

## **EXHIBIT B – ENVIRONMENTAL REPORT**

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As stated in Arizona Corporation Commission Rules of Practice and Procedure R-14-3-219:

*“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 part of this exhibit.”*

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### **EXHIBIT B-1: FINAL ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED RESOURCE MANAGEMENT PLAN AMENDMENTS, SCOPING REPORT, RECORD OF DECISION, AND PRELIMINARY PLAN OF DEVELOPMENT**

These documents can be found on DVDs attached (inside back cover of this binder).

#### **Final Environmental Impact Statement and Proposed Resource Management Plan**

Acronyms and Abbreviations

Executive Summary

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Chapter 2 – Proposed Action and Alternatives

Chapter 3 – Affected Environment

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Chapter 5 – Consultation and Coordination

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Appendix A: Exhibit A of the Right-of-Way Grant, Legal Descriptions

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Appendix E: Mitigation Measures

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Section 3: Project Components

Section 4: Project Construction

Section 5: Operation and Maintenance of Project

Section 6: Mitigation of Environmental Concerns

Appendix A: Construction Considerations

Appendix B: Biological Considerations

Appendix C: Cultural and Paleontological Considerations

Appendix D: Other Special Resource Considerations and Mitigation Measures

Appendix E: Stormwater Pollution and Prevention Plan Methodology

Appendix F: Right-of-Way Preparation, Reclamation, and Monitoring Framework Plan

## **EXHIBIT B-2 – SUMMARY OF PREVIOUS ENVIRONMENTAL STUDIES**

### **Introduction**

SunZia Transmission, LLC (Applicant, or SunZia) submitted an application for right-of-way to construct, operate, and maintain the proposed SunZia Southwest Transmission Project (Project) on public land administered by the Bureau of Land Management (BLM) in 2009. The Proposed Project included two 500-kilovolt (kV) transmission lines located on federal, state, and private lands between central New Mexico and central Arizona. As required under the National Environmental Policy Act (NEPA) and Council on Environmental Quality regulations pursuant to NEPA, an environmental impact statement (EIS) was prepared to analyze and disclose the potential effects of the (Project). The Draft Environmental Impact Statement and Proposed Resource Management Plan Amendments (EIS/RMPA) document was issued in May 2012, the Final EIS/RMPA was issued in June 2013, and the Record of Decision was issued on January 23, 2015.

The BLM served as the lead federal agency for the preparation of the EIS, and published its notice of intent to prepare the EIS in the Federal Register on May 29, 2009. Fourteen cooperating agencies participated in the preparation of the EIS, including the Arizona State Land Department (ASLD); Arizona Game and Fish Department (AGFD); Arizona Department of Transportation (ADOT); Department of the Army, Fort Huachuca; U.S. Army Corps of Engineers; Department of the Army, Fort Bliss; Department of the Army, White Sands Missile Range (WSMR); U.S. Air Force, Holloman Air Force Base (AFB); U.S. Fish and Wildlife Service; U.S. National Park Service; Department of Defense (DOD) Siting Clearinghouse, Office of the Deputy Under Secretary (Installations and Environment); New Mexico State Land Office (NMSLO); New Mexico Spaceport Authority; and Bureau of Indian Affairs (BIA).

## **Alternatives**

An opportunities and constraints analysis was conducted to identify initial transmission line corridor siting options (see Appendix A of the Final EIS). Opportunities for new transmission lines and substation sites generally included locations consisting of, or in proximity to, existing or planned linear facilities, previously disturbed corridors, or corridors designated for future use as utility corridors or in conjunction with industrial use(s). Typically, these opportunities include existing transmission lines, major transportation corridors (interstate and state highways), pipeline corridors, railroads, and canals. These corridors provide potential access for construction and maintenance of transmission lines and substations. Existing linear corridors generally minimize ground disturbance, as well as impacts to biological, cultural, soil erosion, land use, and visual resources.

As a result of the opportunity and constraints analysis, a range of alternative routes were identified and analyzed in the Draft EIS, including the Proposed Route. For study purposes and comparison of alternatives, alternative routes were organized into three route groups or segments that correspond to areas between the proposed SunZia East Substation located in New Mexico and the existing Pinal Central Substation located in Arizona. The Arizona portion of the Project included alternatives between the proposed Midpoint Substation site located in New Mexico and the proposed Willow-500 kV Substation site located in Arizona (Route Group 3); and alternatives between the proposed Willow-500 kV Substation site and the existing Pinal Central Substation site (Route Group 4). Each route group was composed of individual subroutes that were formed by a series of interconnected segments.

The Proposed Route was modified in response to comments received on the Draft EIS and input from cooperating agencies.

Three alternative routes were studied that connect the Midpoint Substation site to the Willow-500 kV Substation site, where the Project enters Arizona. These alternatives ranged from 123 miles to 129 miles in length, and are displayed on Figure 2 of the Application. The Proposed Route and other alternatives studied in this route group cross portions of Luna, Grant, and Hidalgo counties in New Mexico, and portions of Greenlee, Graham, and Cochise counties in Arizona.

Eight alternative routes connecting the Willow-500 kV Substation site to the Pinal Central Substation site, ranging from 133 miles to 173 miles in length were studied. The alternatives in this route group cross portions of Graham, Cochise, Pima, and Pinal counties in Arizona. They are displayed on Figure 2 of the Application.

## **Proposed Route**

The Proposed Route proceeds southwest from the proposed Willow-500 kV Substation, parallel to two 345 kV transmission lines operated by Tucson Electric Power (TEP) for approximately 47 miles, and crosses two pipelines and US Route 191. The route crosses the TEP 345 kV lines approximately 1 mile west of the San Pedro River and turns northwest and continues through the northeast corner of Pima County into Pinal, of which approximately 12 miles are parallel to an existing pipeline corridor. The route then turns and heads west approximately 2 miles west of San Manuel. The route crosses SR 77 (approximately 2 miles north of the community of Oracle),

and parallels an existing 115 kV transmission line for approximately 10 miles to the southwest, to a point adjacent to the Oracle Junction Substation. The route then proceeds parallel to the Arizona Public Service (APS) Cholla-Saguaro 500 kV transmission line and a SWTC 115 kV transmission line for approximately 14 miles and crosses SR 79. The route proceeds northwest, then north, for approximately 19 miles, of which approximately 16 miles are parallel to and east of TEP's Pinal Central-Tortolita 500 kV transmission line (Case 165, Decision No. 73282). The route then turns northwest, then west, continuing to parallel the Pinal Central-Tortolita 500 kV line and a pipeline corridor for 6 miles. As the Proposed Route then heads west, it crosses the Central Arizona Project canal and SR 87 before it proceeds to the Pinal Central Substation located on the southeast corner of SR 287 and Eleven Mile Corner Road, parallel to the Pinal Central-Tortolita 500 kV line for an additional 12 miles.

This route was selected as the Proposed Route, and is the only alternative being sought in this Application, because it would:

- maximize use of existing utility corridors and infrastructure; a major portion, approximately 59% (117 miles) of the Proposed Route in Arizona would be constructed along established utility corridors where existing access is available;
- minimize impacts to sensitive resources;
- minimize impacts at river crossings; and
- minimize impacts to residential and commercial uses.

### **Affected Environment and Environmental impacts**

The following is a summary of the results of the previous environmental studies.

#### **Climate and Air Quality**

Emissions of air pollutants would occur during construction of the transmission lines and substations and, to a lesser extent, during Project operations. Emissions would be transient as construction progresses, so emissions would not occur in one area for a long duration, thereby limiting their impact.

With the exception of 24-hour PM<sub>10</sub>, climate and air quality impacts resulting from construction and operation of any of the alternative subroutes, including the Proposed Route, were predicted to be within regulatory limits (below the applicable National and Arizona, and/or Ambient Air Quality Standards). Because of high background concentrations of PM<sub>10</sub> within the West Pinal County PM<sub>10</sub> nonattainment area, maximum total 24-hour PM<sub>10</sub> impacts could potentially exceed PM<sub>10</sub> standards temporarily for the Proposed Route and any other Arizona alternatives during construction related activities. However, mitigation would be effective in reducing significant impacts.

#### **Earth Resources**

Potential impacts to the Project could result from geological hazards, and impacts to mineral and soil resources could result from the Project. Geological hazards include potential ground rupture from Quaternary faults, destabilization of the land surface by fissures, and flooding.

Potential impacts to mineral resources include the restriction of access to locatable, leasable, and salable mineral resources; while potential impacts to soil resources include accelerated rates of erosion by water or wind, and the conversion of designated Prime or Unique Farmland soils to nonagricultural uses. No significant impacts to mineral and soil resources are expected. Mitigation measures, including best management practices (BMP) to control erosion, would minimize the effects of soil erosion during construction and operation of the Project. Site-specific design of roads and structures using standard and selective mitigation measures would minimize restrictions to mineral development.

### **Paleontological Resources**

The loss of scientifically significant fossils and their contextual data is the primary concern regarding impacts to paleontological resources. Impacts could occur if unique paleontological resources were to be destroyed. Mitigation of impacts to paleontological resources includes preconstruction surveys, personnel education, monitoring ground disturbance for fossils, preparation and curation of any discovered fossils, and deposition of collected fossils in a paleontological repository. With the use of these mitigation measures, impacts to paleontological resources are not likely to be significant.

### **Water Resources**

Impacts to surface water could result from placement of structures, construction of access roads, or temporary work areas. Direct impacts to perennial surface water features could include sedimentation from fugitive dust deposition or access road construction, removal of riparian vegetation, bank alteration, accidental contamination associated with spills of environmentally harmful material, damage to wetlands, or the introduction of invasive species. BMPs and mitigation measures would be effective in minimizing impacts to surface water resources, and no significant impacts are expected to result from the construction and operation of the Project.

Potential impacts to groundwater resources could include accidental contamination during construction or accidental spills of environmentally harmful liquids that could percolate into shallow groundwater. The Project would not impede the flow or depth of groundwater. Mitigation measures would be effective to limit the potential for contamination during construction and operation.

### **Biological Resources**

Direct impacts to vegetation include removal of plants during construction of new or modified access and spur roads and at structure and substation sites. Vegetation removal for structure foundations and at substation sites would be permanent. Indirect impacts associated with vegetation removal may include erosion, reduction of soil water retention, invasive plant colonization, loss of wildlife habitat, and habitat fragmentation.

Mitigation measures would be applied to reduce, avoid, or otherwise provide compensation for impacts to sensitive vegetation. Where vegetation is disturbed or cleared, vegetation loss would be minimized by (1) reducing the area to the extent practicable, (2) plant salvage and revegetation in areas of temporary disturbance, and (3) closure and restoration of any access roads not required for Project maintenance or access. Closure of temporary access roads and the

limiting of access through gating or other means would reduce indirect impacts to vegetation caused by recreational travel, including off-road vehicle travel beyond the Project right-of-way. Tree-cutting would be conducted to comply with National Electric Safety Code and an appropriate level of safety, but would be minimized to the extent possible.

Linear features such as access roads could fragment wildlife habitat, adversely affecting species that are reluctant to cross areas of open ground due to threat of predation. Related to this are edge effects, which may reduce the effective size of habitat blocks for those species, limiting connectivity and dispersal between blocks.

The following impacts to wildlife and special-status species, other than those listed under the Endangered Species Act (ESA), may occur with construction and operation of the Proposed Route:

- Any ground-disturbing activities would remove habitat for wildlife, and any wildlife present would be at risk of harm from construction activities.
- Noise and human presence during construction and maintenance activities may cause wildlife to avoid the vicinity of construction activities.
- Transmission lines lead to increased bird–power line collision risk along the Proposed Route, particularly for larger birds such as Sandhill Cranes and waterfowl and in locations with high levels of bird use such as the San Pedro River and near Picacho Reservoir. Results of avian impact studies predicted that while potentially fatal collisions of Sandhill Cranes and other large birds are likely to occur, a substantial effect at the population level is unlikely for any species.
- The Chihuahua Scurfpea may be impacted by ground disturbance in the San Simon Valley, Arizona.
- Road construction and habitat loss may impact the Sonoran Desert Tortoise from the San Pedro River Valley to the vicinity of the Tortolita Substation, and near the Picacho Mountains.
- Habitat for the Tucson Shovel-nosed Snake may be impacted near the Tortolita Substation and Picacho Mountains.

Selective mitigation measures addressing the reduction of ground disturbance, noxious weed and erosion control, and restoration of vegetation would help reduce effects to wildlife. A posted reasonable construction speed limit could minimize potential collision risk to wildlife in road areas, and construction activities may be constrained during certain seasons to address needs of special-status species at specified locations. Debris and trash would be properly contained and regularly removed from the Project to an appropriate landfill site. Construction excavations would be fenced or covered to preclude injury or trapping of wildlife or livestock.

Mitigation measures to reduce the collision risk for large birds include methods to improve visibility, such as the use of bird diverters on groundwires and guywires. Since the transmission line would span most aquatic habitats, there should be no significant impacts to aquatic and shorebird nesting habitat. The Project would have a minimal effect on prey and forage availability for these species. Timing of construction to avoid avian nesting or breeding times would help minimize impacts to birds.



## Section 7 of the Endangered Species Act

Consultation with the U.S. Fish and Wildlife Service (USFWS) is required under Section 7 of the ESA, when a project that is carried out, funded, or authorized by a federal agency may affect species listed under the ESA. The BLM requested early input from the USFWS to identify ESA-listed species and other sensitive biological resources, and received comments on September 14, 2009. Published lists of ESA-listed species created by the USFWS for all counties crossed by the study corridor were reviewed by the BLM, and other information reviewed included BLM records, USFWS documents, other agency reports, primary literature, and regional references. This information was used in the early development of alternative routes for the Project, and updated to include current status of affected species. As part of formal consultation under Section 7 of the ESA, the BLM submitted a Biological Assessment (BA) to the USFWS to address species with the potential to occur in the area of the BLM preferred alternative for the Project. The USFWS reviewed the BA and issued a Biological Opinion (BO) to complete Section 7 consultation.

The USFWS concluded in the BO that the following ESA-listed species may be adversely affected by the Project:

- Lesser Long-nosed Bat
  - Loss of forage plants (agaves and saguaros)
- Yellow-billed Cuckoo (Western Distinct Population Segment) and proposed critical habitat
  - Loss of potentially suitable nesting habitat to vegetation management
  - Disturbance during construction
- Southwestern Willow Flycatcher and designated critical habitat
  - Loss of potentially suitable nesting habitat to vegetation management
  - Disturbance during construction

The applicant has committed to mitigation measures to avoid, minimize, and offset impacts to these species. Loss of forage plants for nectar-feeding bats would be minimized through salvage and replacement of saguaros and agaves that would be affected by construction or vegetation management. Impacts to habitat for the Yellow-billed Cuckoo and Southwestern Willow Flycatcher have been minimized through selection of a crossing location on the San Pedro River in a location with little or no suitable nesting habitat for these species. Impacts would further be minimized by spanning the river and floodplain to minimize the need for vegetation management, and by providing compensatory mitigation to replace any habitat affected by temporary or permanent ground disturbance.

## **Wildland Fire Ecology and Management**

The operation of 500 kV transmission lines generally presents a very low risk of fire ignition, as the scale of the structures minimizes the risk of vegetation contact. However, unforeseen events do have the potential to occur. Transmission structures may fail or be accidentally damaged as a result of human activity such as vehicle or aircraft collisions and vandalism, or from severe

weather, geological hazards, and other natural events. However, 500 kV conductors and structures are of sufficient size to be resistant to physical damage.

A Fire Protection Plan would be implemented during Project construction to reduce the risk of fires and increase fire safety. A Fire Marshal would be responsible for ensuring compliance with all mitigation measures for fire safety, as well as coordination and communication with agencies and emergency responders.

## **Cultural Resource**

The anticipated impacts to cultural and historic resources result from a loss of integrity on prehistoric and historic sites. Four types of impacts that could affect archaeological sites during and after construction of the proposed Project are:

- direct and permanent ground disturbance during construction
- direct and permanent visual and auditory intrusions
- indirect and temporary visual intrusions during construction
- indirect and permanent disturbances due to changes in public accessibility

Intensive pedestrian inventories of the Proposed Route, associated access roads, substations, and associated ancillary facilities will be conducted. All cultural and historic resources identified during the inventory will be evaluated for eligibility to the National Register of Historic Places (NRHP).

The Project would cross Butterfield, Gila, Zuniga, Southern Pacific Mail, and General Cooke's Wagon Road/Mormon Battalion trails. Potential impacts to National Scenic and Historic Trails have been documented in the Final EIS (also see Appendix L of the Final EIS).

Direct impacts to significant cultural resources can be effectively minimized, if not eliminated, through mitigation planning and implementation. In designated areas, structures would be placed to avoid and or span sensitive cultural resource sites or features. Cultural resources would continue to be considered during all phases of Project implementation, in accordance with the executed agreement. This would involve intensive surveys to inventory and evaluate cultural resources within the selected corridor and any appurtenant impact zones beyond the corridor, such as access roads and construction equipment yards. This would also require a Historic Properties Treatment Plan to ensure proper data recovery and recordation prior to construction in the sensitive areas identified in the plan. Monitoring of construction activities will be required to ensure that cultural sites that are to be avoided during construction remain undisturbed.

### Tribal Consultation and Section 106 of the National Historic Preservation Act

The BLM, along with any other federal agency that may be issuing permits or licenses for the Project, had a responsibility under Section 106 of the National Historic Preservation Act (NHPA) to consider the effects of its undertakings on properties listed in or eligible for the NRHP. Tribal consultation is required under the NHPA and other laws. Tribes are potential consulting parties for the Section 106 process, and any tribe that "requests in writing shall be one" (§800.3[f][2]). Invitations for government-to-government and Section 106 consultation were sent to 29 tribes in May of 2009 and April of 2012. Although there were no written requests to be consulting parties,

Arizona tribes that participated in general Project consultation and the Section 106 process include: Tohono O’odham Nation, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, Ak-Chin Indian Community, San Carlos Apache, and White Mountain Apache.

Consultation with appropriate land management agencies, tribes, and State Historic Preservation Offices is ongoing. A Programmatic Agreement, which establishes a project-specific procedure for complying with the NHPA, including procedures to follow during the execution of the Project, has been executed by all requested parties.

## **Visual Resources**

Changes to views from sensitive public viewing locations and modifications that would alter the landscape character (scenery) of natural lands were the primary factors considered for identifying and characterizing impacts related to visual resources. Impacts to scenery and views from residential, travel routes, and recreation areas were assessed. Additionally, compliance with visual resource management objectives and adherence with resource management plans for federal lands were also assessed. Standard and selective mitigation measures and Best Management Practices (BMPs) would reduce impacts to scenery and viewers.

Visual impacts that may occur with construction and operation of the Proposed Route include the following:

- Moderate-High impacts to Class A landscapes are anticipated at the San Pedro River Crossing. Moderate-High impacts are anticipated where the Project would cross Class B lands where modifications to the landscape introduce strong contrast to scenery (e.g. new access roads over rolling hills and no existing structures). Moderate to Low-Moderate impacts would occur on Class B lands where modifications to the landscape are moderate as a result of project construction. Low-Moderate to Low impacts are anticipated for Class B and C landscapes where modifications to the landscape as a result of project construction are minimal.
- Limited areas of Moderate-High impacts are anticipated for residences north of Willcox, north of Eloy (near the Pinal Central Substation), and dispersed residences south of San Manuel and west of Oracle. Moderate to Low impacts were identified for residences associated with the following communities: Cascabel, Redington, San Manuel, and Oracle (including Saddlebrooke Ranch), and Eloy.
- High impacts to recreation viewers associated with the Arizona National Scenic Trail are expected to occur. Moderate and Moderate-high impacts are anticipated for Hot Wells Dune OHV Recreation Area and the recreation area access road, respectively. Recreation viewers would also have moderate-high impacts associated with the Buehman Canyon Trail and the A7 Ranch. Moderate to Low impacts are anticipated for Oracle State Park and associated trails.
- High impacts would occur for viewers along Pima County designated Scenic route Redington Road. Moderate-high impacts are anticipated for Cascabel Road, SR 77, Muleshoe Ranch Road, Black Hills Mine Road/Catalina Ridge, Webb Road, North Redington Road, and Park Link Drive.

Mitigation measures and BMPs would be applied to reduce visual impacts where effective and feasible. These measures would include site-specific structure placement, access road and laydown area reclamation, or other methods to minimize visual contrast in the landscape setting.

### **Existing Land Use and Recreation Resources**

The Project would be constructed across lands owned by federal, state, private, or other entities. Approximately 25 percent of the Proposed Route would cross public lands managed by the BLM (50 miles); state lands in Arizona comprise approximately 66 percent (131 miles) of the route; and the remaining 9 percent (18 miles) would cross private or other land owners. Right-of-way would be acquired on these lands that are generally used for grazing, farming, recreation, and open space. BLM and state lands are primarily used for grazing or recreation in open space areas. Residential uses are located on private lands in rural areas and near small cities and towns within the study area.

In the Arizona portion of the study area, population centers include San Simon, Willcox, Benson, San Manuel, Oracle, Coolidge, and Eloy. Farming is concentrated in the Sulphur Springs Valley, and San Pedro River Valley, and in Pinal County. Davis-Monthan AFB, Fort Huachuca, the Western Army National Guard Aviation Training Site, and other military installations conduct training and testing operations in air space within the study area.

A major interstate utility corridor that contains transmission lines, communication facilities, and pipelines is located generally along I-10 through southeastern Arizona, and a pipeline corridor crosses the San Pedro River Valley between Cochise and Pinal counties. Approximately 74 miles of the route would be parallel to existing transmission lines, and an additional 18 miles would be parallel to existing pipelines.

The Proposed Route would cross portions of various irrigation and drainage canals and related facilities within agricultural areas in Arizona. The Central Arizona Water Conservation District manages the Central Arizona Project facilities on federal lands administered by the Bureau of Reclamation (BOR) in Arizona. The San Carlos Irrigation and Drainage District administers the San Carlos Irrigation Project facilities (under BIA jurisdiction), also in Arizona. Where necessary to construct transmission facilities across canals or other conveyance systems, the transmission Project would be constructed to allow conductors to span these facilities, resulting in low or minimal impacts. An encroachment permit would be required by the BOR or BIA to cross these facilities in accordance with the NEPA and other federal regulations.

The Proposed Route could cross private and public conservation easements within Arizona, particularly near the San Pedro River. Existing conservation easements, to the extent practicable, would be avoided by the Proposed Route. However, some specific conservation easement crossings may not be identified until the final right-of-way acquisition begins. Negotiations with the particular land owner/easement manager would address specific requirements of the conservation easement.

In general, land use impacts are minimized where linear utilities are constructed within established or designated corridors. The alignment of the Proposed Route was sited to maximize the use of established utility corridors, and to avoid conflicts with incompatible land uses such as wilderness, national parks and monuments, special management areas, wildlife refuges and other

conservation areas, densely populated areas, and military installations. Impacts to land uses would occur along portions of the route that cross irrigated agricultural lands, residential subdivisions, and areas used for industrial or military testing and training. Mitigation measures and BMPs would be effective in avoiding or minimizing direct impacts with land uses in most conditions. There would be no direct displacement of residential, business, or industrial structures. There would be a minimal loss of grazing land.

### General Land Use Summary

The Proposed route runs primarily through vacant undeveloped land in Greenlee, Graham, and Cochise counties. Link C110 crosses two large rural residential properties and continues south, and crosses the San Pedro River with Links C261 and C201, avoiding impacts to residential, commercial, and industrial uses. Along Link C260 (milepost 3), the Proposed Route passes adjacent to the Red Horse 2 Wind Farm. The remainder of the Proposed Route crosses vacant undeveloped land until it approaches the Pinal Central Substation, where the route crosses a residential property, and Links C880 and C880a pass within 0.5 miles of a rural residence and agriculture areas; the route does not directly affect any residential dwellings.

Based on results of the land use analysis, significant impacts are not expected; however, potential impacts to agricultural operations were identified for the Proposed Route. Mitigation measures such as modified tower designs and siting for avoidance of sensitive features would be applied to reduce the amount of land occupied by structures in these areas for links C110, C880, and C880a. There would be few other impacts to land uses throughout the study corridor, because a major portion of the preferred alternative would be constructed along established utility corridors or other linear features, where existing access is available. Approximately 59 percent (117 miles) of the route is parallel to existing utility corridors, including 74 miles parallel to existing transmission lines in Arizona.

### Residential

Residential land uses throughout the study corridor are primarily described as low, medium, and high density single-family residential, multi-family residential (e.g., apartment complex), rural residential, and mobile home parks. Residences are found scattered throughout the Project study corridor, with concentrations near towns and cities such as Willcox, Oracle, San Manuel, Eloy, and Coolidge.

### Commercial

Commercial land uses throughout the study corridor include restaurants, gas stations, banks, grocery stores, motels and hotels, and other businesses. Concentrations of commercial use mainly occur in populated areas (e.g., Willcox, Oracle, San Manuel, Eloy, and Coolidge) and along major transportation corridors (I-10, SR 77, and SR 79).

### Industrial

Industrial land uses include warehouse businesses, manufacturing companies, storage facilities, and other uses. Industrial uses occur near populated areas such as Willcox, Oracle, San Manuel, Eloy, and Coolidge.

### Public/Quasi Public

Public/Quasi-Public land uses include places of worship (such as churches), community centers, and libraries. Public/quasi-public uses occur near populated areas such as Willcox, Oracle, San Manuel, Eloy, and Coolidge.

### School/Educational Facilities

Schools and educational facilities include preschools, primary schools, secondary schools, and colleges. Schools/educational facilities are typically located near population centers such as Willcox, Oracle, San Manuel, Eloy, and Coolidge.

### Grazing/Multi-Use/Vacant

The majority of the Proposed Route crosses BLM and State Trust land that is vacant and undeveloped or used for ranching and grazing. There is very little farmland along the Proposed Route from the Arizona State line to the Proposed Willow Substation. Link C110 crosses irrigated farmland north of Willcox, in Cochise County. A large majority of the land Cochise County is Rural Zoning, which was established to preserve the character of designated rural areas in the County. These designations were also established to preserve the agricultural character of areas that were capable of resource production, and to preserve the rural environment of outlying unincorporated areas.

Further, Links C880 and C880a cross, and Link C850 is adjacent to, irrigated farmland. Link C680 is adjacent to a small agricultural operation. Links C450 and C441 cross State Trust lands leased to Pima County for grazing.

Impacts to grazing would include the removal of approximately 174 acres of BLM land within the Safford Field Office area, which is 0.01 percent of available grazing land. Impacts to Arizona state grazing lands would include the removal of approximately 12 acres (0.00002 percent) from state land in Graham County, 334 acres (0.0003 percent) from state lands in Cochise County; 37 acres (0.00008 percent) from state lands in Graham County; 97 acres (0.0001 percent) from state lands in Pima County; and 303 acres (0.0003 percent) from state lands in Pinal County. The total amount of grazing lands removed for the Proposed Route is approximately 783 acres, or less than 0.0002 percent of available grazing lands.

### Parks and Recreation

State parks within the study corridor include Oracle State Park south of Link C661 along SR 77. Recreation land uses within the study corridor include federal, state, and local recreational trails and designated OHV areas, as well as BLM Special Resource Management Areas (SRMAs) designated for multiple recreational activities such as rock climbing and bouldering.

Only dispersed recreation occurs along the Proposed Route. The closest recreational facilities to the Proposed Route up to the Willow Substation are limited to existing educational facilities, primarily in Greenlee County, which are open for the public's use when school is not in session, according to the Greenlee County Comprehensive Plan 2003. The Hot Well Dunes Recreation Area is located approximately 0.75 miles north of Link B160d (milepost 11) in Graham County.

There are dispersed recreational opportunities along the San Pedro River, including hiking, bicycling, equestrian, fishing, birding, and other wildlife watching activities. Formal recreational opportunities are located in the Willcox and Benson communities. Willcox, located approximately 7 miles south of the Proposed Route, has a sports park with a rodeo/fairground arena and athletic fields; and two municipal parks. The City of Benson, located approximately 11 miles south of the Proposed Route, has a community pool and three public parks.

In the northern portion of the study corridor, the rural communities of San Manuel, Oro Valley, Picacho, and Eloy each contain small community parks allowing for a variety of recreational uses. Pinal County has community parks, including the Pinal County Fairgrounds located adjacent to the proposed Pinal Central Substation. There are dispersed recreational opportunities, located approximately 11 miles southwest of the Proposed Route near the Santa Cruz River on BLM land in south-central Pinal County, that include hiking, bicycling, and equestrian activities.

Existing designated and dispersed recreation opportunities will remain available for recreation uses, where currently allowed by land-managing agencies or entities. Where the Project crosses existing roads or trails, permanent access to and along these features for recreation use would not be affected.

### Transportation and Access

Transportation land uses include minor roads (county highways, city streets); major roads (interstates, state highways), railroads, and trails. Though transportation land uses occur throughout the study area, the main features are I-10, SR 79, SR 77, and the Union Pacific Railroad (UPRR).

The closest interstate to the Proposed Route is I-10, which runs east and west through the communities of Bowie, San Simon, Willcox, Benson, and Casa Grande, Arizona. Other major roadways include US Route 191 and SRs 77, 79, and 87, all under ADOT jurisdiction. US Route 191 and SRs 77 and 79 are alternate primary routes that run north and south in the study area. The UPRR parallels I-10 through the study corridor. The Arizona Eastern Railroad, which runs from the Bowie townsite north into Safford, is crossed by the Proposed Route approximately 15 miles north of Bowie. Scenic roads/highways within the study corridor include Pinal Pioneer Parkway (SR 79) crossed by Link C680, Redington Rd crossed by Link C441, and Cascabel Rd crossed by Link C261 near mile post 6 adjacent to the San Pedro River.

There are several private airstrips, used for agricultural purposes and to access private land, within the study corridor from the Arizona state line to the proposed Willow-500 kV Substation. The Coolidge and Eloy Municipal Airports are located near Links C850 and C880a outside of the study corridor. The Cochise County Airport is also located approximately three miles west of

Willcox and eight miles southeast of Link C212. San Manuel Airport is approximately three miles north of San Manuel, approximately one mile east of Link C450.

### Military Installations

The Proposed route crosses the northern portion of the Buffalo Soldier Electronic Testing Range along Links C201, C261, C260, and C212. This facility, which is headquartered at Fort Huachuca near Sierra Vista approximately 38 miles south of the Proposed Route, conducts noise tests for electronic combat and electronic warfare equipment (see Section 3.10.3.7 of the FEIS). These tests are performed under a variety of circumstances and configurations. The current infrastructure within the Electronic Proving Ground study area, such as power lines, cell phone towers, radio stations, and other “emitters,” have been measured and taken into account to form a “zero point” for testing purposes. The testing program could be potentially affected by the operation of new transmission lines; however, the effects have not been described or quantified, and any impacts could be included in the “zero point” in a manner that likely would not impede future testing.

The Army National Guard trains helicopter pilots near the Tortolita Substation and in the vicinity of the Picacho Mountains. The training area includes approximately 3,600 square miles of low-level training areas, including military training flights between 1,000 and 10,000 feet above mean sea level. The Army National Guard uses a site referred to as Square Field, which is located within the study corridor, for emergency training exercises. Square Field is located on private land approximately two miles east of link C820.

### Energy Facilities, Utility Corridors, and Communication Sites

The Proposed route is parallel to existing utility corridors for approximately 117 miles. The Oracle Junction Substation is adjacent to Link C680. Links C260 and C261 are adjacent to the Winchester Substation. Communication facilities, such as microwave stations, radio towers, and cellular/digital towers, are located within the study corridor along Links C450, C441, and C260.

### **Wilderness, Wilderness Study Areas, and Lands with Wilderness Characteristics**

The Proposed Route would not cross wilderness areas or Wilderness Study Areas, and therefore no direct impacts would occur. Impacts to lands with wilderness characteristics inventory units on BLM Lands for the Proposed Route are not expected. Indirect or cumulative impacts may occur to air quality, earth, water, visual, or other resources, but would not be significant.

### **Social and Economic Conditions**

There would be no substantial impacts to population or housing as a result of construction or operation of the Project. More than 1,300 jobs could be created (in job years) in Arizona during the two- to three-year construction period. In addition, the Project could generate revenue from increased local spending, and more than 1,400 indirect jobs could be created to supply related goods and services. During operations, over 40 direct and 50 indirect jobs could be created.

The Project would generate revenues from income taxes and property taxes. In Arizona, between \$18 million and \$19 million would be generated by income taxes, and between \$6 million and



\$13 million would be generated in property tax revenues during construction. During operations, annual income tax revenues would be between \$300,000 and \$700,000, and property tax revenues would range between \$10 million and \$25 million.

### **Environmental Justice Conditions**

Executive Order 12898 (U.S. Department of Housing and Urban Development 1994) requires federal agencies to address high and disproportionate environmental impacts on minority and low-income populations. The results of the analysis for this Project indicated that no significant impacts to environmental justice populations are expected as a result of the construction or operation of the Proposed Route.

### **Health and Safety/Hazardous Materials**

An analysis was conducted to evaluate potential impacts from electrical and magnetic fields, audible noise, radio and television interference, environmental contamination, and hazardous materials related to construction, operation, and decommissioning of the proposed Project.

The study results indicated that electric field levels anticipated to occur at the Project right-of-way are projected to be below the reference levels for general public exposure, based on the International Commission on Non-Ionizing Radiation Protection. The maximum potential magnetic field levels within the right-of way would also be under the reference levels for general public exposure.

Audible noise may result from equipment and vehicles used during Project construction. Where construction would occur near populated areas, noise might be audible and result in temporary impacts and possibly considered only as a nuisance. During operation of the transmission lines and substations, audible noise levels would not exceed the Environmental Protection Agency recommended levels of 55 dBA at the right-of-way limits.

Projected levels of radio and television interference, resulting at the right-of-way limits for the Project, would be below the recommended levels established by the Radio Noise Design Guide and Federal Communication Commission.

Construction and operations activities would comply with all applicable federal, state, and local regulations regarding the use of hazardous substances. BMPs would be applied to ensure that applicable federal, state, and local laws are obeyed. Further, the Project owner and construction team would coordinate with land management agencies to incorporate health and safety requirements in response to accidental release of hazardous materials.

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