



# SunZia Southwest Transmission Project



**June 1, 2016**  
Phoenix, Arizona

9<sup>th</sup> Biennial Transmission Assessment Workshop  
*SunZia Project Update*

# Project Owners



Shell WindEnergy



Shell Wind Energy



**SOUTH WESTERN**  
Power Group  
*A MMR Group Company*

SouthWestern Power/  
MMR Group



A UniSource Energy Company

Tucson Electric Power



Salt River Project



Tri-State G&T

# Project Summary

- ⚡ 515 mile transmission project in New Mexico and Arizona
- ⚡ Possible configurations are two 500 KV AC lines, or one AC and one DC 500 kV lines
- ⚡ Brings high-quality renewable energy to western markets
- ⚡ Obtained Declaratory Order from FERC in May 2011
- ⚡ On-going Anchor-Tenant subscription process
- ⚡ WECC granted SunZia an Accepted Rating of 3,000 MW for two 500kV AC lines in March 2011, rating was re-confirmed in January 2015
- ⚡ Agreement with Department of Defense and Department of Army resolving all military-related conflicts, as of March 2016
- ⚡ Total capital cost estimated at \$2 billion
- ⚡ Commercial operation expected by 2021

**Exhibit B**  
**Right-of-Way Grant**  
**NM - 114438**  
**SunZia Southwest**  
**Transmission Project**

**Map 1 of 3**



**SunZia Southwest Transmission Project Features**

500 kV Transmission Line Right-of-Way

- Route Group 1
- Route Group 3
- Route Group 4

- Proposed SunZia 500 kV Substation Site
- Other 500 kV Substation
- Mitigation Proposal Segment (buried transmission line)

**General Reference Features**

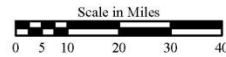
- City
- State Highway
- U.S. Highway
- Interstate
- Lake/Reservoir

**Land Ownership**

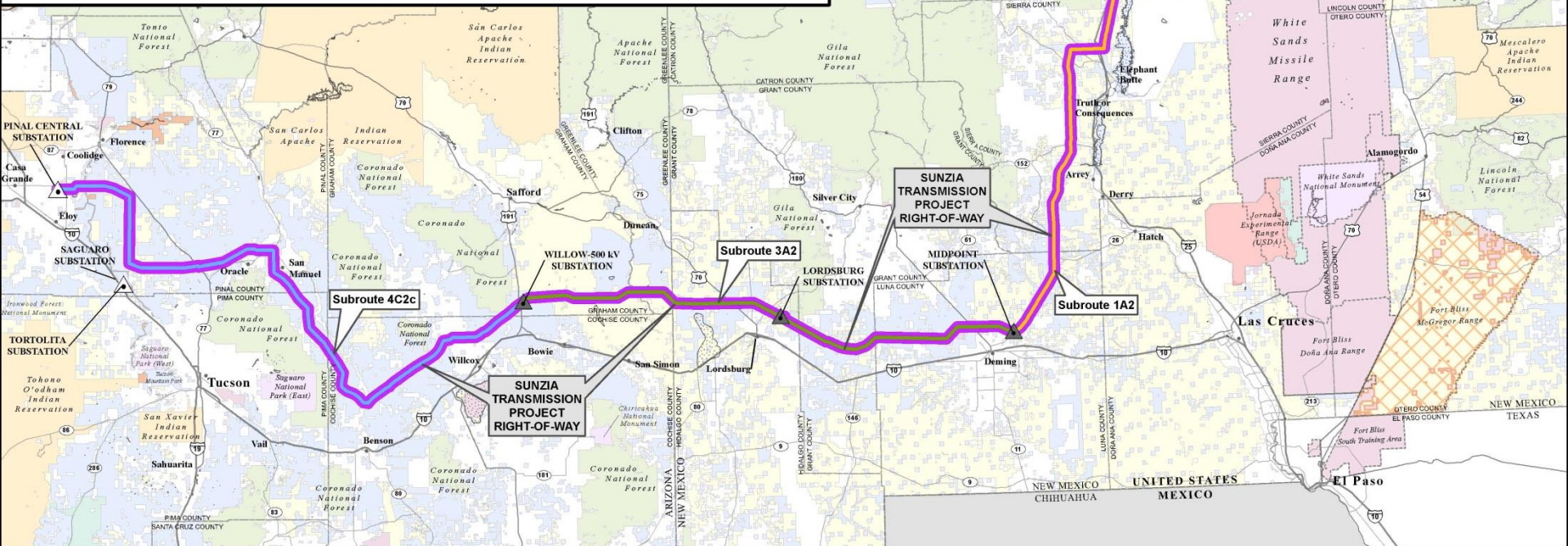
- Bureau of Land Management
- U.S. Department of Defense
- McGregor Range Withdrawal
- National Park Service
- U.S. Forest Service
- U.S. Fish and Wildlife Service
- U.S. Bureau of Reclamation
- Federal (Other)
- Indian Reservation
- State
- Private/Other

**Sources**

Arizona Bureau of Land Management 2010  
 Arizona State Land Department and ALRIS 2010  
 New Mexico Bureau of Land Management 2013  
 Esri StreetMap 2010  
 Environmental Planning Group LLC. 2014



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### Solar Thermal Resource

Direct Normal Insolation  
(kilowatt-hours/SqMeter/Day)



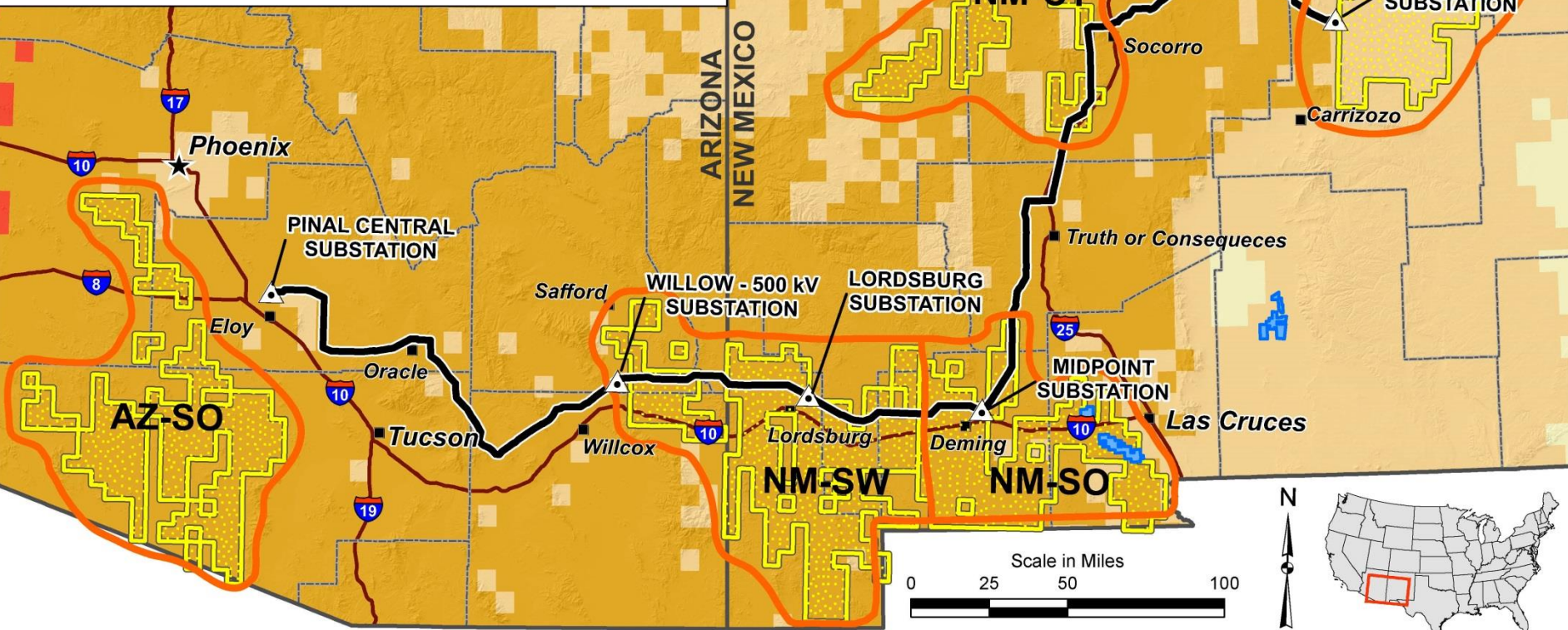
Solar Energy Zones  
(2010 DOE Programmatic EIS)

- Substation Site
- Proposed Route

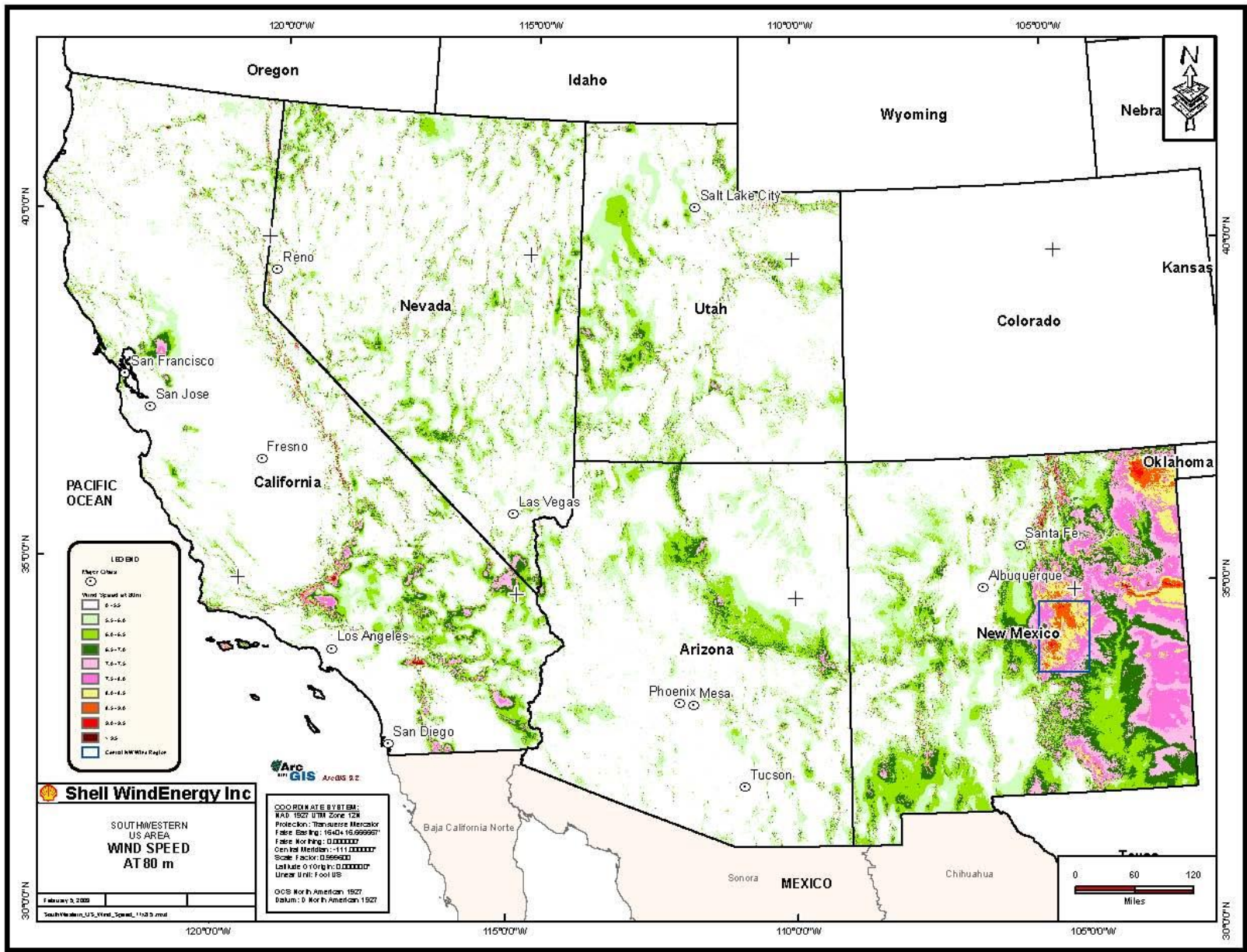
### Qualified Resource Area (QRA)

Area	Total MW
NM-CT	3,183
NM-SO	4,347
NM-SW	6,149
NM-EA	83
AZ-SO	6,623

Source: NREL, WREZ 2009

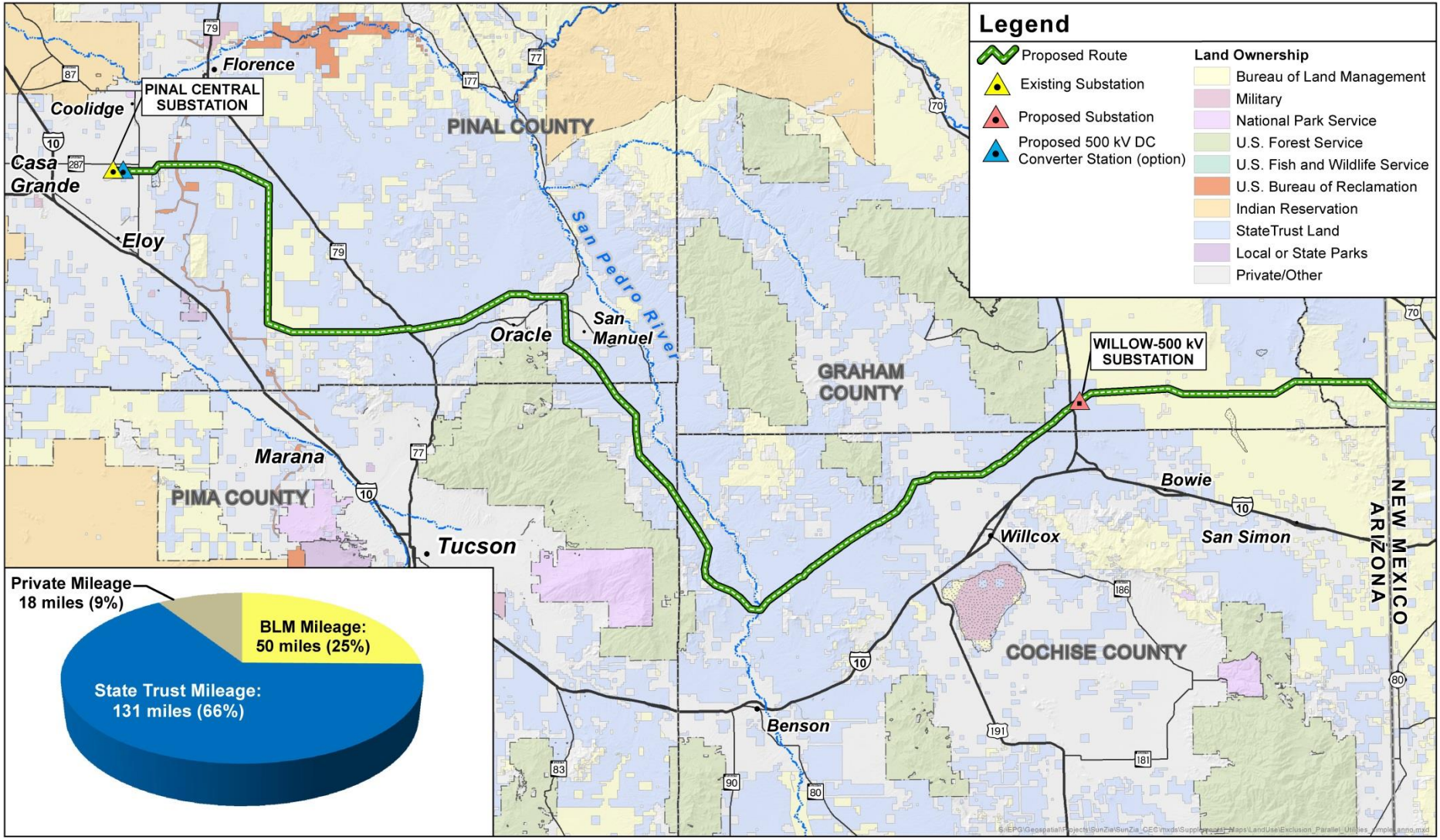


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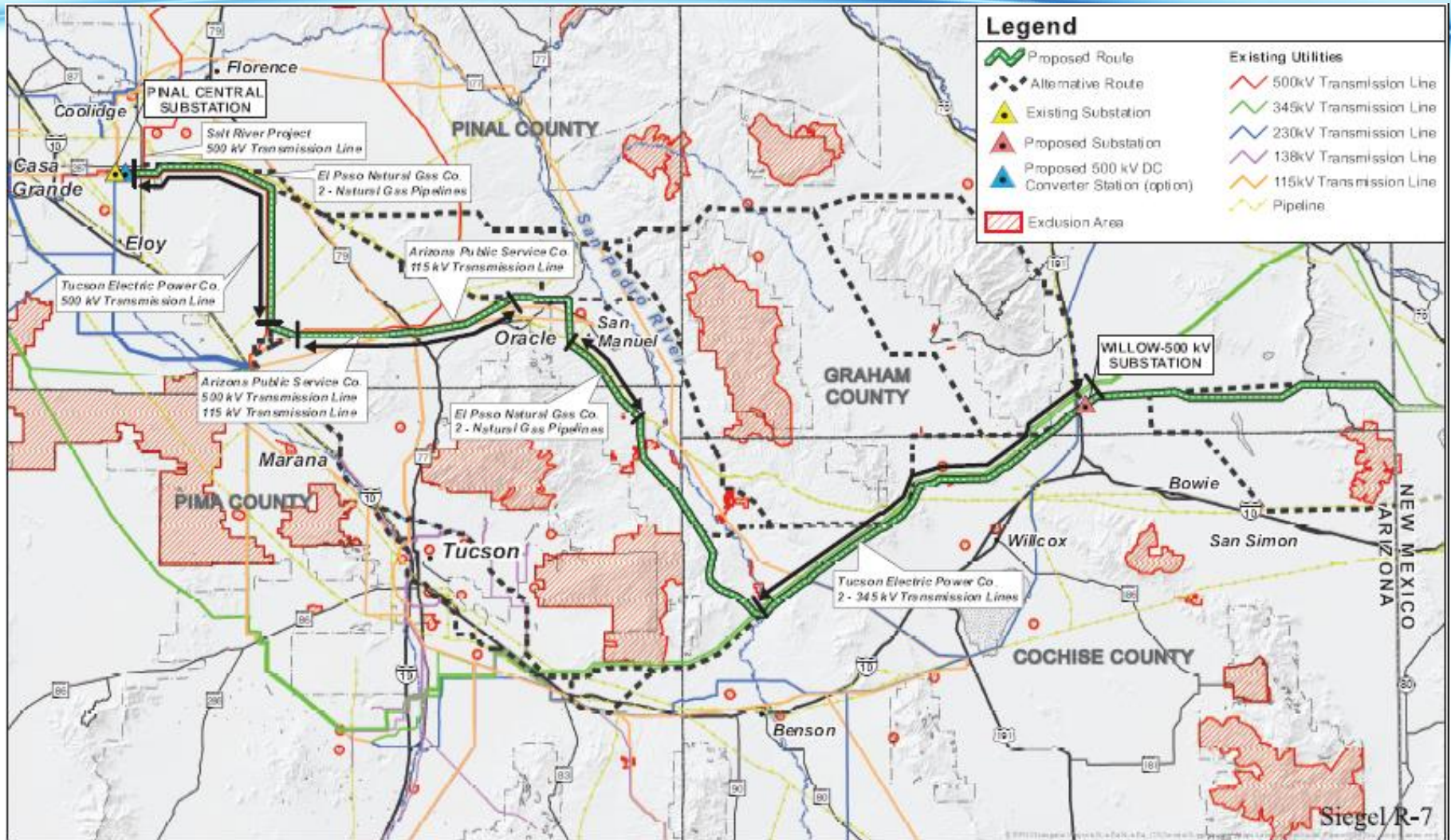
# Arizona CEC Application Process

- ⚡ September 2, 2015: Filed an application for an Arizona Certificate of Environmental Compatibility (CEC) from the AZ Power Plant & Line Siting Committee (LSC)
  - » 13 days of LSC hearings held in Willcox, Tucson, Casa Grande and Florence
  - » Two field tours
- ⚡ November 19, 2015: unanimous vote by the LSC to issue the CEC
- ⚡ February 3, 2016: ACC approved the CEC without changes





# Threading the Needle in AZ



# BLM, ASLD, AZGF, and ADOT Letter



United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Arizona State Office  
One North Central Avenue, Suite 800  
Phoenix, Arizona 85004-4427  
www.blm.gov/az/



2015 SEP 28 PM 1:13  
STATE OF ARIZONA  
SANTA FE, N.M.

SEP 18 2015

In Reply Refer To:  
2800 (9310)  
NM114438  
AZA35058

Mr. Thomas Chenal, Chairman  
Arizona Corporation Commission  
Power Plant and Line Siting Committee  
1275 West Washington Street  
Phoenix, AZ 85007-2926

Re: SunZia Transmission Line Project

Dear Chairman Chenal:

Please accept this correspondence as a summary regarding the extensive cooperation between the Bureau of Land Management (BLM), the respective Arizona State agencies and other Federal cooperators on the SunZia Transmission Project. At a July 22, 2015, meeting with SunZia Transmission, LLC (SunZia) a request was made to the BLM, Arizona State Land Department, Arizona Department of Transportation, and Arizona Game and Fish Department to author a joint letter summarizing the process for the selected route for the project in the BLM's Record of Decision (ROD) dated January 23, 2015, as well as to outline the cooperation that occurred between all the parties involved in the project.

On September 11, 2008, SunZia submitted an application for a right-of-way for an electric transmission line process consisting of two parallel 500 kilovolt overhead transmission lines, approximately 515 miles in length. The proposed line originates in Lincoln County, New Mexico and terminates at the Pinal Central Substation, in Pinal County, Arizona, northwest of Tucson.

As the lead Federal agency, the BLM was responsible for completing an Environmental Impact Statement (EIS) under the authority of the National Environmental Policy Act (NEPA) that analyzed and disclosed the effects of the proposed project on both the natural and human environment. The analysis incorporated valuable input from the public as well as Federal, State, and local agencies having related jurisdiction or special expertise.

Some of the agencies elected to become "Cooperating Agencies", which afforded them the opportunity to participate in the BLM's interdisciplinary team process. The Cooperating Agencies were able to inform the BLM of resource and socio-economic impacts, policies, regulations, and laws of which they may have specific local knowledge. In the SunZia planning process, this cooperation and the significant

public input through the public comment period resulted in the identification of four main alternatives and various sub-alternatives in Arizona. Federal agencies participating in this EIS process included the U.S. Fish & Wildlife Service; National Park Service; Fort Huachuca Army Base, AZ; White Sands Missile Range, NM; Holloman Air Force Base, NM; and Fort Bliss Army Base, TX. Arizona State agencies participating as Cooperating Agencies included the State Land Department, Game and Fish Department, and Department of Transportation.

The EIS thoroughly analyzed and disclosed the effects to the natural and human environment on Federal and non-Federal lands. The involvement of local and Federal agencies with jurisdiction and/or special expertise in the analysis was critical in analyzing those impacts to non-Federal lands, as the selected route in Arizona was comprised of a total of 198 miles (crossing 130 miles of State Land, 18 miles of private land, and 50 miles of BLM managed land).

Through this collaborative effort, the route that was ultimately selected resulted in mitigation development that reduced the resource impacts; and

- Optimized the use of existing utility corridors and infrastructure
- Minimized impacts to sensitive resources
- Minimized, to the extent practical, impacts at river crossings

The routes evaluated but not chosen would result in greater impacts to natural, cultural, and sensitive resources. For example, the other routes crossed the San Pedro River at points with critical habitat designated by the Fish and Wildlife Service. Also, those crossings and routes have lower levels of existing disturbance. The construction of a line of this scope and size would introduce new disturbance by aiding access to previously un-fragmented land. Additionally, the northern routes traverse through rugged terrain that contributes to the habitat and ecological function of the Aravaipa wilderness. Other concerns with the northern routes near Mount Graham included Native American Tribal areas of religious and cultural significance. These are a few resources that factored into making the decision of the selected route. While further details are in the Final EIS and the ROD, the BLM in Arizona, along with the State Agencies engaged as Cooperators, stand prepared to answer any questions regarding the NEPA process and the cooperative engagement that resulted in a Record of Decision.

If you have questions, please call me at 602-417-9500.

Sincerely,

Raymond Suazo  
State Director

Lisa Atkins  
Commissioner  
Arizona State Land Department

Larry D. Vogles  
Director  
Arizona Game and Fish Department

John S. Halikowski  
Director  
Arizona Department of Transportation

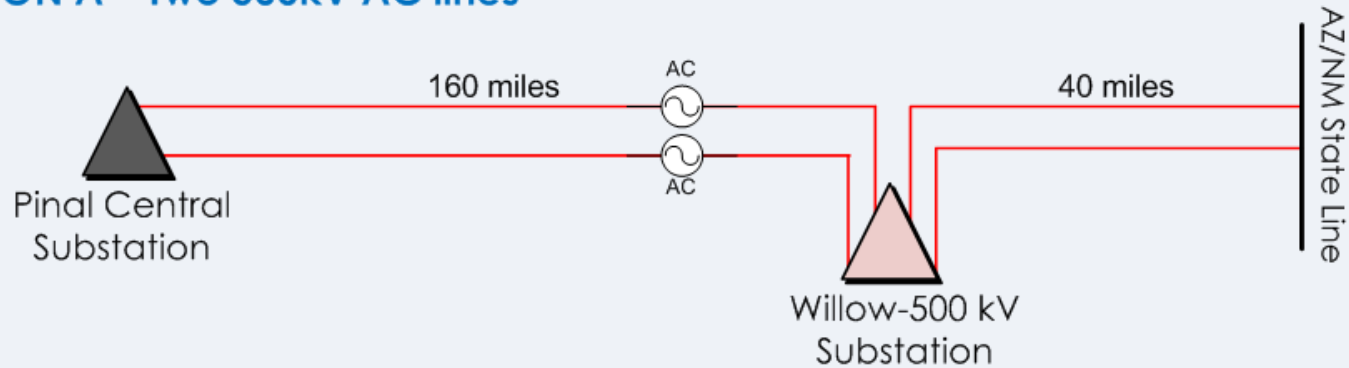
cc: Mr. Aden Seidnitz, Acting State Director  
Bureau of Land Management  
New Mexico State Office  
Attention: Adrian Garcia  
301 Dinosaur Trail  
Santa Fe, NM 87508

# SunZia CEC

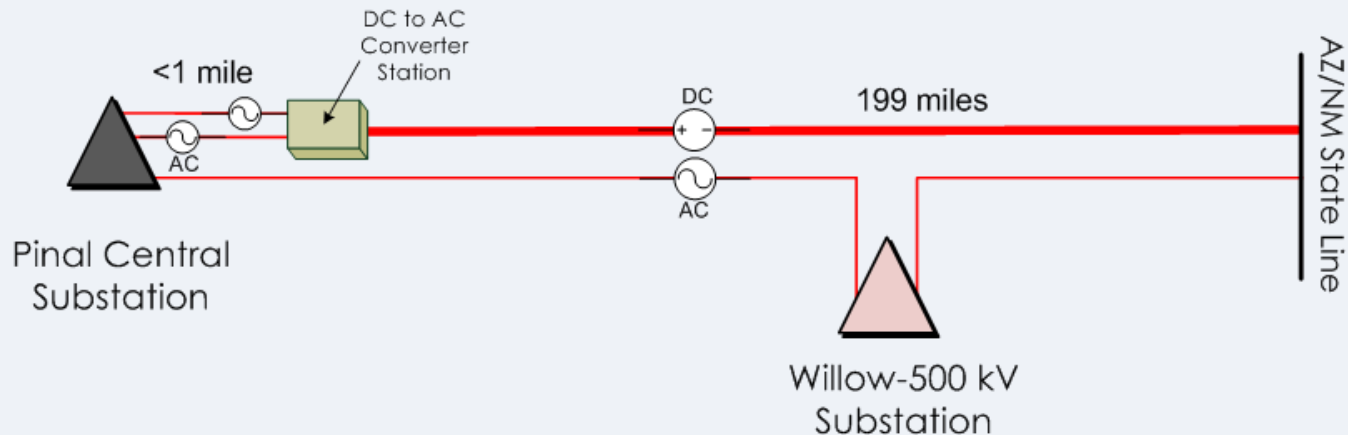
- ⚡ CEC has two expiration terms:
  - » 10 years for the first 500kV line and Willow-500kV Substation
  - » 15 years for the second 500kV line and related facilities
- ⚡ During preparation of the final Plan of Development, SunZia will invite the participation of stakeholders
- ⚡ SunZia will not negatively impact Pima County's ability to claim credit under the Multi Species Conservation Plan
- ⚡ Approves a 2,500 corridor for siting a 450-foot ROW
- ⚡ CEC allows for either 2 AC lines or 1 AC, 1 DC line

# Project Configuration Options

## OPTION A – Two 500kV AC lines



## OPTION B – One 500kV AC line, One 500kV DC line



# Project Concept to Operation

## 15 Years

MILESTONE	DATE
✓ Concept emerges in regional planning	Starting 2006
✓ Sponsors sign MOA	April 2008
✓ Submit BLM SF-299 ROW Application	Sept 2008
✓ Initiate Scoping	May 2009
✓ Draft EIS	May 2012
✓ Final EIS	June 2013
✓ Record of Decision	Jan 2015
✓ State permits	2016-2017
✓ Financial Close	2019
✓ Final Design, ROW Acquisition, Procurement, Construction	2016-2021
✓ Commercial Operation	2021

# Upcoming Activity

2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |

◆ BLM Issued Record of Decision Approving ROW across Federal Land

◆ Received a Certificate of Environmental Compatibility from the Arizona Corporation Commission

Private and State land ROW Acquisition

Interconnection Agreements

Engineering, Design and Plan of Development

Construction Financing

Procurement & Construction

◆ Line Energization

Operation



**[www.sunzia.net](http://www.sunzia.net)**

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