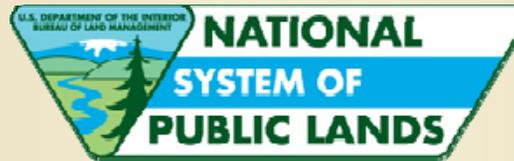


Bureau of Land Management



Public Scoping Meeting October 2009

SunZia Southwest TRANSMISSION PROJECT



NOTICE OF INTENT

Federal Register / Vol. 74, No. 102 / Friday, May 29, 2009 / Notices

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[NM-114438; AZA-35058; L51010000
ER0000 LVRWG09G0690]

Notice of Intent to Prepare an
Environmental Impact Statement [EIS] and
Possible Resource Management Plan
Amendments for the SunZia Southwest
Transmission Project in Arizona
and New Mexico

AGENCY: Bureau of Land Management [BLM]

Interior

ACTION: Notice of Intent



PROJECT PARTICIPANTS & ROLES

❑ Federal Lead Agency: BLM



- Prepare EIS pursuant to the National Environmental Policy Act (NEPA)
- Authorization to grant right-of-way

❑ Environmental Contractor: EPG, Inc.



- Conduct environmental studies
- Support EIS preparation for the BLM

❑ Project Proponent: SunZia

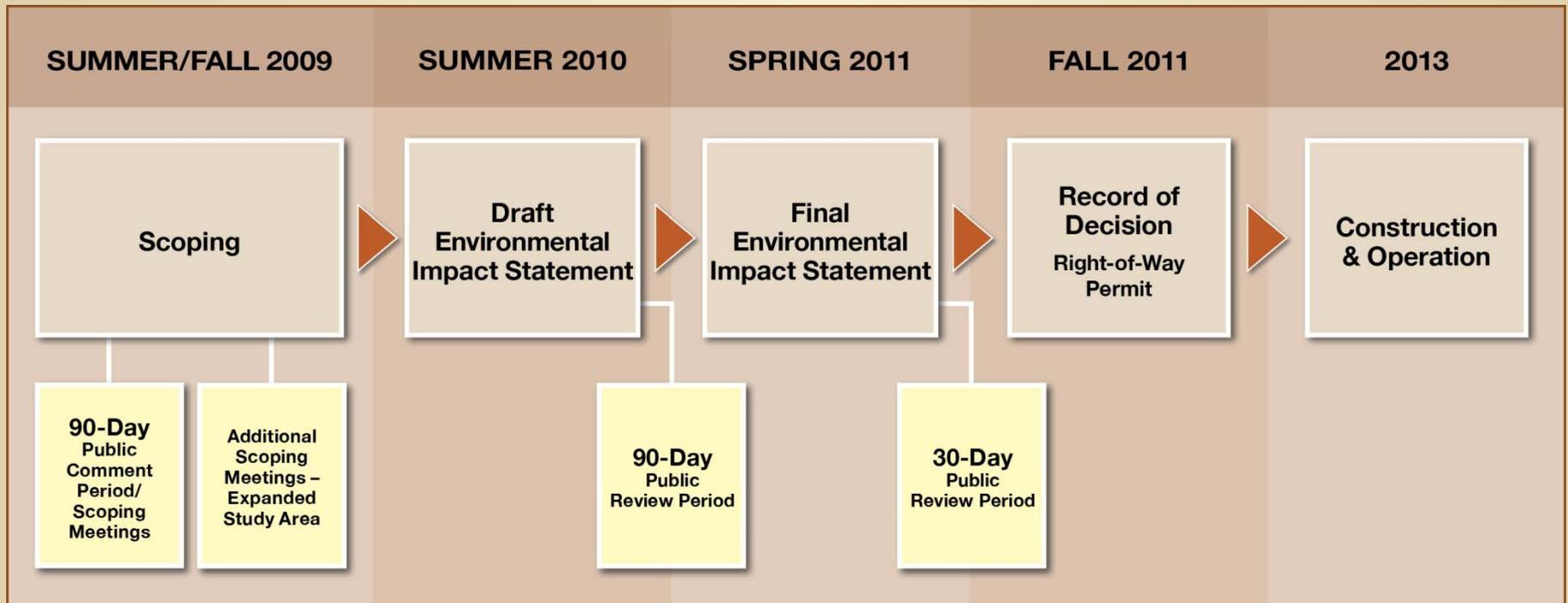


- Participants:
 - SouthWestern Power Group
 - Shell WindEnergy
 - Tucson Electric Power
 - Salt River Project
 - Energy Capital Partners
- Design, financing, construction, operation, and maintenance

PROJECT PROPOSAL

- ❑ **Up to two 500kV high-voltage electrical lines**
 - 2 alternating current (AC) lines or
 - 1 AC line + 1 direct current (DC) line
 - Substations and ancillary facilities
- ❑ **Proposed route length: ~460 miles**
 - East terminus – central New Mexico
 - West terminus – south-central Arizona
- ❑ **3,000 – 4,500 megawatts (MW) of added capacity**
 - Increase power transfer and reliability
 - Provide access to renewable resources
 - solar, wind, geothermal

PROJECT EIS TIMELINE



PROJECT STUDY AREA



PROJECT PURPOSE

- ❑ To transport electricity generated by power generation sources – primarily renewables – to western power markets and load centers
- ❑ To increase power reliability and transfer capability in the Southwest
- ❑ To meet growing demand for renewable energy
- ❑ To enhance domestic energy security



PROJECT NEED

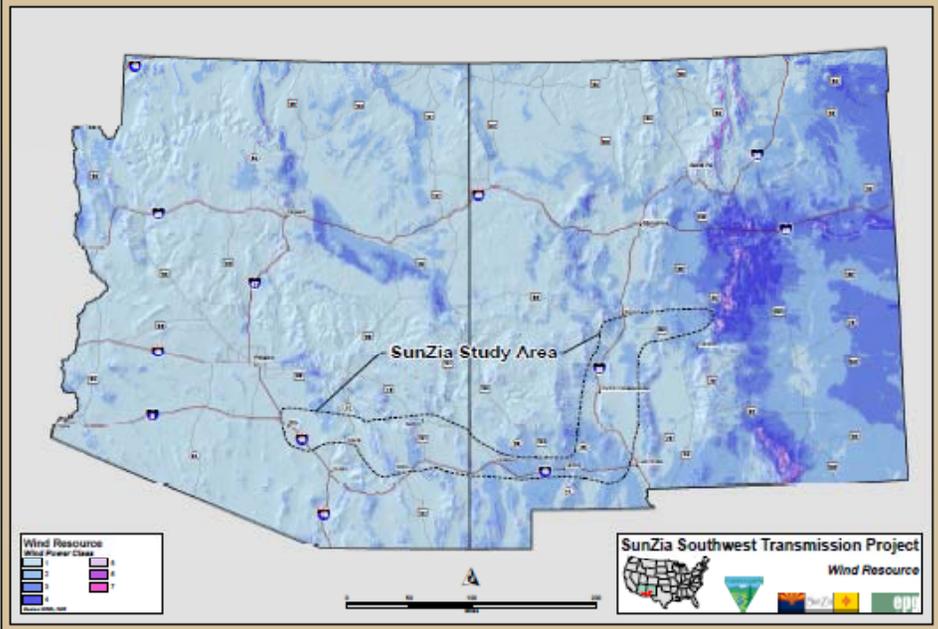
- ❑ **Provide access for local utilities to renewable energy supplies**

- ❑ **Renewable Energy Standards (RES)**
 - Mandate for regulated utilities
 - AZ 15% by 2025
 - NM 20% by 2020

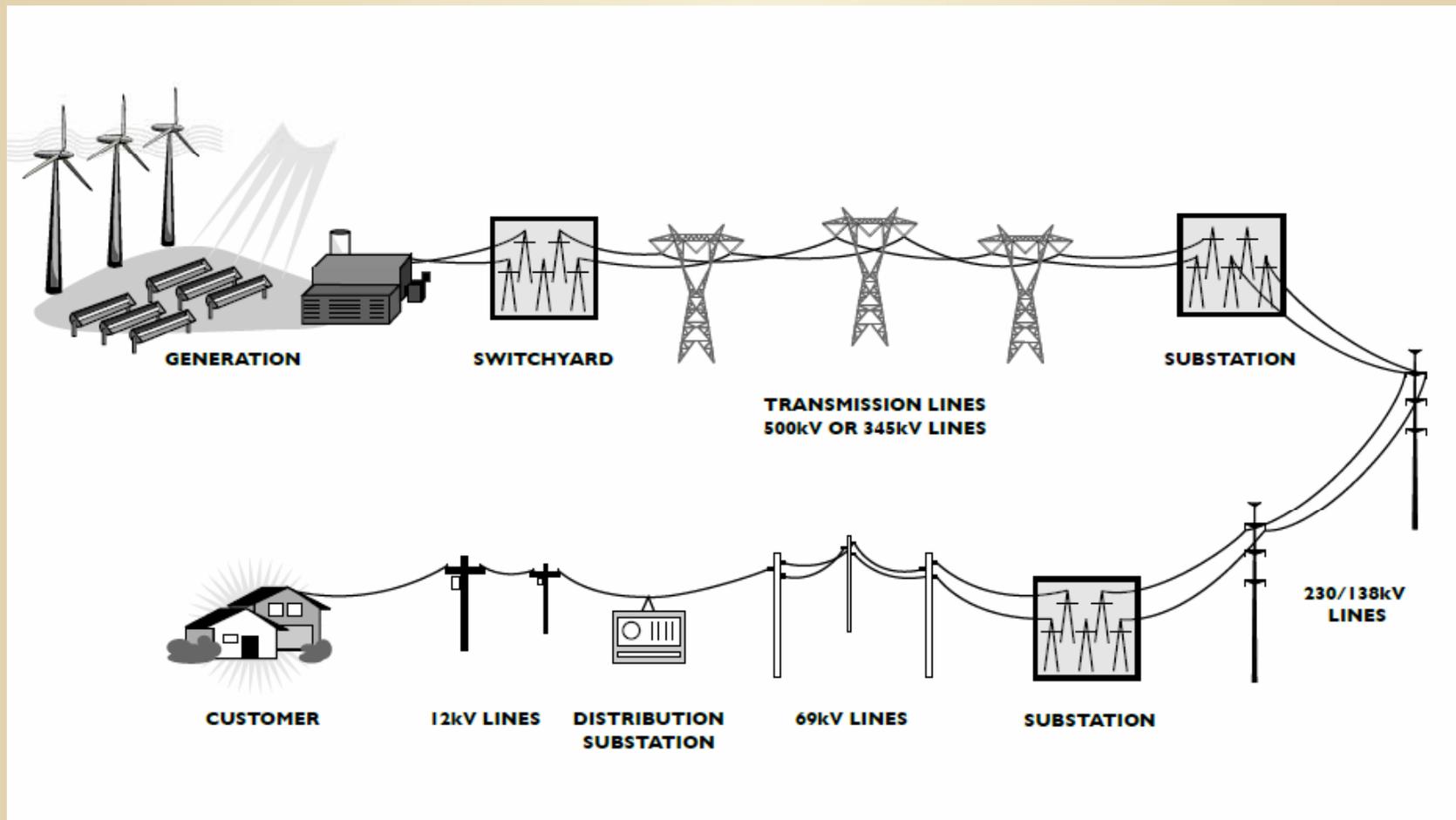
- ❑ **Southwest Area Transmission (SWAT)**
 - Regional transmission planning group
 - Existing transmission system is limited in capacity
 - Identified need for 500kV transmission line in area of proposed SunZia project



SOLAR & WIND POTENTIAL



ELECTRICAL TRANSMISSION & DISTRIBUTION



SunZia Southwest TRANSMISSION PROJECT

PROJECT DESCRIPTION

❑ Electrical transmission line(s)

- Up to two 500kV lines
 - 2 AC lines, or
 - 1 AC line + 1 DC line
 - Total capacity of 3,000 to 4,500 MW

❑ Substations

▪ Termination Stations

- SunZia-East
Socorro or Lincoln County, NM
- Pinal Central
Pinal County, AZ

▪ Potential Intermediate Stations

- SunZia-South
Luna County, NM
- Willow
Graham County, AZ
- Tortolita
Pinal County, AZ
- Others TBD

PROPOSED FACILITIES

- ❑ Proposed route length: approx. 460 miles
- ❑ Typical right-of-way width:
 - 200 feet per line
 - up to 1,000 feet for two lines
- ❑ All steel structures
- ❑ Typical structure height: 130 to 160 feet
- ❑ Typical span: 1,300 to 1,500 feet between structures



TRANSMISSION SYSTEMS COMPARISON

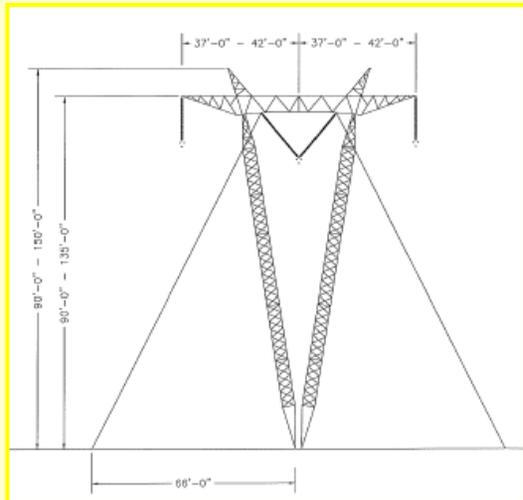
TYPICAL 500kV SYSTEM CHARACTERISTICS	ALTERNATING CURRENT (AC) 	DIRECT CURRENT (DC) 
POWER TRANSFER (mega watts per line)	1,500 MW	3,000 MW
AVERAGE LINE LOSS (per 100 miles)	1.5%	0.7%
CONTROLLABLE POWER	No	Yes
MULTIPLE INTERMEDIATE SUBSTATIONS (on/off ramps)	Yes	No
LINE ENGINEERING [number of conductors (lines)]	3 sets	2 sets
PER SUBSTATION ENGINEERING	20 acres	80 acres
PER SUBSTATION COST	\$30 Million	\$300 Million



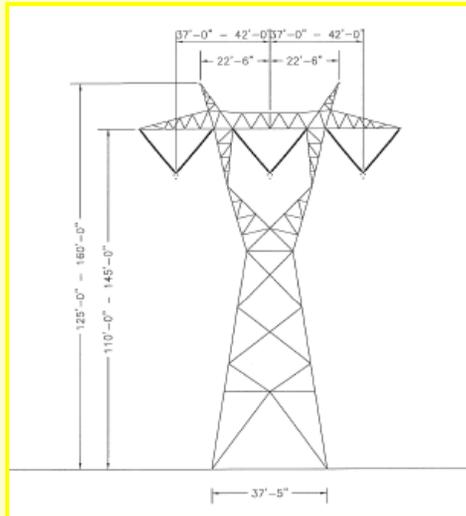
TYPICAL TRANSMISSION STRUCTURES



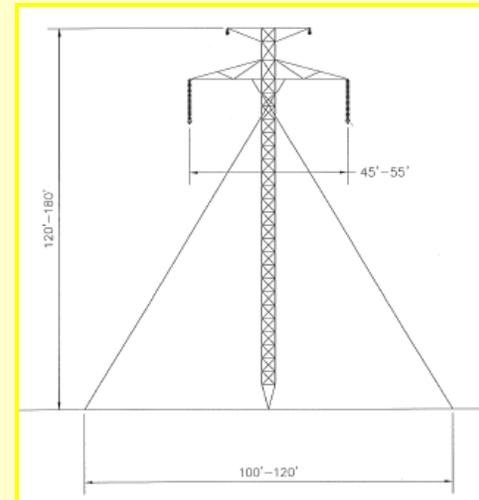
500kV AC Guyed-V



500kV AC Self Supporting



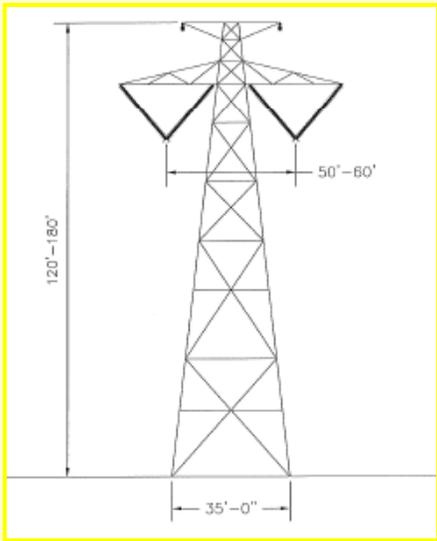
500kV DC Guyed Lattice



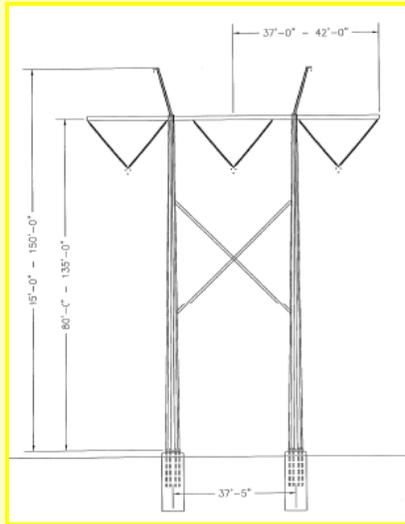
TYPICAL TRANSMISSION STRUCTURES



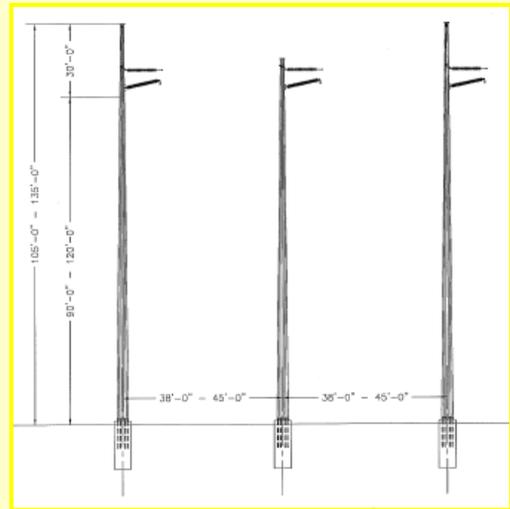
500kV DC Self Supporting



500kV AC H-Frame (mitigation)



500kV AC 3-Pole Deadend



TYPICAL 500kV SUBSTATION

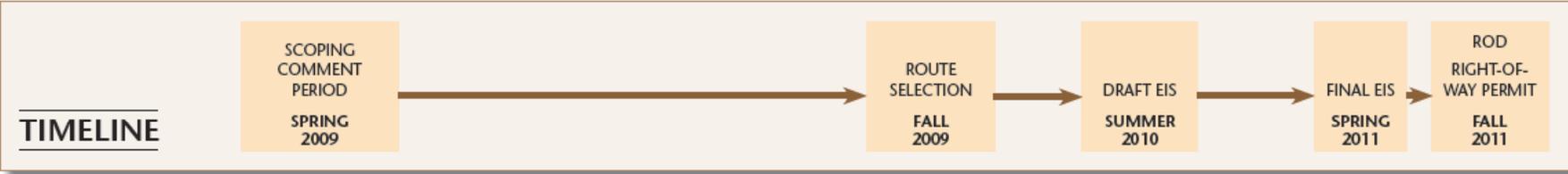
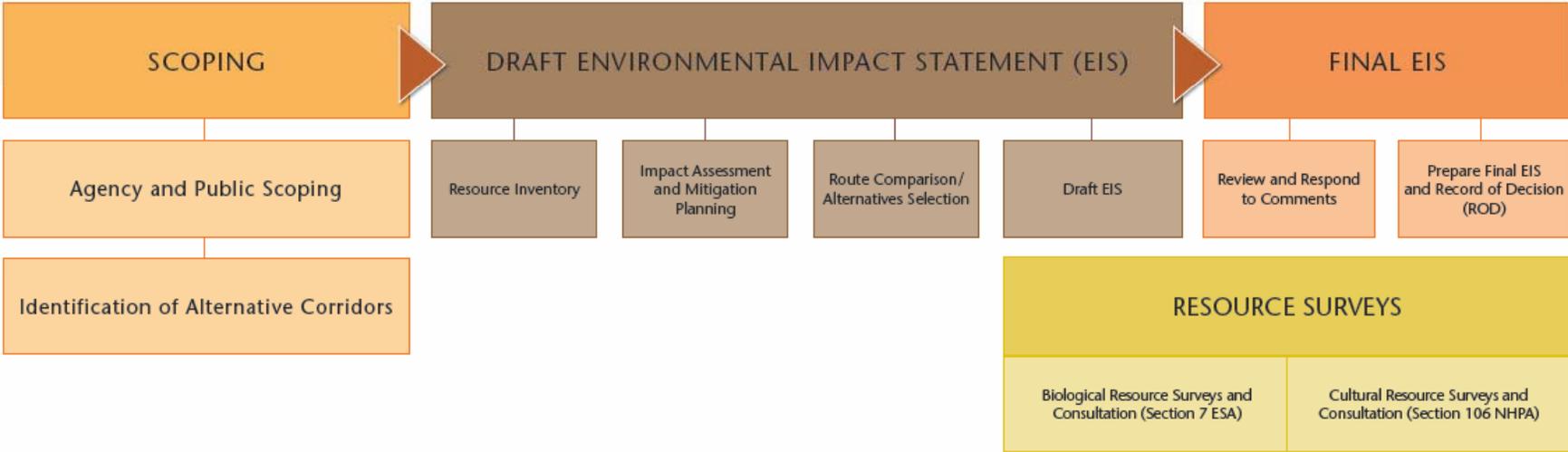


SRP Browning 500kV Substation, Mesa, AZ. Facing southwest. May 2009.



SRP Browning 500kV Substation, Mesa, AZ. Aerial View.

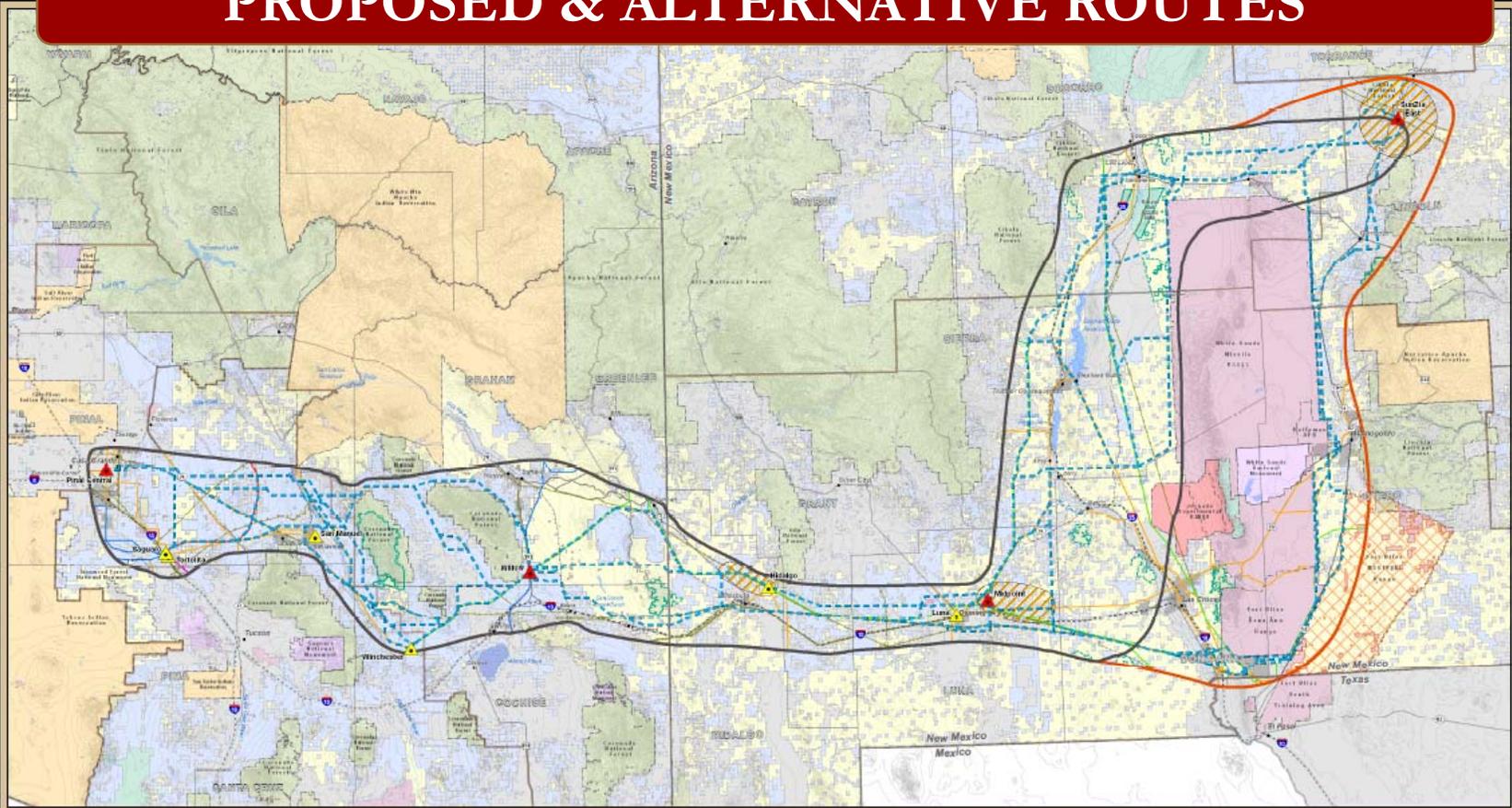
EIS PLANNING PROCESS



PROJECT PERMITTING

CATEGORY	AGENCY	PERMIT/CLEARANCE
UTILITY	New Mexico Public Regulatory Commission	Certificate of Public Convenience & Necessity (CCN)
	Arizona Corporation Commission	Certificate of Environmental Compatibility (CEC)
RIGHT-OF-WAY (ROW)	BLM	SF-299 ROW Application → ROW Grant Authorization
	New Mexico State Land Office	ROW Permit
	Arizona State Land Department	ROW Permit
ENVIRONMENTAL RESOURCES	US Army Corps of Engineers	Section 404 of Clean Water Act
	Arizona & New Mexico State Historic Preservation Offices	Section 106 of National Historic Preservation Act
	US Fish & Wildlife Service	Section 7 of Endangered Species Act
	BLM	Paleontological Resources Preservation Act
OTHERS, AS NEEDED		

PROPOSED & ALTERNATIVE ROUTES



SunZia Southwest Transmission Project
Proposed and Alternative Routes
 Preliminary Scoping-October 2009

Project Location

October 20, 2009

LEGEND

BLM Field Office Boundary

Land Ownership

Bureau of Land Management	Federal/Other
U.S. Dept. of Defense	Indian Reservation
McGregor Range Withdrawal	State/Trust Land
National Park Service	Local or State Parks
U.S. Forest Service	Private/Other
U.S. Fish and Wildlife Service	

Base Features

Project Features	Utilities	Reference Features
Proposed and Alternative Routes	Proposed Substation	City
Study Area	Existing Substation	River/Stream
Proposed Study Area Expansion	Pipeline (Diameter 6"+)	Lake/Reservoir
Substation Siting Area		Urban Area
		State Highway
		US Highway
		Interstate
		Railroad
		County Boundary
		State Boundary
		Wilderness Area
		Wilderness Study Area (WSA)
		Jurisdictional Boundary

Transmission Lines:
 800KV Transmission Line
 345KV Transmission Line
 230KV Transmission Line
 138KV Transmission Line
 115KV Transmission Line

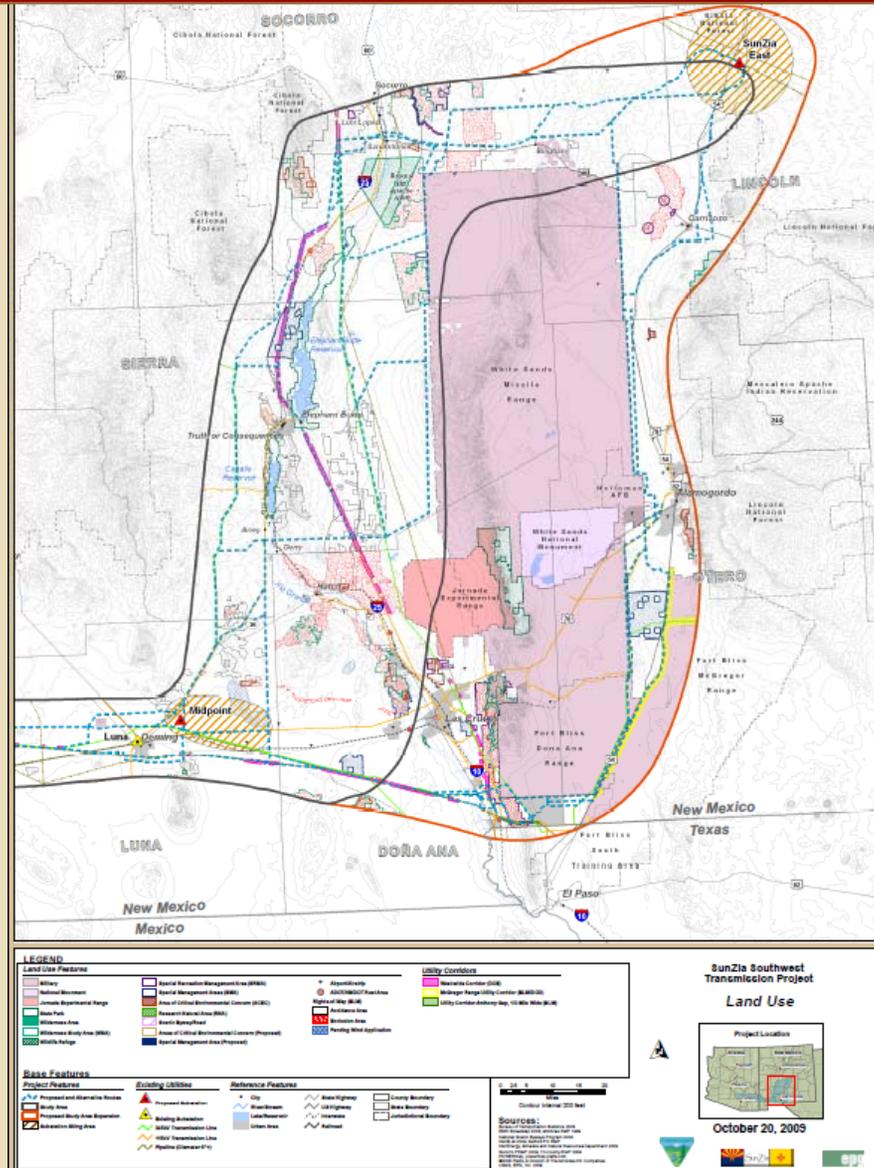
Sources:

AZ BLM 2008
 AZ State Land Department and AURIC 2008
 EPRC StateMap 2005, Minnow RMP 1999
 NM BLM 2009, Socorro PRMP 2009
 The County RMP 2009
 POWERmap, powermap.pltba.com
 ©2009 Pltba, A Division of The McGraw-Hill Companies
 USGS, EPG, Inc. 2009

Contour Interval 200 feet

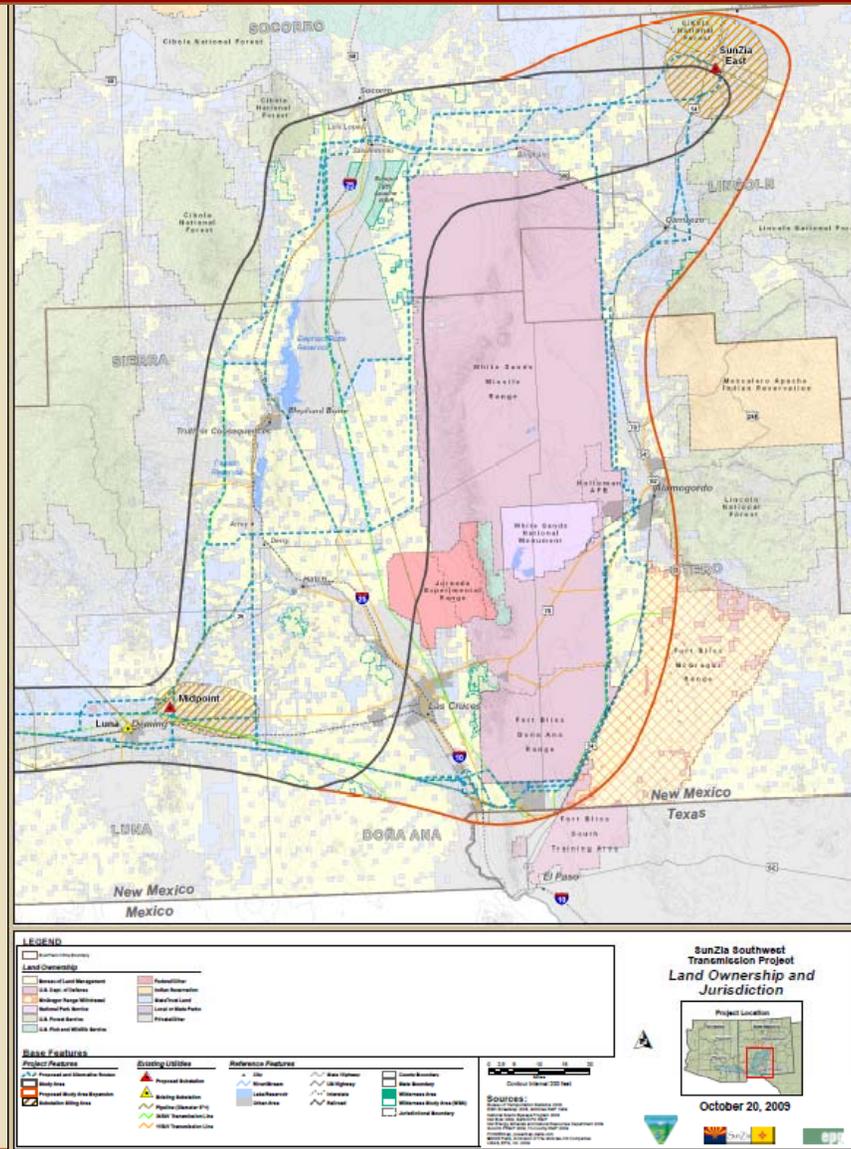
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LAND USE



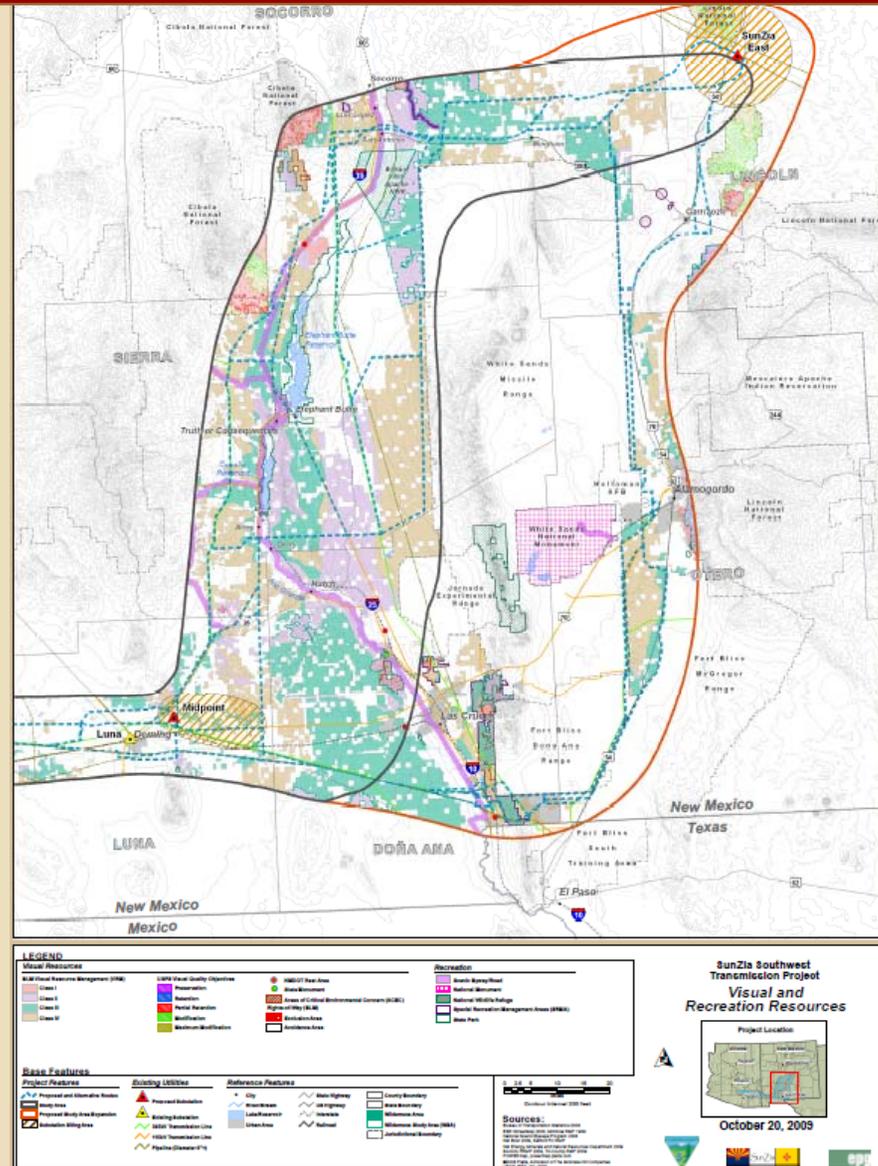
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LAND OWNERSHIP & JURISDICTION



SunZia Southwest TRANSMISSION PROJECT

VISUAL & RECREATION RESOURCES



ENVIRONMENTAL SENSITIVITY AND OPPORTUNITY SUMMARY

SENSITIVITY LEVELS

Data Layers	Sensitivity Level
LAND USE	
Airports and Heliports (municipal and private-runways less than 5,000 feet)	Exclusion
Federal Wilderness Areas (WAs)	Exclusion
National Monuments	Exclusion
BLM Exclusion Area	Exclusion
Federal Wilderness Study Areas (WSAs)	High
BLM Areas of Critical Environmental Concern (ACECs)	High
National or State Wildlife Refuges	High
National Conservation Areas	High
BLM Avoidance Area	High
State Parks	High
Urban Areas (incorporated and unincorporated cities and towns)	Moderate
BLM Pending Solar Right-of-Way	Moderate
BLM Pending Wind Right-of-Way	Moderate
Research Natural Area (RNA)	Moderate
Special Management Area	Moderate
Special Management Area (Proposed)	Moderate
Vacant/Undeveloped	Low
VISUAL AND RECREATION	
BLM Visual Resource Management Objectives (VRM) Class I	Exclusion
BLM VRM Class II	High
Scenic Trails	High
Scenic Roads or Byways	High
Concern Level Roads I	High
BLM VRM Class III	Moderate
USFS VQO Partial Retention	Moderate
Special Recreation Management Area (SRMA)	Moderate
Rest Area	Moderate
Concern Level Roads II	Moderate
BLM VRM Class IV	Low
USFS VQO Modification	Low
USFS VQO Maximum Modification	Low
CULTURAL RESOURCES	
State Monument	High
National Register Districts	High
Historic Trails	High
Cultural Resource Area	Moderate

Data Layers	Sensitivity Level
BIOLOGICAL RESOURCES	
Designated Threatened and Endangered Species Critical Habitat	High
Wetlands	High
Desert Tortoise Habitat	
Category I	High
Category II	Moderate
Category III	Low
Sensitive Species	Moderate to High
General Native Vegetation	
AZ Upland Sonoran Desert Scrub	Moderate
Coniferous and Mixed Woodland	Moderate
Desert Grassland (Ecotone)	Moderate
Great Basin Conifer Woodland	Moderate
Juniper Savanna (Ecotone)	Moderate
Madrean Evergreen Woodland	Moderate
Montane Coniferous Forest	Moderate
Petran Montane Conifer Forest	Moderate
Petran Subalpine Conifer Forest	Moderate
Plains & Great Basin Grassland	Moderate
Plains-Mesa Grassland	Moderate
Semidesert Grassland	Moderate
Subalpine Coniferous Forest	Moderate
Chihuahuan Desert Scrub	Low
Closed Basin Scrub	Low
Interior Chaparral	Low
Lava Beds	Low
Lower Colo.R. Sonoran Desert Scrub	Low
Montane Scrub	Low
Plains-Mesa Sand Scrub	Low
Urban, Farmland or Open Water	Low
OPPORTUNITIES	
Transmission Lines (230kV or greater)	High
Federally Designated Overhead Transmission Line Corridors	High
Section 368 West-wide Energy Corridors	High
Transmission Lines (less than 230kV)	Moderate
Natural Gas/ Petroleum Pipelines (6-inch diameter or greater)	Moderate
Railroads	Moderate
Interstates, U.S. Highways, State Highways, Other Primary Roads	Moderate

POTENTIALLY AFFECTED RESOURCES

□ Natural Environment

- Biology
 - Wildlife
 - Migratory birds
 - Vegetation
 - Special status species
 - Threatened
 - Endangered
- Geology & Soils
- Water
- Air Quality



POTENTIALLY AFFECTED RESOURCES

□ Human Environment

- Land Use (existing & future)
 - Wilderness areas
 - Areas of Critical Environmental Concern (ACEC)
 - Existing utility corridors
 - National monuments, military lands, etc.
- Recreation
- Visual
- Socioeconomics
- Environmental Justice
- Noise
- Transportation



POTENTIALLY AFFECTED RESOURCES

☐ Cultural Environment

- Archaeological
 - Prehistoric cultural sites
- Historical
 - Historic trails
 - Historic sites
- Native American Consultation & Coordination
- Paleontological

☐ Other Areas to be Addressed

- Electric and Magnetic Fields (EMF)
- Cumulative Impacts – past, present, and foreseeable future



HOW CAN I COMMENT ON THE PROJECT?

In person tonight

- Fill out and leave comment form *or*
- Register comment with court reporter

Submit written comments by **November 27, 2009:**

▪ Email:

NMSunZiaProject@blm.gov

▪ Web site:

www.blm.gov/nm/st/en/prog/more/lands_realty.html

▪ Mail

BLM New Mexico State Office

SunZia Southwest Transmission Project

PO Box 27115, Santa Fe, NM 85702 (postal delivery)

301 Dinosaur Trail, Santa Fe, NM 87508 (courier/hand delivery)



COMMENT TRANSCRIPTION

- All comments must be received in writing to be incorporated into the EIS administrative record.
- Your comment becomes part of the administrative record for the EIS.
- A court reporter is available tonight to record in writing your comments on the proposed project, if you desire.
- Emails through the BLM website are acceptable.

Thank you for your attendance this evening.