessor's Parcel Number 196-25-002, located in the vicinity of the southeast corner of Avenue 3 E and County 14th Street, Yuma, Arizona; located in the 65-69 dB and 70-74 dB noise zone.

Rezoning Case No. 21-25: Dahl, Robins & Associates, Inc., agent for Five Management LLC, requests the rezoning of a parcel totaling approximately 7.05 acres in size from Local Commercial to Recreational Vehicle Subdivision, Assessor's Parcel Number 728-36-901, located on the southwest corner of Foothills Boulevard and 48th

Gordon Gregory Groseclose
Yuma Sun: November 24, 2021 & December 1, 8, 2021 - 56247

Trustees Sales

Trustee Sale No: 2021-1448898
Notice Of Trustee's Sale

Recorded: 11/01/2021 NOTICE! IF YOU BELIEVE THERE IS A DEFENSE TO THE TRUSTEE SALE OR IF YOU HAVE AN OBJECTION TO THE TRUSTEE SALE, YOU MUST FILE AN ACTION AND OBTAIN A COURT ORDER PURSUANT TO RULE 65, ARIZONA RULES OF CIVIL PROCEDURE, STOPPING THE SALE NO LATER THAN 5:00 P.M. MOUNTAIN STANDARD TIME OF THE LAST BUSINESS DAY BEFORE THE SCHEDULED SALE DATE OF THE SALE; OR YOU MAY HAVE WAIVED ANY DEFENSES OR OBJECTIONS TO THE SALE. UNLESS YOU OBTAIN AN ORDER, THE SALE WILL BE FINAL. The following legally described trust property will be sold, pursuant to the power of sale under that certain Deed of Trust dated 6/14/2007, and recorded on 6/19/2007, as Instrument No. 2007-22111, thereafter an Assignment of Deed of Trust recorded on 11/07/2017 as Instrument No. 2017-27932, records of Yuma County, Arizona at public auction to the highest bidder on the steps at the Yuma County Courthouse East entrance, 168 South 2nd Avenue, Yuma, Arizona on 2/1/2022 at 11:00 AM of said day: Legal: Lot 590, Sierra Sunset Unit No. 9, according to the plat of record in the office of the County Recorder of Yuma County, Arizona, in Book 15 of Plats, Page 46. The street address is purported to be: 4833 W. 21st Lane Yuma, Arizona 85364 Tax Parcel Number: 663-53-598 Original Principal Balance $12,500.00 Name and address of original Trustor: Martin Hernandez, a married man as his sole and separate property 4833 W. 21st Lane Yuma, Arizona 85364 Name and address of the Beneficiary: Jack Einbinder and Jennifer Einbinder, husband and wife 2840 Fletcher Parkway #229 El Cajon, CA 92020 Name and address of Trustee: Empire West Title Agency, LLC 4808 N. 22nd St. Suite 100 Phoenix, Arizona 85016 Conveyance of the property shall be without warranty, expressed or implied, and subject to all liens, claims or interest having a priority THE SALE NO LATER THAN 5:00 P.M. MOUNTAIN STANDARD TIME OF THE LAST BUSINESS DAY BEFORE THE SCHEDULED DATE OF THE SALE, OR YOU MAY HAVE WAIVED ANY DEFENSES OR OBJECTIONS TO THE SALE. UNLESS YOU OBTAIN AN ORDER, THE SALE WILL BE FINAL AND WILL OCCUR at public auction to the highest bidder at the below date, time and place. ALL THAT PART OF THE EAST 900 FEET OF LOT 1 SECTION 21, TOWNSHIP 8 SOUTH, RANGE 22 WEST GILA AND SALT RIVER BASE AND MERIDIAN, YUMA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS: COMMENCING AT A POINT ON THE EAST LINE OF SECTION 21, A DISTANCE OF 1330.6 FEET SOUTH OF THE NORTHEAST CORNER OF SAID SECTION 21; THENCE NORTH 25 DEGREES 37 MINUTES 00 SECONDS WEST, 675.8 FEET TO THE POINT OF BEGINNING; THENCE NORTH 71 DEGREES 08 MINUTES 00 SECONDS WEST A DISTANCE OF 100 FEET; THENCE NORTH TO A POINT IN THE SOUTH LINE OF THE PROPERTY CONVEYED TO EAMUNDO GILL BY INSTRUMENT RECORDED IN DOCKET 149, PAGE 536, RECORDS OF YUMA COUNTY, ARIZONA; THENCE EAST ALONG THE SOUTH LINE OF SAID GILL PROPERTY TO A POINT ON THE EAST LINE OF SECTION 21; THENCE SOUTH ALONG SAID EAST LINE TO THE NORTH LINE OF THE PROPERTY CONVEYED TO THOMAS A. HALES AND WILLIAM D. HALES BY INSTRUMENT RECORDED IN DOCKET 146, PAGE 142; THENCE WEST ALONG THE NORTH LINE OF SAID HALES PROPERTY TO THE POINT OF BEGINNING; EXCEPT 1/16TH OF ALL OIL AND MINERAL RIGHTS AS RESERVED IN DEED RECORDED IN DOCKET 205, PAGE 215. COUNTY ASSESSOR'S TAX PARCEL NUMBER: 636-36-015 STREET ADDRESS OR IDENTIFIABLE LOCATION: **7240 S. LAGUNA DAM ROAD YUMA, AZ 85365** Further information related to the sale and the Subject Real Property will be made available to the public through WWW.STOXPOSTING.COM. In accordance with A.R.S. § 32-808(B), the time of sale will be between 9 a.m. and 5 p.m. at a specific place on the Subject Real Property, at the County Courthouse, or at a specific

Public Notices

Invitation to Learn About the Proposed Proving Ground Solar+Storage Arizona Corporation Commission Certificate of Environmental Compatibility

Strata Clean Energy, LLC (Strata) is planning to build Proving Ground Solar+Storage, a 250-megawatt (MW) photovoltaic solar power facility with battery storage (project), an approximately 6-mile-long generation intertie transmission line (gen-tie), a step-up substation, and an interconnection from the step-up substation to the Arizona Public Service Hoodoo Wash Substation on the north side of Palomas road, north of Dateland, Arizona. The interconnection is an approximately 2,500-foot-long, 500-kilovolt (kV) transmission line. The project will be located on approximately 2,050 acres of privately owned land and the gen-tie and step-up substation will be located on rights-of-way from the Arizona State Land Department and Bureau of Land Management.

Strata is required to apply for a Certificate of Environmental Compatibility (CEC) from the Arizona Corporation Commission and Arizona Power Plant and Transmission Line and Siting Committee to allow for construction and operation of the step-up substation and 500-kV interconnection transmission line, which would connect the project gen-tie to the existing Hoodoo Wash Substation. Strata is currently assessing two route options for the 500-kV interconnection transmission line.

As part of the CEC process, Strata is hosting an open house meeting to present the CEC process, answer questions, and receive comments. **The open house will be held on Wednesday, December 8, 2021, from 5:00 to 6:30 p.m. at the Dateland Elementary School, 1300 Avenue 64E, Dateland, Arizona.**

Please visit the website at **https://www.swcavirtualpublicinvolvement.com/proving-**

licensing or regulatory body or controlling agency of the trustee is: Arizona Department of Financial Institutions.
Yuma Sun: December 1, 8, 15, 2021 & [illegible]

papers to Clerk of the Superior Court, 250 W. 2nd Street, Yuma, Arizona 85364 or electronically file your Answer through one of Arizona's approved electronic filing systems at http://www.azcourts.gov/efilingi formation. Mail a copy of the nswer to the other party, the laintiff, at the address listed on he top of this Summons. Note: you do not file electronically ou will not have electronic ccess to the documents in this ase. 3. If this Summons and he other court papers were erved on you within the State f Arizona, your Answer must e filed within Twenty (20) alendar Days from the date of ervice, not counting the day of ervice. If this Summons and he other court papers were erved on you outside the State f Arizona, your Answer must e filed within Thirty (30) alendar Days, not counting he day of service. Requests for easonable accommodation for ersons with disabilities must e made to the court by parties t least 3 working days in dvance of a scheduled court roceeding. Given under my and and the Seal of the uperior Court of the State of rizona in and for the County of uma Signed And Sealed this ate: October 22, 2021 Lynn azz Clerk of Superior Court y: ClBrown Deputy Clerk A opy of the pleadings for S1400CV202100658 may be btained by contacting Kathryn Battock, at Phillips, Maceyko nd Battock, PLLC, (602)560-2410.
uma Sun: November 17, 24, 021 & December 1, 8, 2021 - 5558

SUMMONS
Case No.: S1400D02021-840
SUPERIOR COURT OF RIZONA IN YUMA COUNTY
orina Velez Perez, Petitioner nd **Cristopher Alejandro alenzuela Lopez**, espondent.
ARNING: This is an official ocument from the court that ffects your rights. Read this arefully. If you do not nderstand it, contact a awyer for help.
ROM THE STATE OF RIZONA TO: **Cristopher lejandro Valenzuela Lopez,** espondent
1) A lawsuit has been filed gainst you. A copy of the awsuit and other court papers re served on you with this *Summons*".
2) If you do not want a dgment or order taken against ou without your input, you ust file an *"Answer"* or a *"Response"* in writing with the ourt, and pay the filing fee. If ou do not file an *"Answer"* or

court date.
7. Requests for an interpreter for persons with limited English proficiency must be made to the office of the judge or commissioner assigned to the case at least ten (10) judicial days in advance of your scheduled court date.
SIGNED AND SEALED this date AUG 16 2021

LYNN FAZZ,
CLERK OF COURT
By RUTH TORRES
Deputy Clerk
(SUPERIOR COURT SEAL)
Yuma Sun: November 17, 24, 2021 & December 1, 8, 2021 - 54877

EQUAL HOUSING OPPORTUNITY

Publishers Note:
All real estate advertised in the newspaper is subject to the Federal Fair Housing Act of 1968 which makes it illegal to advertise "any preference, limitation, or discrimination based on race, color, or religion or national origin, familial status, handicap or intention to make any such preference, limitation or discrimination."
The newspaper will not knowingly accept any advertisement for real estate which is in violation of the law. Our readers are hereby informed that all dwellings advertised in this newspaper are available on an equal opportunity basis.

Exhibit J-3b. Newspaper Legal Advertisement – published in the *Yuma Sun* (December 2021) (continued).

Proving Ground Solar+Storage Project

STRATA CLEAN ENERGY

Welcome!

Dateland Elementary School

Dateland, Arizona

December 8, 2021

Proving Ground Solar+Storage Project

STRATA CLEAN ENERGY

The Project consists of a 250-megawatt (MW) photovoltaic solar power generation and battery electrical storage facility and associated transmission infrastructure.

Project Details

- 250-MW photovoltaic solar power facility with battery storage
- 6-mile-long generation intertie transmission line (gen-tie)
- Proposed step-up substation
- 2,500-foot-long, 500-kilovolt (kV) interconnection transmission line to the existing APS Hoodoo Wash Substation
- Located on approximately 2,050 acres of privately owned land.
- Gen-tie and step-up substation located on rights-of-way from the Arizona State Land Department and Bureau of Land Management.

1

Proving Ground Solar+Storage Project

STRATA CLEAN ENERGY

Strata Clean Energy, LLC (Strata)

- Founded in 2008 in Chapel Hill, North Carolina.
- Has been developing, owning and operating utility-scale solar and battery storage facilities for a decade.
- Projects range from 1MW solar farms to a 250MW solar plus energy storage project.
- Significant investment in Arizona, including several early, mid and late-stage projects located throughout the state.

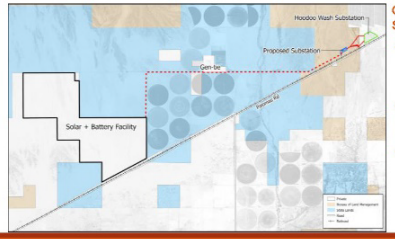
PROJECT BENEFITS

- Approximately $350+ million in project investment.
- Approximately $24 million in property tax over 20 years, as well as roughly $3 million in sales tax revenues.
- Creates 300+ construction jobs at the height of construction activity and 4 long-term jobs in the region.

Proving Ground Solar+Storage Project

STRATA CLEAN ENERGY

Solar and Battery Facility Project Area



Completed Environmental Studies and Approvals

- Bureau of Land Management Environmental Assessment and Finding of No Significant Impact
- Arizona State Trust Land Right-of-Way Application and Permit
- Yuma County Special Use Permit

2

Exhibit J-4a. In-person open house, presentation boards, and handout (December 2021).

Proving Ground Solar+Storage Project

Arizona Corporation Commission (ACC) Certificate of Environmental Compatibility (CEC)

Strata is required to apply to the ACC Arizona Power Plant and Transmission and Line Siting Committee for a CEC for two Project components:

- Proposed step-up substation
- 2,500-foot-long, 500-kilovolt (kV) interconnection transmission line to the existing APS Hoodoo Wash Substation
- Currently assessing two route options for the 500-kV interconnection transmission line

CEC Environmental Review

Air Quality
Biological Resources
Cultural and Historical Resources
Geology and Soils
Hydrology
Land Use
Noise
Recreation
Visual and Aesthetics

3

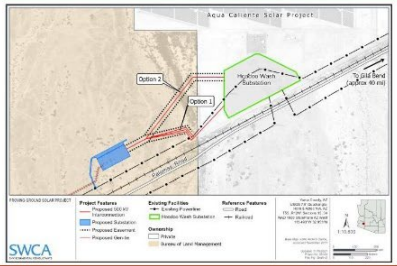
Arizona Corporation Commission Certificate of Environmental Compatibility Process and Schedule

February 2022
CEC Application
- Strata plans to file a Certificate of Environmental Compatibility (CEC) with the Arizona Corporation Commission and Arizona Power Plant and Transmission Line and Siting Committee.

March 2022
Line Siting Committee Hearing
- Committee makes a recommendation on the proposed CEC.
- Opportunity for public comment at hearing.

May 2022
ACC Open Meeting
- Arizona Corporation Commission makes a recommendation to approve, modify, or deny the Siting Committees' CEC recommendation for the project.

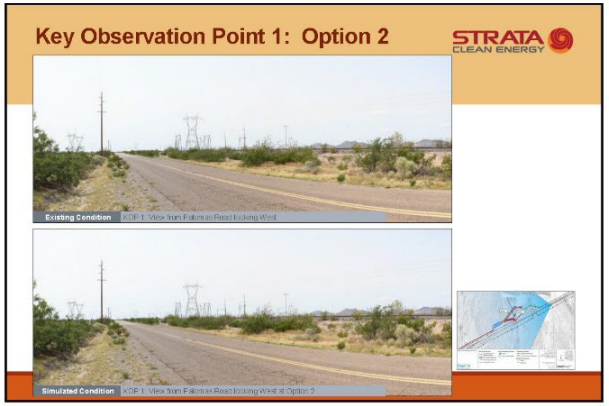
Arizona Corporation Commission Certificate of Environmental Compatibility Project Area

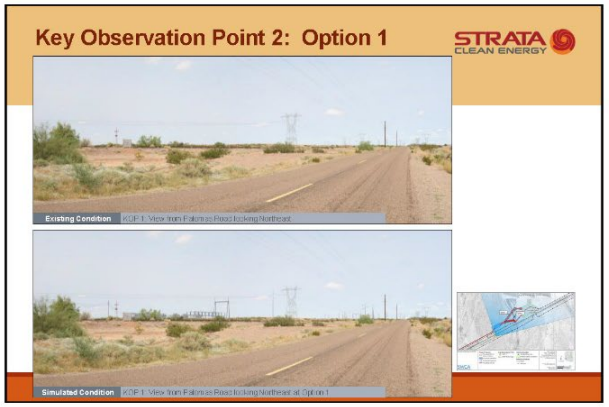


Key Observation Point 1: Option 1

4

Exhibit J-4b. In-person open house, presentation boards, and handout (December 2021) (continued).





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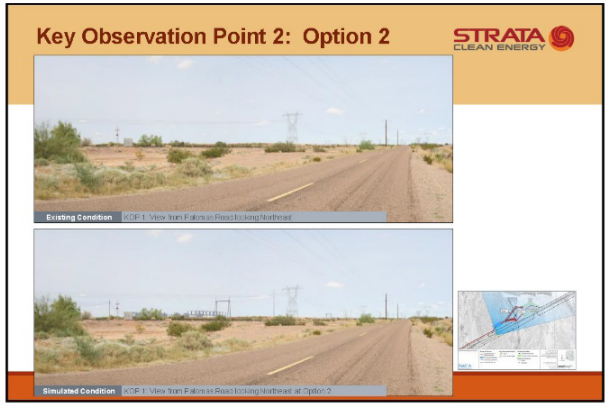
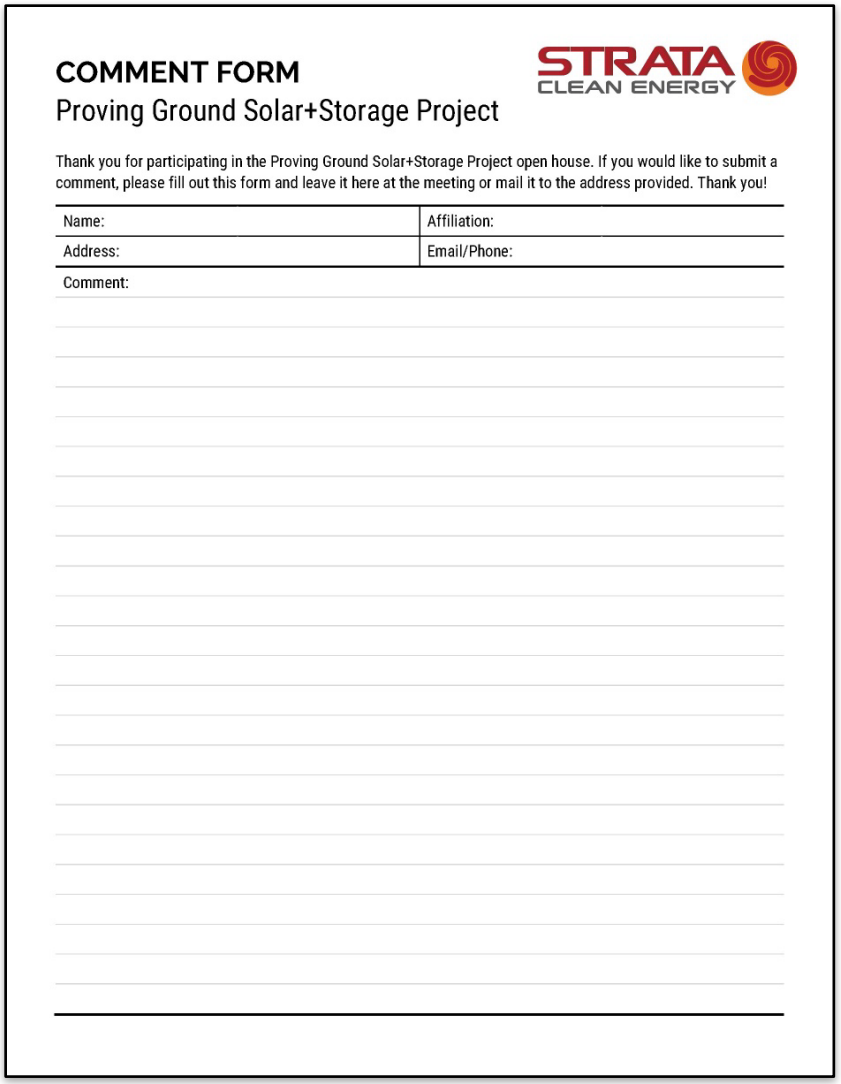


6

Exhibit J-4c. In-person open house, presentation boards, and handout (December 2021) (continued).

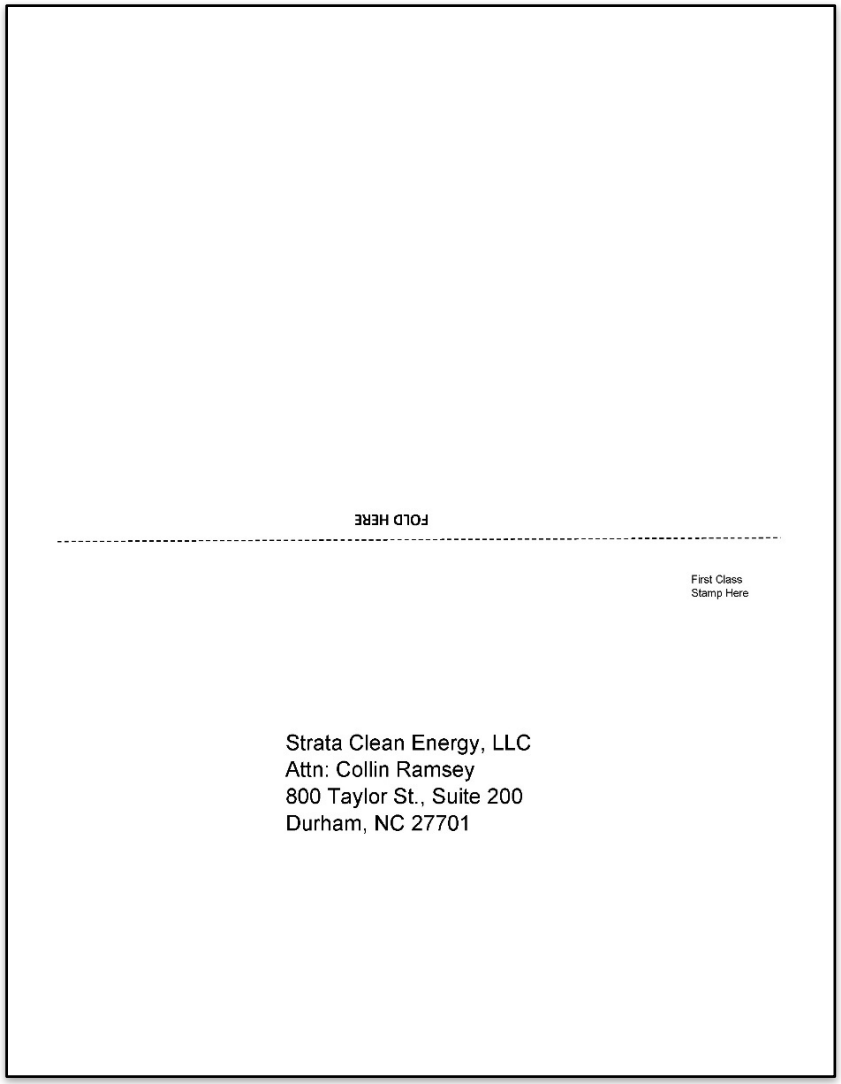


COMMENT FORM

Proving Ground Solar+Storage Project

Thank you for participating in the Proving Ground Solar+Storage Project open house. If you would like to submit a comment, please fill out this form and leave it here at the meeting or mail it to the address provided. Thank you!

Name:	Affiliation:
Address:	Email/Phone:
Comment:	



FOLD HERE

First Class
Stamp Here

Strata Clean Energy, LLC
Attn: Collin Ramsey
800 Taylor St., Suite 200
Durham, NC 27701

Exhibit J-5. Open House Comment Form (December 2021).

Exhibit J-6a. Project website.

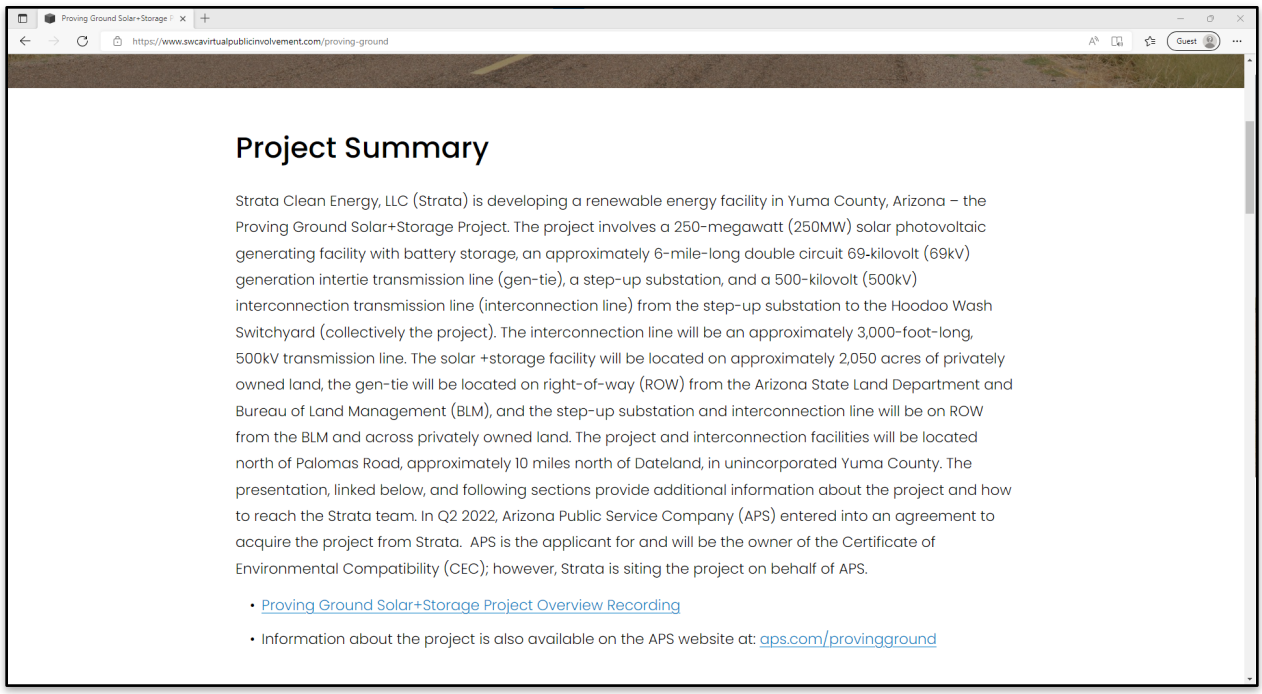


Exhibit J-6b. Project website (continued).

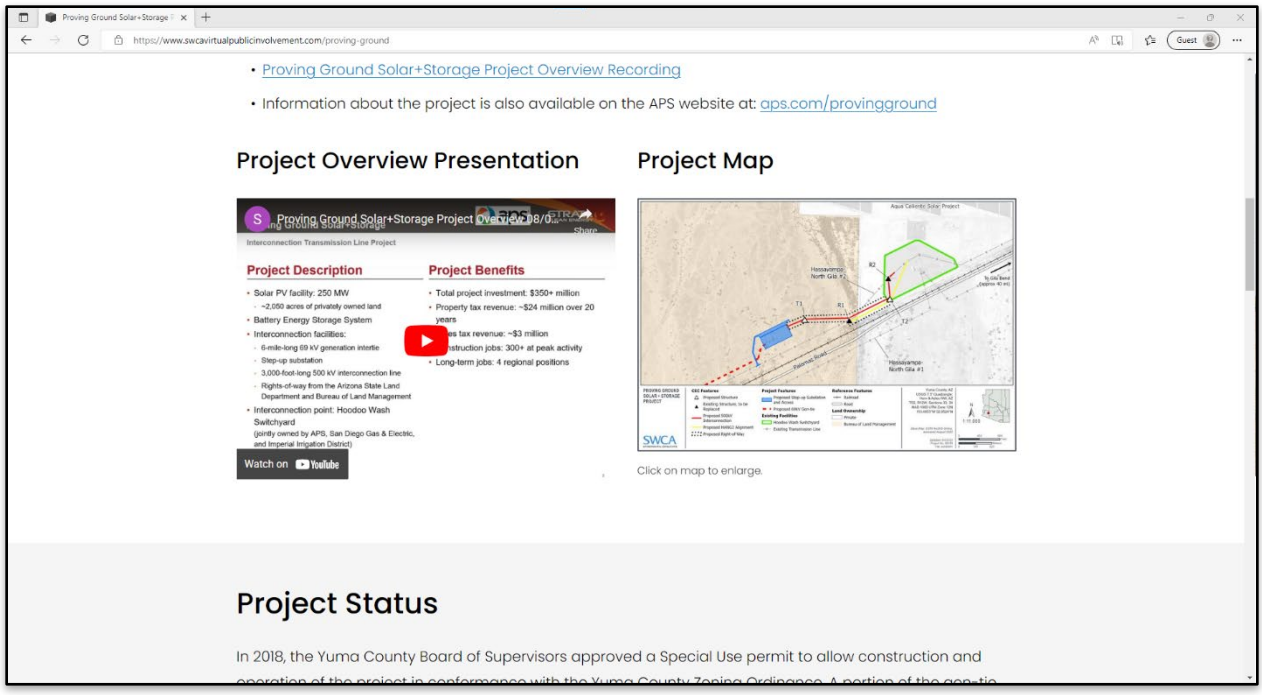


Exhibit J-6c. Project website (continued).

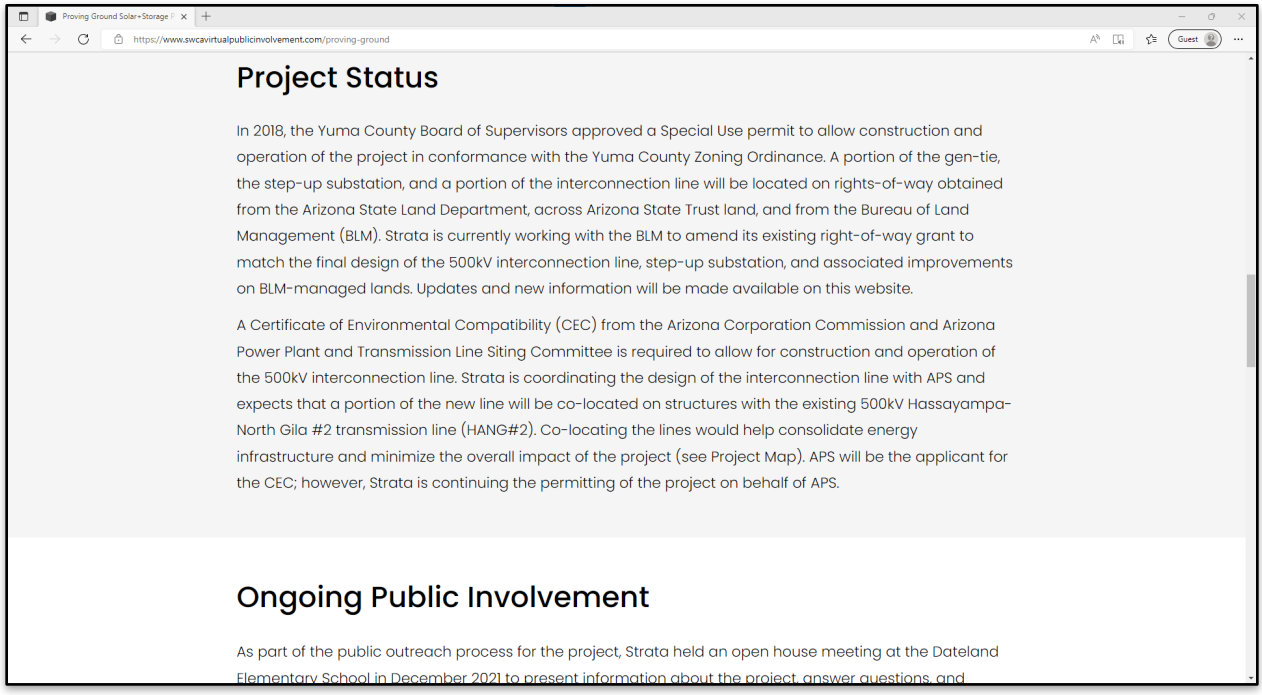


Exhibit J-6d. Project website (continued).

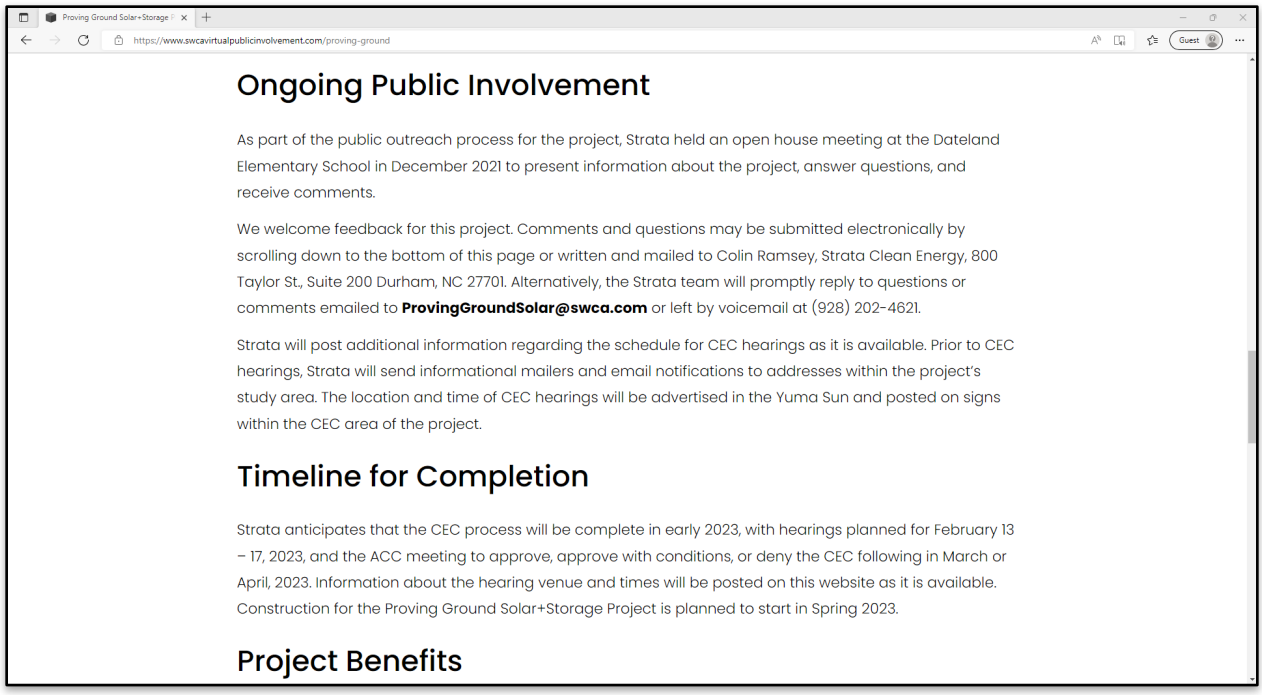


Exhibit J-6e. Project website (continued).

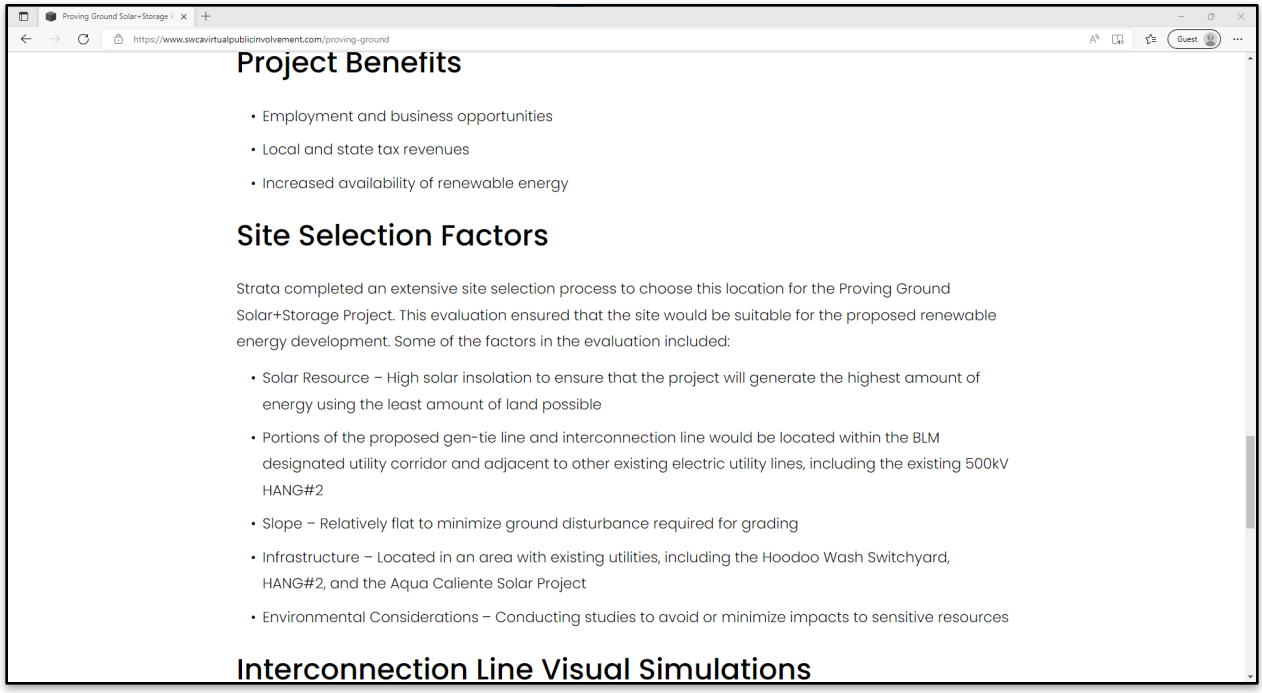


Exhibit J-6f. Project website (continued).

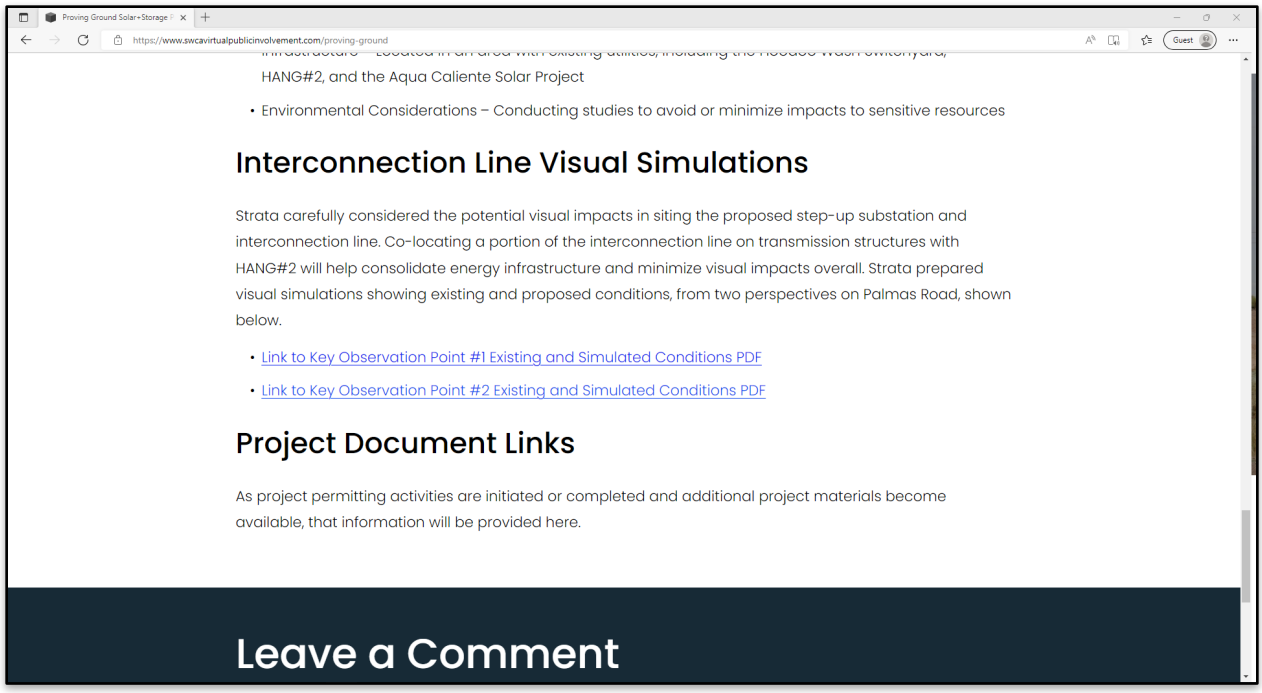


Exhibit J-6g. Project website (continued).

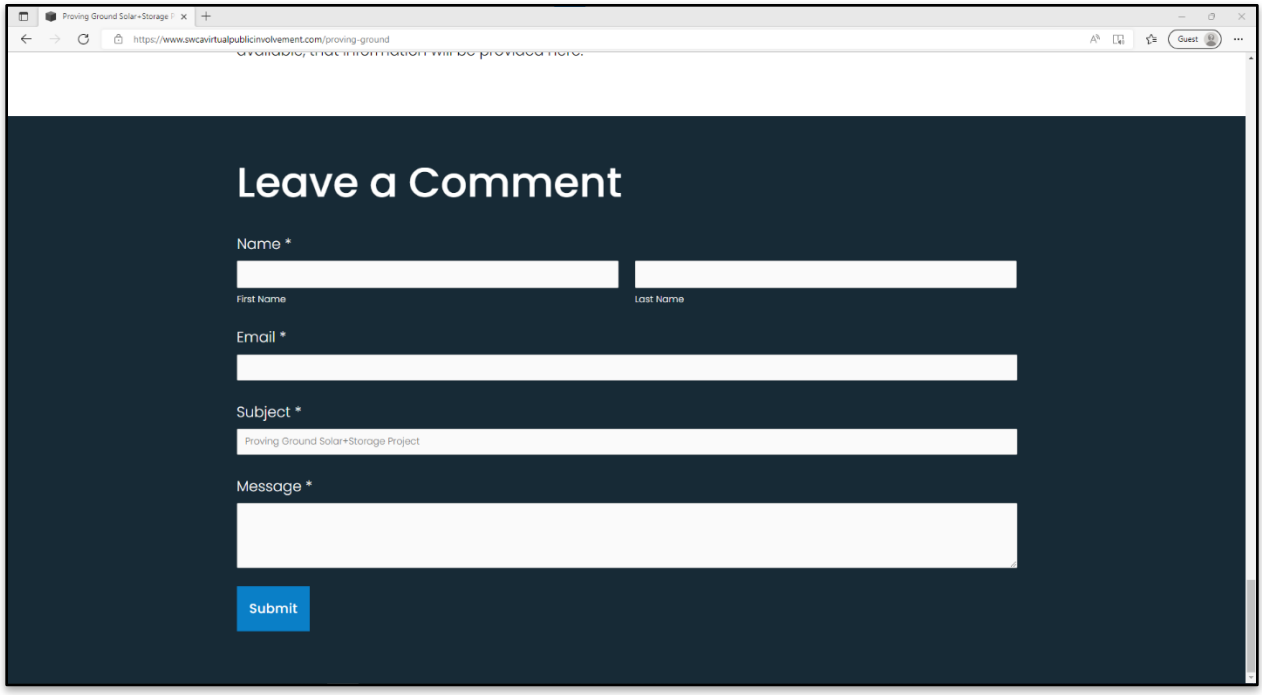


Exhibit J-6h. Project website (continued).

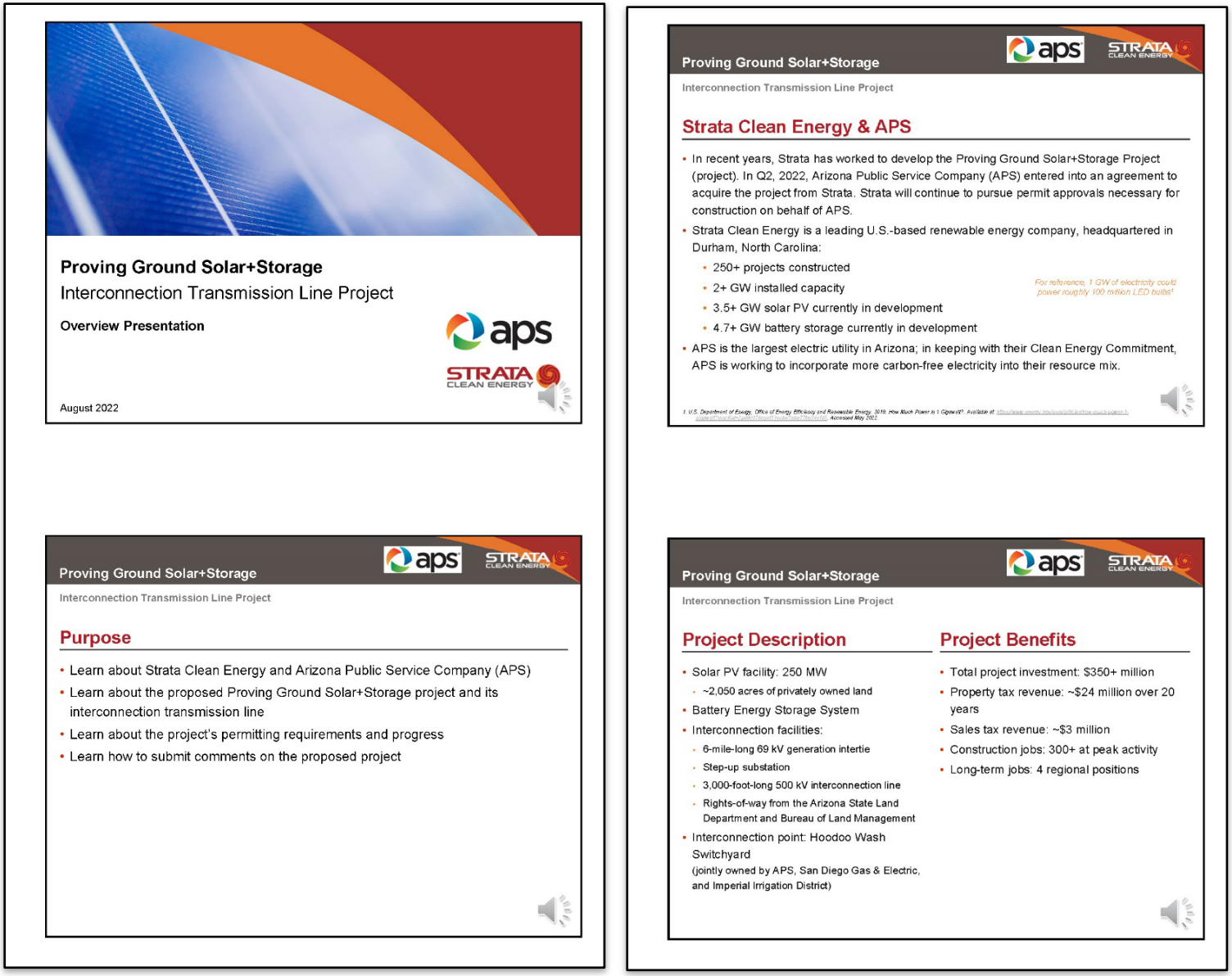


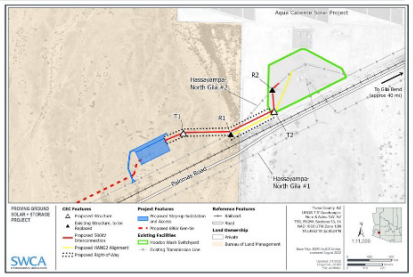
Exhibit J-7a. Overview presentation slides.

Proving Ground Solar+Storage

Interconnection Transmission Line Project

Project Substation and Interconnecting Line

- Requires approximately four new transmission structures, including two within the Hoodoo Wash Switchyard; two of the four new structures (R1, R2) will replace existing structures.
- A portion of the interconnection line would be co-located on double circuit towers with the existing HANG#2 transmission line.
- Tallest transmission structure would be approximately 200 feet above ground surface.



Proving Ground Solar+Storage

Interconnection Transmission Line Project

Transmission Line Approval: Certificate of Environmental Compatibility

- *Certificate of Environmental Compatibility (CEC)*: approval from the ACC and Line Siting Committee necessary for constructing and operating a new transmission line (>115kV).
- *Power Plant and Transmission Line Siting Committee*: evaluates proposed transmission lines in a single proceeding; recommends to the ACC to approve/approve with conditions/deny proposed projects.
- *Arizona Corporation Commission (ACC)*: state agency with jurisdiction over new, high voltage transmission lines.
- Two project components require a CEC:
  - 3,000-foot-long 500kV interconnection line
- CEC applications require comprehensive environmental studies:
  - Biological resources
  - Cultural and historical resources
  - Land use
  - Noise and interference
  - Recreation
  - Visual resources

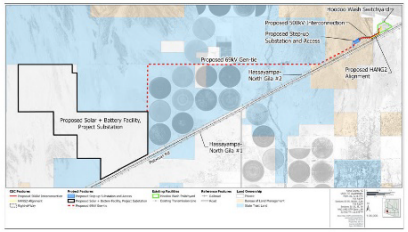
Proving Ground Solar+Storage

Interconnection Transmission Line Project

Project Permits

- Arizona State Trust land:
  - Right-of-way permit (complete)
- Yuma County:
  - Special Use permit (complete)
- Bureau of Land Management:
  - Right-of-way grant
  - Strata is currently working with the BLM to amend its existing ROW grant to match the final design of the 500kV interconnection line, step-up substation, and associated improvements on BLM-managed lands.

Project Location



Proving Ground Solar+Storage

Interconnection Transmission Line Project

CEC: Project Components

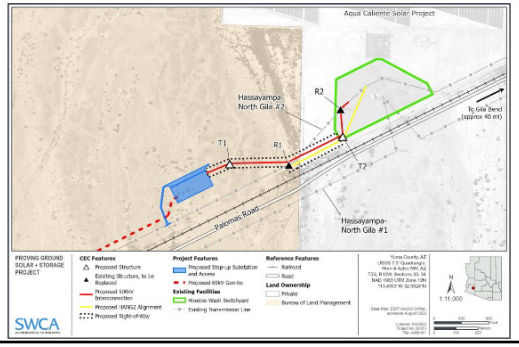


Exhibit J-7b. Overview presentation slides (continued).

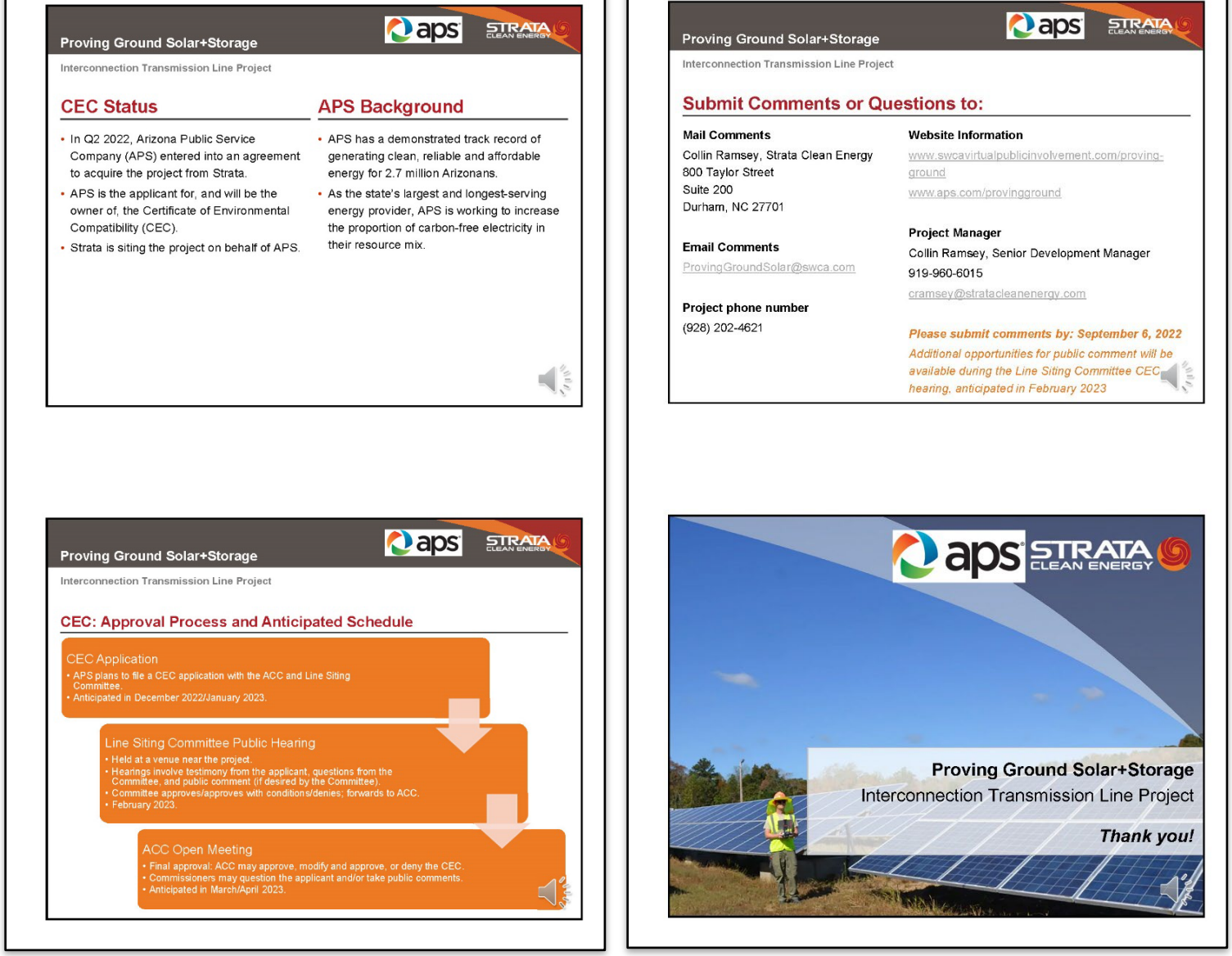


Exhibit J-7c. Overview presentation slides (continued).

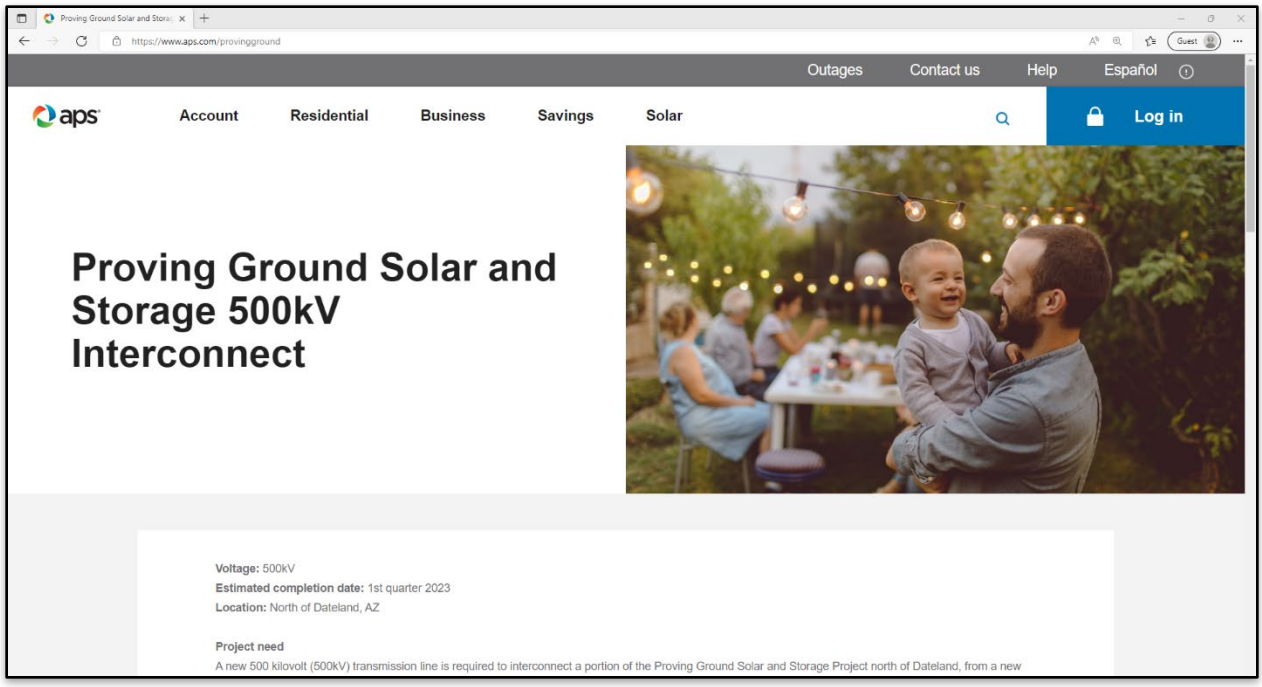


Exhibit J-8a. APS webpage.

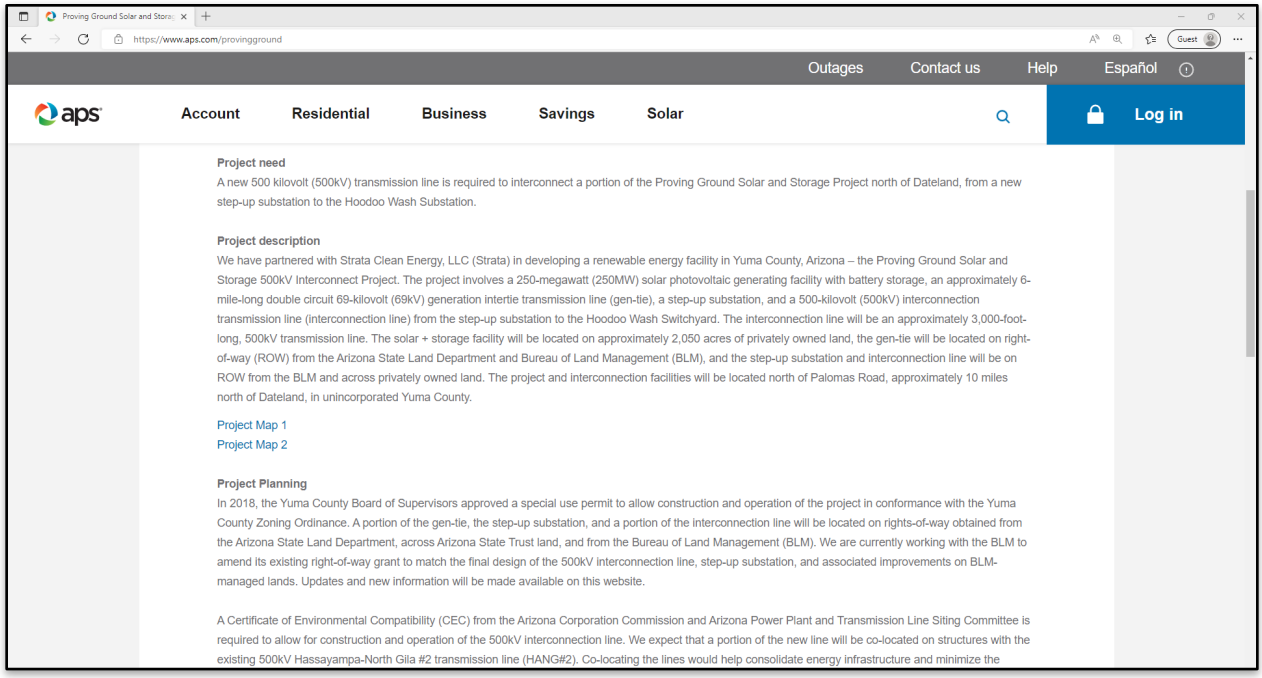


Exhibit J-8b. APS webpage (continued).

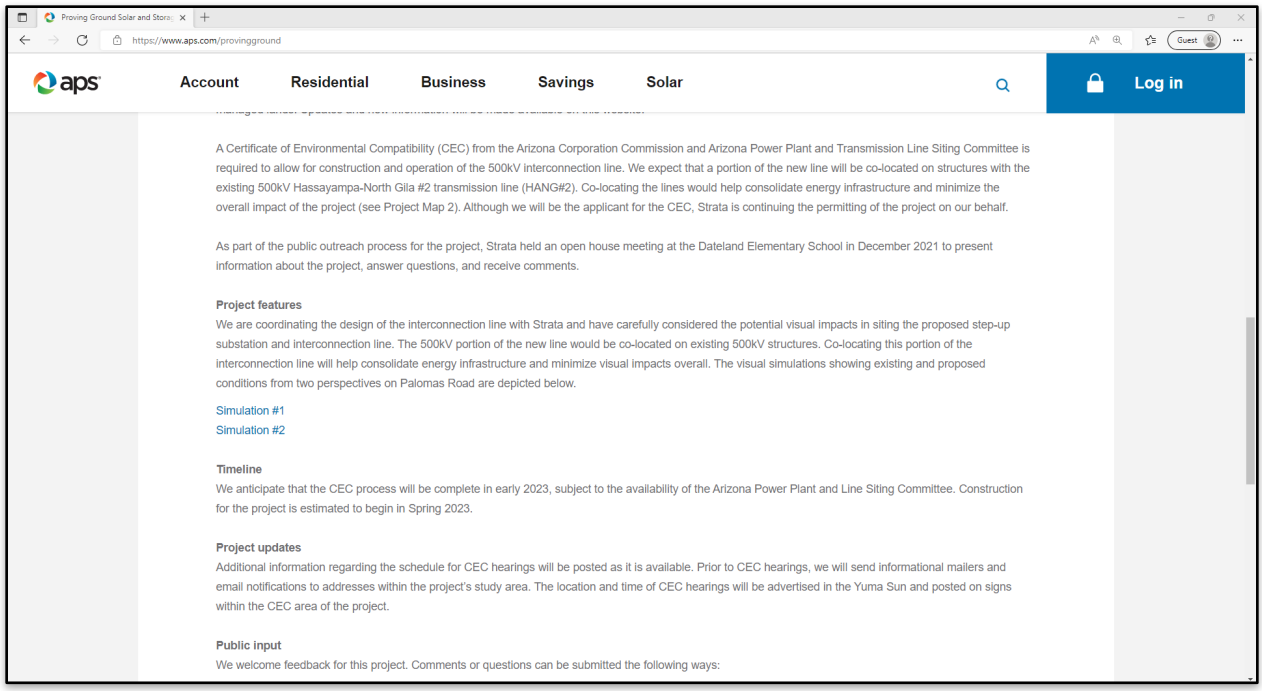


Exhibit J-8c. APS webpage (continued).

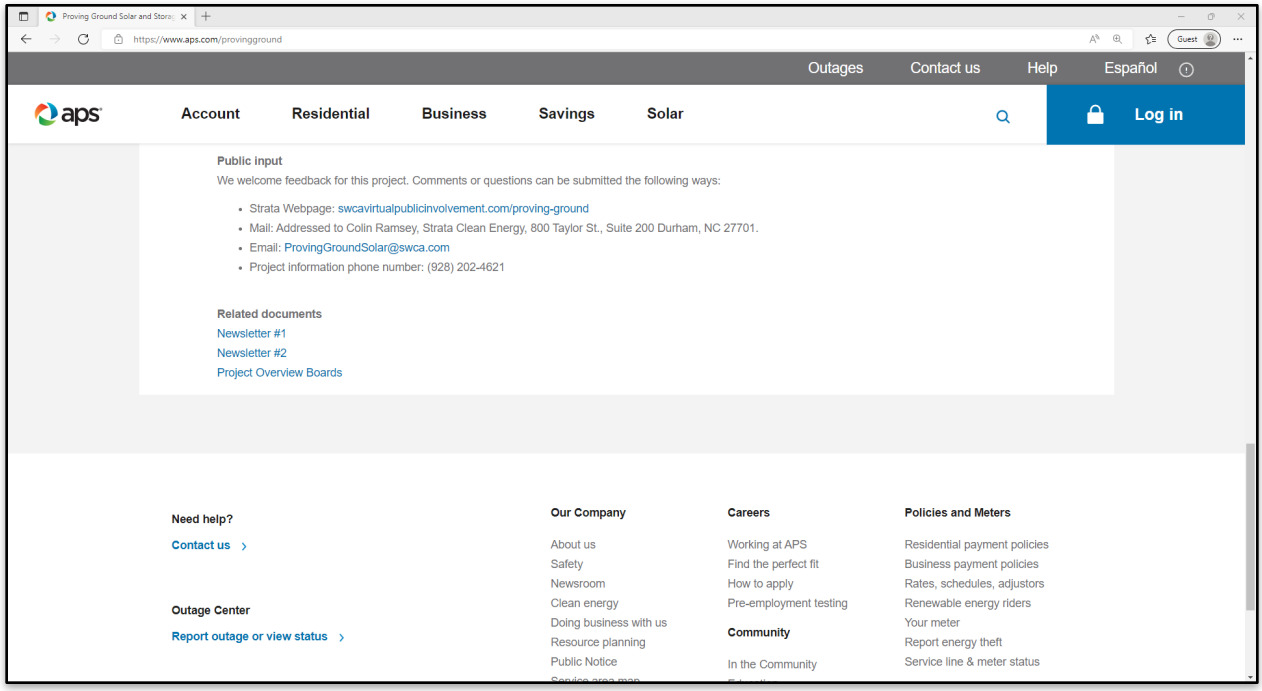


Exhibit J-8d. APS webpage (continued).