BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS
Lea Márquez-Peterson, Chairwoman
Sandra D. Kennedy
Justin Olson
Anna Tovar
Jim O’Connor

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 IS LOCATED WITHIN GRAHAM, GREENLEE, COCHISE, PINAL AND PIMA COUNTIES.

DOCKET NO.: L-0000YY-15-0318-00171

APPLICATION TO AMEND PURSUANT TO A.R.S. § 40-252

SunZia Transmission, LLC ("SunZia"), respectfully requests that the Commission modify Decision No. 75464, which approved the Certificate of Environmental Compatibility ("CEC") for the SunZia Southwest Transmission Project ("Project"). Specifically, SunZia requests the Commission modify Decision No. 75464 to: A) authorize the use of updated structure designs and additional structure types that resulted from detailed engineering efforts; B) allow for separate assignment and future ownership of each approved transmission line and its associated facilities to enable project financing; and C) extend the expiration date of the CEC for SunZia line 1 from February 2026 to February 2028.¹ SunZia is not requesting any amendments to the approved corridor authorized by the CEC.

¹ SunZia is no longer pursuing the amendment application filed October 22, 2018, requesting a minor route change to accommodate the proposed expansion of Pinal County’s Manuel Airport. Since that time, Pinal County has updated its Airport Layout Plan, which resolves the concerns with SunZia’s approved route. On September 1, 2021, the FAA approved the revised Airport Layout Plan. On May 3, 2022, SunZia applied to the FAA for a new determination and anticipates the FAA will issue a Determination of No Hazard. In the unlikely event some structures would still need to be moved based on FAA’s review, SunZia will seek Commission approval to modify the route as needed.
INRODUCTION

Commission Decision No. 75464 approved a CEC for the SunZia Project which consists of two 500 kV transmission lines, one alternating current (“AC”) and one either AC or direct current (“DC”), and associated interconnection facilities that will provide a path for new generation sources, including New Mexico wind resources to the Arizona regional grid. The $4 billion privately funded Project will provide substantial economic benefits to Arizona, including significant employment opportunities during its construction period and substantial revenues to state and local jurisdictions and the Arizona State Land Department throughout the life of the Project.

The SunZia Project also 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 resource potential; 3) provide power to help meet future electricity demand in Arizona; and 4) provide a strategic option for Arizona, and its utilities, to reduce carbon emissions.

The CEC included two expiration dates, one for each 500 kilovolt (“kV”) transmission line. SunZia plans to construct the two lines in phases and construct the first line as a nominal 500 kV DC line, which is expected to be in operation prior to the second line. Since the CEC was issued, SunZia has advanced the engineering design for the DC line and the DC converter station that was authorized by the CEC. The DC converter station is now referred to as “SunZia West.”

This application to amend the CEC has three components: 1) add additional structure types to address the structural design changes that resulted from detailed engineering efforts associated with the DC facility; 2) bifurcate decision no. 75464 into two certificates to provide for separate ownership of each line, which enables the projects to be financed; and 3) extend the CEC expiration date for line 1. SunZia is not seeking any amendments to the approved corridor authorized by the CEC.
I. AMENDMENT A: REQUEST TO AUTHORIZE ADDITIONAL STRUCTURE DESIGNS

Since the Commission issued the CEC in 2016, SunZia has made significant progress on the engineering and final design on the structures for SunZia’s first 500 kV DC line. Appendix G of SunZia’s original application provided typical structure diagrams anticipated for the Project, including typical DC structures. With the advancement of detailed engineering and designs, the typical DC guyed lattice, dead-end and self-supporting lattice, and tubular structures (collectively referred to as the “Updated DC Structures”) were modified. Refer to Exhibit 1 for a side-by-side view of the Updated DC Structures compared to those in SunZia’s original CEC application (dated 2015). These modifications are the result of detailed engineering and the final design regarding ground return of the DC transmission facilities. The original DC structure designs assumed the use of ground electrodes for the ground return path primarily for monopole operation of the DC line and the need for additional ground-based facilities for installation of the ground electrodes. However, SunZia has concluded that the use of a ground electrode system is not as effective as dedicated metallic return conductors (“MRC” or “DMR”) physically mounted on the top of the DC structures. The Updated DC Structures assume that the two MRCs need to be installed along with shield wires and the DC pole conductors. The MRC conductors are positioned between the shield wires and pole conductors as shown in Figures 1 - 4 of Exhibit 1.

In addition to the Updated DC Structures described above, SunZia also requests the option to use double-circuit AC structures (Figure 5, Exhibit 1) or modified single-circuit AC dead-end structures (Figure 6, Exhibit 1) in the location between SunZia West and the existing Pinal Central Substation. The distance between SunZia West and the existing Pinal Central Substation is less than one mile.

At present, SunZia has secured a 200-foot-wide right-of-way (“ROW”) on the private land underlying the less than one mile stretch between SunZia West and Pinal Central Substation. SunZia will need the option to use the requested double or single circuit
AC structures (Figures 5 and 6, Exhibit 1) to fit within the 200-foot-wide ROW to deliver the capacity of SunZia Line 1 from SunZia West to Pinal Central Substation. The use of double-circuit structures will not negatively affect the reliability of the SunZia Project or the regional transmission grid because the North American Electric Reliability Corporation’s Transmission System Planning Performance Requirements (i.e., TPL-001-5) do allow for circuits to share a common structure for one mile or less.

II. AMENDMENT B: BIFURCATE DECISION NO. 75464 INTO TWO CERTIFICATES

SunZia currently anticipates that the two lines approved in Decision No. 75464 will be separately financed and may be separately owned in the future. SunZia therefore requests the Commission modify its decision to provide for two CECs, one for each line. Doing so will facilitate necessary financing and assignment of the CEC authorizations if ownership of either line changes in the future. The Commission has authorized two CECs in one docket on multiple recent occasions, including Case 187 (Decision No. 77888 and 77889) and Case 196 (Decision No. 78430 and 78431). In addition, SunZia is aware of two pending CEC applications in which the applicants are requesting two CECs, also to facilitate future separate ownership: Case 200, L-21183A-22-0069-00200, and Case 202, Docket L-21187A-22-0078-00202. Exhibit 2, attached, provides two proposed forms of order to address this request.

III. AMENDMENT C: EXTEND THE CEC EXPIRATION OF LINE 1

The deadline conditioned in the CEC to place the first line in-service is February 2026. SunZia continues to actively pursue all federal, state, and private ROW needed for the Project and currently anticipates the first line will be constructed and operational by the 4th quarter of 2025. Because the planned in-service date is very close to the current deadline for the first line as set forth in the Decision and that timing depends on federal permitting processes not fully under the control of SunZia and supply chains that are severely stressed at the moment, SunZia requests a two-year extension to construct the first line. A time
extension to place the first line in-service by February 2028 is in the public interest as it will give lenders comfort for financing and may be necessary in light of global supply chain challenges.

IV. RESOURCE ANALYSES IN SUPPORT OF THIS APPLICATION

SunZia retained POWER Engineers, Inc. to conduct an environmental evaluation for the requested amendments. The results of this evaluation are described below. This impact evaluation only applies to Amendment A as resource analysis is not necessary for the modifications requested in Amendments B and C. Refer to Exhibit 3, POWER Engineers Declaration, regarding the following environmental evaluation.

**Land Use**

Land use impacts associated with the Updated DC Structures and the request to use a double-circuit structure in an area that is less than one mile are comparable to the impacts disclosed in the original SunZia application because no additional ROW is required. ROW for the high voltage direct current (HVDC) structures is the same as that required for AC structures. The overall number of structures needed using the original structure designs or the updated DC Structures is similar. The same structure locations already planned for SunZia are suitable for the Updated DC Structures.

**Visual Resources**

Impacts to visual resources are also expected to be minimal when comparing the updated and new structure designs. The visual profile of the Updated DC Structures is generally the same as the original structures, with only minor changes near the top of the structures (see Exhibit 1). The visual mass and contrast created by the Updated DC Structures would increase slightly due to the wider conductor cross-arm and down-guy member assemblies, but the overall change in the viewshed would be similar to the original structures and the results of previous analyses would not change.
**Cultural Resources**

Impacts to cultural resources would be similar to the original analysis. Principally because the footprint of the updated DC Structures will be the same, no additional ROW is required, and there is no increase in the number of structures. The treatment of cultural resources, as governed by the Programmatic Agreement (“PA”) that has been executed for the Project, are unchanged.

**Biological Resources**

Impacts to vegetation, wildlife, and avian species are similar to the original structure types. No additional ROW is required, there is no increase in the number of structures, and the biological protection measures that have been developed for the Project remain unchanged. The MRC associated with the Updated DC Structures are positioned in compliance with avian protection standards, as is the design for the new double-circuit AC structures.

The evaluation concluded that the environmental effects associated with Amendment A are consistent with, and no greater than, the effects of the SunZia Project as originally approved.

**V. CONCLUSION**

SunZia greatly appreciates the Commission’s consideration of this Application. Given the proposed changes have no or minimal effects on reliability of the regional grid and the environment, SunZia respectfully requests Commission approve the amendments without an evidentiary hearing, consistent with precedent for other amendments with similarly minor changes and as authorized under A.R.S § 40-252.
Respectfully submitted this 13th day of May 2022, by:

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Filed this 13th day of May 2022, with:

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Attorneys for Robson Communities
FIGURE 1 – TYPICAL DIRECT CURRENT GUYED LATTICE TANGENT STRUCTURE
FIGURE 2 – TYPICAL DIRECT CURRENT SELF-SUPPORTING LATTICE TANGENT STRUCTURE
FIGURE 3 – TYPICAL DIRECT CURRENT SELF-SUPPORTING LATTICE DEAD-END STRUCTURE

2015 DESIGN

CURRENT DESIGN
FIGURE 4 – TYPICAL DIRECT CURRENT SINGLE-CIRCUIT TANGENT TUBULAR STRUCTURE DESIGN
CURRENT DESIGN

FIGURE 5 – NEW ALTERNATING CURRENT DOUBLE-CIRCUIT STRUCTURE DESIGN
FIGURE 6 – TYPICAL ALTERNATING CURRENT SELF-SUPPORTING DEAD-END TUBULAR STRUCTURE
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IN THE MATTER OF THE APPLICATION
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REQUIREMENTS OF ARIZONA REVISED
STATUTES 40-360, ET. SEQ., FOR A
CERTIFICATE OF ENVIRONMENTAL
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SUNZIA SOUTHWEST TRANSMISSION
PROJECT, WHICH INCLUDES THE
CONSTRUCTION OF TWO NEW 500KV
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,
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THE PROJECT IS LOCATED WITHIN
GRAHAM, GREENLEE, COCHISE, PINAL
AND PIMA COUNTIES.

DOCKET NO.: L-00000YY-15-0318-
00171
ORDER

SUNZIA’S APPLICATION TO
AMEND DECISION NO. 75464
PURSUANT TO A.R.S. § 40-252
CEC-1

BY THE COMMISSION:

FINDINGS OF FACT

Background

1. On ___, SunZia Transmission LLC (“SunZia”), submitted a request, pursuant
to A.R.S. § 40-252, to amend Decision No. 75464, issued by the Arizona Corporation
Commission (“Commission”) on February 22, 2016, which approved the Certificate of
Environmental Compatibility (“CEC”) for the SunZia Southwest Transmission Project
(“Project”).

2. SunZia requested the Commission modify Decision No. 75464 to: A)
authorize the use of updated structure designs and additional structure types that resulted
from detailed engineering effort; B) allow for separate assignment and future ownership of each approved transmission line and its associated facilities; and C) extend the expiration date of the CEC for SunZia line 1 from February 2026 to February 2029.

3. SunZia submits that the proposed changes create no impacts to the environment or the reliability of the transmission system, therefore there is no need for an evidentiary hearing, and the application should be considered and approved by the Commission.

Staff Analysis and Recommendations

TBD

CONCLUSIONS OF LAW

1. The Commission has jurisdiction over SunZia Transmission LLC and the subject matter contained herein pursuant to A.R.S. §§ 40-252 and 40-360 et seq.

2. Notice of this proceeding has been given in the manner provided by law.

3. The Commission, having reviewed and considered the application to amend Decision No. 75464 and the Staff Memorandum, concludes that it is in the public interest to amend the Certificate of Environmental Compatibility Case No. 171 to: A) authorize the use of updated structure designs and additional structure types; B) allow for separate assignment and future ownership of each approved transmission line and its associated facilities; and C) extend the expiration date of the CEC for SunZia line 1 from February 2026 to February 2029.

ORDER

IT IS THEREFORE ORDERED that Decision No. 75464 is amended to authorize the use of updated structure designs and additional structure types as provided in Exhibit A hereto.

IT IS FURTHER ORDERED that Decision No. 75464 is amended to explicitly authorize separate ownership of each transmission line. This Decision authorizes CEC-1 for
the transmission line that will operate as either an alternating current ("AC") or direct current ("DC") facility.

IT IS FURTHER ORDERED that Decision No. 75464 is amended to extend the expiration date for the first line, authorized in CEC-1, until February 22, 2029.

IT IS FURTHER ORDERED that all other aspects of Decision No. 75464 shall remain in effect.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.
BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS
Lea Márquez-Peterson, Chairwoman
Sandra D. Kennedy
Justin Olson
Anna Tovar
Jim O’Connor

IN THE MATTER OF THE APPLICATION
OF SUNZIA TRANSMISSION, LLC, IN
CONFORMANCE WITH THE
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STATUTES 40-360, ET. SEQ., FOR A
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DOCKET NO.: L-00000YY-15-0318-00171
ORDER

SUNZIA’S APPLICATION TO
AMEND DECISION NO. 75464
PURSUANT TO A.R.S. § 40-252
CEC-2

BY THE COMMISSION:

FINDINGS OF FACT

Background

1. On ___, SunZia Transmission LLC (“SunZia”), submitted a request, pursuant
to A.R.S. § 40-252, to amend Decision No. 75464, issued by the Arizona Corporation
Commission (“Commission”) on February 22, 2016, which approved the Certificate of
Environmental Compatibility (“CEC”) for the SunZia Southwest Transmission Project
(“Project”).

2. SunZia requested the Commission modify Decision No. 75464 to: A)
authorize the use of updated structure designs and additional structure types that resulted
from detailed engineering effort; B) allow for separate assignment and future ownership of each approved transmission line and its associated facilities; and C) extend the expiration date of the CEC for SunZia line 1 from February 2026 to February 2029.

3. SunZia submits that the proposed changes create no impacts to the environment or the reliability of the transmission system, therefore there is no need for an evidentiary hearing, and the application should be considered and approved by the Commission.

Staff Analysis and Recommendations

TBD

CONCLUSIONS OF LAW

1. The Commission has jurisdiction over SunZia and the subject matter contained herein pursuant to A.R.S. §§ 40-252 and 40-360 et seq.

2. Notice of this proceeding has been given in the manner provided by law.

3. The Commission, having reviewed and considered the application to amend Decision No. 75464 and the Staff Memorandum, concludes that it is in the public interest to amend the Certificate of Environmental Compatibility Case No. 171 to: A) authorize the use of updated structure designs and additional structure types; B) allow for separate assignment and future ownership of each approved transmission line and its associated facilities; and C) extend the expiration date of the CEC for SunZia line 1 from February 2026 to February 2029.

ORDER

IT IS THEREFORE ORDERED that Decision No. 75464 is amended to authorize the use of updated structure designs and additional structure types as provided in Exhibit A hereto.

IT IS FURTHER ORDERED that Decision No. 75464 is amended to explicitly authorize separate ownership of each transmission line. This Decision authorizes CEC-2 for
the second transmission line to be constructed that will operate as an alternating current ("AC").

IT IS FURTHER ORDERED that all other aspects of Decision No. 75464 shall remain in effect.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.
EXHIBIT 3 – POWER DECLARATION
I, Glenn Darrington, declare as follows:

That I make this declaration in support of SunZia Transmission’s, LLC ("SunZia"), Application to Amend Commission Decision No. 75464. I have personal knowledge of the facts and matters set forth in the Application and this declaration.

The matters set forth herein are true and accurate to the best of my knowledge, information, and belief.

1. I am employed by POWER Engineers Inc. (POWER) as a Senior Project Manager. I have 35 years of experience in the routing, siting, permitting, and construction of transmission line projects in Arizona and across the western United States. My business address is 7600 North 16th Street, Suite 130, Phoenix, Arizona 85020.

2. POWER has been engaged by SunZia to perform environmental evaluations and related work to analyze the potential impacts associated with the request to authorize additional structure designs (Exhibit 1).

3. The additional structure designs require an amendment of Decision No. 75464.

4. POWER staff have reviewed the structures originally approved by the Commission and the additional structures being proposed and have assessed the potential for the new designs to affect land use, visual resources, cultural resources, and biological resources. The results of this assessment include:

Land Use

Land use impacts associated with the updated DC Structures and the request to use a double-circuit structure in an area that is less than one mile are comparable to the impacts disclosed in the original SunZia application because no additional ROW is required. ROW for the HVDC structures is the same as that required for AC structures. The overall number
of structures needed using the original structure designs or the updated DC Structures is similar. The same structure locations already planned for SunZia are suitable for the updated DC Structures.

**Visual Resources**

Impacts to visual resources are also expected to be minimal when comparing the updated and new structure designs. The visual profile of the updated DC Structures are generally the same as the original structure, with only minor changes near the top of the structure. The visual mass and contrast created by the Updated DC Structures would increase slightly due to the wider conductor cross-arm and down-guy member assemblies, but the overall change in the viewshed would be similar to the original structures and the results of previous analyses would not change.

**Cultural Resources**

Impacts to cultural resources would be similar to the original analysis. Principally because the footprint of the updated DC Structures will be the same, no additional ROW is required, and there is no increase in the number of structures. The treatment of cultural resources, as governed by the Programmatic Agreement (PA) that has been executed for the Project, are unchanged.

**Biological Resources**

Impacts to vegetation, wildlife, and avian species are similar to the original structure types. No additional ROW is required, there is no increase in the number of structures, and the biological protection measures that have been developed for the Project remain unchanged. The MRC associated with the updated DC Structures are positioned in compliance with avian protection standards, as is the design for the new double-circuit AC structures.

5. Based on the results of this assessment it is my expert opinion that Amendment A is environmentally compatible with the original Certificate of Environmental Compatibility.
I declare under penalty of perjury that the foregoing is true and correct.

Signed on this 13th day of May 2022.

Signature of Verifying Party: 

Name of Verifying Party: Glenn Darrington, Ph.D., RPA

Title of Verifying Party: Senior Project Manager, POWER Engineers Inc.