In the matter of the Application of SunZia Transmission LLC, in conformance with the requirements of Arizona Revised Statutes 40-360, et seq., for a Certificate of Environmental Compatibility authorizing the SunZia Southwest Transmission Project, which includes the construction of two new 500 kV transmission lines and associated facilities originating at a new substation (SunZia East) in Lincoln County, New Mexico, and terminating at the Pinal Central Substation in Pinal County, Arizona. The Arizona portion of the project would be located within Greenlee, Graham, Cochise, Pima, and Pinal counties in Arizona.
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<tr>
<td>AC</td>
<td>Alternating Current</td>
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<td>ACC</td>
<td>Arizona Corporation Commission</td>
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<td>Arizona Department of Transportation</td>
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EXECUTIVE SUMMARY

SunZia Transmission, LLC (SunZia) is seeking a Certificate of Environmental Compatibility (CEC) from the Arizona Power Plant and Transmission Line Siting Committee (Siting Committee) for authority to construct the proposed SunZia Southwest Transmission Project (Project) in Arizona. The Arizona portion of the Project comprises the construction of two new 500-kilovolt (kV) transmission lines and associated facilities. The Project is needed to increase transfer capability and reliability, thereby relieving existing transmission congestion and allowing additional electricity to be generated and transported to western power markets and load centers in Arizona and the Desert Southwest. The Project will be colocated with areas of undeveloped renewable resource potential to provide a path for energy delivery to help meet growing demand for electricity in the western United States, including Arizona. The Project will also assist Arizona load-serving utilities by providing additional energy delivery options and to meet state renewable portfolio standards and new federal mandates while addressing transmission needs that have been identified at local, regional, and national levels.

PROJECT OVERVIEW

The Project includes two new, single-circuit 500 kV transmission lines. The length of the Proposed Route within Arizona, described in this CEC Application, is approximately 199 miles. The Proposed Route enters Arizona in Greenlee County, approximately three miles north of the Cochise County line, and terminates at the existing Pinal Central Substation in Pinal County, Arizona (Figure ES-1). The Proposed Route crosses lands administered by the Arizona State Land Department (ASLD), Bureau of Reclamation (BOR), and Bureau of Land Management (BLM), and private lands (Exhibit A-1). The Proposed Route will be located within the planning areas of Greenlee County, Graham County, Cochise County, Pinal County, Pima County, City of Coolidge, and the City of Eloy.

The Project will require new rights-of-way on federal, state, and private lands for the transmission lines and related associated facilities; the typical right-of-way width will be up to 200 feet for each of the two transmission lines within a single 2,500 foot-wide corridor. Typically there will be a 50-foot wide separation between the two transmission line rights-of-way. However, in some locations, the separation of the transmission line rights-of-way could be up to 1,000 feet to accommodate physical constraints such as terrain features, or to avoid sensitive environmental resources and to preserve critical habitat, existing land uses, and important cultural resources. Based on a typical span of 1,400 feet between transmission line structures, three to four transmission line structures per mile will be required for each of the two lines, with typical structure heights of 135 feet, typically ranging from 100 to 170 feet in certain conditions. Project design features and details, including typical structure diagrams anticipated for the Project, are provided in Exhibit G.

The Project will include construction of the Willow-500 kV Substation, located on ASLD land in Graham County, Arizona. The location of the proposed Willow-500 kV Substation is approximately 3 miles north of the Cochise County line and approximately 1 mile east of US Highway 191. The Pinal Central Substation, at the Project’s western terminus, was approved by the ACC in 2005 (Decision No. 68093) and constructed by Salt River Project (SRP). The Pinal Central Substation is located approximately 7.5 miles east of Interstate 10 on privately owned
land within the City of Coolidge. SunZia’s 500 kV transmission lines will terminate inside the existing Pinal Central Substation. These substations will provide Arizona’s utilities and load centers with access to the energy, including renewable energy, transmitted by the SunZia Project.

At least one of the two 500 kV transmission lines will be constructed and operated as an alternating current (AC) facility. The other transmission line could be either an AC or direct current (DC) facility. If one of the lines is constructed as a DC facility, then the Project will include construction of a new DC converter station, which will be located within the requested 2500 foot corridor and within 1 mile east of the Pinal Central Substation.

PROJECT NEED AND BENEFITS

The SunZia Project benefits Arizona by providing needed increases in energy and power transfer capability and improved transmission reliability. Consequently, the Project will: (1) reduce existing transmission congestion; (2) support the development and transmission of renewable energy resources, such as solar and wind energy, currently located within areas of undeveloped renewable resource potential; (3) provide power to help meet future electricity demand in Arizona; (4) provide a strategic option for Arizona, and its utilities, to comply with increasingly burdensome federal air quality standards; and (5) provide needed jobs and state and local revenues.

The SunZia Project will enable the delivery of renewable energy essential for achieving compliance with existing and pending federal standards. By 2025, Arizona’s Renewable Energy Standard and Tariff requires regulated electric utilities to generate 15 percent of total energy from renewable energy technologies, and beginning in 2025, a significant reduction in carbon dioxide (CO₂) emissions from electricity generating units is required by the U.S. Environmental Protection Agency’s Clean Power Plan. To meet the Clean Power Plan emission reduction requirement in Arizona, utilities will likely need to reduce reliance on high-emitting coal-fired power plants and obtain power from zero-emitting renewable sources. In addition, a pending regulation affecting Arizona utilities is the Environmental Protection Agency’s (EPA) final revised ozone standard, expected to be promulgated in October 2015. This new federal rule will likely further limit the development of new, and major modifications of existing, fossil fuel power plants in Arizona.

The Project will also provide needed jobs and revenue in Arizona. The Project will provide significant employment opportunities during its anticipated construction period (over 2500 jobs in Arizona); tax benefits through property, state, and local taxes; and significant revenue to ASLD.

PROJECT HISTORY

SunZia originated from regional transmission planning efforts.

The Southwest Area Transmission Subregional Planning Group (SWAT) is an organization within the Western Electricity Coordinating Council (WECC) that promotes coordinated regional planning of the transmission grid in Arizona, New Mexico, southern Nevada, and southern California. SWAT includes transmission owners and customers, environmental and conservation
interests, independent and merchant transmission and generation project owners, governmental organizations like the Arizona Corporation Commission (Commission), and other stakeholders. In 2006, SWAT identified the need for significant transmission expansion between southern New Mexico and southern Arizona to serve growing electrical loads, increase system power transfer limits and import capability requirements, and provide service for the growing demand for renewable energy resources, particularly from remote renewable energy zones that have limited or no access to transmission infrastructure. The Project was conceptualized as a result of SWAT’s findings. Since 2006, the Project has been included in SWAT’s collaborative planning process.

Additionally, SunZia submits annual updates to its Ten Year Plan each January with the Arizona Corporation Commission, and is an active participant in the Commission’s Biennial Transmission Assessment process.

**SunZia is an independent transmission project owned by multiple parties.**

SRP, Tucson Electric Power Company (TEP), Tri-State Generation and Transmission Association, and Shell Wind Energy are minority owners, while Southwestern Power Group II, LLC (SWPG), a wholly owned subsidiary of MMR Group, is the significant majority owner of the Project. SWPG serves as the project manager.

**SunZia has been the subject of a nearly six-year, comprehensive environmental study process that included impact analyses, significant public involvement, and detailed reviews of alternative routes and mitigation planning.**

During the summer of 2008, SWPG, acting on behalf of all the Project owners, conducted an analysis of numerous possible alternative transmission alignments. Siting criteria included maximizing the use of existing linear infrastructure features (including high voltage transmission lines, pipelines, roads, existing but unused rights-of-way, canal easements, etc.), while avoiding or minimizing areas within which construction and operation of electric transmission infrastructure will result in a significant incompatible use of the land. In September 2008, SunZia filed a SF-299 right-of-way application with the BLM, requesting a 1,000 foot right-of-way across federal lands in Arizona and New Mexico. SunZia’s requested route at that time was approximately 460 miles long.

BLM became the lead federal agency to prepare an Environmental Impact Statement (EIS) in order to comply with the National Environmental Policy Act (NEPA) and other federal laws and regulations.

During the EIS study and review process, which commenced in 2009, 14 cooperating federal and state agencies joined the effort, thereby affording the BLM the benefit of each agency’s particular special expertise and guidance. Arizona cooperating agencies included the ASLD, the Arizona Game and Fish Department (AGFD), and the Arizona Department of Transportation (ADOT). These cooperating agencies actively participated during the NEPA process.

To issue a right-of-way under the Federal Land Policy and Management Act, the BLM identified and selected the Arizona portion of the Project after coordination, consultation, and input from...
these Arizona state agencies. The Arizona portion of the BLM Preferred Alternative Route (PAR) is the Proposed Route that SunZia requests in this CEC Application.

Significant and comprehensive public and stakeholder involvement was carried out during the NEPA process. For example, BLM conducted a series of public scoping meetings in Arizona during the June 2009–June 2010 timeframe; over 200 people attended the meetings that were held in Eloy, Oracle, Safford, Willcox, and Tucson, and approximately 1,000 written comments were provided to the BLM. Additionally, during, before, and after this time period, Project representatives met with local stakeholders, municipalities, and boards of supervisors in Pinal, Pima, Graham, Cochise, and Greenlee counties to inform them of general project planning activities and seek their input.

BLM issued a Draft EIS in May 2012 and invited public comment. Another round of public meetings was conducted in Safford, Benson, Tucson, San Manuel, and Eloy, and the BLM received over 900 written comments for its review and consideration.

In June 2013, the BLM issued the Final EIS for the Project and invited public comment. The BLM’s PAR in the Final EIS is 515 miles long. The Arizona portion of the PAR is 199 miles. Of that length, 131 miles cross land managed by ASLD, 50 miles cross lands managed by BLM, and 18 miles cross private land.

In its role as a cooperating agency and primary landowner in Arizona during the EIS process, the ASLD provided guidance to BLM that included the identification, evaluation, analysis, and comparison of numerous alternative transmission line route segments leading to the final route selection of the PAR, which is the same as the Proposed Route.

After issuance of the Final EIS, the BLM issued its Record of Decision (ROD) in January 2015, concluding the federal environmental review of the Project that was initiated in May 2009. To date, the Project has undergone almost six years of engineering analysis, environmental review, and system performance evaluations for a range of alternatives, including the Proposed Route. The Arizona portion of the Proposed Route was selected after coordination, consultation, and input among the ASLD, AGFD, ADOT, and the BLM.

**PROPOSED PROJECT ROUTE**

The SunZia Proposed Route is a total of 199 miles within Arizona, and is parallel to approximately 117 miles of existing utility corridors (as shown in Figure 1 of the Application). The Proposed Route crosses the New Mexico-Arizona state line from Hidalgo County, New Mexico into Greenlee County, Arizona, approximately three miles north of the Cochise County line. The Proposed Route proceeds east to west for approximately 37 miles from the state line into Graham County and south of the Hot Well Dunes Recreation Area, and continues through the San Simon Valley to the proposed Willow-500 kV Substation, located approximately three miles north of the Cochise County line.

The Proposed Route proceeds southwest from the proposed Willow-500 kV Substation, parallel to two 345 kV transmission lines operated by 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 County, of which approximately 12 miles will be 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 a 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 Company’s Cholla-Saguaro 500 kV transmission line and an 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.

CONCLUSION

In this Application, SunZia is seeking a CEC for the 199-mile Proposed Route that: (1) maximizes the use of existing utility corridors and infrastructure, (2) minimizes impacts to sensitive environmental resources, (3) minimizes impacts at river crossings, (4) minimizes impacts to residential and commercial land uses, and (5) represents an alignment selected with the input, contributions, and special expertise in Arizona provided by the public, Ft. Huachuca, San Carlos Irrigation Project/Bureau of Indian Affairs (SCIP/BIA), ASLD, AGFD and ADOT. The Proposed Route was selected as the result of a comprehensive EIS process that took approximately 6 years to complete. Upon receiving an Order of the Commission confirming the Siting Committee’s issuance of a CEC for the Project, SunZia can move forward with right-of-way acquisition, final engineering and design, and completion of a Plan of Development that provides detailed construction and operation procedures for the Project.

Current planning indicates construction starting mid-2018, with the first 500 kV transmission facility and related infrastructure being placed into operation by 2021.
Figure ES-1. Proposed Route
APPLICATION FOR A
CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

(Pursuant to A.R.S. §§ 40-360.03 and 40-360.06)

1. Name and address of Applicant:
   SunZia Transmission, LLC
   3610 N. 44th Street, Suite 250
   Phoenix, AZ 85018

2. Name, address and telephone number of a representative of 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:
   Tom Wray
   Project Manager
   SunZia Transmission LLC
   3610 N. 44th Street, Suite 250
   Phoenix, AZ 85018
   Phone: 602-808-2004

3. Dates on which Applicant filed a Ten Year Plan in compliance with A.R.S. § 40-360.02, in which the facilities for which this application is made were described:
   • January 29, 2009
   • January 28, 2010
   • January 18, 2011
   • January 4, 2012
   • January 16, 2013
   • January 2, 2014
   • January 30, 2015

4. Description of the proposed facilities:
   a. Description of electric generating plant:
      The Project does not include an electrical generating plant.
b. **Description of the proposed transmission line:**

i. **Nominal voltage for which the lines are designed; 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:**

   (1) **Nominal voltage for which the lines are designated:**
   
   500 kilovolt (kV) alternating current (AC) or direct current (DC); single circuit. At least one of the two 500 kV transmission lines will be constructed and operated as an AC facility; the other transmission line will be either an AC or DC facility.

   (2) **Description of proposed structures:**
   
   The transmission line will be constructed using primarily Guyed “V” galvanized steel lattice structures. The typical structure height will be 135 feet, ranging between 100 and 170 feet in certain conditions, with a typical span between structures of 1,400 feet. Similar structure types will be used for either the AC or DC transmission lines, except that each DC structure will contain only two sets of bundled conductors, versus three sets for an AC structure. In addition, the guyed structures will be vertical for the DC transmission line, compared to V-shaped towers for the AC transmission line. The structures will have a dulled gray metal finish, and conductors will have a non-specular finish in order to reduce visibility.

   Exhibit G contains conceptual illustrations of 2 proposed structures that may be used for the Project. Specific tower configurations will be determined during the design phase.

   (3) **Description of proposed substations:**
   
   The proposed 500 kV transmission lines will interconnect the proposed SunZia East Substation at the eastern terminus in New Mexico, and the Pinal Central Substation as its western terminus in Arizona. The SunZia East Substation will be located in Lincoln County, New Mexico.

   The existing Pinal Central Substation is located within the City of Coolidge in Pinal County, Arizona, near US Route 287 and US Route 87. Pinal Central was constructed and placed in service in 2014 and is operated by Salt River Project. Construction of the Pinal Central Substation was authorized by the Arizona Power Plant and Transmission Line Siting Committee and the Arizona Corporation Commission on August 25, 2005, in Decision No. 68093 (Siting Case No. 126). Equipment and facilities required for interconnection of SunZia will be installed within the fenced area of the existing substation.

   The Arizona portion of the Project includes the proposed Willow-500 kV Substation, which will be located in Graham County, Arizona, near US Route 191 and the existing TEP Company Springerville-Vail 345 kV transmission line(s). The Willow-500 kV Substation will be constructed on lands managed by the Arizona State Land Department (ASLD). The Willow-500 kV Substation parcel will include a secure, fenced area containing high voltage electrical equipment, plus sufficient area surrounding the substation components for placement of transmission structures.
entering and exiting the substation, and to provide setbacks as needed to buffer neighboring lands. The maximum height of structures in the substation will be approximately 170 feet. The substation yards will be open air and include equipment such as transformers, circuit breakers, disconnect switches, lightning/surge arrestors, reactors, capacitors, bus (conductor) structures, and a microwave antenna. Typically, substation components will be surrounded by an eight-foot-high chain-link fence topped with barbed wire.

A separate DC converter station will be required if the 500 kV DC option was utilized, to convert the flow of electricity from DC to AC, and thereby allow the DC line to deliver energy to the Pinal Central Substation. If needed, the converter station will be constructed within a fenced parcel of up to 45 acres, located within a 2,500-foot wide corridor, within 1 mile east of the Pinal Central Substation (see Exhibit G-3). The location of the siting area and a typical converter station arrangement is shown in the schematic drawing (Exhibit G-3). The converter station will have the necessary equipment for the conversion of DC to AC voltages and filtering equipment. The typical facilities needed for the conversion will be thyristor valves, smoothing reactors, converter transformation (all contained within the converter building), capacitors for reactive compensation, and specific harmonic filtering for the AC termination into the Pinal Central substation. The interconnection between the Pinal Central Substation and the converter station will require two 500 kV AC transmission lines. The parcel will include the secure, fenced area containing the electrical equipment, plus sufficient area surrounding the substation components for placement of transmission structures entering and exiting the station, and provide setbacks to buffer neighboring lands. The maximum height of transmission structures in the converter station will be approximately 170 feet.

(4) **Purpose for constructing said transmission line and substations:**

The SunZia Project benefits Arizona by providing needed increases in energy and power transfer capability and improved transmission reliability. Consequently, the Project will (1) reduce existing transmission congestion; (2) support the development and transmission of renewable energy resources, such as solar and wind energy, currently located within areas of undeveloped renewable resource potential; (3) provide power to help meet future electricity demand in Arizona; (4) provide a strategic option for Arizona, and its utilities, to comply with increasingly burdensome federal air quality standards; and (5) provide needed jobs and state and local revenues.

The need for additional transmission infrastructure to increase transfer capability, improve reliability, and address existing congestion has been identified in federal, regional, and state processes. SunZia will contribute to improved system reliability with additional transmission lines and substation connections increasing transmission capacity where congestion exists and providing access where limited transmission currently restricts delivery to customers.

Moreover, the Project will facilitate renewable resource development and the distribution of power to load centers throughout Arizona and the Desert Southwest.
For example, the Western Governors’ Association’s Western Renewable Energy Zone study identified 10,500 MW of solar potential in southeast Arizona and southwest New Mexico and 11,300 MW of potential wind resources near the SunZia Project’s eastern terminus.

The SunZia Project will enable the delivery of renewable energy essential for achieving compliance with existing and pending federal standards. By 2025, Arizona’s Renewable Energy Standard and Tariff requires regulated electric utilities to generate 15 percent of total energy from renewable energy technologies, and beginning in 2025, a significant reduction in carbon dioxide (CO₂) emissions from electricity generating units is required by the U.S. Environmental Protection Agency’s Clean Power Plan. To meet the Clean Power Plan emission reduction requirement in Arizona, utilities will likely need to reduce reliance on high-emitting coal-fired power plants and obtain power from zero-emitting renewable sources. In addition, a pending regulation affecting Arizona utilities is EPA’s final revised ozone standard, expected to be promulgated in October 2015. This new federal rule will likely further limit the development of new and major modifications of existing fossil fuel power plants in Arizona.

The Project benefits also include property, state, and local taxes paid by the SunZia Project and generation facilities that will utilize SunZia’s new transmission capacity. During a three-year construction period, SunZia will provide significant employment opportunities, including over 2,500 jobs in Arizona; sales and property tax revenues; and significant revenue to the ASLD from right-of-way lease payments.

ii) General Location

(1) Description of the geographic points between which the transmission lines will run:

The transmission line route enters Arizona in Greenlee County in Section 14, Township 11 South, Range 32 East of Pinal County, Arizona, approximately 3 miles north of Cochise County.

The project will terminate at the existing Pinal Central Substation located in Section 18, Township 6 South, Range 8 East of Pinal County, Arizona, just south of the intersection of State Route 287 and Eleven Mile Corner Road.

The Proposed Route crosses private land and lands administered by the ASLD, Bureau of Land Management (BLM), and Bureau of Reclamation (BOR). The Proposed Route crosses lands located within the planning areas of Greenlee County, Graham County, Cochise County, Pinal County, Pima County, the City of Coolidge, and the City of Eloy.

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a According to “The SunZia Southwest Transmission Project Economic Impact Analysis,” prepared by the University of Arizona and New Mexico State University (2011, revised January 2012), attached Appendix G1 to the SunZia Southwest Final Environmental Impact Statement, included herewith at Exhibit B-1, the Project will provide: approximately $13.29 to $17.04 million in Arizona State sales tax for the construction of the transmission line and substation portions within the state of Arizona, and approximately $9.13 to $11.02 million in Arizona local sales tax for the construction of the transmission line and substation portions within the state of Arizona.
(2) *Straight-line distance between such geographic points:*

The straight-line distance from the Arizona state line in Greenlee County to the Pinal Central Substation located in Pinal County is approximately 149 miles.

(3) *Length of the transmission line route:*

The length of the Proposed Route is approximately 199 miles.

**iii) Detailed Dimensions:**

**(1) Nominal width of right-of-way requested:**

SunZia Transmission LLC is requesting approval of a typical right-of-way width of up to 200 feet for each of the two transmission lines within a single 2,500 foot-wide corridor. Typically there will be a 50 foot-wide separation between the two transmission line rights-of-way; however, in some locations, the separation of the transmission line rights-of-way could be up to 1,000 feet to accommodate physical constraints such as terrain features or avoid sensitive environmental resources, and to preserve critical habitat, existing land uses, and important cultural resources.

**(2) Nominal length of span:**

The nominal length of span between transmission structures is approximately 1,400 to 1,700 feet.

**(3) Typical height of structures above ground:**

The typical structure height will be 135 feet, ranging between 100 and 170 feet based on span length and terrain conditions.

**(4) Maximum height of supporting structures:**

Proposed structures vary in height, with none anticipated to exceed 199 feet, in order to remain below the threshold at which the structure may affect navigable airspace based on Federal Aviation Administration regulations.

**(5) Minimum height of conductor above ground:**

The minimum conductor height above ground for the AC transmission line will be 30 to 35 feet, at 176 degrees Fahrenheit conductor operating temperature, based on National Electric Safety Code (NESC) and Applicant’s design standards. The exact height of each structure will be governed by topography and safety requirements for conductor clearance to grounded surfaces. The AC transmission line configuration requires three sets of bundled conductors.

If the 500 kV DC transmission line is constructed, it will use the same type of conductor as the AC transmission line, except that each DC structure will contain only two sets of bundled conductors. Minimum conductor height above ground for the DC transmission line will be 38 feet, based on NESC standards. The exact height of each structure will be governed by topography and safety requirements for conductor clearance to grounded surfaces. The AC transmission line configuration requires three sets of bundled conductors.
iv) **Estimated costs of proposed transmission lines and substation:**

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1 Two 500 kV AC Transmission lines  
2 Costs in 2015 U.S. Dollars

v) **Description of the proposed route and substation locations:**

In this application, SunZia proposes the route identified in Figure ES-1 and Exhibit A (Proposed Route), which was studied in detail and identified as the BLM Preferred Alternative Route (PAR) in the Record of Decision (ROD) for the Final Environmental Impact Statement (EIS). The description of the Proposed Route for this Application is provided below.

The Proposed Route is a total of 199 miles in length within Arizona, and will be parallel to approximately 117 miles of existing or designated utility corridors. The Proposed Route crosses the New Mexico-Arizona state line from Hidalgo County, New Mexico into Greenlee County, Arizona, approximately three miles north of the Cochise County line. The Proposed Route proceeds east to west for approximately 37 miles from the state line into Graham County and south of the Hot Well Dunes Recreation Area, and continues through the San Simon Valley to the proposed Willow-500 kV Substation, located approximately 3 miles north of the Cochise County line and 1 mile east of US Highway 191 in Graham County, Arizona.

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 will be 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 a 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 and parallel to the TEP Pinal Central-Tortolita 500 kV transmission line for approximately 16 miles (Case 165, Decision No. 73282). The Proposed Route then turns northwest, then west, continuing to parallel the Pinal Central-Tortolita 500 kV line and a pipeline corridor for approximately 6 miles. As the Proposed Route then heads west, it crosses a 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. If one
of the lines is constructed as a DC facility, then the Project will include construction of a new DC converter station, which will be located within the requested 2500 foot corridor and within 1 mile east of the Pinal Central Substation.

Numerous alternatives to the Proposed Route were identified during the development of the EIS. The analysis and comparison of alternative routes were documented in the Final EIS. The description of alternatives and rationale for selection of the PAR, and thus Applicant’s decision to select the same as the Proposed Route, are included in Section 7 and Exhibit B-1 of this Application.

**vi) Land Ownership:**

Land ownership corresponding to SunZia’s Proposed Route is indicated in the following table and the map in Exhibit A-1.

<table>
<thead>
<tr>
<th>LAND OWNERSHIP</th>
<th>Bureau of Land Management</th>
<th>Bureau of Reclamation</th>
<th>Arizona State Trust Land</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miles¹</td>
<td>49.8</td>
<td>0.4</td>
<td>130.6</td>
<td>17.7</td>
<td>198.5</td>
</tr>
<tr>
<td>Percent</td>
<td>25.1%</td>
<td>0.2%</td>
<td>65.8%</td>
<td>8.9%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

¹ Based on approximate location of the proposed transmission line corridor centerline
² Central Arizona Project canal crossing in Pinal County

5. **Jurisdictions:**

a) **Areas of jurisdiction (as defined in A.R.S. Section 40-360) affected by this route:**

The areas of jurisdiction corresponding to SunZia’s Proposed Route are indicated in the following table.

<table>
<thead>
<tr>
<th>JURISDICTION</th>
<th>Greenlee County</th>
<th>Graham County</th>
<th>Cochise County</th>
<th>Pima County</th>
<th>Pinal County</th>
<th>City of Coolidge²</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miles¹</td>
<td>9.6</td>
<td>33.1</td>
<td>57.8</td>
<td>16.2</td>
<td>81.8</td>
<td>&lt;0.1</td>
<td>198.5</td>
</tr>
<tr>
<td>Percent</td>
<td>4.8</td>
<td>16.7</td>
<td>29.1</td>
<td>8.2</td>
<td>41.2</td>
<td>&lt;0.1</td>
<td>100</td>
</tr>
</tbody>
</table>

¹ Based on approximate location of the proposed transmission line corridor centerline
² Pinal Central Substation is located in the recently annexed portion of City of Coolidge
b) Designation of proposed sites or routes, if any, which are contrary to the zoning ordinances or master plans of affected areas of jurisdiction:

The Project is not contrary to zoning ordinances or master plans of any affected areas of jurisdiction.

6. Description of the environmental studies Applicant has performed:

The following is a list of environmental studies performed by the Applicant or other agencies and organizations on the Project.

- **Draft EIS (May 2012)**
- **Final EIS and Appendices (June 2013), EXHIBIT B-1**

This Final Environmental Impact Statement and Proposed Resource Management Plan Amendments (EIS) document was prepared to analyze and disclose the potential effects of the proposed SunZia Southwest Transmission Project. The BLM served as the lead federal agency for preparing the EIS, and published its notice of intent to prepare the EIS in the Federal Register on May 29, 2009.

In accordance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality NEPA regulations, the Department of the Interior’s NEPA regulations, and other applicable authorities, the BLM analyzed the environmental impacts of the proposed Project and a reasonable range of alternatives. The Notice of Availability (NOA) of the Draft EIS was published in the Federal Register on May 29, 2012, and the Final EIS NOA was published on June 14, 2013. The ROD, published by the BLM on January 23, 2015, approved the issuance of a right-of-way grant under certain terms and conditions for the construction, operation, and maintenance of the proposed SunZia Project facilities on federal lands administered by the BLM.

Fourteen cooperating agencies participated in the preparation of the EIS, including the ASLD; Arizona Game and Fish Department (AGFD); Arizona Department of Transportation (ADOT); Department of the Army, Fort Huachuca; Bureau of Indian Affairs; U.S. Army Corps of Engineers; Department of the Army, Fort Bliss; Department of the Army, White Sands Missile Range; U.S. Air Force, Holloman Air Force Base; U.S. Fish and Wildlife Service; U.S. National Park Service; Department of Defense Siting Clearinghouse, Office of the Deputy Under Secretary (Installations and Environment); New Mexico State Land Office; and New Mexico Spaceport Authority.

- **EIS Appendices**
  - Appendix A: Opportunities and Constraints Analysis
  - Appendix B: Biological Resources
    - B1 Biological Technical Report (Addendum)
- B2 Analysis of Potential Avian Collisions with Transmission Lines at Four Locations on the Rio Grande in New Mexico
- B3 Estimated Distribution of Special-status Species
  - Appendix C: Cultural Resources
  - Appendix D: Visual Resources
    - D1 Scenic Quality Rating Units
    - D2 Contrast Rating Worksheets
    - D3 Visual Resource Inventory Tables
    - D4 Viewing Locations
    - D5 Key Observation Points and Simulation Locations
    - D6 Simulations
  - Appendix E: Land Use Data
  - Appendix F: Climate and Air Quality
  - Appendix G: Social and Economic Resources
    - G1 SunZia Economic Impact Assessment and Supplement: Impacts of Potential Renewable Generation Facilities
    - G2 Social and Economic Resources
  - Appendix H: Resource Impact Analysis Data
  - Appendix I: Analysis of Access Conditions and Potential Ground Disturbance
  - Appendix J: Comments on the Draft EIS
  - Appendix K: SunZia Project Preliminary EMF and Corona Effects Study
  - Appendix L: National Scenic and Historic Trails Assessment
  - Appendix M: Draft Programmatic Agreement
  - Map Volume
- Biological and Conference Opinion and Conference Report, United States Fish and Wildlife (November 2013)
• Approved Programmatic Agreement (December 2014)

In addition to these studies, other studies were conducted for the New Mexico portion of the Project. For a complete list, see the Final EIS.

The BLM also conducted an Environmental Assessment for a portion of the line in New Mexico prior to issuance of the ROD. However, because it involved only resources in New Mexico, and only a portion of the Project in New Mexico, it is neither discussed herein nor included in Exhibit B.

This Application also includes Exhibits A through J, which provide descriptions of the environmental studies conducted for the Project.

7. **Rationale for selection of Proposed Route:**

The Proposed Route as described in this Application has been found by SunZia and its environmental consultant, EPG, to be within the range of impacts deemed “environmentally compatible” in past Arizona siting decisions. A comprehensive 6-year study of alternatives was conducted that resulted in the identification of the Proposed Route as described in this Application. Summarily, the rationale for the selection of the Proposed Route follows.

In comparison with other alternatives evaluated in previous studies, the Proposed Route was selected because it will:

- maximize use of existing utility corridors
- minimize impacts to sensitive resources
- minimize impacts at river crossings
- minimize impacts to residential and commercial uses

A major portion of the Proposed Route will be constructed along established utility corridors where existing access is available. Approximately 59 percent (117 miles) of the Proposed Route will be parallel to existing utility corridors, including approximately 74 miles parallel to existing transmission lines (see Figure 1). Through the use of existing utility corridors, impacts are reduced. The consolidation with existing transmission lines and other linear facilities is environmentally compatible because impacts to land uses as well as visual, biological, and cultural resources are minimized.

**Alternatives Considered, in Previous Studies, But Not Selected as the Proposed Route**

Previous studies included a regional opportunities and constraints analysis, which resulted in the identification of potential alternative transmission line corridors for the SunZia Southwest Transmission Project (see Appendix A of the EIS, Exhibit B-1). The initial set of alternatives were evaluated and refined during the scoping process, which included information from the public, BLM, and cooperating agencies in this process (AGFD, ADOT, and ASLD). This resulted in approximately 700 miles of alternatives in Arizona, including the Proposed Route, that were studied in detail through the EIS.
process (as shown in Figure 2). These alternative routes included the Safford/Sulphur Springs Valley, East of the San Pedro River, and Tucson alternatives.

The Safford/Sulphur Springs Valley Alternatives would cross Aravaipa Creek and require construction through areas where there is less existing access or other development. The construction of new transmission lines through relatively undeveloped areas would cause greater impacts to land uses and visual, cultural, and biological resources than the Proposed Route. The Safford alternatives would impact developed areas near Safford and would be closer to Mt. Graham. A new utility corridor through the Sulphur Springs Valley would also impact grasslands and previously undisturbed and undeveloped lands.

The East San Pedro River Alternatives would require new rights-of-way in the Cascabel area, cross the Muleshoe Ranch Cooperative Management Area, and cross an Area of Critical Environmental Concern.

The Tucson Alternatives would cross Cienega Creek Preserve, conflict with use in the Pima County recreation areas in the Santa Cruz and Rillito river corridors, and displace approximately 216 residences, and disproportionately affect environmental justice populations. These alternatives are also located in proximity to historic districts and trails within the Tucson metropolitan area.

Ultimately, the Applicant chose to only apply for a Certificate of Environmental Compatibility with respect to the Proposed Route, as opposed to including an alternative identified and analyzed in previous studies, because the Safford/Sulpher Springs Valley, East of the San Pedro, and Tucson alternatives have, relative to the Proposed Route: (1) fewer colocation opportunities; (2) greater impacts to the environment; (3) greater impacts to environmental justice populations; and (4) greater disparities with existing land uses.

**Conclusion**

The foregoing information, and information set forth in attached exhibits A-J, satisfy the content and format requirements of Arizona Administrative Code R14-3-219. Additionally, the Proposed Route for the 500 kV SunZia Southwest Transmission Project is suitable when judged in light of the decision making factors set forth in Arizona Revised Statutes 40-360.06. Accordingly, the Applicant hereby requests that the Committee render a decision granting Applicant a Certificate of Environmental Compatibility for the proposed Project.
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Figure 1. Existing Utility Corridors
Figure 2. Proposed Route and Alternatives Considered in Previous Studies
SUNZIA TRANSMISSION LLC

By: Tom Wray, Project Manager

SunZia Transmission LLC

I HEREBY CERTIFY that on this 2nd day of September 2015, I have delivered to the Arizona Corporation Commission twenty-five (25) copies of this Application for a Certificate of Environmental Compatibility.