

## DOCKETED

<b>Docket Number:</b>	15-RETI-02
<b>Project Title:</b>	Renewable Energy Transmission Initiative 2.0
<b>TN #:</b>	208290
<b>Document Title:</b>	SunZia Southwest Transmission Project Presentation
<b>Description:</b>	N/A
<b>Filer:</b>	clare Laufenberg
<b>Organization:</b>	SunZia Southwest Transmission Project
<b>Submitter Role:</b>	Public Agency
<b>Submission Date:</b>	1/21/2016 12:14:01 PM
<b>Docketed Date:</b>	1/21/2016



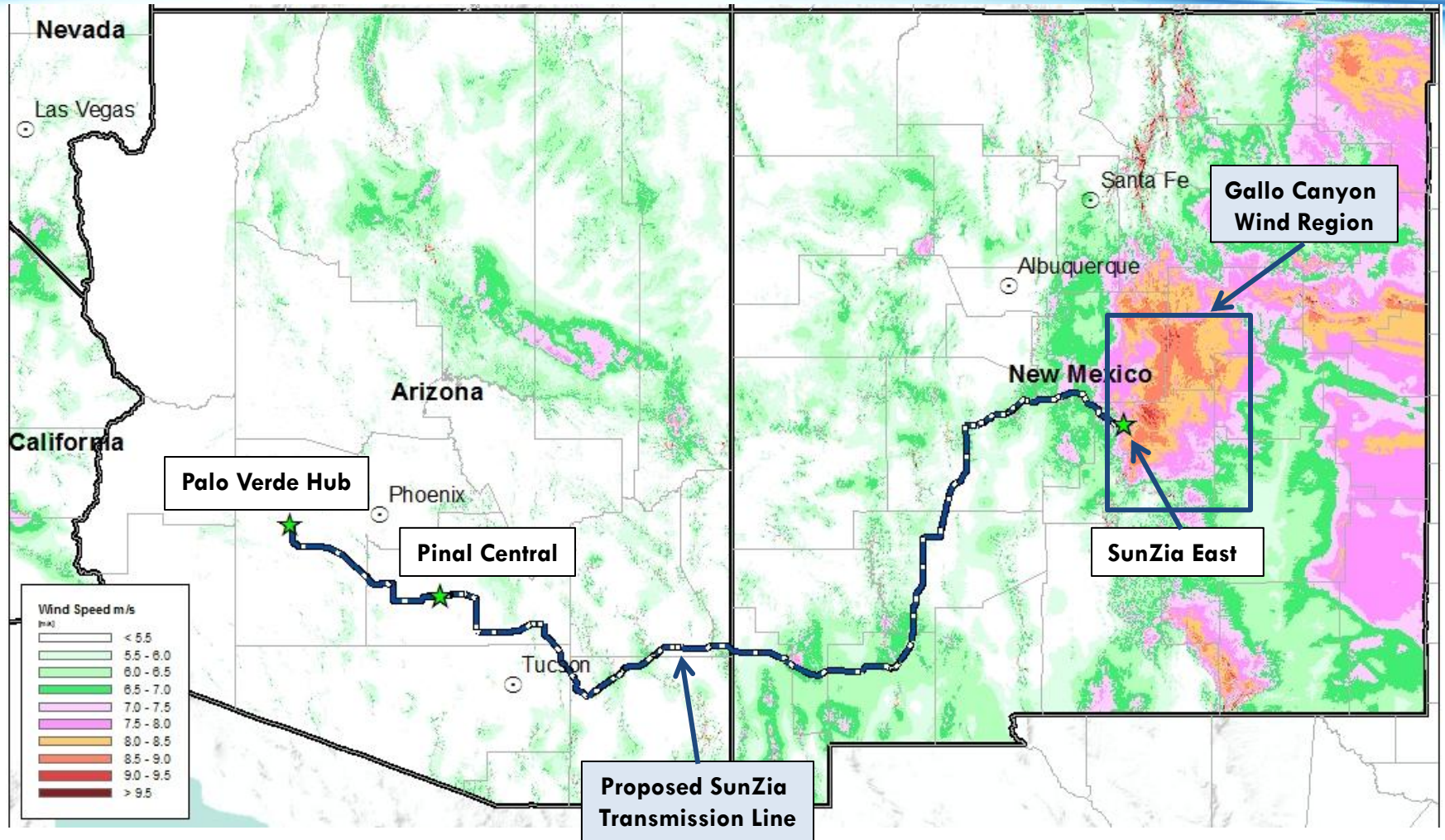
# SunZia Southwest Transmission Project



## **RETI 2.0** **Transmission Technical Input Group**

January 22, 2016 Workshop

# SunZia: 500kV Project delivering NM Wind to Palo Verde



# SunZia Project Summary

- ⚡ **515 miles, 2 single-circuits, 500kV project, from new SunZia East to existing Pinal Central substations (2 x AC or AC + DC)**
- ⚡ **Obtain transmission service over the existing system from Pinal Central to Palo Verde (or Westwing)**
- ⚡ **WECC 3-phase rating of 3,000 MW (East to West, 2 x AC)**
- ⚡ **Capital cost estimated at \$2 billion over 30 months (2 x AC)**
- ⚡ **Permitting began in 2008. Record of Decision issued by BLM in January 2015. AZ state permit expected in Feb 2016.**
- ⚡ **Financial Close expected in 2018 with COD in 2020/2021, subject to commercial arrangements**

# Major Project Participants

- ⚡ **SouthWestern Power Group (SWPG) is the developer and project manager**
- ⚡ **MMR Group, a large, private construction services firm owns SWPG and is the majority owner of SunZia**
- ⚡ **3 utility partners hold small interests: Salt River Project, Tucson Electric Power and Tri-State Generation & Transmission**
- ⚡ **SunZia has a letter of intent with SunEdison as anchor tenant for 1,500 MW of capacity**
- ⚡ **SunEdison (formerly First Wind Energy) is developing the 1,500 MW Gallo Canyon wind project near SunZia East**

# Rights of Way (ROW) is 36% Complete

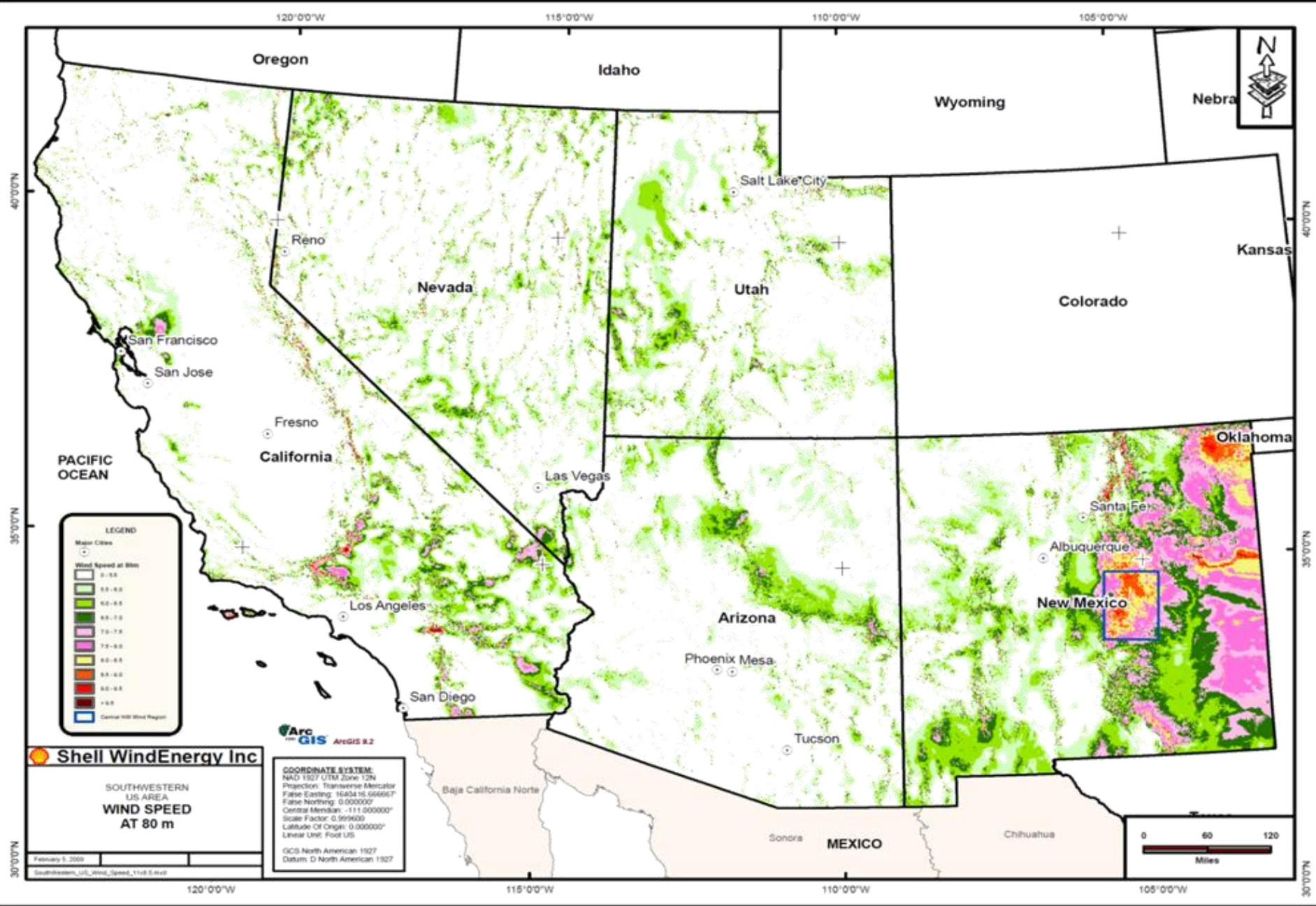
## ⚡ 4 types of landowners over 515 miles:

- ~ BLM (184 miles or 36%)
- ~ AZ State Trust (130 miles or 25%)
- ~ NM State Trust (89 miles or 17%)
- ~ Private (111 miles or 22%)

## ⚡ BLM ROW Grant in-hand, expect to sign in March 2016

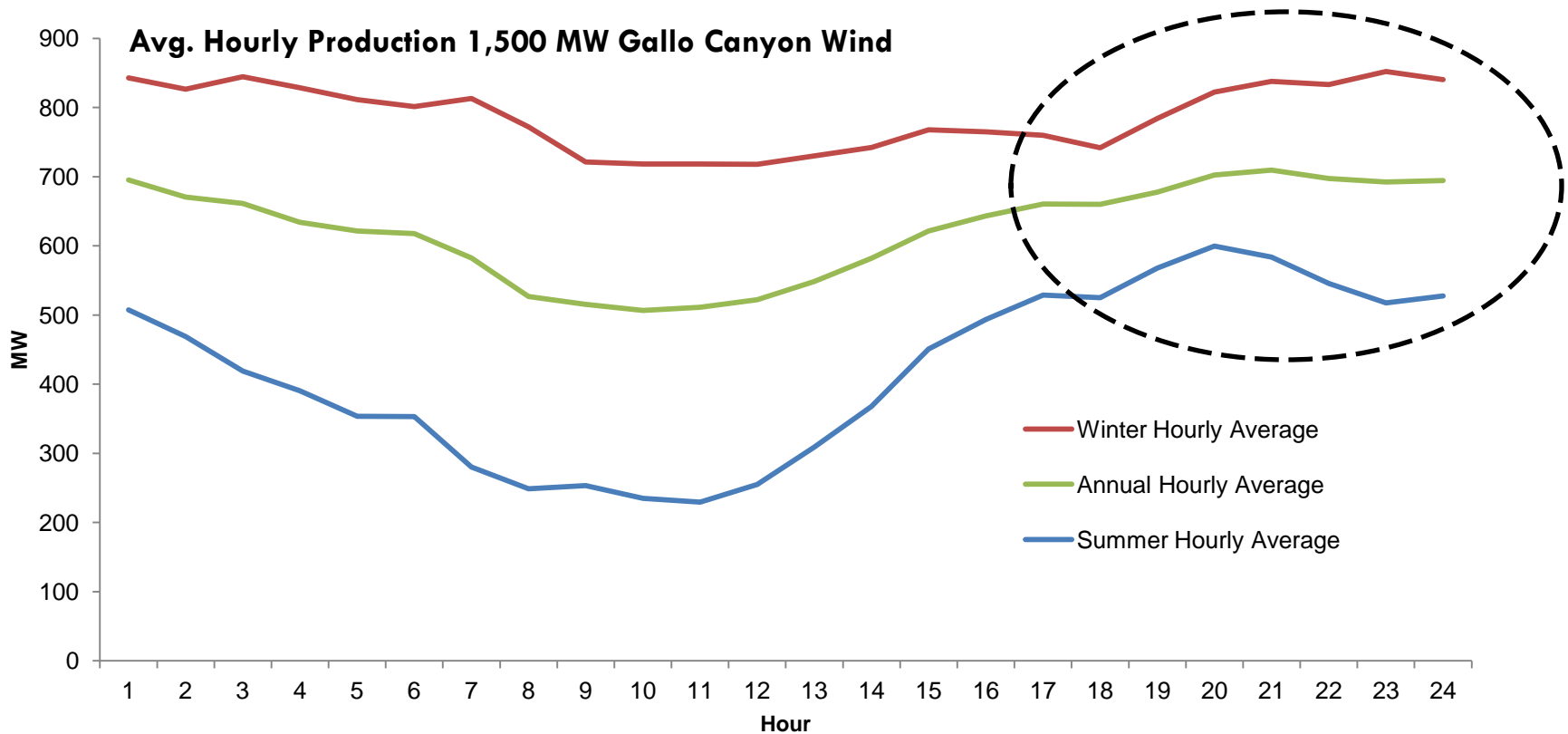
## ⚡ Have commenced discussions with AZ State Land Department and NM State Land Office

## ⚡ Have identified all private landowners (~ 130) and have commenced discussions



# NM Wind Profile Offers Diversity (Gallo Canyon Example Shown)

## NM Wind Profile Ramps Up in Critical Evening Hours





# New Mexico Wind Resource

- ⚡ **New Mexico's wind resource proximate to SunZia's eastern terminus is among the highest quality wind energy resource in the West.**
  - Expected capacity factors are in the mid-40% with some areas exceeding 50%.
- ⚡ **The Western Governors' Association has estimated there is in excess of 10,000 MWs of developable wind energy in this area of New Mexico (NM\_EA).**
- ⚡ **The New Mexico wind resource is the best and geographically-closest wind to the markets of California and Arizona.**
- ⚡ **The New Mexico wind resource typically picks up in the late afternoon and thus is complimentary/supportive of declining solar PV production (i.e., helps resolve the Duck Curve problem).**



For more project information, please visit:

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

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# Supplemental Slides

# SouthWestern Power Group

- ⚡ **Independent developer of utility-scale generation and transmission in the Desert Southwest**
- ⚡ **Project Manager/Developer of SunZia**
- ⚡ **Based in Phoenix, staff of ten: 200 man-years of experience, in business for 15 yrs**
- ⚡ **Major References:**
  - ~ 2,400 MW CCGT Panda Gila River power plant (in operation)
  - ~ 1,000 MW CCGT Bowie Power Station (permitted)
  - ~ 600 MW Lignite CFB Rockdale Power Plant (in operation)
  - ~ 200 MW (DC) Campo Verde Solar PV power project (in operation)
- ⚡ **Owned by MMR Group in Baton Rouge, LA**

# MMR Group

- ⚡ **Construction services firm based in Baton Rouge, LA**
- ⚡ **22 offices in USA, Canada & overseas**
- ⚡ **In business +25 years; owned by senior management**
- ⚡ **Approximately 5,000 employees**
- ⚡ **One of the largest electrical contractors in the US**
- ⚡ **Industrial markets only: power, oil & gas, process, etc.**
- ⚡ **Built over 30,000 MWs of generation**

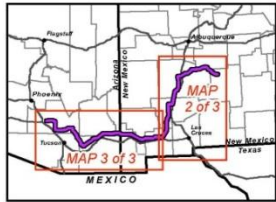
# Record of Decision Alignment

## 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

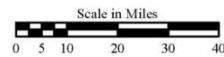
- City
- State Highway
- U.S. Highway
- Interstate
- Lake/Reservoir

#### 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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