

SUNZIA SOUTHWEST TRANSMISSION PROJECT

UPDATE FOR THE

JOINT CCPG~SWAT~SIERRA MEETING

WESTMINSTER, COLORADO



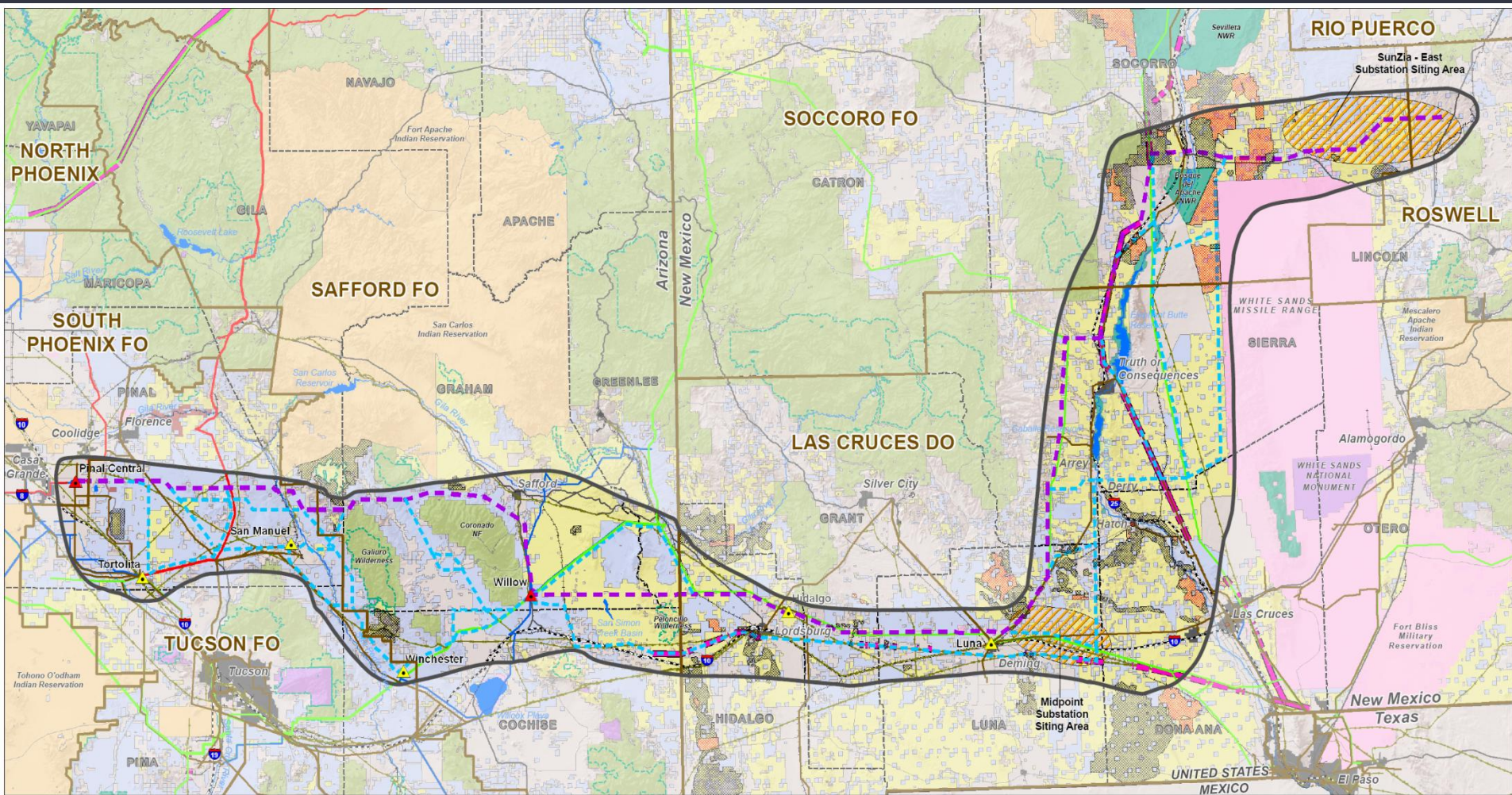
Mark Etherton

AUGUST 19, 2009

SUNZIA PROJECT PARTICIPANTS



- ✦ Energy Capital Partners (equity investment fund)
- ✦ Salt River Project (irrigation district and Arizona utility)
- ✦ Shell WindEnergy (a Royal Dutch Shell subsidiary)
- ✦ SouthWestern Power (Transmission and Generation Project Developer; SunZia Project Manager)
- ✦ Tri-State Generation and Transmission Associates (multi-state G&T cooperative)
- ✦ Tucson Electric Power (Arizona utility)



RIO PUERCO

SunZia - East Substation Siting Area

ROSWELL

LINCOLN

WHITE SANDS MISSILE RANGE

SIERRA

Alamogordo

OTERO

New Mexico

Texas

UNITED STATES MEXICO

El Paso

SOCCORO FO

CATRON

LAS CRUCES DO

GRANT

Hidalgo

Lordsburg

Luna

HIDALGO

LUNA

DOMA ANA

UNITED STATES

MEXICO

NAVAJO

SAFFORD FO

GRAHAM

TUCSON FO

COCHISE

HIDALGO

LUNA

DOMA ANA

UNITED STATES

MEXICO

NORTH PHOENIX

SOUTH PHOENIX FO

PINAL

Pinal Central

Tortolita

TUCSON FO

PIMA

DOMA ANA

UNITED STATES

MEXICO

El Paso

El Paso

El Paso

El Paso

El Paso

El Paso

El Paso

LEGEND

Preliminary SunZia Project Features

- Proposed Substation Interconnections
- Proposed Route
- Alternative Routes
- Substation Siting Area
- Study Area

Avoidance/Exclusion Areas

- Avoidance Area/ACEC
- Exclusion Area/WSA

Land Ownership

- Bureau of Land Management
- Indian Reservation
- U.S. Forest Service
- National Park Service
- Department of Defense
- U.S. Fish & Wildlife Service
- State/Trust Land
- Private/Other

Utilities

- Existing Substation
- 500 kV Transmission Line
- 345 kV Transmission Line
- 230 kV Transmission Line
- 115/138 kV Transmission Line
- Pipeline (6" Diameter and Above)

Reference Features

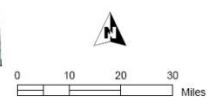
- State Highway/Major Road
- River/Stream
- Railroad
- County Boundary
- Interstate
- State Boundary
- DOE Proposed Corridor
- Wilderness/Conservation Area
- Lake/Reservoir
- Urban Area

Project Location



SunZia Southwest Transmission Project Preliminary Study Corridors

March 5, 2009



Sources: StreetMapUSA 2007, BLM 2008, USGS, EPG, Inc. 2008



Note - Substation and transmission line locations are schematic and do not represent precise locations.
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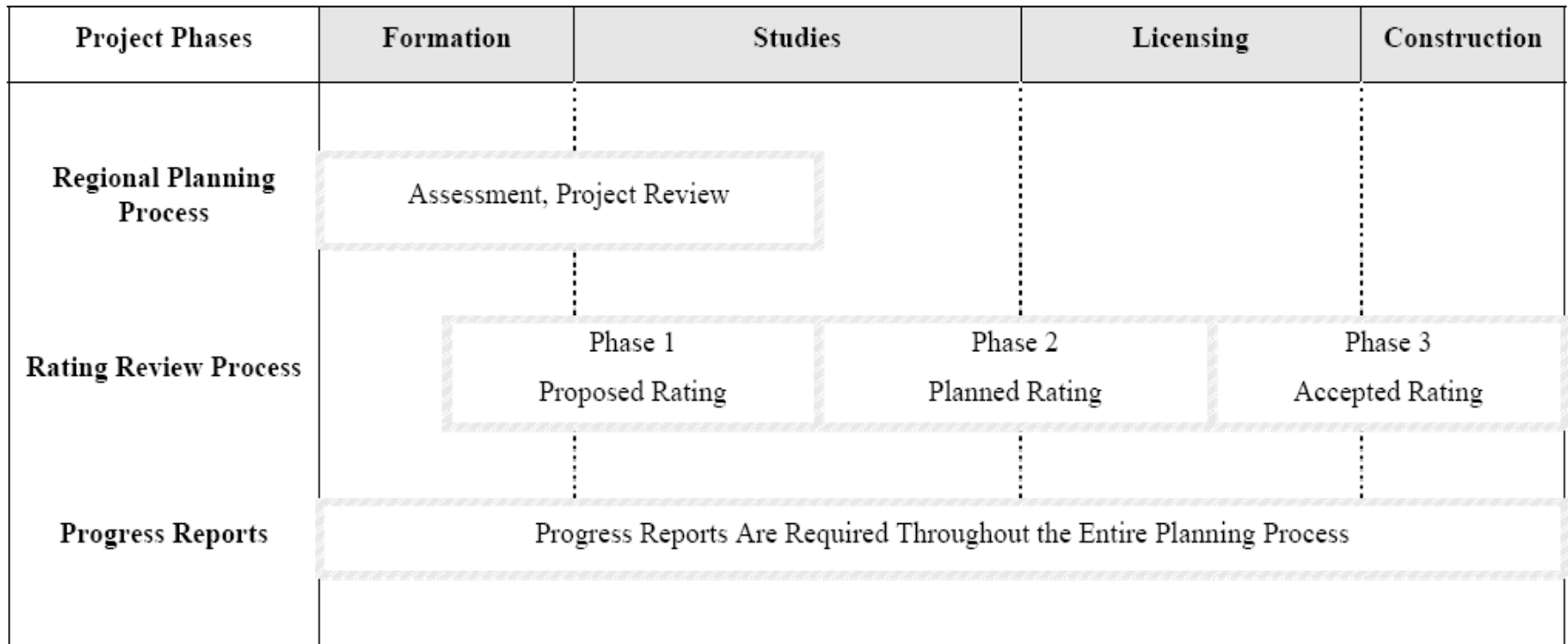
WECC 3~PHASE RATING PROCESS



- ★ Completed Regional Planning Project Report and entered Phase 1 in July 2007
- ★ The Comprehensive Progress Report (CPR) was submitted to WECC PCC, TSS and the Council Members for their review and comment on 4/23/2009
- ★ WECC Approved Phase 2 Status and Rating of 3000MW on July 27, 2009
- ★ Initiate Phase 2 Technical Studies (simultaneous interactions) with Peer Review Group August 27, 2009 at SRP
- ★ Complete Phase 2 June 2010
- ★ Expect to be granted Phase 3 status and Accepted Rating of 3000MW by September 2010 (good through construction of the Project)

Figure 1

Regional Planning and Project Rating Process Sequence



Notes:

1. “Proposed Rating” – used at the initiation and throughout Phase I of the Project Rating Review Process
2. “Planned Rating” – is the final rating at the conclusion of Phase I of the Project Rating Review Process and used throughout Phase 2 of the Project Rating Review Process
3. “Accepted Rating” – is the final rating at the conclusion of Phase 2 of the Project Rating Review Process and is also the rating that is used when the Project is placed in-service

PLAN OF SERVICE



- ★ Two new 200 mile ~ 500kV AC lines from the proposed SunZia E switching station to the proposed SunZia S substation (near Luna) with 70% series compensation
- ★ Two new 125 mile ~ 500kV AC lines from the SunZia S substation to the proposed Willow 500/345kV substation with 50% series compensation
- ★ Two new 135 mile ~ 500kV AC lines from the Willow substation to the proposed Pinal Central 500/230kV substation with 50% series compensation

PLAN OF SERVICE (CONTINUED)



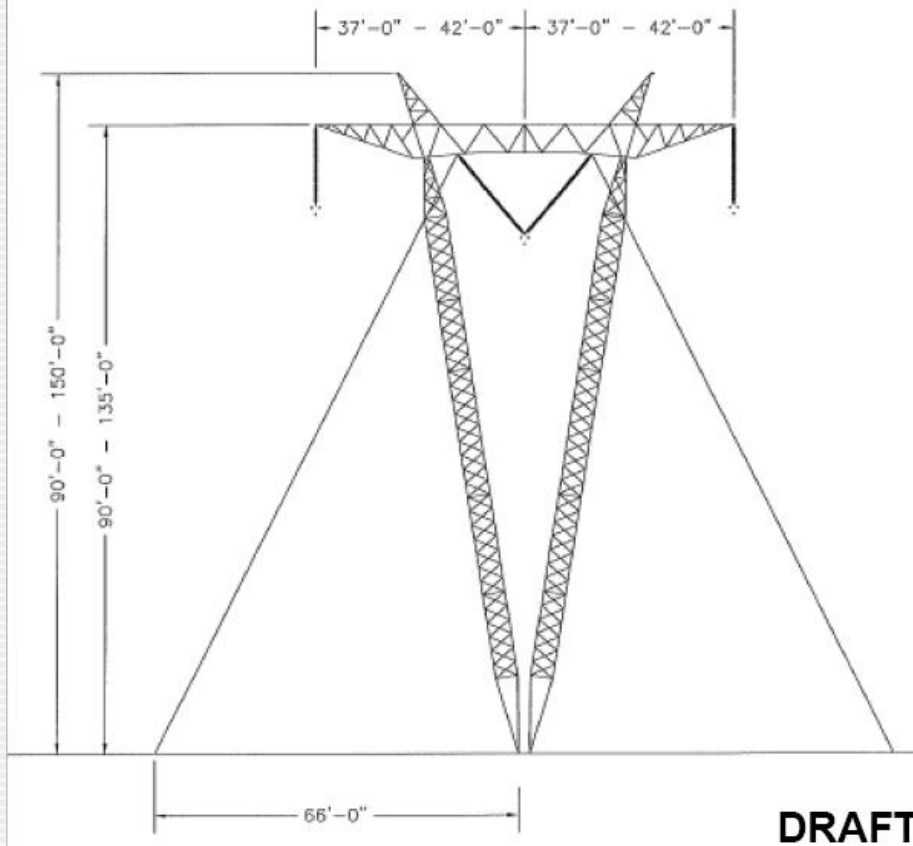
- ★ 400MVAR SVC at SunZia E switching substation
- ★ Minimum of one 500/345kV (672MVA) at SunZia S to interconnect to the Luna 345kV system
- ★ Minimum of one 500/345kV (672MVA) at Willow to interconnect to the Willow 345kV system
- ★ Potential termination of one of the circuits at the TEP Tortolita substation (near Saguaro) vs. Pinal Central
- ★ HVDC option not included in CPR, and will depend on additional commercial interest

TYPICAL 500 kV TOWER DESIGN

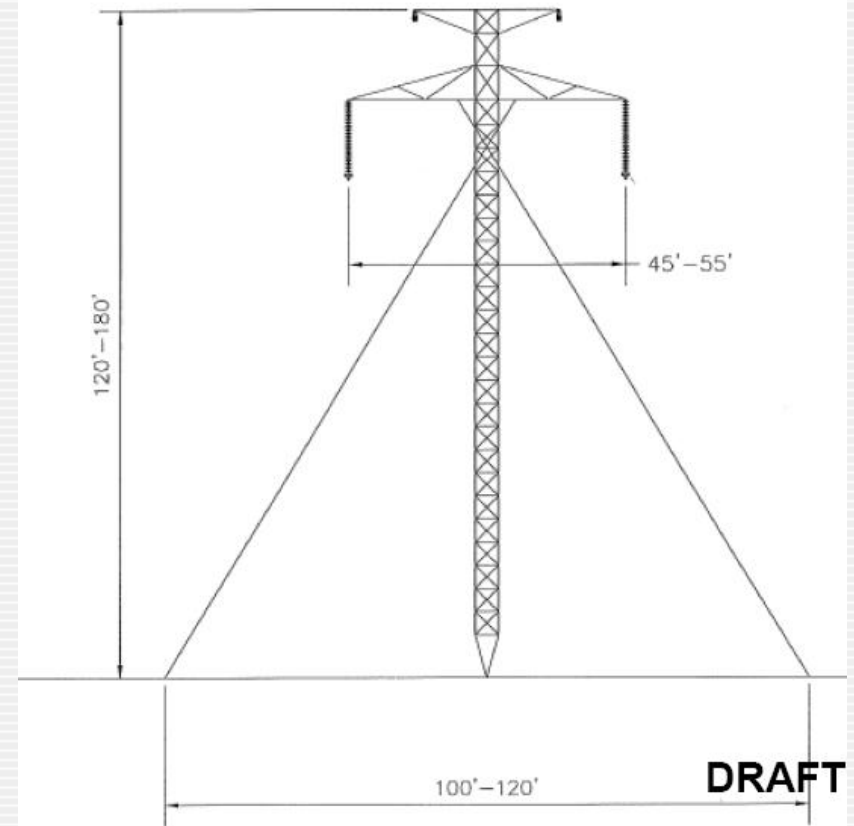
(GUYED-V DESIGN)



500 kV AC SINGLE CIRCUIT GUYED-V



500 kV DC GUYED LATTICE

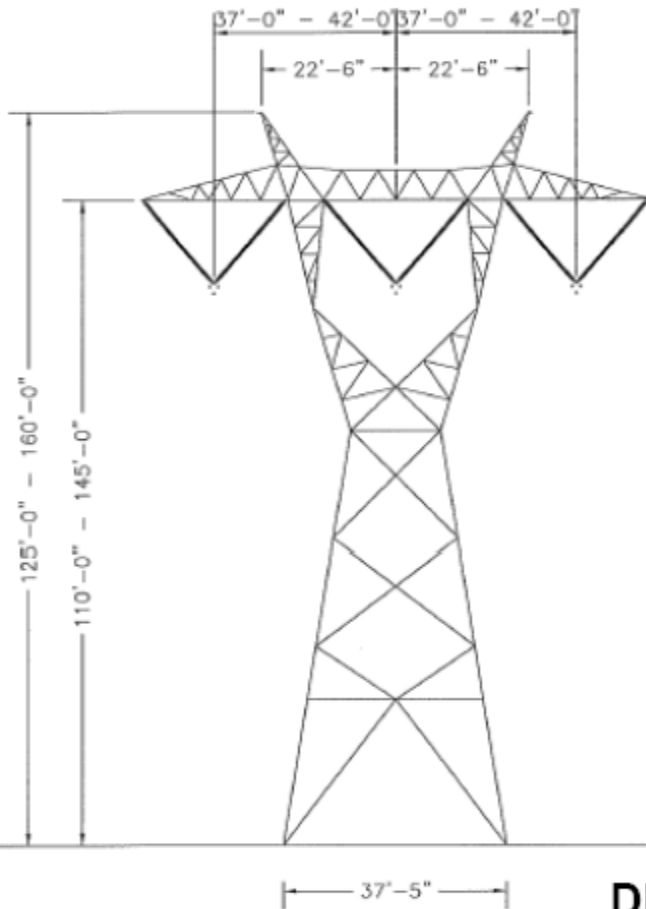


TYPICAL 500 kV TOWER DESIGN

(LATTICE TOWER AND MONOPOLE)

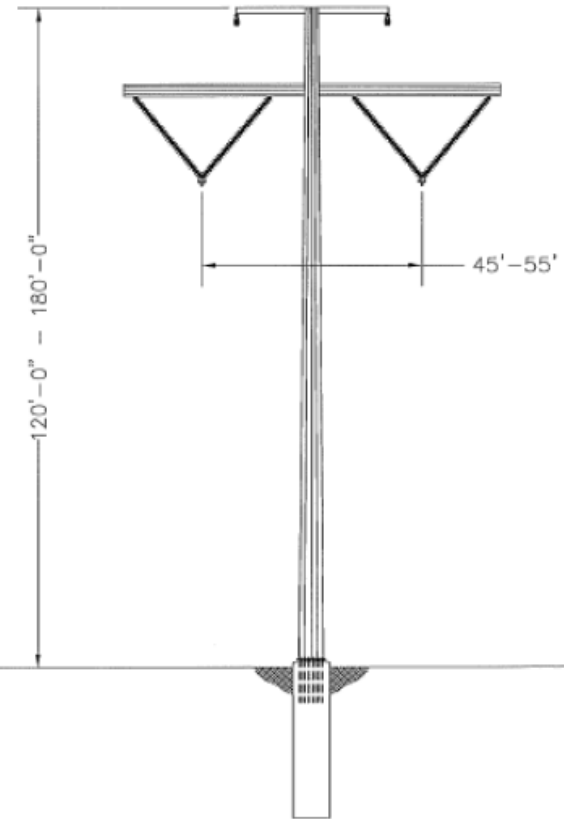


500 kV AC SINGLE CIRCUIT SELF SUPPORTING



DRAFT

500 kV DC MONO-POLE MITIGATION



DRAFT

EIS SCOPING UPDATE



★ 9 Scoping Meetings – June 22 to July 9, 2009

- AZ: Eloy, Oracle, Safford, Willcox
- NM: Lordsburg, Deming, Socorro, Carrizozo, Elephant Butte
- Members of the Public in Attendance

TOTAL	Low	High
243	13	52

★ BLM granted scoping comment period extension from July 13 to August 28, 2009

EIS SCOPING UPDATE (CONTINUED)



- ★ Cooperating Agency consultation thus far:
 - Bureau of Reclamation and Middle Rio Grande Conservation District: April 16, 2009
 - Army Corps of Engineers: July 7, 2009
 - White Sands Missile Range: August 4, 2009

- ★ Section 106/Native American consultation
 - Four Southern Arizona Tribes : July 21, 2009
 - Pueblo of Zuni Tribe: August 13, 2009
 - Future meetings (e.g. Apache, other tribes)

EIS SCOPING UPDATE (CONTINUED)



★ Agency and public comments recorded as of 8/05/09

TOTAL	Forms at Meetings	Court Reporter	Mail	BLM Website
490	47	24	128	291

★ Comments continue to be accepted via mail and BLM's website

EIS SCOPING UPDATE (CONTINUED)



★ Major Issues and Concerns

- Birds and wildlife, esp. along Rio Grande migratory flyway
- Impacts to views and preservation of undeveloped land
- Cultural resource impacts
- Support for renewable energy project locally and nationally
- Opposition to any/all new transmission lines
- Impacts to property values
- EMF and broadcast and tower height interference concerns

EIS SCOPING UPDATE (CONTINUED)



★ Comments on Proposed Routes

- Opposition to route crossing Rio Grande River near wildlife refuge; consider route along western border of WSMR
- Consider alternative route(s) south and east of WSMR
- Opposition to route through Aravaipa Canyon
- Opposition to route through San Pedro River Valley conservation areas; prefer southern route
- Prefer alignment adjacent to I-10
- Prefer alignment within existing utility corridors

EIS SCOPING UPDATE (CONTINUED)



★ Scoping Completion – Actions to be Taken

- Identify issues & concerns to be addressed in EIS
- Determine range of alternatives to be considered in the EIS (reasonable and feasible)
 - ✦ Alternatives eliminated
 - ✦ Alternatives modified
 - ✦ Alternatives added ~ possible expansion of study area
 - Additional scoping?
 - New NOI?
- Document scoping process in the Scoping Report

EIS SCHEDULE



TASK 1
PROJECT START-UP AND SCOPING

TASK 2
DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS)

TASK 3
FINAL EIS

SUB-TASK 1.1
Project Start-Up

SUB-TASK 1.2
Agency and Public Scoping

SUB-TASK 2.1
Resource Inventory

SUB-TASK 2.2
Impact Assessment
and Mitigation
Planning

SUB-TASK 2.3
Route Comparison/
Alternatives Selection

SUB-TASK 2.4
Draft EIS

SUB-TASK 3.1
Review and Respond
to Comments

SUB-TASK 3.2
Prepare Final EIS
and Record of Decision
(ROD)

TASK 4
RESOURCE SURVEYS

SUB-TASK 4.1
Biological Resource Surveys and
Consultation (Section 7 ESA)

SUB-TASK 4.2
Cultural Resource Surveys and
Consultation (Section 106 NHPA)



SUNZIA PROJECT SCHEDULE



2008 2009 2010 2011 2012 2013 2014

Project Development,
Permitting, & Financing

PHASE 1

Engineering Design / Construction

PHASE 2

Operation

PHASE 3

Earliest In-Service Year is 2013



FOR MORE INFORMATION

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New Mexico Collector System Concept

- Existing Substation
 - Conceptual Collector Station
 - Conceptual Collector Transmission Line
 - 345 kV Transmission Line
 - 230 kV Transmission Line
 - 115/138 kV Transmission Line
 - NERC Region Boundary
- Wind Resources**
- 1 - Poor (0.0 - 12.5)
 - 2 - Marginal (12.5 - 14.3)
 - 3 - Fair (14.3 - 15.7)
 - 4 - Good (15.7 - 16.8)
 - 5 - Excellent (16.8 - 17.9)
 - 6 - Outstanding (17.9 - 19.7)
 - 7 - Superb (> 19.7)

**PRELIMINARY AND CONCEPTUAL:
FOR DISCUSSION PURPOSES ONLY**

**DRAFT DEVELOPED BY:
SUNZIA SOUTHWEST
TRANSMISSION PROJECT**

Sources: BLM 2008; EPG, Inc. 2008; ESRI 2008; NREL 2008; USGS



NOTE: SUNZIA AND TRANSMISSION LOCATIONS ARE APPROXIMATE AND FOR DISCUSSION PURPOSES ONLY.

December 12, 2008

