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2007 NOV -8 P 3: 01

AZ CORP COMMISSION
DOCKET CONTROL

November 8, 2007

Arizona Corporation Commission
Docket Control
1200 West Washington
Phoenix, Arizona 85007

RE: Arizona Public Service Company
Docket No. L-00000D-07-0566-0135

With this letter, Arizona Public Service Company (APS) files a Supplemental Packet that includes the following items:

1 CEC Testimony Presentation Slides
2 Proposed Certificate of Environmental Compatibility
3 Project Newsletter #2
4 Project Correspondence
5 BLM Finding of No Significant Impact (FONSI)
6 Final EA Changes
7 Virtual Route Tour CD

APS is filing the original and 25 copies of this Supplemental Packet to Docket Control and providing hand-delivery and/or overnight service for copies to members of the line siting committee and interveners.

Legal notices or other communications concerning the Supplemental Packet should be directed to:

Thomas Campbell
Lewis and Roca LLP
40 North Central Avenue
Phoenix, Arizona 85004

Arizona Corporation Commission
DOCKETED
NOV 08 2007
DOCKETED BY

Sincerely,

Paul Trenter
Principal, EPG, Inc.

Original and 25 copies field this
Date with Docket Control

cc: Thomas Campbell, Lewis and Roca LLP
Paul Herndon, APS

Docket No. L-00000D-07-0566-0135

Palo Verde Hub to North Gila Substation 500kV Transmission Project

Application for a Certificate of Environmental Compatibility

Supplemental Packet

Prepared for:

Arizona Corporation Commission

Application Support Unit

Submitted by:

APS

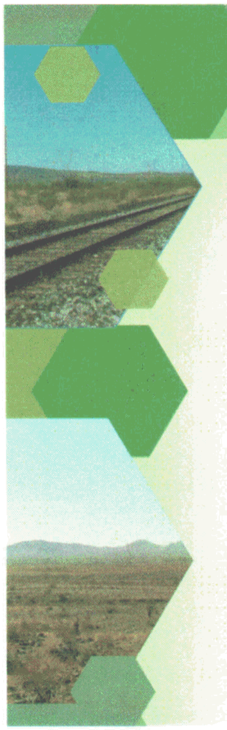
Arizona Public Service

November [illegible]

TABLE OF CONTENTS

Tab 1	CEC Testimony Presentation Slides
Tab 2	Proposed Certificate of Environmental Compatibility
Tab 3	Project Newsletter #2
Tab 4	Project Correspondence
Tab 5	BLM Finding of No Significant Impact (FONSI)
Tab 6	Final EA Changes
Tab 7	Virtual Route Tour CD

1



Palo Verde Hub to North Gila Substation
500kV Transmission Line Project

Application for a Certificate of Environmental Compatibility Case No. 135

Prepared for

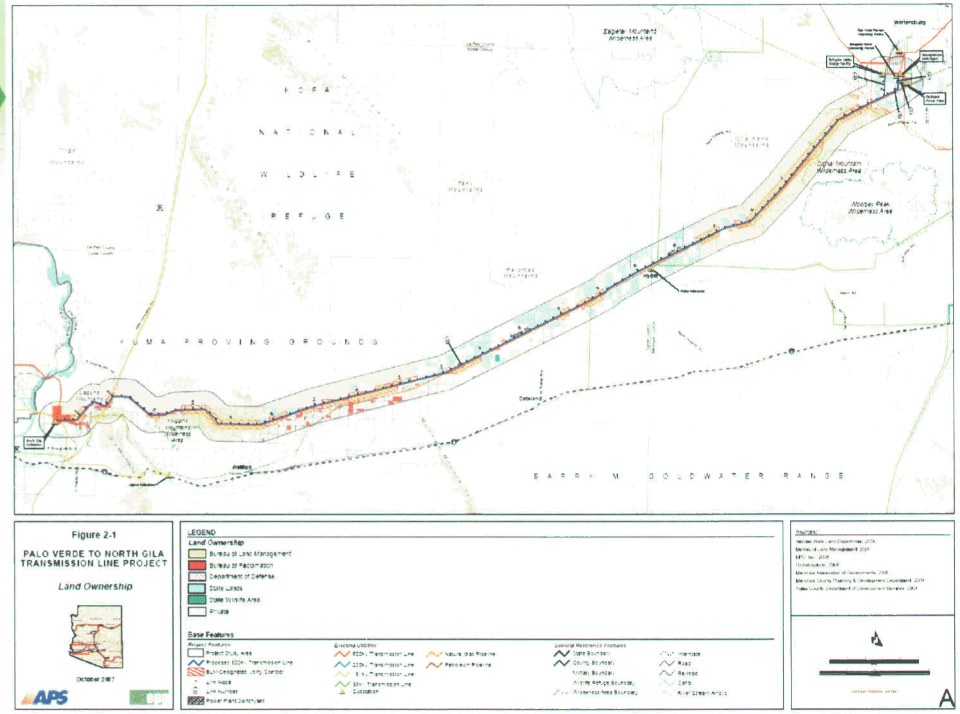
Arizona Corporation Commission

Arizona Power Plant and Transmission Line Siting Committee

November 19 and 20, 2007

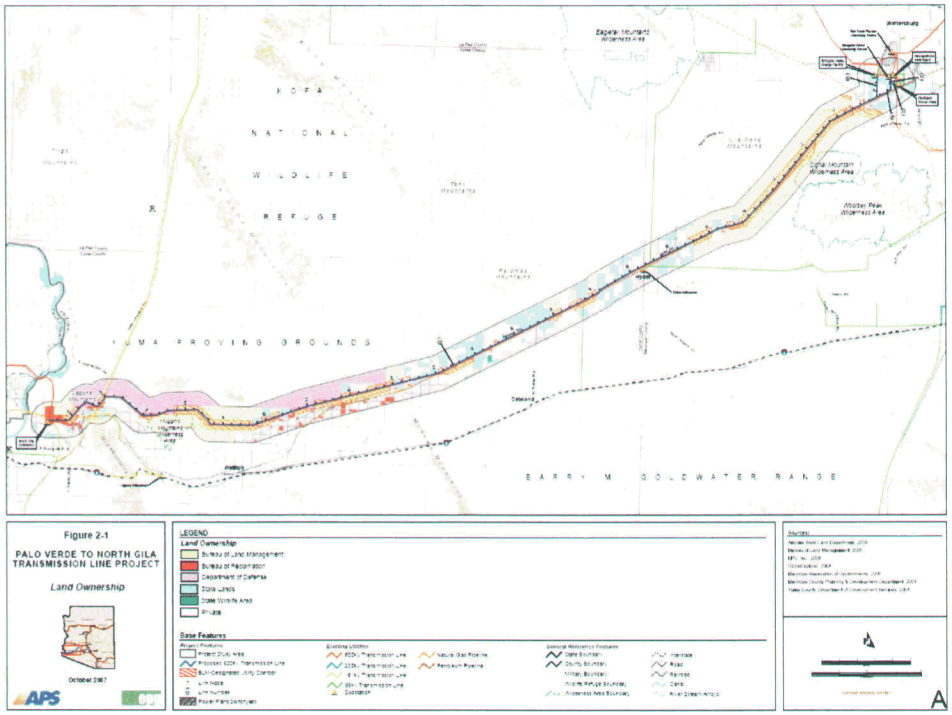
APS

1



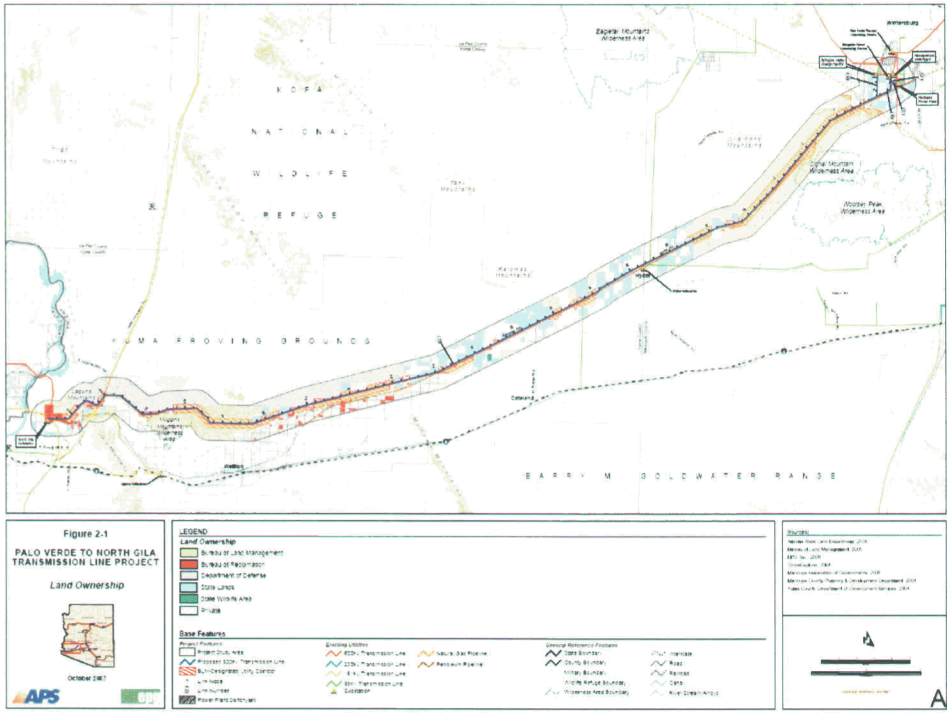
Introduction

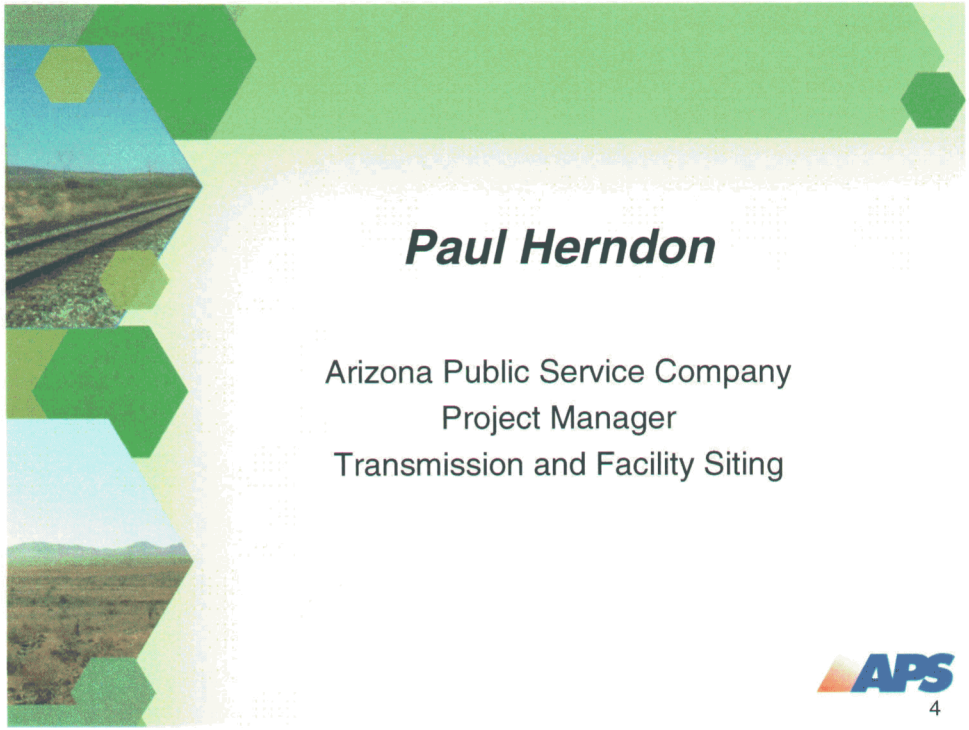
- The Palo Verde Hub to North Gila Project helps meet a significant need for additional reliable power in the fast growing Yuma area
- The Proposed Route is primarily on public land, within a BLM-designated utility corridor on BLM land, and parallels an existing 500kV transmission line
- The Palo Verde Hub to North Gila Project is the result of a public process
- The Palo Verde Hub to North Gila Project is environmentally compatible



Witnesses

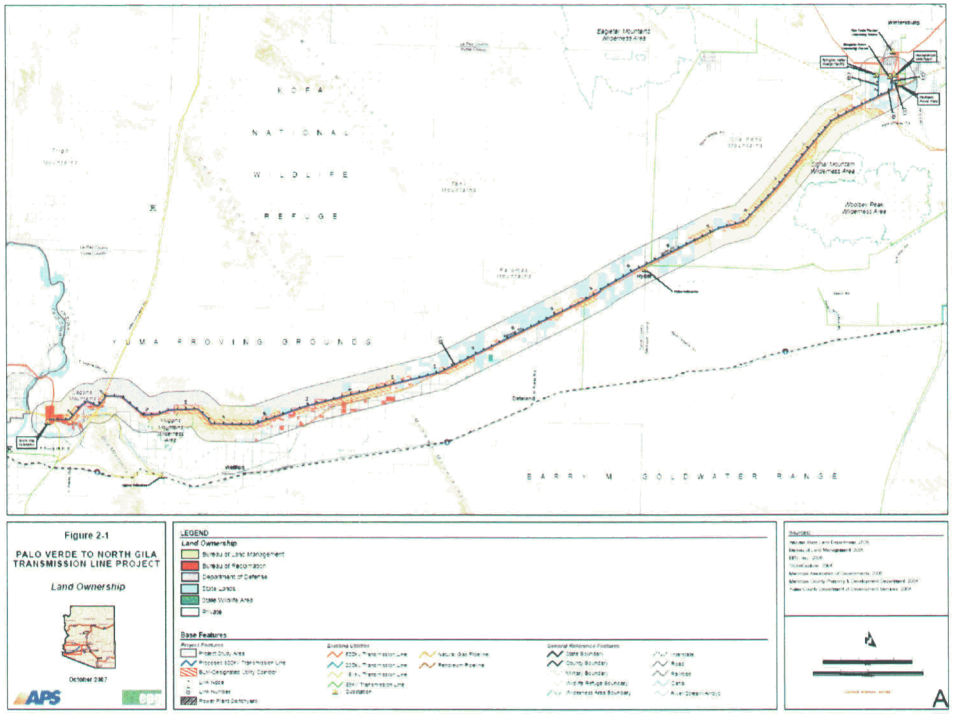
- Paul Herndon – Project Description
- Bob Smith – Transmission Planning
- Paul Trenter – Environmental Studies





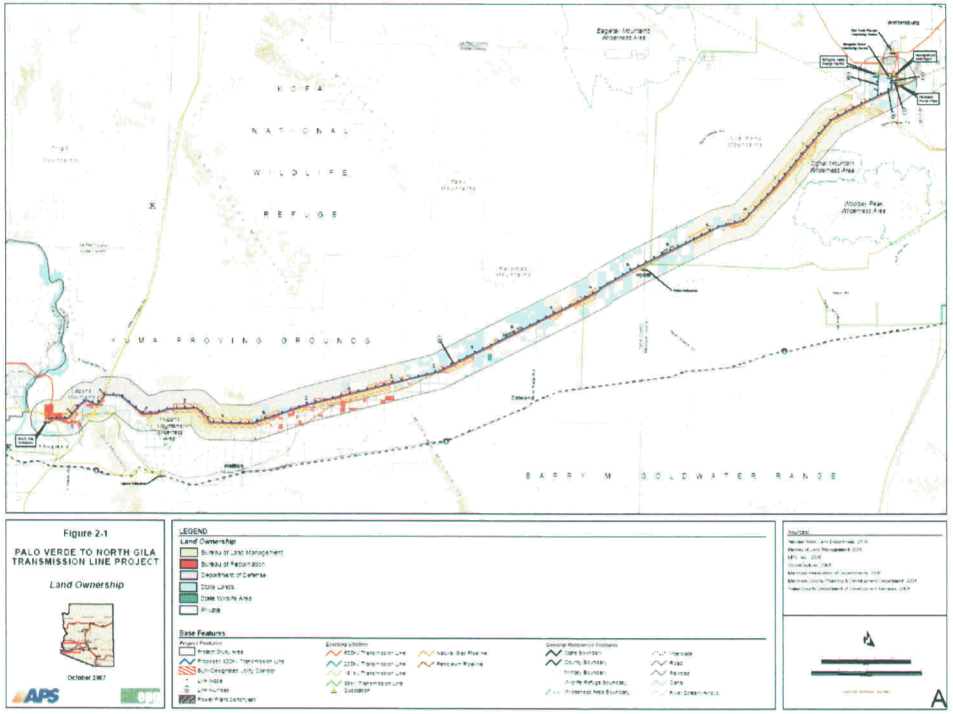
Paul Herndon

Arizona Public Service Company
Project Manager
Transmission and Facility Siting



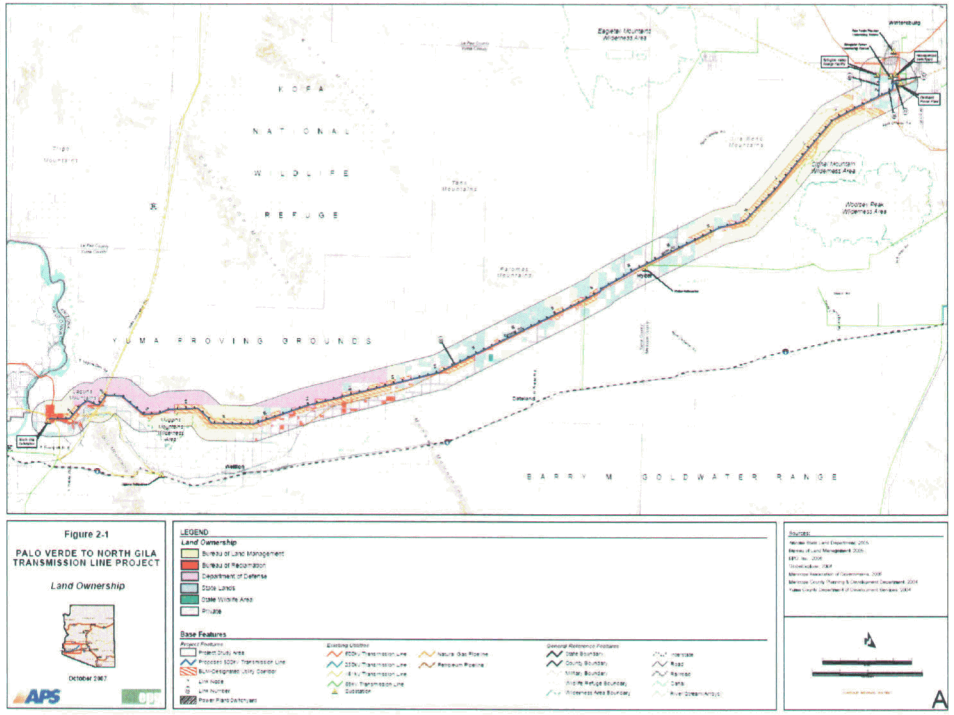
Witness Background

- APS Siting Project Manager
  - Responsible for numerous APS 500/230kV line siting projects and sub-transmission line sitings
- Professional Background
  - 31 years of electric utility experience at APS
  - Approximately 17 years of experience in transmission line siting
  - Extensive real estate education and experience
    - Senior Right-of-Way Professional and former Local Chapter President, Director
    - Member of the International Utility Committee with the International Right-of-Way Association



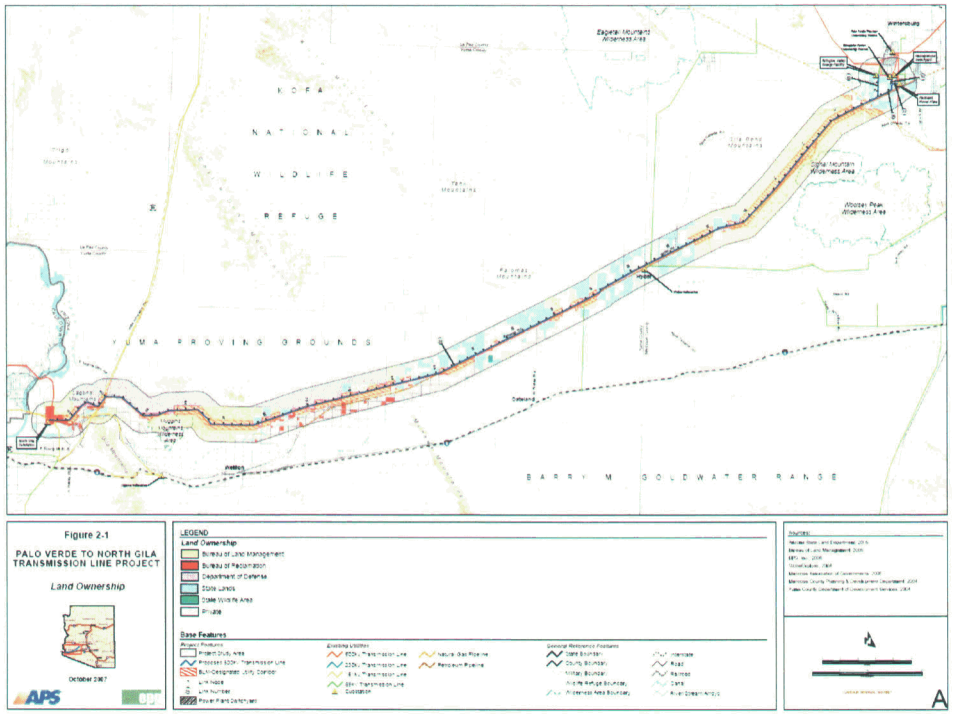
Witness Background Cont.

- Project Manager for and testified in Case Numbers:
  - 85: APS Yavapai 230kV Transmission Line and Switchyard Project
  - 89: Gila Bend to Ajo 230kV Transmission Line Project
  - 102: Gila River Transmission Project
  - 115: Southwest Valley 500kV Transmission Line Project
  - 128: Palo Verde Hub to TS-5 Substation 500kV Transmission Project



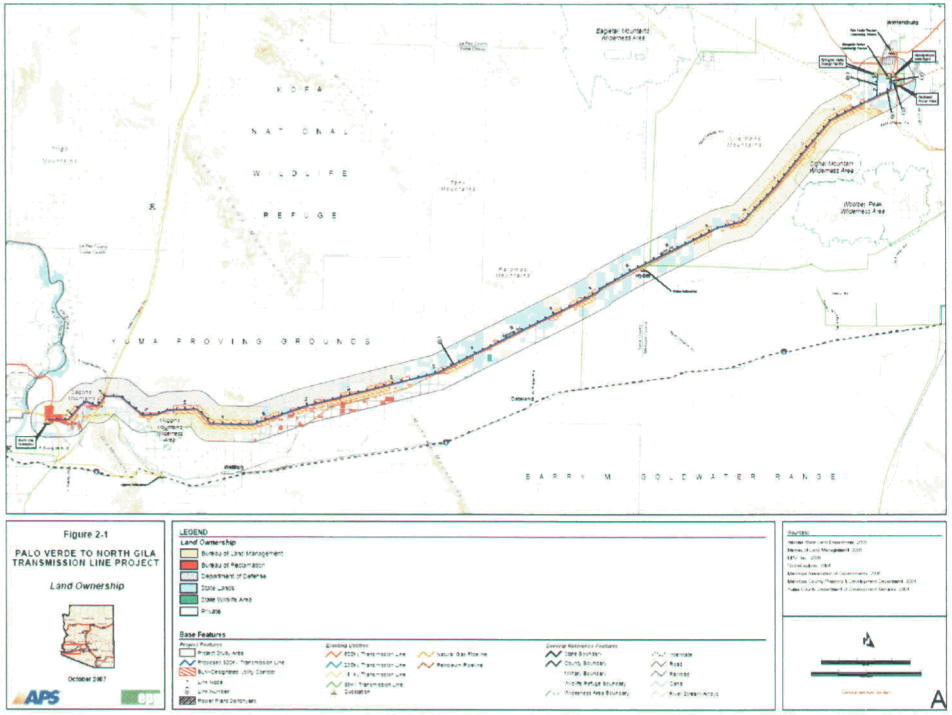
Project Overview

- Approximately 110 mile single-circuit 500kV transmission line
- 1,250 MW anticipated capability
- Participants in permitting:
  - APS 40%
  - Wellton Mohawk Irrigation and Drainage District (WMIDD) 20%
  - Imperial Irrigation District (IID) 20%
  - SRP 20%



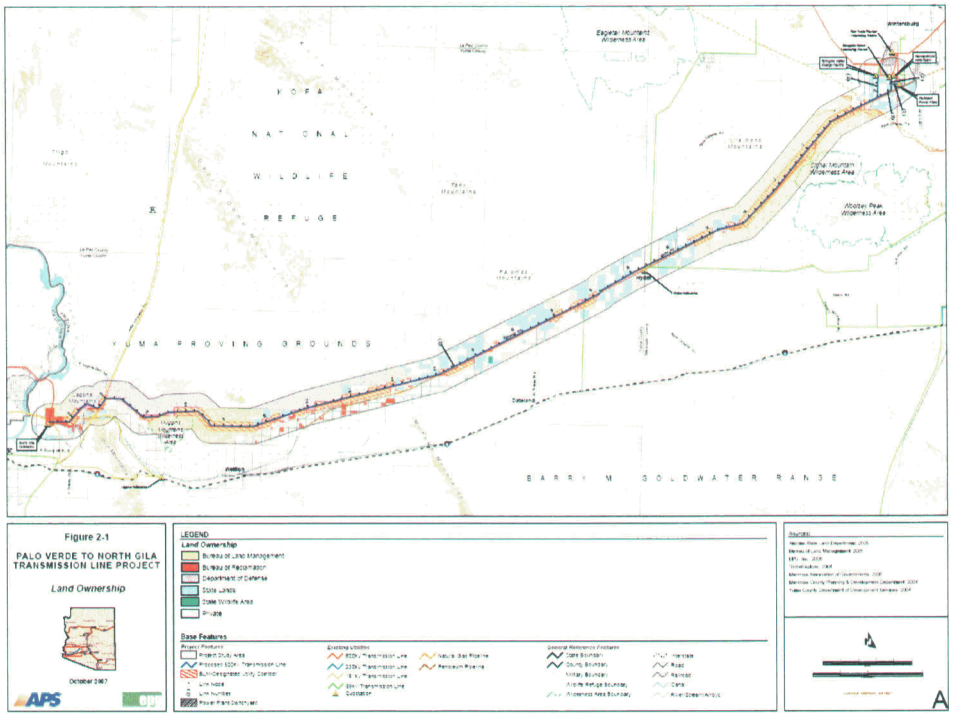
Outline of Testimony

- Project Benefits and Need
- Project Description
- Public Participation



Project Benefits and Need

- Support load growth in the Yuma area
- Strengthen Yuma area transmission system
- Increase Yuma area import capability
- Increase export capability from the Palo Verde Hub
- Increase access for future renewable projects
- Participant benefits



Project Benefits and Need

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- Increase Yuma area import capability
- Increase export capability from the Palo Verde Hub
- Increase access for future renewable projects
- Participant benefits

AZ Renewable Resource Assessment

Solar Resource

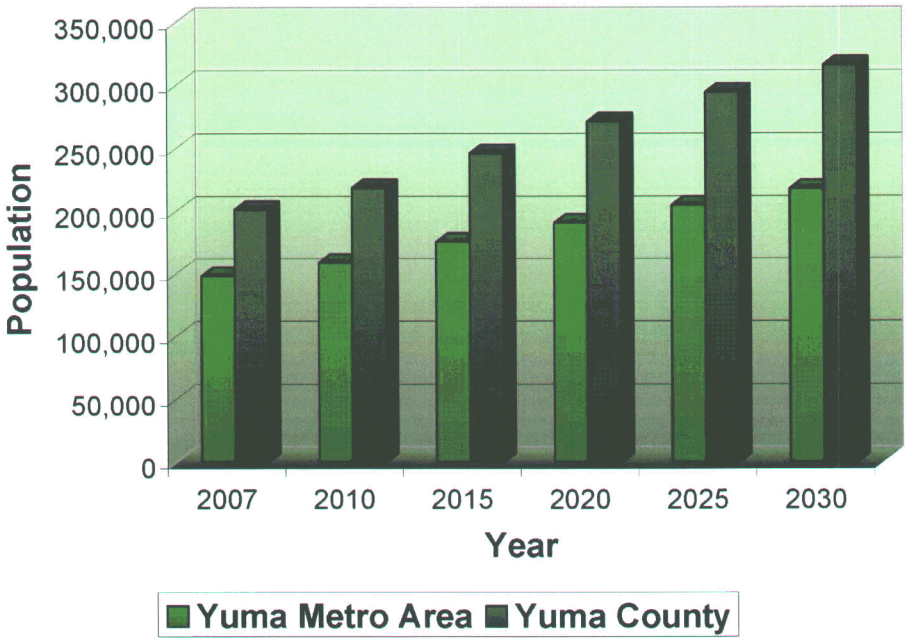
B

Source: Black & Veatch Study funded by APS, SRP, and TEP

Population Growth Projections

Year vs. Jurisdiction	2007	2010	2015	2020	2025	2030
Yuma Metro Area	148,091	158,696	175,450	190,770	204,995	218,112
Yuma County	201,435	218,810	246,260	271,361	294,666	316,158

Source: Arizona Department of Economic Security, 2007
http://www.workforce.az.gov/?PAGEID=67&SUBID=138



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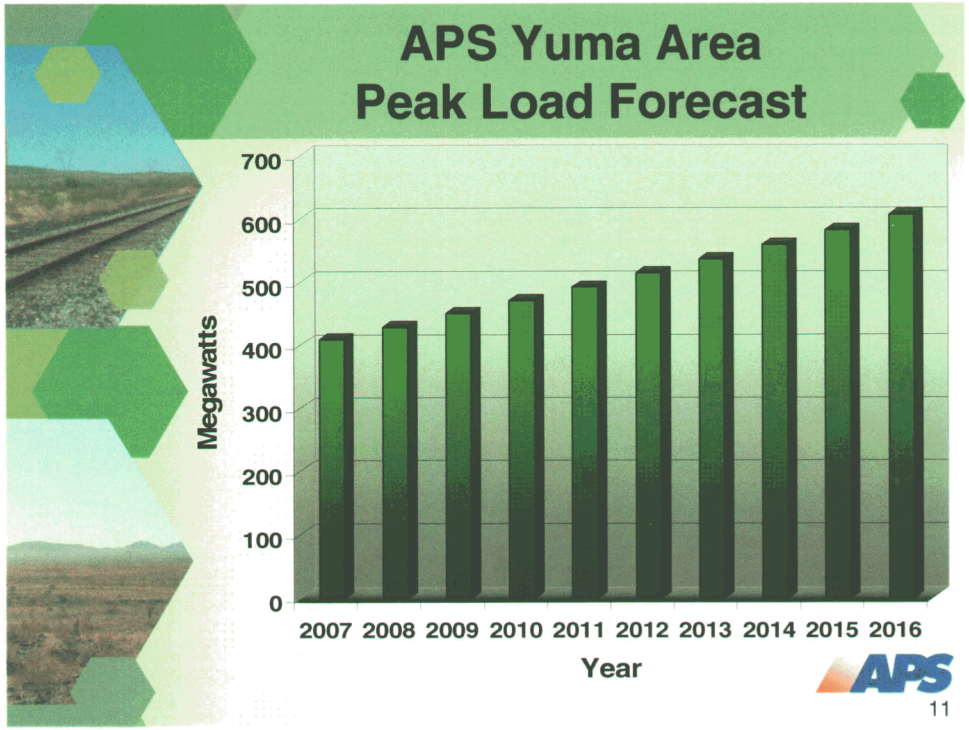
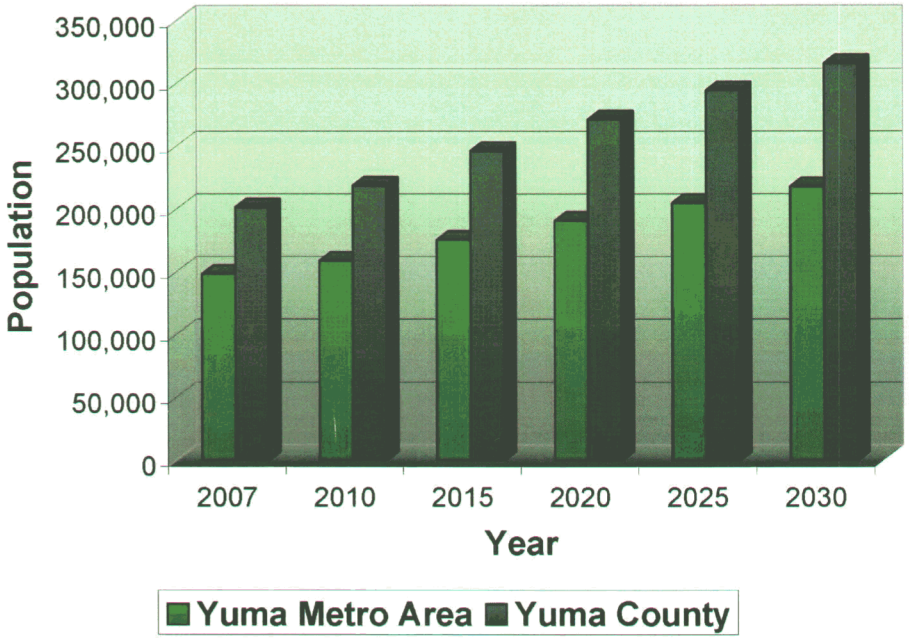
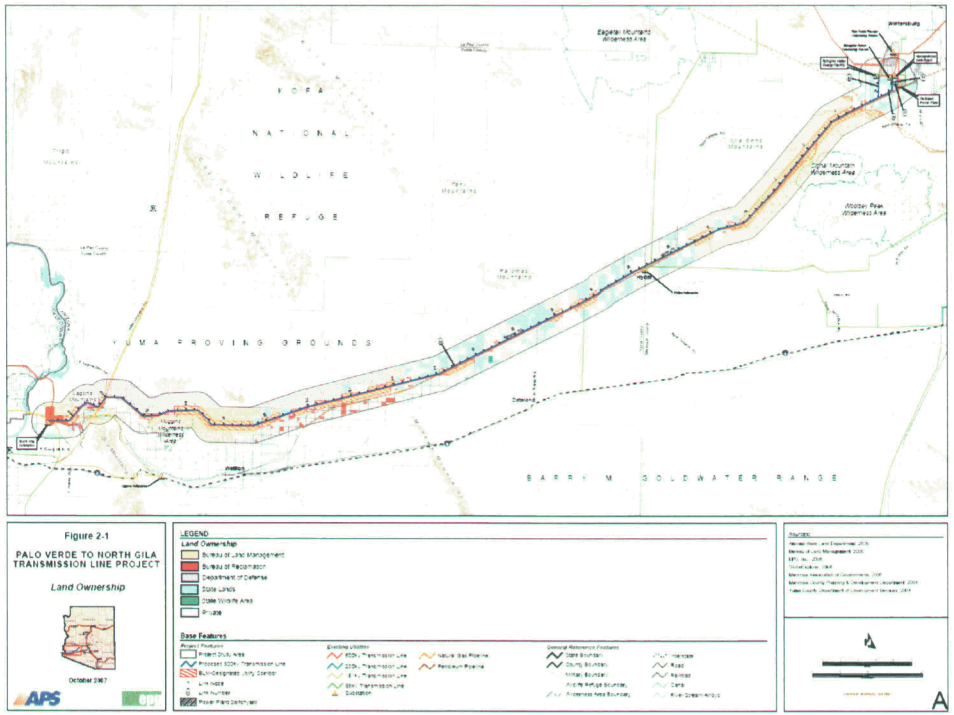

APS Yuma Area
Peak Load Forecast
Megawatts
700
600
500
400
300
200
100
0
2007 2008 2009 2010 2011 2012 2013 2014 2015 2016
Year
APS
11


Population
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
2007 2010 2015 2020 2025 2030
Year
Yuma Metro Area
Yuma County

C

Project Description

- Proposed Route
- Jurisdiction and land ownership
- Palo Verde Hub interconnection alternatives
  - Arlington Valley Energy Facility
  - Hassayampa Switchyard
  - Redhawk Power Plant
- Alternative routes considered



Project Description

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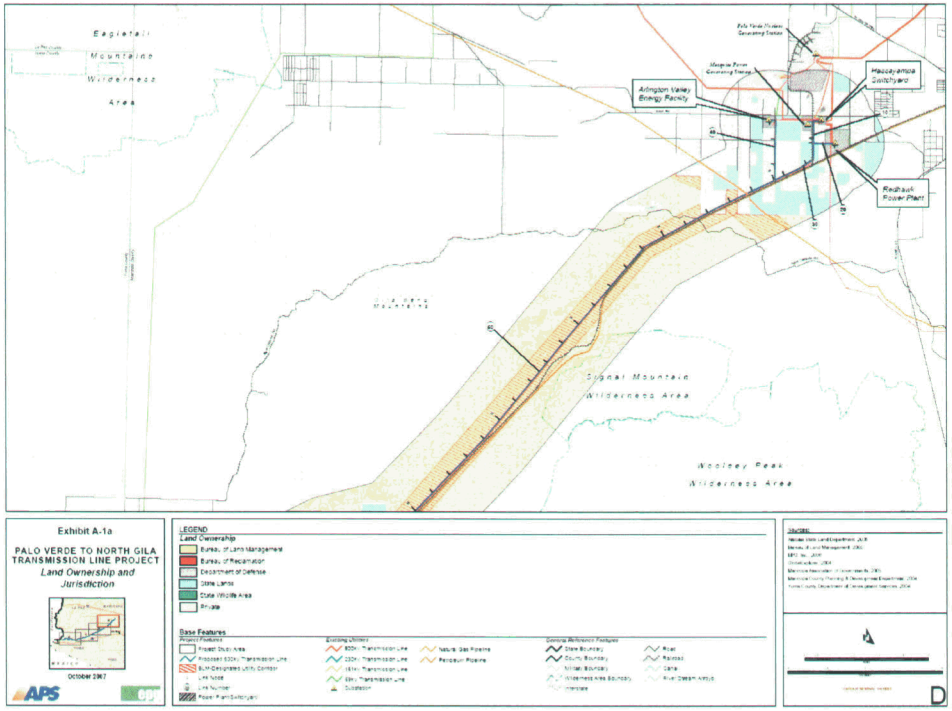

APS

Project Description

- Proposed Route
- Jurisdiction and land ownership
- Palo Verde Hub interconnection alternatives
  - Arlington Valley Energy Facility
  - Hassayampa Switchyard
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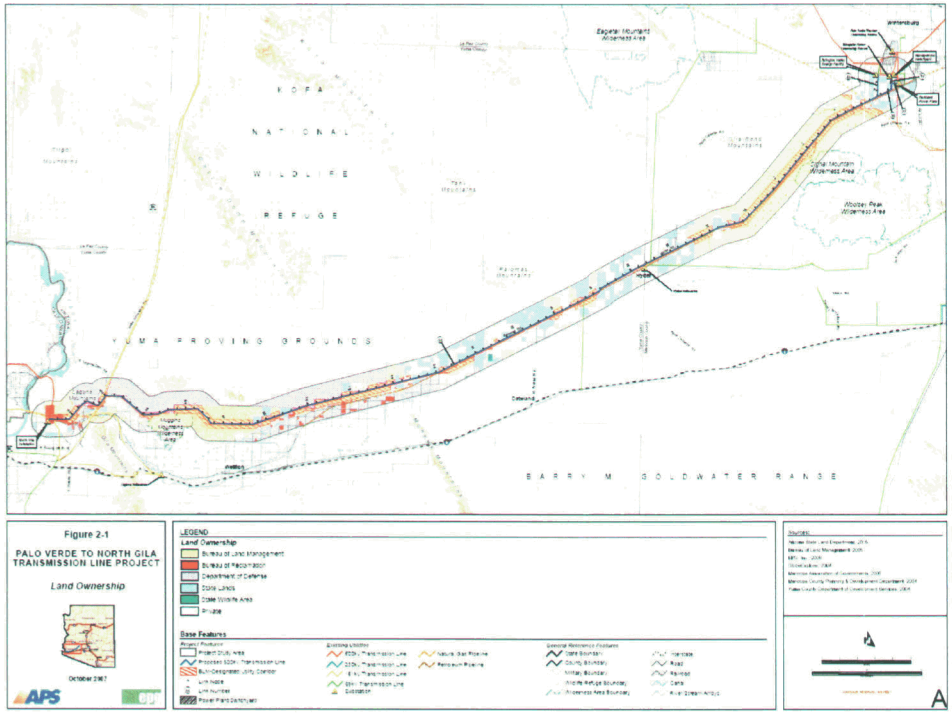
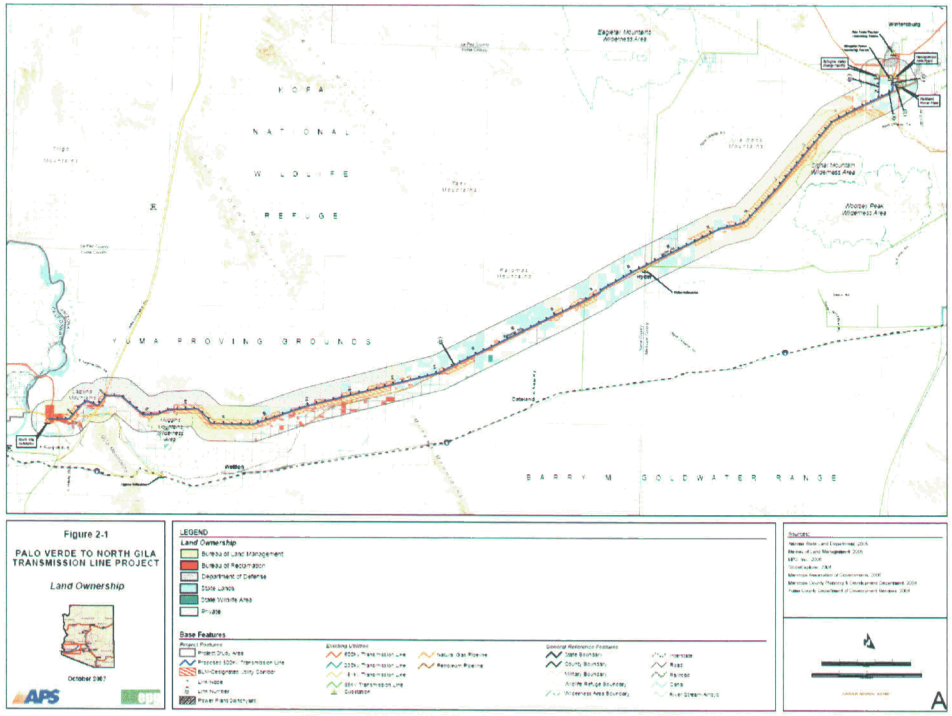
- Alternative routes considered



Project Description

Selection Criteria

- Environmental compatibility
- Public and jurisdictional input
- Engineering
- Cost
- Right-of-way acquisition



Project Description

Proposed Route

- Crosses 80% public land
- Parallels an existing 500kV transmission line for its entire length
- Located within a BLM-designated utility corridor on BLM land
- Finding of No Significant Impact (FONSI) issued November 2007

APS

FINDING OF NO SIGNIFICANT IMPACT

Name of Environmental Assessment: Palo Verde Hub to North Gila Substation
Environmental Assessment No.: AZ-220-2006-008
Case File No: AZA-33305
Bureau of Land Management Office: Phoenix District, Lower Sonoran Field Office

Finding of No Significant Impact: Upon review of the Environmental Assessment (EA) prepared for the above-named project and incorporated herein by reference, no significant long-term impacts on the human (socioeconomic) or natural environment would result. Short-term, temporary impacts on soils, water resources, biological resources, cultural resources, air quality, noise, and land use associated with construction activities of the proposed transmission line were identified which could be reduced by mitigation, and therefore are not considered significant. Long-term impacts on scenic quality were considered low to moderate, while the potential for long-term residual collision hazard for birds was considered low.

Recommendation: Grant a right-of-way to Arizona Public Service Company (APS) for construction, operation, and maintenance of a 500 kilovolt (kV) transmission line. The transmission line would originate from the Palo Verde Hub (PV Hub) at either an open transmission interconnection position in the Arlington Energy Facility, the Hassayampa Switchyard, or the Redhawk Power Plant. The transmission line would be constructed primarily with lattice tower structures paralleling the existing Southwest Power Link 500 kV Transmission line (SWPL) and connect into the North Gila Substation in Yuma, Arizona. The proposed right-of-way would be 200 feet wide, approximately 110 to 130 miles in length, of which approximately 55 miles would be located on Bureau of Land Management (BLM) administered lands. APS would implement the recommended Standard Operating Procedures and Mitigation Measures listed in Attachment A. The transmission line would be owned by APS and operated by APS and other project proponents.

Stipulations: APS is to implement the recommended Standard Operating Procedures and Mitigation Measures listed in Attachment A. Compliance with stipulations and mitigation measures will be monitored during project implementation. BLM issuance of the right-of-way grant is conditional upon APS obtaining all other federal, state, and local permits required to construct and operate the transmission line. APS is required to obtain the required Certificate of Environmental Compatibility from the Arizona Corporation Commission. The BLM has fulfilled requirements in accordance with the Section 106 process regarding cultural resource issues and requirements regarding biological resource issues.

Rationale: The EA for the Proposed Action has been prepared in accordance with National Environmental Policy Act (NEPA) requirements, including the public involvement procedures prescribed by 40 CFR §1506.6. The project design and mitigation measures proposed in the EA are integral to the Proposed Action and would reduce short-term and long-term environmental impacts to a level of insignificance. Issuance of right-of-way grant AZA-33305 to APS for the construction, operation, and maintenance of an electric transmission line is consistent with the Lower Gila South Resource Management Plan (BLM, 1988) which defines land uses along the San Diego Gas and Electric utility corridor and the Yuma District Resource Management Plan (BLM, 1986 and 1987) which defines uses along the Interconnection utility corridor.

Recommendation of Finding: Project Manager — Date 11/6/07

I concur:

Approval of Finding: Field Manager — Date 11/06/07

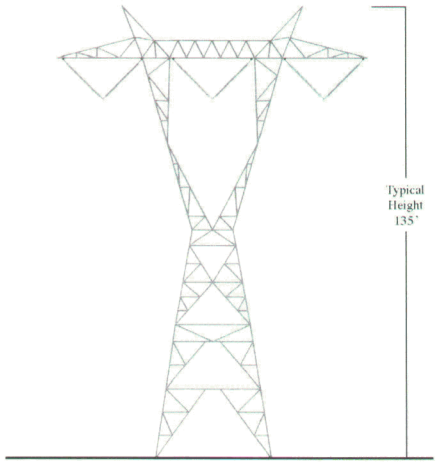
E

Project Description

Facilities

- Transmission Structures
  - Lattice structures
  - Typical height
  - Typical span
  - Materials
  - Special structures
- Switchyards

Typical 500kV Single-Circuit Steel Lattice Structure



Palo Verde Hub to North Gila
Transmission Line Project

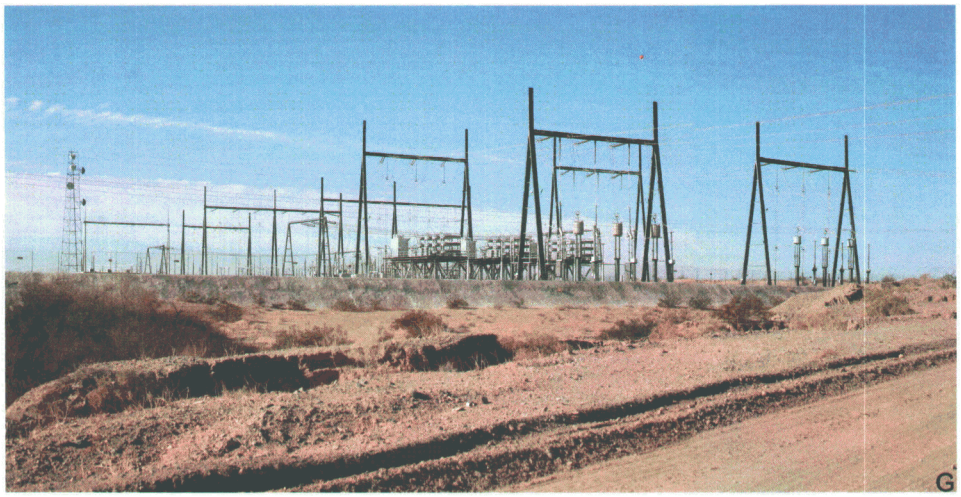
Exhibit G-1

F

Project Description

Facilities

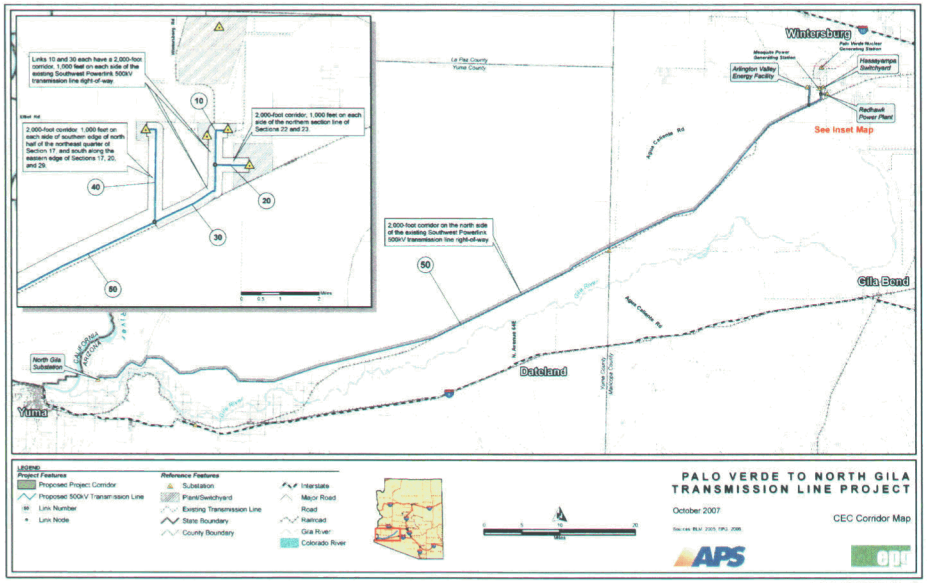
- Transmission Structures
  - Lattice structures
  - Typical height
  - Typical span
  - Materials
  - Special structures
- Switchyards



Project Description

Corridor/Right-of-Way

- Corridor description
- Requested right-of-way

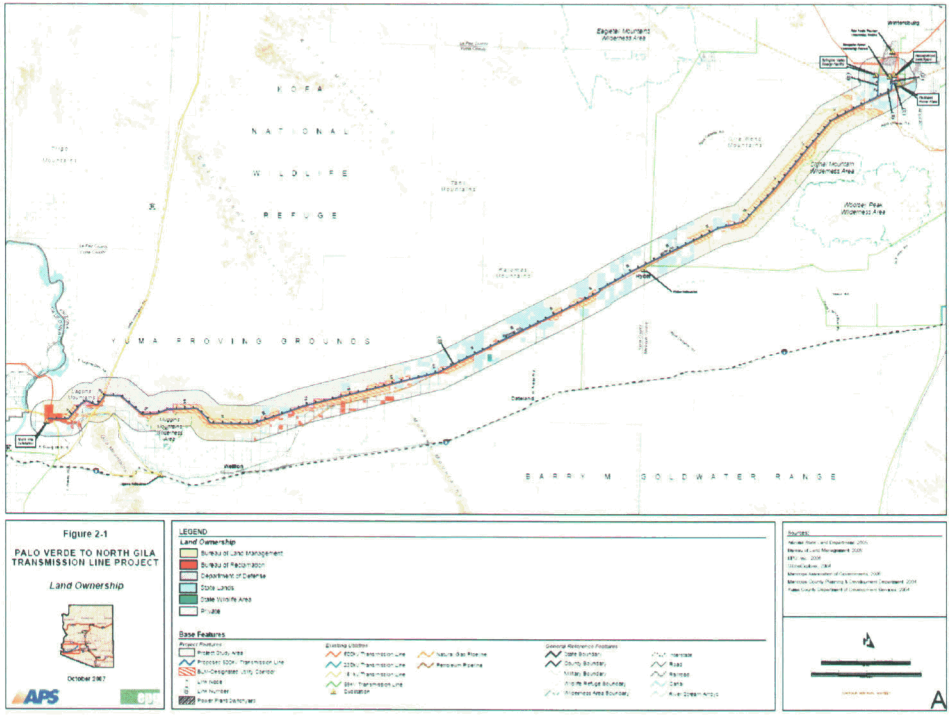


H

Project Description

Schedule

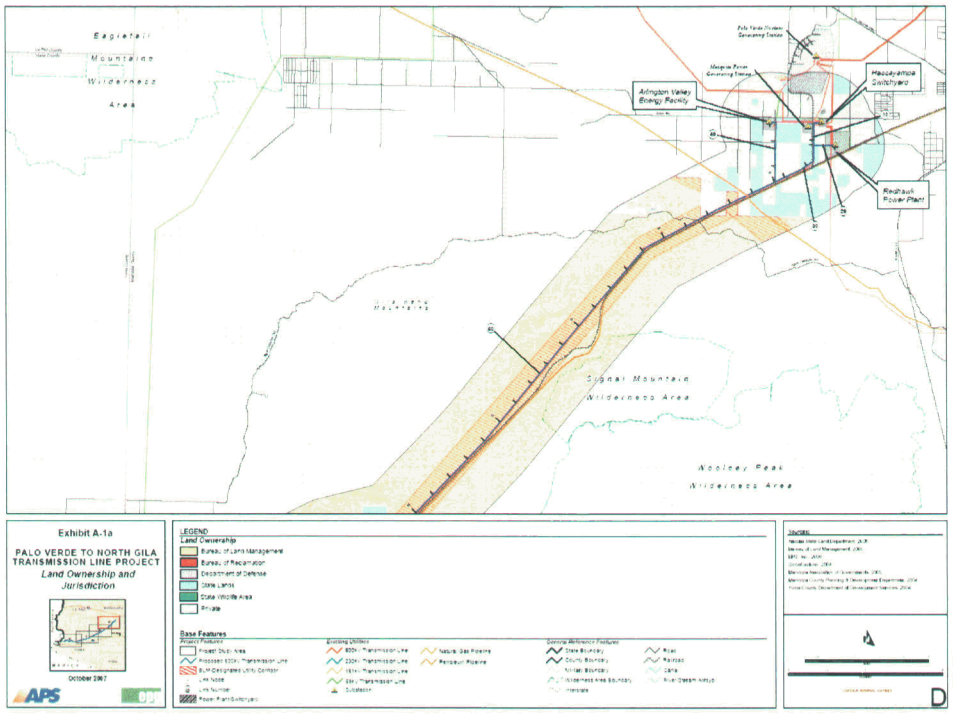
- Right-of-way acquisition and project design begin in 2008
- Begin construction in 2010
- Project in-service date is 2012



Project Cost

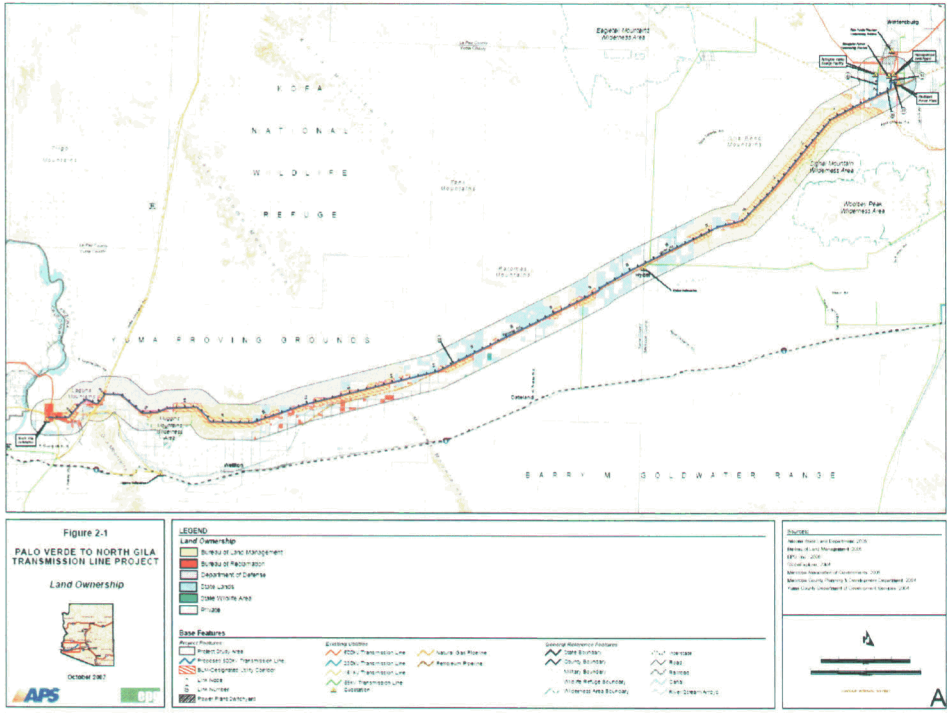
	Right-of-Way	Construction	Switchyard Facilities	Total
Proposed Route (Arlington Valley Energy Facility) 110.6 miles	$18.0	$167.1	$19.9	$205.0
Proposed Route (Hassayampa Switchyard) 111.6 miles	$18.0	$170.6	$14.4	$203.0
Proposed Route (Redhawk Power Plant) 111.3 miles	$18.0	$168.2	$12.9	$199.1

Costs in millions of dollars



Regional Planning Participation

- APS 10 Year Plans
- ACC Biennial Transmission Assessments (BTA)
- Southwest Area Transmission (SWAT)
- Western Electricity Coordinating Council (WECC)
- BLM Resource Management Plans



Public Participation

- BLM process
- Jurisdictional and stakeholder meetings
- Public open houses
- Newsletters
- Web site
- Telephone information line (888-206-6166)
- Written notice
  - BLM informational letter
  - Exhibit H letters
- Publication of notice of hearing
- Signs

APS

TABLE J-1
LOCAL OFFICIAL BRIEFINGS

Jurisdiction/Representation	Date	Summary/Topic
FEDERAL		
BLM Lower Sonoran Field Office	01/18/06	Interdisciplinary team meeting to introduce project
Yuma Proving Ground	08/29/06	Project briefing
BLM Lower Sonoran Field Office	09/12/06	Coordination meeting
MCAS Yuma	09/14/06	Project briefing
Yuma Proving Ground	10/19/06	Coordination meeting
BLM Lower Sonoran Field Office	02/1/07	Coordination meeting
BLM Lower Sonoran Field Office	03/22/07	Field visit
Yuma Proving Ground	09/27/07	Coordination meeting
STATE		
Arizona State Land Dept. Linda Beals	03/28/06	Discussed PV to North Gila project
Arizona Corporation Commission Mike Gleason Jeff Hatch-Miller Gary Pierce	08/23/07	Project briefing
Arizona Corporation Commission Kristin Mayes William Mundell	08/24/07	Project briefing
Arizona Corporation Commission Staff Prem Bahl	09/10/07	Project briefing
COUNTY		
Maricopa County Planning Matt Holm	04/14/06	Project briefing
Mary Rose Wilcox, Supervisor	04/18/06	Project briefing
MISCELLANEOUS		
City of Yuma, Yuma County, Wellton Mohawk Irrigation and Drainage District, Yuma Irrigation District, Yuma Proving Ground, Yuma Mesa Irrigation District, Yuma County Water Users Association, MCAS Yuma	01/26/06	Jurisdictional meeting (see meeting summary on page J-3)

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APS

APS

THE POWER TO MAKE IT HAPPEN®

You are invited to one of the upcoming

PUBLIC INFORMATION
OPEN HOUSE/SCOPING MEETINGS

Wednesday, March 1 – 5:30 to 7:30 p.m.
Dateland School
1300 S. Ave. 64E, Dateland

or

Thursday, March 2 – 5:30 to 7:30 p.m.
Saguaro Room, College Union Building
Arizona Western College
2020 S. Ave. 8E, Yuma

APS is proposing the construction of a new 500-kilovolt transmission line between the Palo Verde Hub (near the Palo Verde Nuclear Generating Station) and the Yuma area designed to improve the reliability of the APS electric system in the Yuma area by providing an additional high-voltage transmission source. The meetings will be informal, allowing people to drop in at any time during an open house to review displays, speak with project team members and provide input.

For more information, visit http://siting.aps.com or call 888-206-6166 (toll free)

Public Participation

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- Jurisdictional and stakeholder meetings
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PALO VERDE HUB TO NORTH GILA 500kV TRANSMISSION PROJECT

February 2006 • Issue 1

APS Proposes New Transmission Facilities

APS has plans to build a new 500-kilovolt (500kV) transmission line between the Palo Verde Hub (the area around the Palo Verde Nuclear Generating Station) and the Yuma area to accommodate unprecedented growth (see map on next page).

According to the 2000 U.S. Census, the Yuma

Project Description

The proposed transmission line will be approximately 115 miles in length and will be constructed on steel towers, typically between 130 to 150 feet high. The line would begin at one of several interconnection points at the Palo Verde Hub and will primarily parallel the existing Southwest Powerlink (SWPL) 500kV transmission line for the entire length of the project. Approximately 55 miles of the proposed line would be placed within the existing one-mile-wide Bureau of Land Management (BLM) designated utility corridor before reaching the existing North Gila Substation, northeast of the City of Yuma.

State and Federal Components of the Project

In the third quarter of 2005, APS began working with the BLM, Phoenix Field Office, to update their resource management plans (RMPs). The RMP process included reviewing the need for existing utility corridors and designating new utility corridors through their federal lands. The BLM's final draft plan is expected to continue to include the existing San Diego Gas & Electric Interconnection designated utility corridor, which is one-mile wide, and lies within the BLM's study area. A portion of the study area

ase visit the project Web site at http://siting.aps.com

Public Information

First Project Open Houses

Project Schedule

Environmental Process

APS

K

Public Participation

- BLM process
- Jurisdictional and stakeholder meetings
- Public open houses
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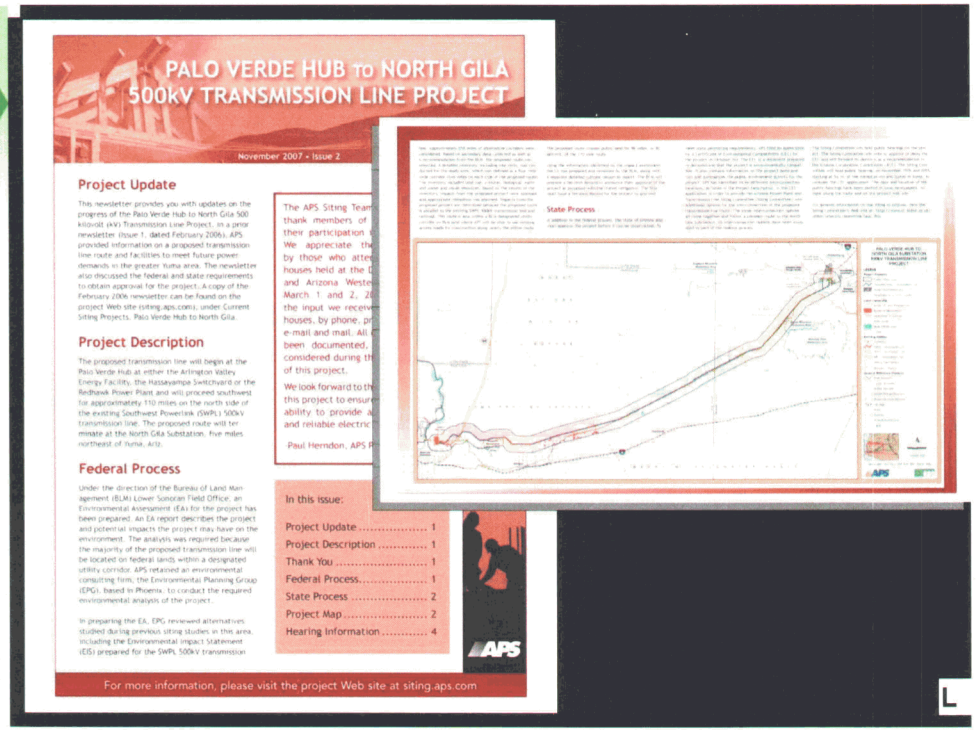
- Signs



PALO VERDE HUB TO NORTH GILA 500kV TRANSMISSION LINE PROJECT

November 2007 • Issue 2

Project Update

This newsletter provides you with updates on the progress of the Palo Verde Hub to North Gila 500 kilovolt (kV) Transmission Line Project. In a prior newsletter (Issue 1, dated February 2006), APS provided information on a proposed transmission line route and facilities to meet future power demands in the greater Yuma area. The newsletter also discussed the federal and state requirements to obtain approval for the project. A copy of the February 2006 newsletter can be found on the project Web site (siting.aps.com), under Current Siting Projects, Palo Verde Hub to North Gila.

Project Description

The proposed transmission line will begin at the Palo Verde Hub at either the Arlington Valley Energy Facility, the Hassayampa Switchyard or the Redhawk Power Plant and will proceed southwest for approximately 110 miles on the north side of the existing Southwest Powerlink (SWPL) 500kV transmission line. The proposed route will terminate at the North Gila Substation, five miles northeast of Yuma, Ariz.

Federal Process

Under the direction of the Bureau of Land Management (BLM) Lower Sonoran Field Office, an Environmental Assessment (EA) for the project has been prepared. An EA report describes the project and potential impacts the project may have on the environment. The analysis was required because the majority of the proposed transmission line will be located on federal lands within a designated utility corridor. APS retained an environmental consulting firm, the Environmental Planning Group (EPG), based in Phoenix, to conduct the required environmental analysis of the project.

In preparing the EA, EPG reviewed alternatives studied during previous siting studies in this area, including the Environmental Impact Statement (EIS) prepared for the SWPL 500kV transmission

The APS Siting Team thank members of their participation. We appreciate the by those who atte houses held at the and Arizona Weste March 1 and 2, 20 the input we receive houses, by phone, pr e-mail and mail. All been documented, considered during th of this project.

We look forward to th this project to ensure ability to provide a and reliable electric

Paul Herndon, APS P

State Process

In this issue:

Project Update 1
Project Description 1
Thank You 1
Federal Process 1
State Process 2
Project Map 2
Hearing Information 4

For more information, please visit the project Web site at siting.aps.com

Public Participation

- BLM process
- Jurisdictional and stakeholder meetings
- Public open houses
- Newsletters
- Web site
- Telephone information line (888-206-6166)
- Written notice
  - BLM informational letter
  - Exhibit H letters
- Publication of notice of hearing
- Signs

APS SERVICES
What We Can Do For You

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SITING MAIN PAGE
CURRENT PROJECTS
COMPLETED PROJECTS
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SITING FAQ
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THE POWER TO MAKE IT HAPPEN®

SEARCH
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Transmission and Facility Siting - Current Projects

Palo Verde Hub to North Gila 500kV Transmission Line Project

APS has plans to build a new 500-kilovolt (500kV) transmission line between the Palo Verde Hub (the area around the Palo Verde Nuclear Generating Station) and the Yuma Area to accommodate unprecedented growth.

According to the 2000 U.S. Census, the Yuma area grew by almost 50 percent between 1990 and 2000, thereby making it the third fastest growing area in the United States. In addition, the average household usage of electricity in Arizona has increased about 20 percent over the past decade. Growth figures like these coupled with limited electrical resources in the area underscore the need to build new electrical facilities.

APS' Palo Verde Hub to North Gila 500kV Transmission Project will provide the electrical transmission infrastructure to import additional generation resources from the power plants in and around the Palo Verde Hub into this high-growth area. The project will also improve the reliability of the APS electric system in the Yuma area by providing an additional high-voltage transmission source to that region.

The public is invited to learn more about the project in the following ways:

- Project newsletters will be mailed to APS customers and landowners in the area, and others with an interest in the project.
- Public open houses, with their informal formats allow individuals to meet with project team members one-on-one and discuss the latest project information.
- A project telephone information line at (888) 206-6166 also will carry up-to-date information regarding the project.
- Federal NEPA and state siting processes also provide the public with various levels of comment opportunities and involvement.

Please send us your comments or call Paul Herndon, APS Project Manager, at (623) 932-6729 for more

M

Public Participation

- BLM process
- Jurisdictional and stakeholder meetings
- Public open houses
- Newsletters
- Web site
- Telephone information line (888-206-6166)
- Written notice
  - BLM informational letter
  - Exhibit H letters
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APS

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Phoenix District
Lower Sonoran Field Office
21605 North 7th Avenue
Phoenix, AZ 85027
www.az.blm.gov

TAKE PRIDE IN AMERICA

In Reply Refer To:
2800 (220)
AZA-33305

January 30, 2006

Request for Comments for the Proposed Right-of-Way for the Arizona Public Service Palo Verde to North Gila Transmission Project, Arizona.

INTRODUCTION

The Bureau of Land Management (BLM) requests your comments relating to the proposed Right-of-Way (R/W) on public lands for the Arizona Public Service (APS) Palo Verde to North Gila (PV-N.Gila) Project located in Maricopa and Yuma County (see enclosed project map).

The purpose of this mailer is to notify potentially interested parties including local, state, and federal agencies and adjacent landowners of the proposed project. All comments must be received by March 03, 2006 and will be reviewed as part of the environmental analysis for the project. At this time, the BLM has decided to prepare an Environmental Assessment (EA) to determine whether the project will have significant environmental effects. The EA is expected to be available for public comment by the fall of 2006.

PROPOSED ACTION

The Proposed Action involves one 500 kV transmission power line on steel lattice structures which would be constructed within a R/W that is approximately 200 feet in width and approximately 110 to130 miles in length. The proposed R/W, as it affects public land, would be built within the San Diego Gas and Electric utility corridor as identified in the Lower Gila South Resource Management Plan (1988) and the Interconnection and ROW 3 utility corridors as identified in the Yuma District Resource Management Plan (1985). The proposed action requires environmental compliance subject to the National Environmental Policy Act (NEPA).

The R/W of the proposed action would directly affect up to approximately 60 miles of public lands.

DECISION TO BE MADE

The decision to implement the Proposed Action involves the BLM, which has jurisdiction for approximately 60 miles of public lands involved in the project.

Public Participation

- BLM process
- Jurisdictional and stakeholder meetings
- Public open houses
- Newsletters
- Web site
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  - BLM informational letter
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APS

4141 NORTH 22nd STREET
SUITE 102
PHOENIX, ARIZONA 85016
602 956-4270
602 956-4374
www.epgaz.com

epg

September 13, 2007

Kevin Harper, Field Office Manager
BLM - Phoenix District
Lower Sonoran Field Office
21605 N. 7th Avenue
Phoenix, Arizona 85027-2099

Dear Mr. Harper:

Arizona Public Service Company (APS) plans to file an Application for a Certificate of Environmental Compatibility (CEC) for the Palo Verde Hub to North Gila 500kV (kilovolt) Transmission Project with the Arizona Power Plant and Transmission Line Siting Committee (Siting Committee) in October 2007. The proposed project is needed to support the increased development and growth, occurring and anticipated, in the Yuma Region. The project will strengthen the entire Yuma area transmission system by providing an additional electrical transmission source to the region. This project primarily involves a single-circuit 500kV electric transmission line and upgrades to two existing switchyards (see attached map). The project is designed to interconnect at one of three sites at the Palo Verde Hub and proceed southwest where the project will interconnect with APS' existing North Gila Substation, northeast of Yuma, Arizona. The proposed route parallels an existing 500kV transmission line for the entire length of the project and will be located on the north side of the existing line, within a Bureau of Land Management (BLM) designated utility corridor on BLM land (see attached map). APS will request Siting Committee approval for a CEC for the route as it has been determined as being environmentally compatible and would adequately address the project need.

Arizona Administrative Code Rule R14-2-219 directs an applicant to include in its Application an Exhibit H addressing the following:

"To the extent the applicant is able to determine, state the existing plans of the State, local government and private entities for other developments at or in the vicinity of the proposed site or routes."

This letter is a request for any information or comments that your organization wishes to provide regarding development plans for inclusion in the Application. Specifically, please advise me of any existing or future plans that may have changed since the completion of our data collection efforts in November 2006.

To allow your information to be included in the Application, please forward it to me no later than Friday, September 28th, at the address above.

Thank you for your cooperation.

Sincerely,

Paul J. Trenter, Project Manager
Environmental Planning Group

cc: Paul Herndon, APS Project Manager

Public Participation

- BLM process
- Jurisdictional and stakeholder meetings
- Public open houses
- Newsletters
- Web site
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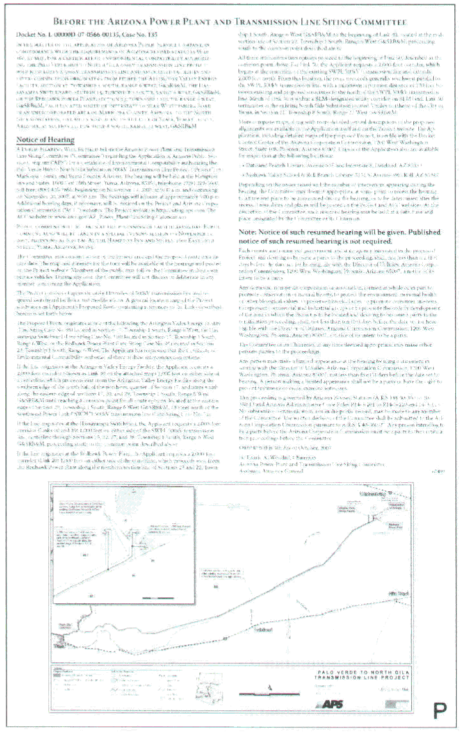
BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

Notice of Hearing

Note: Notice of such resumed hearing will be given. Published notice of such resumed hearing is not required.

Public Participation

- BLM process
- Jurisdictional and stakeholder meetings
- Public open houses
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APS

PUBLIC HEARING

APS-Palo Verde Hub to
North Gila Substation 500kV
Transmission Line Project
Arizona Corporation Commission
Docket No. L-00000D-07-0566-00135

The public is invited to participate at a public hearing before the Arizona Power Plant and Transmission Line Siting Committee

Commencing on:
November 19, 2007 at 9:00AM
(Special Public Comment Session at 6:30PM)
November 20, 2007 at 9:00AM
Hampton Inn and Suites
1600 East 16th Street
Yuma, Arizona 85365

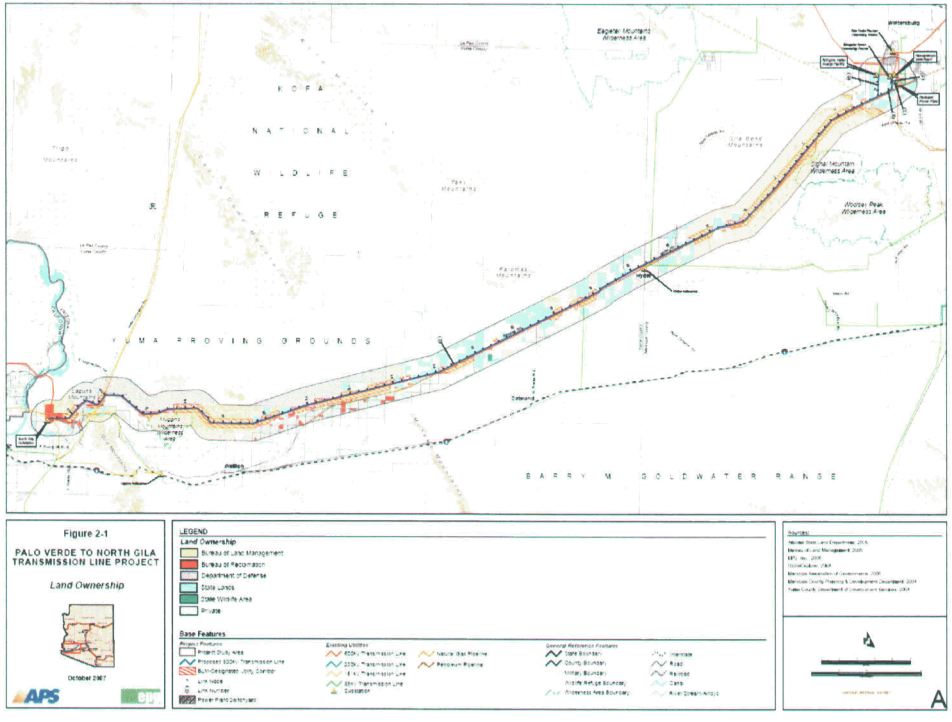
Additional hearing days, if necessary, will be noticed on the Project and Arizona Corporation Commision websites. The Project website is listed below and the ACC website is: www.azcc.gov/AZ_Power_Plant/LineSiting-Calendar.asp

APS INFO: 623-932-6729 or http://siting.aps.com
ACC INFO: http://www.cc.state.az.us/divisions/utilities/electric/faqs.asp

Q

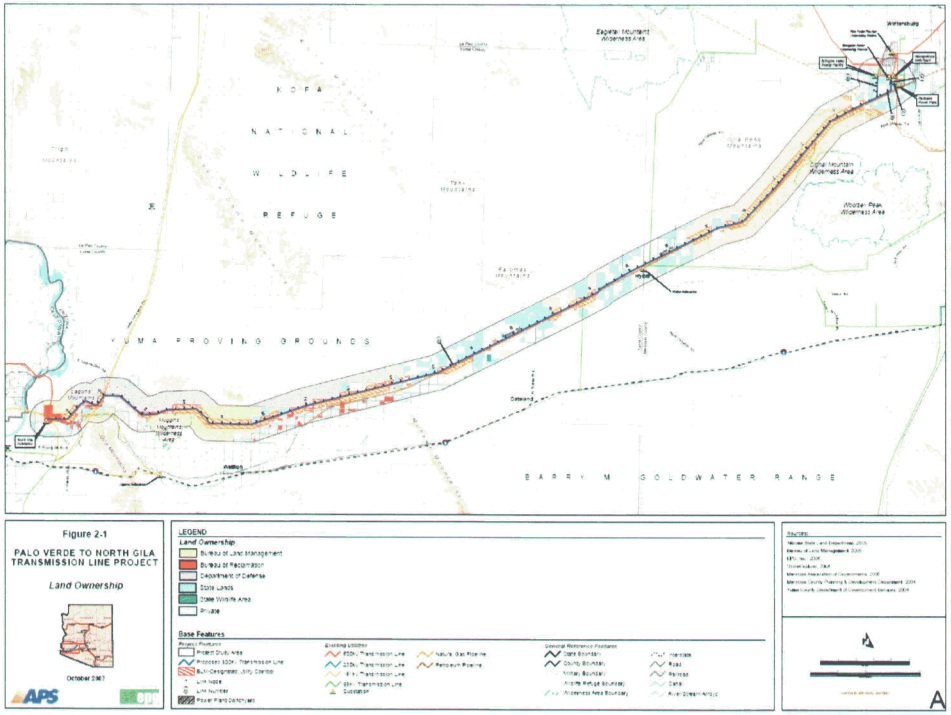
Paul Herndon

Arizona Public Service Company
Project Manager
Transmission and Facility Siting



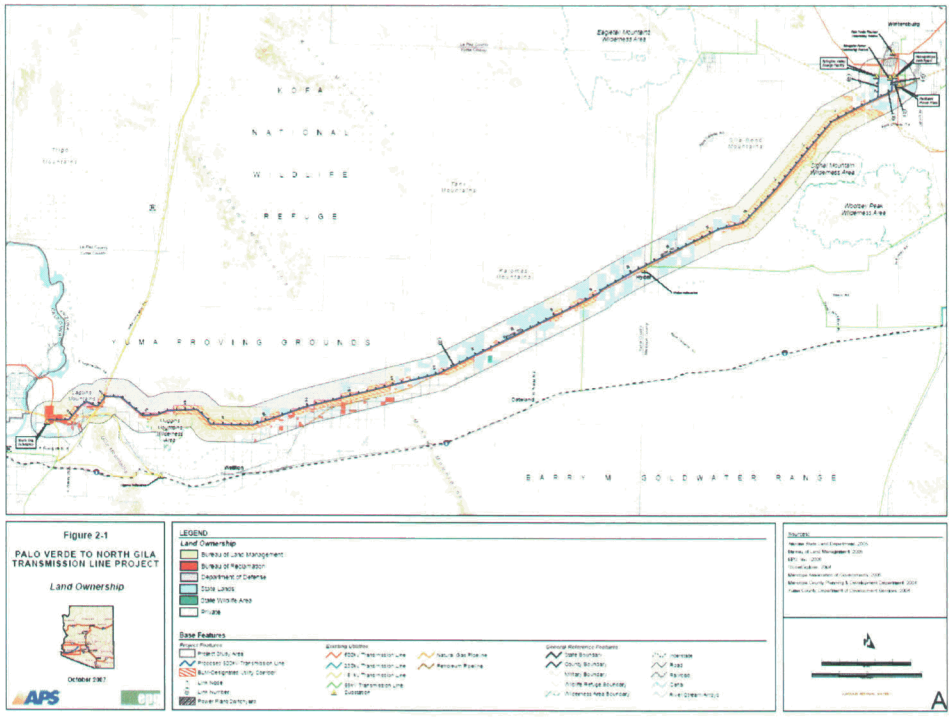
Bob Smith

Arizona Public Service Company
Director, Transmission Planning and Engineering



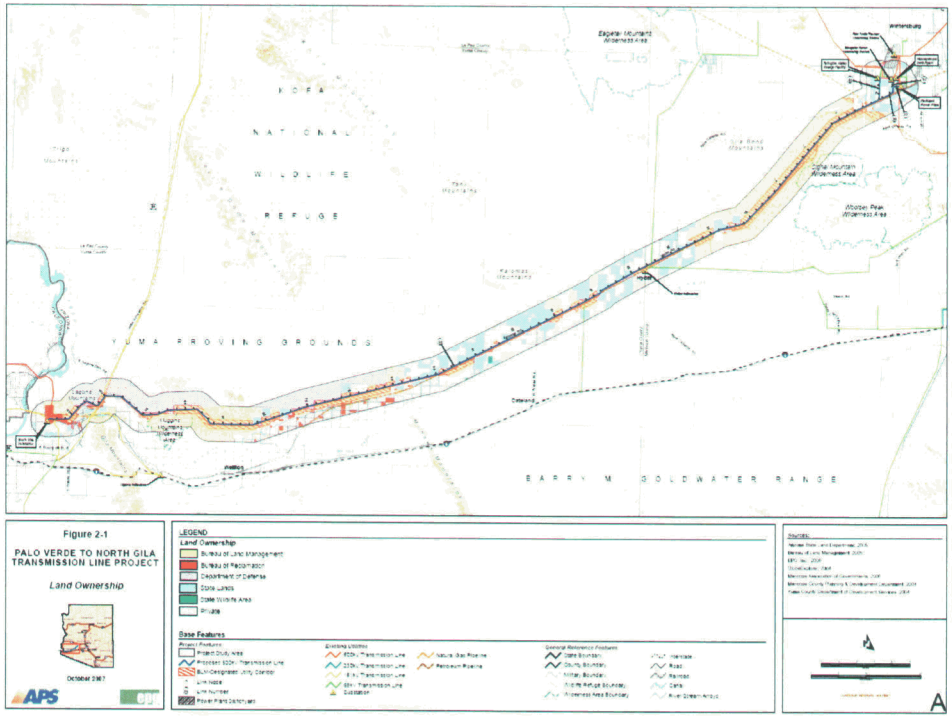
Witness Background

- Professional Background
  - APS transmission operations manager 1997-2002
  - APS transmission planning manager since November 2002
  - 21 years experience in electric utility industry transmission operations and planning
  - Arizona registered professional engineer
  - 14 years extensive involvement with WECC
  - Member of various planning committees, e.g. SWAT, WestConnect, WECC Transmission Expansion Planning Policy Committee (TEPPC)
- Educational Background
  - BS Pharmacy, University of Utah
  - MSEE, New Mexico State University



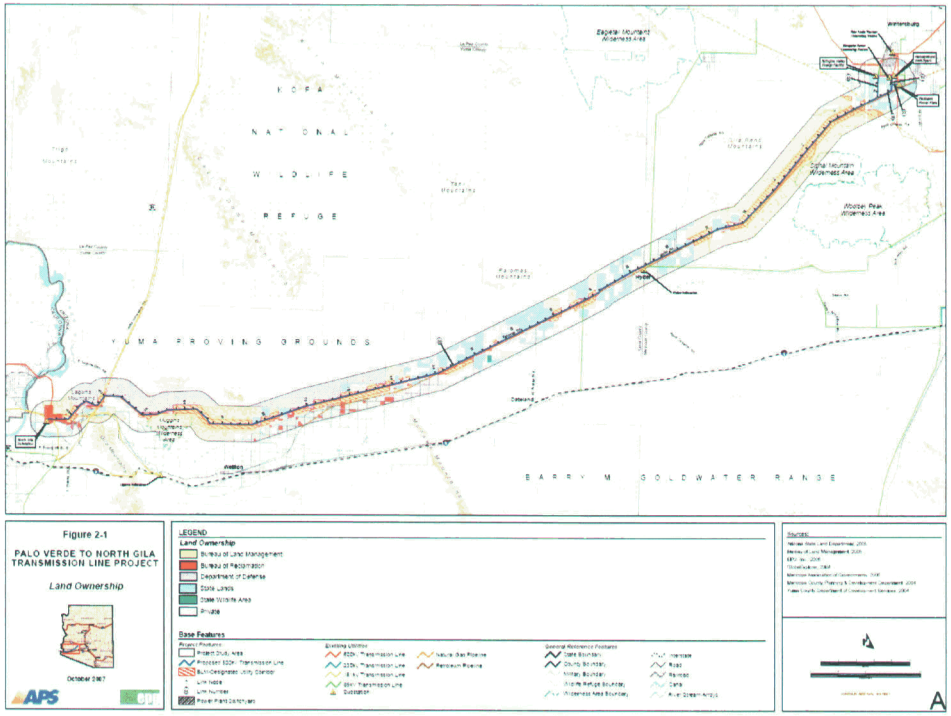
Witness Background Cont.

- Provided technical testimony before the Siting Committee for APS Case Numbers:
  - 122: West Valley-South Power Line and Substation Project
  - 127: West Valley-North Power Line and Substation Project
  - 128: Palo Verde Hub to TS-5 Substation 500kV Transmission Project
  - 131: TS-9 to Pinnacle Peak 500/230kV Transmission Line Project



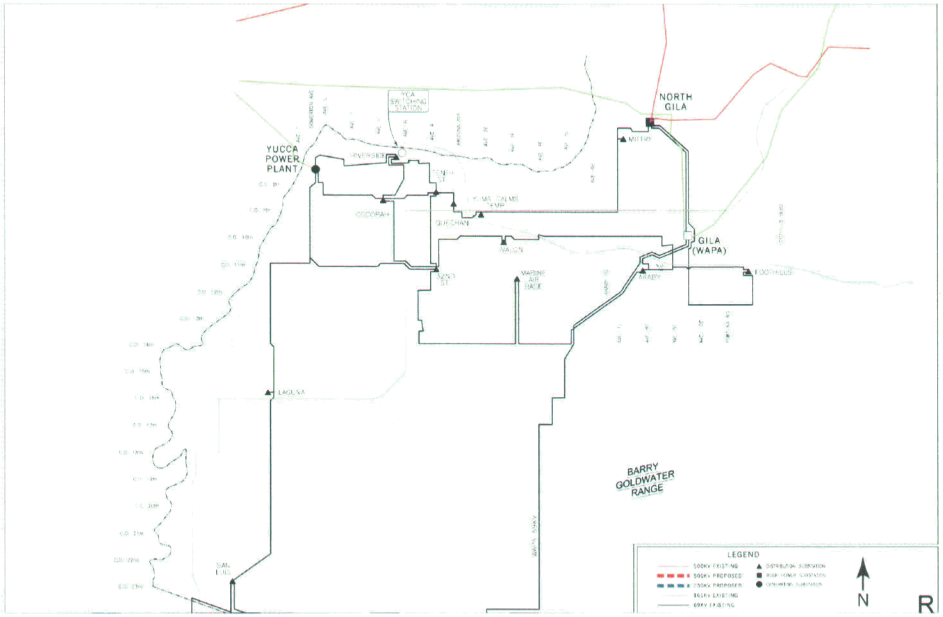
Testimony Overview

- Yuma Area System
- Yuma Area Recent Improvements
- Yuma Area Planned Improvements
- Palo Verde Hub to North Gila 500kV Transmission Line Project Benefits
- Regional Planning and Coordination



Yuma Area System

- Local 69kV sub-transmission system
- Three existing sources into Yuma Area
  - North Gila Substation
    - 500kV line from PV Hub
  - Yucca Power Plant
    - 265 MW generation
      - 140 MW APS
      - 75 MW IID
      - 50 MW Merchant Generation
    - 161kV IID line to IID service area
  - Gila Substation
    - Two WAPA 161kV lines from federal hydro system



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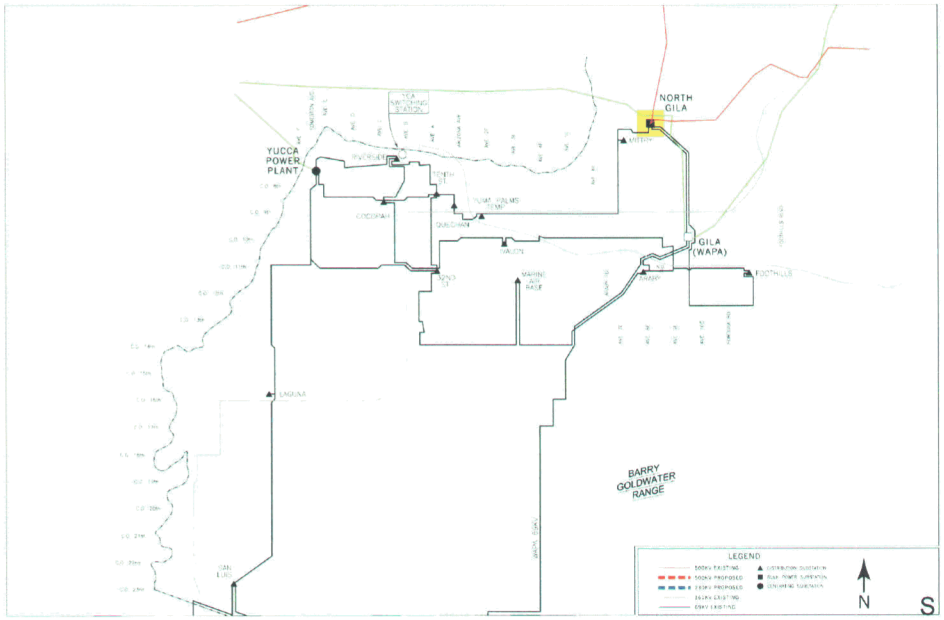

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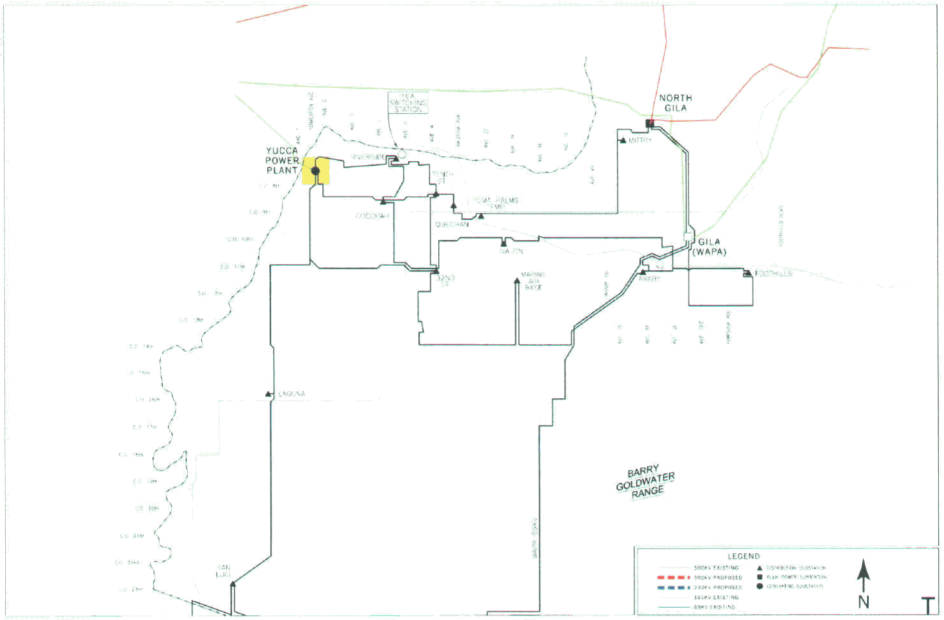

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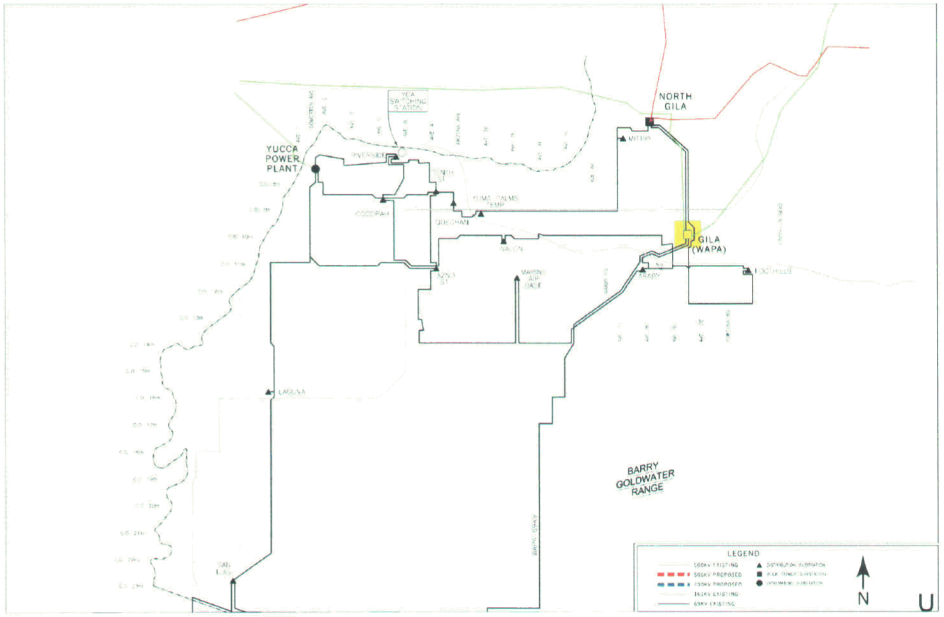
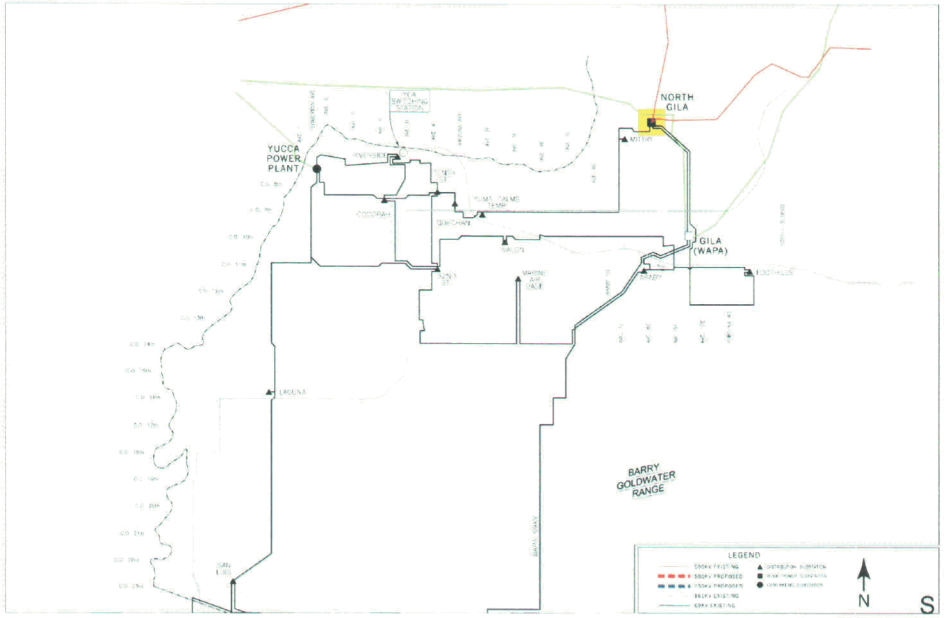


Yuma Area
Recent Improvements

- 2005 Second North Gila 500/69kV transformer
- 2006 Upgrade of Yucca 161kV IID line
- 2006 Upgrade of Hassayampa-North Gila 500kV line
- Annual 69kV improvements



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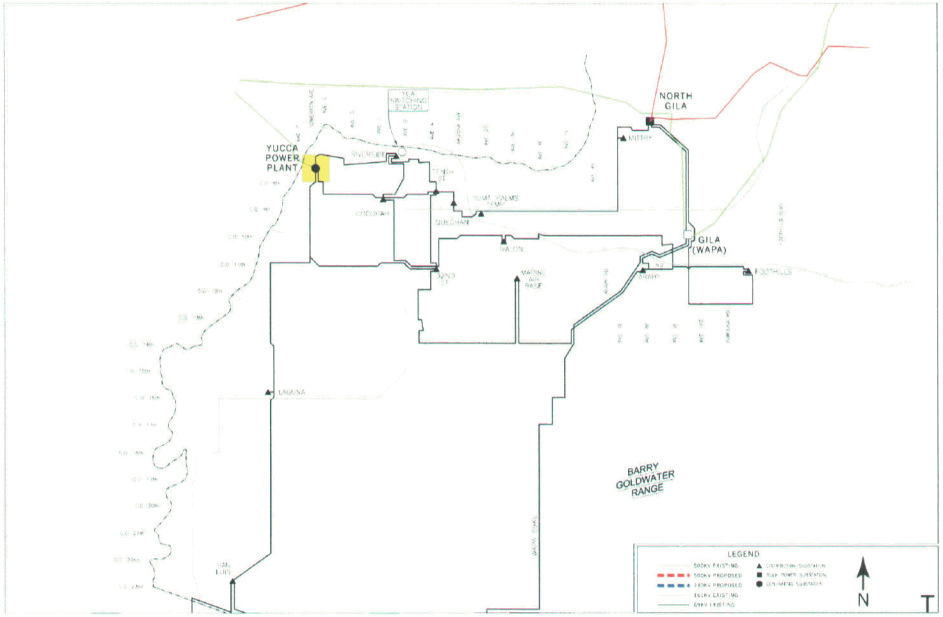

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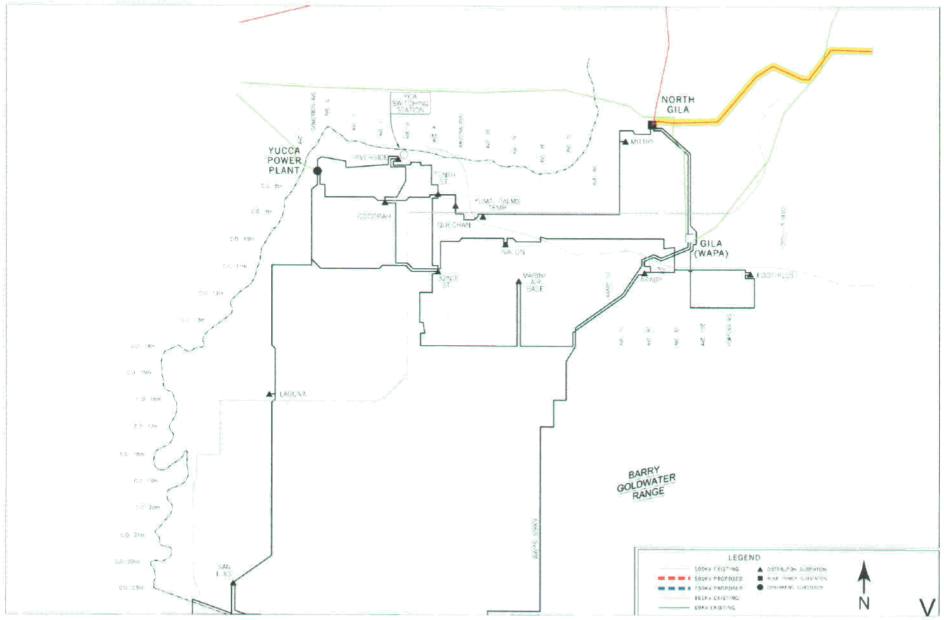

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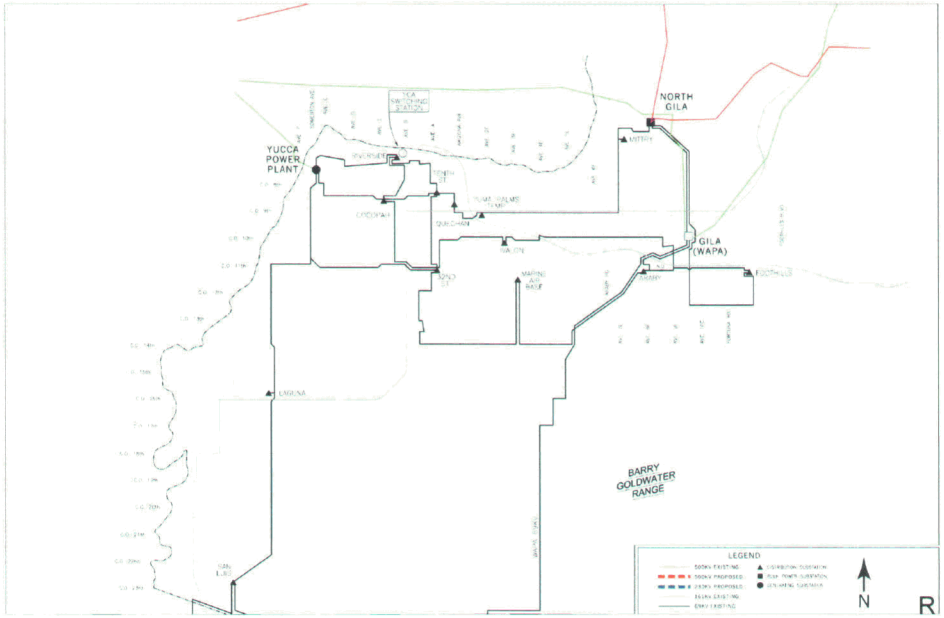
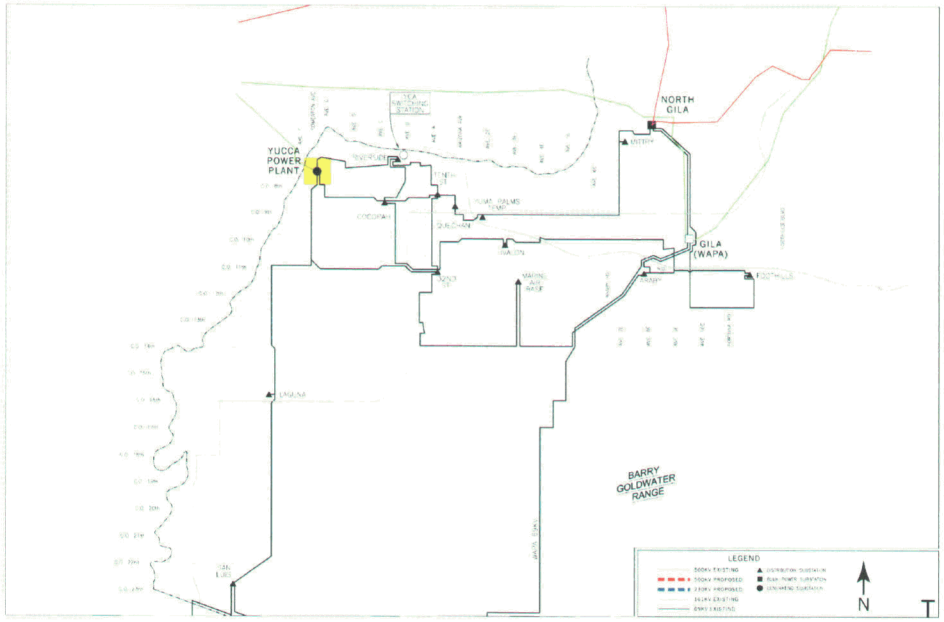


Yuma Area
Planned Improvements

- 2008 - APS generation addition at Yucca Power Plant
  - (2) 48 MW combustion turbines
- 2012 - PV to North Gila 500kV line
- 2012 - North Gila to TS-8 230kV line



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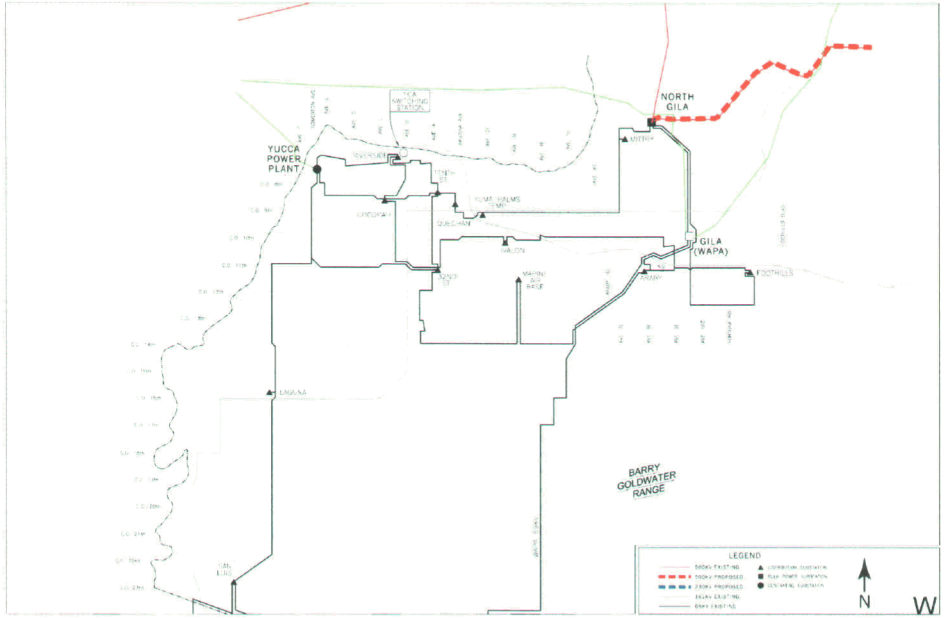

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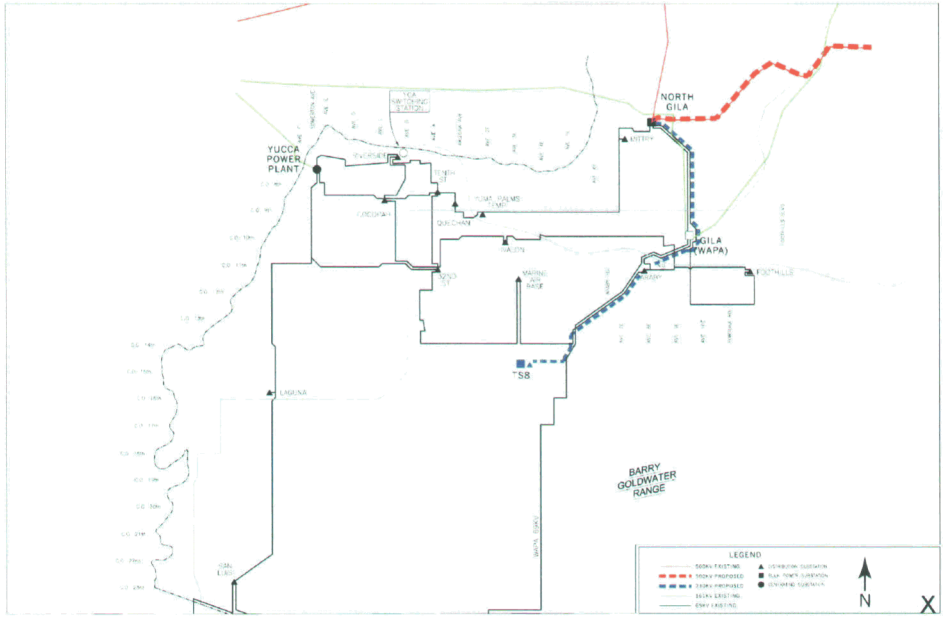
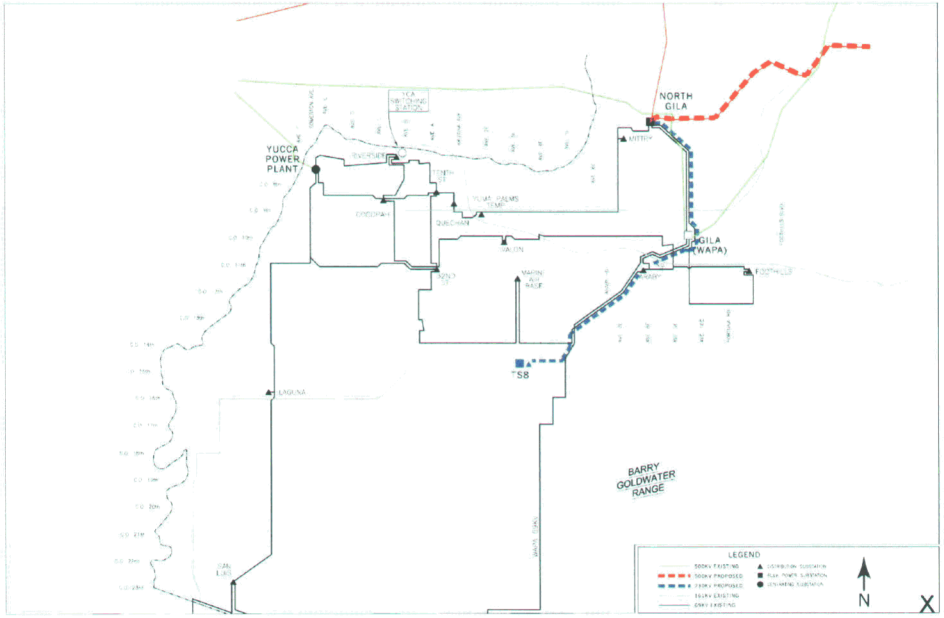


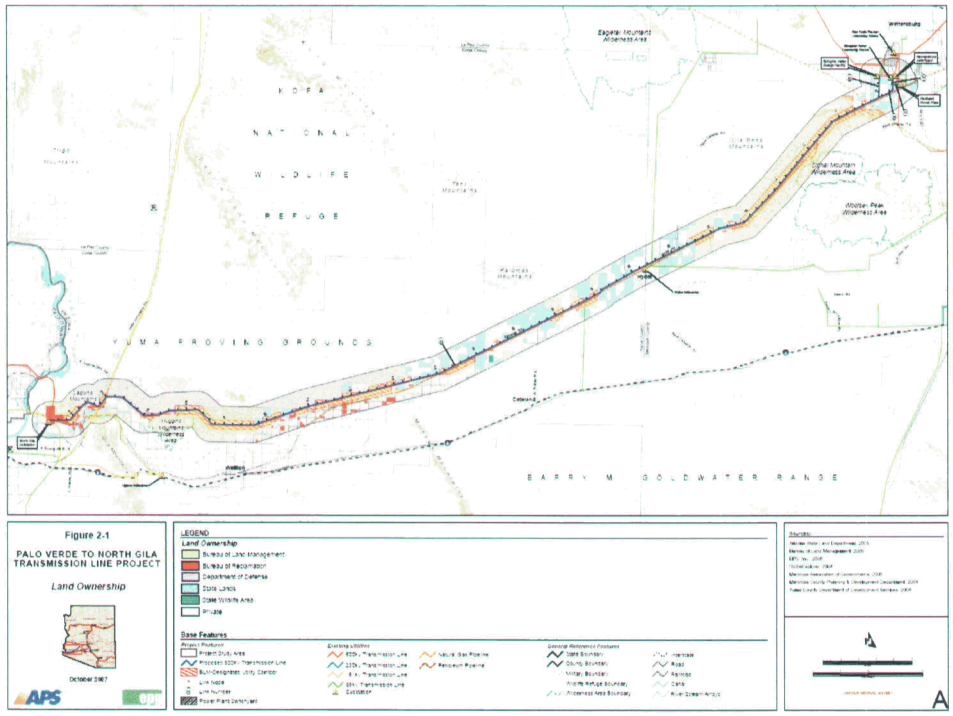
Project Benefits

- APS 500 MW scheduling rights to Yuma from PV Hub
- Import capability increase
  - When combined with North Gila to TS-8 230kV line and 69kV improvements
- Provide contingency for outage of existing Palo Verde Hub to North Gila 500kV line
  - Most recent PV Hub operating study shows outage of existing PV Hub to North Gila 500kV line only single contingency requiring potential generation curtailment



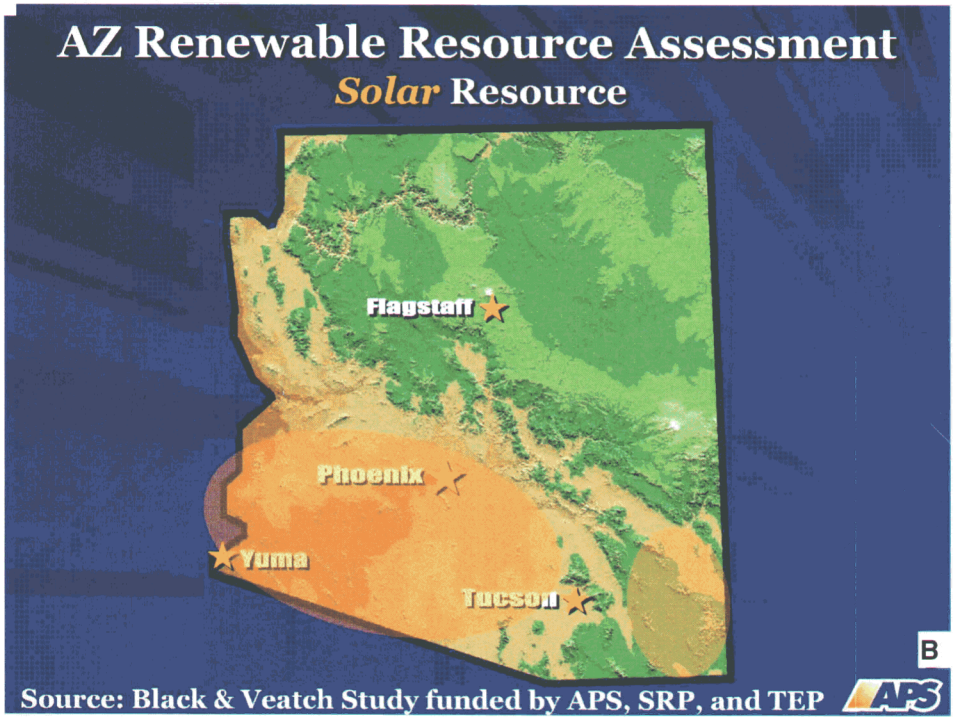
Project Benefits

- WMIDD
  - Support fast growing load
  - Increased reliability
- SRP
  - Access to California renewables
- IID
  - Export California renewables
  - Increased reliability
  - Support peak load



Project Benefits

- Provide significant transmission for development of solar energy in Western Arizona to help provide for Arizona load growth



Regional Planning and Coordination

- APS Ten Year Plan
  - PV Hub to North Gila 500kV Transmission Line Project has been in Plan since 2005
- ACC BTA
  - PV Hub to North Gila 500kV Transmission Line Project reviewed in 3rd and 4th BTA
  - Reliability Must Run (RMR) studies for Yuma
  - PV Hub Risk Assessment Performed

APS

"The proposed second Palo Verde/Hassayampa-North Gila 500kV line offers a good example of the type of collaboration that can be achieved between transmission providers in Arizona."

"Yuma area 2006 RMR study findings are as follows:

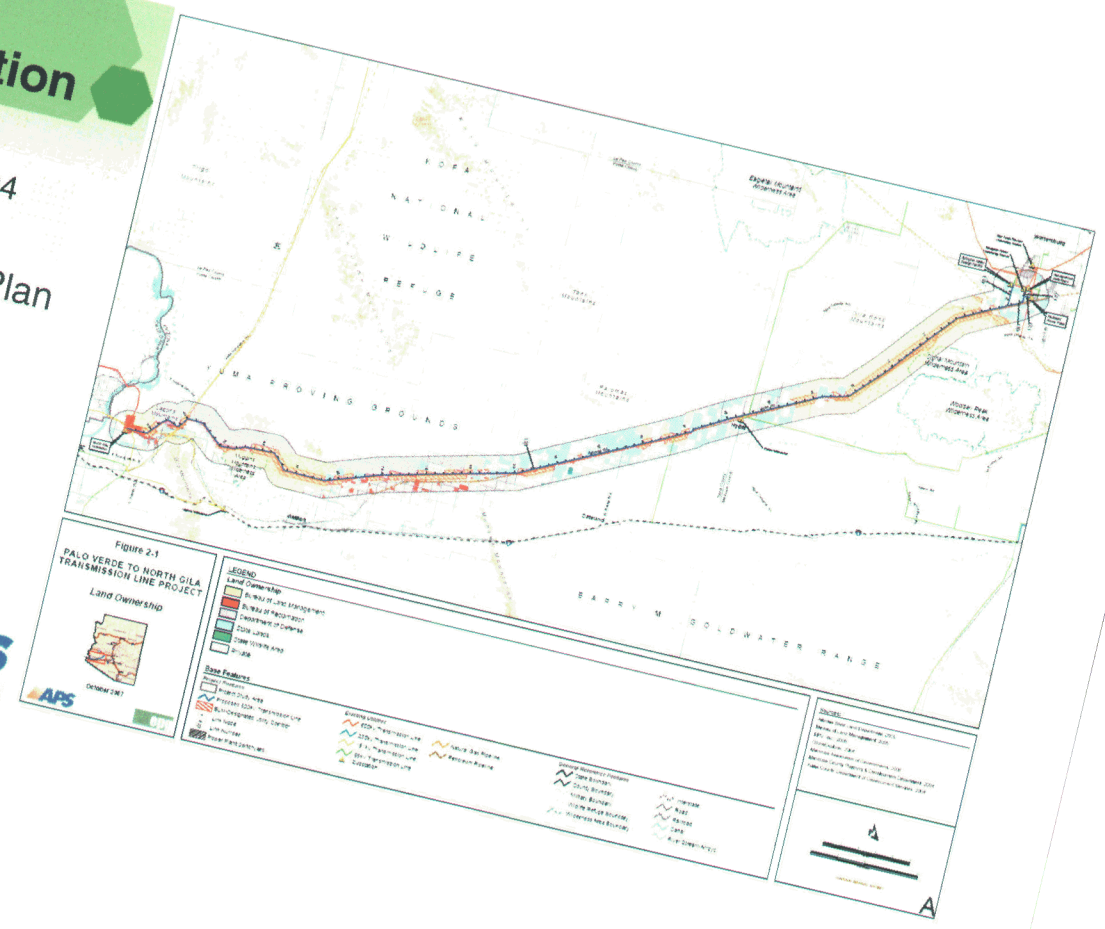
All existing and planned Yuma area generation and transmission projects are needed to reliably serve the area."

-- From the Fourth Biennial Transmission Assessment for 2006-2015

Y

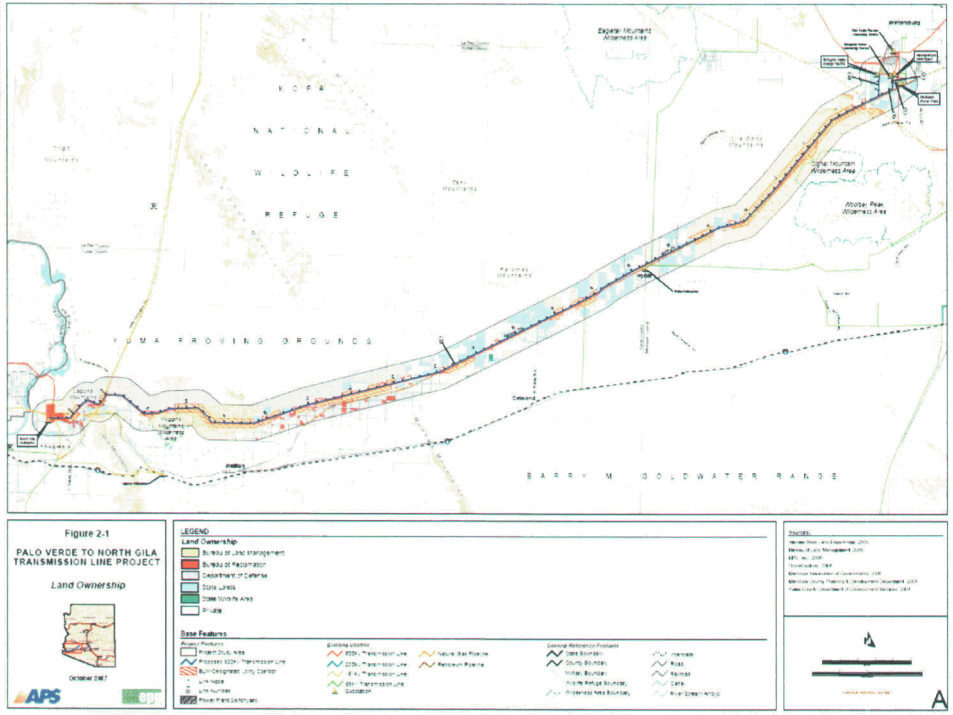
Regional Planning and Coordination

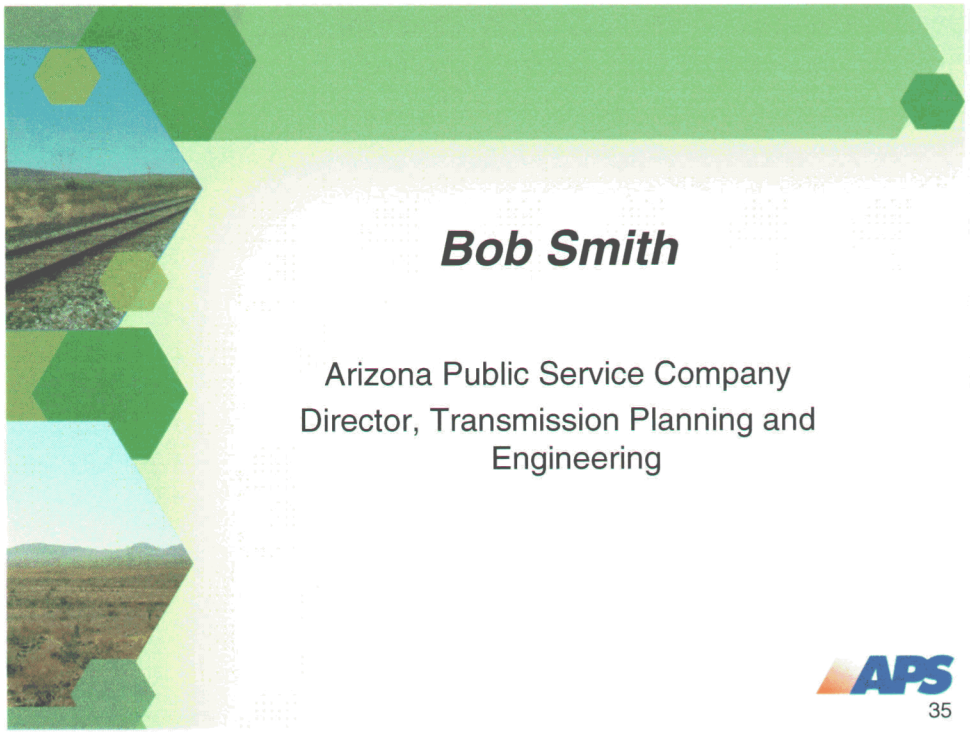
- SWAT
  - Solicitation of interest sent October 2004
  - Project updates at all SWAT meetings
- Southwest Transmission Expansion Plan (STEP)
  - Project updates at all STEP meetings
- WECC
  - Regional Planning Project Review process
  - Preliminary Rating Studies



Summary

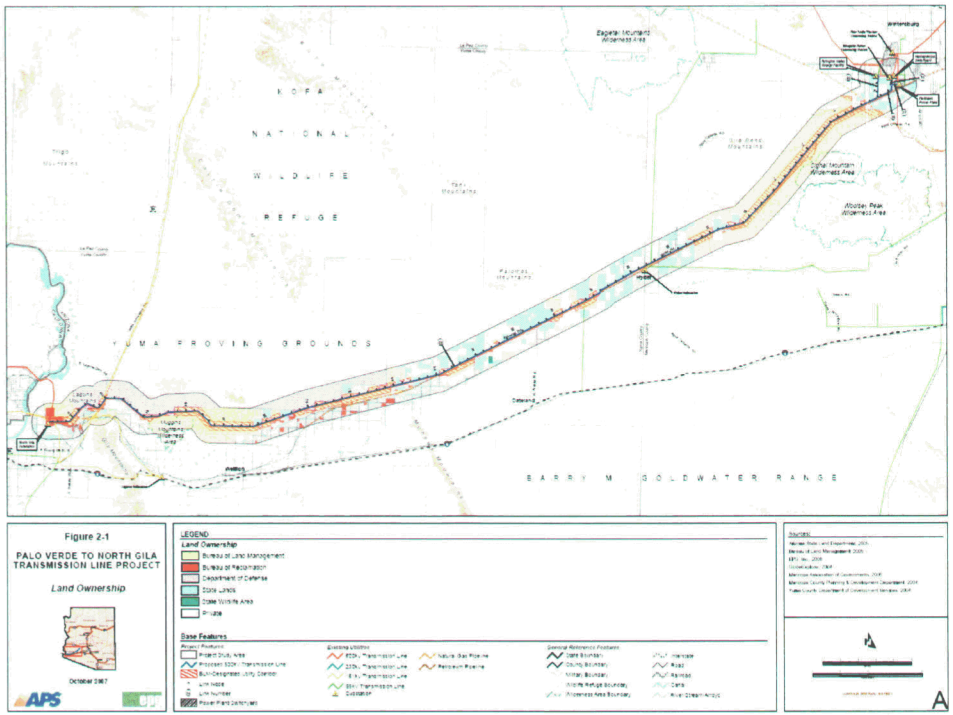
- Yuma Area Transmission System
- PV Hub to North Gila 500kV Transmission Line Project Benefits
- Regional Planning and Coordination
- Project supported by ACC BTA

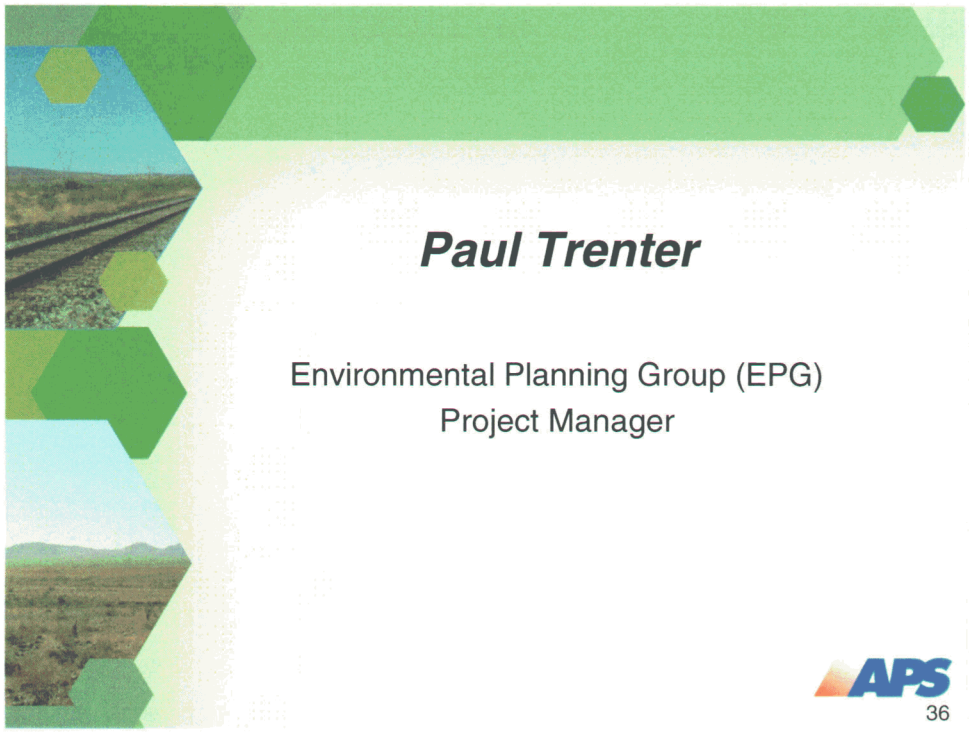




Bob Smith

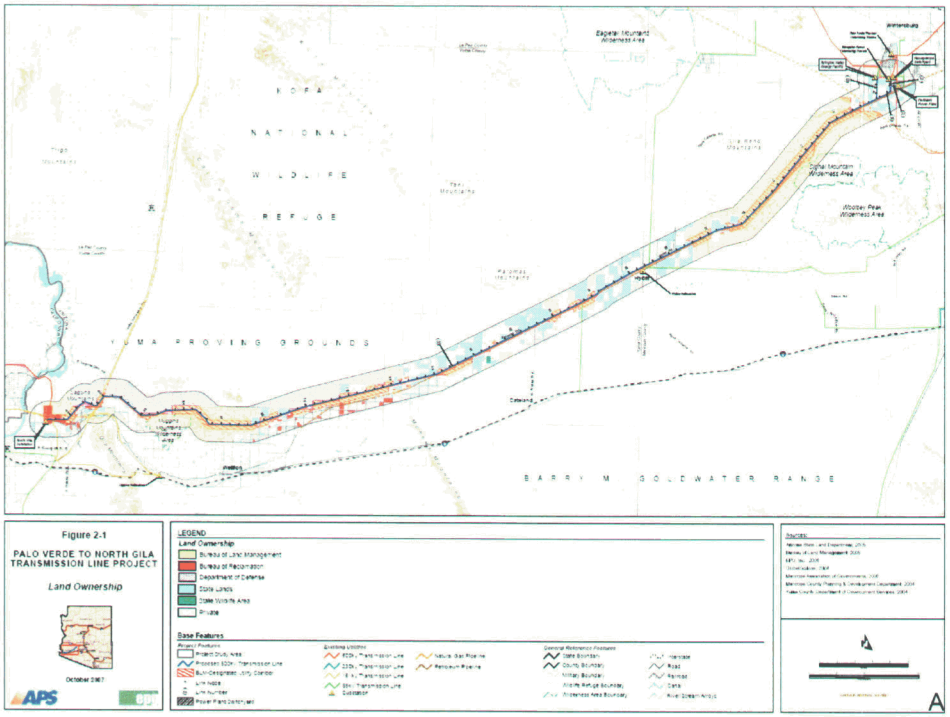
Arizona Public Service Company
Director, Transmission Planning and Engineering





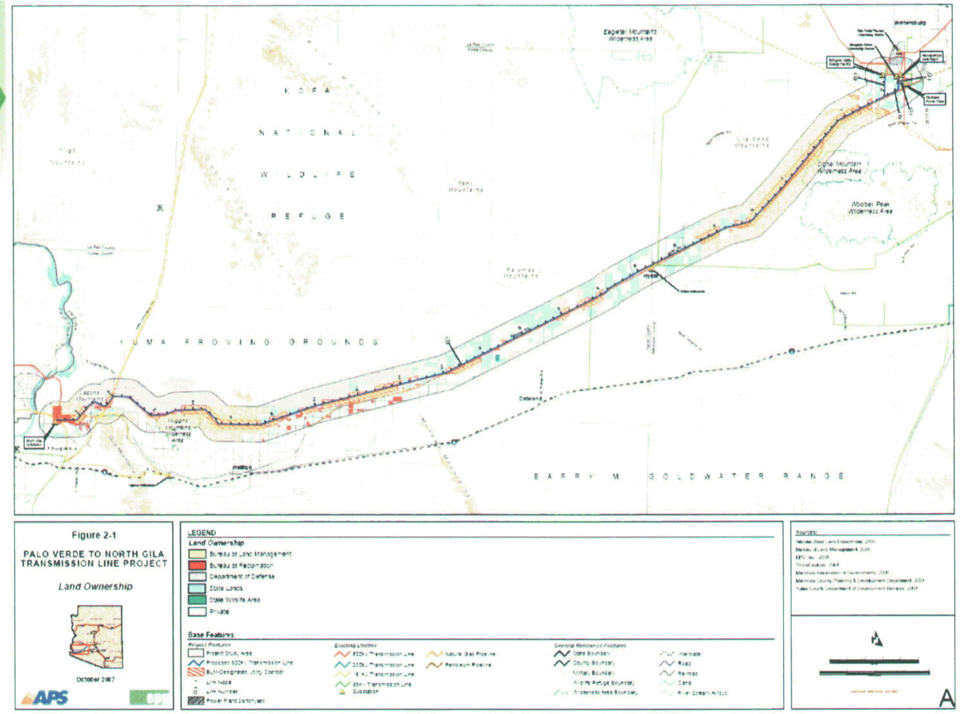
Paul Trenter

Environmental Planning Group (EPG)
Project Manager



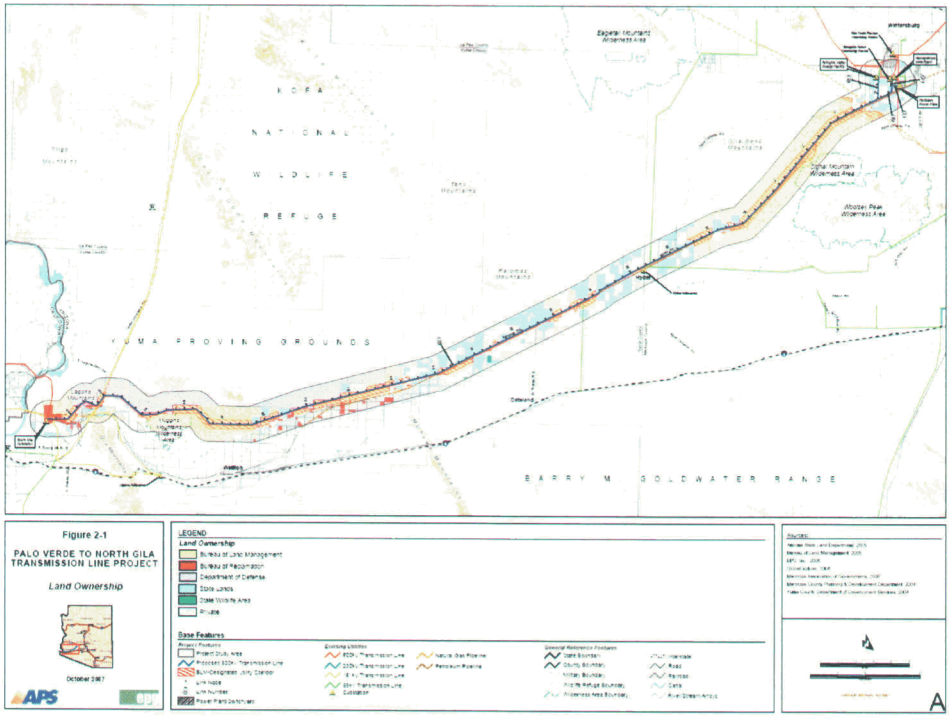
Witness Background

- Professional Credentials
  - BS, Landscape Architecture, University of Wisconsin
  - Principal at EPG
  - 19 years of experience in siting and environmental work with major utility projects
  - Managed or participated in over 40 major transmission line projects



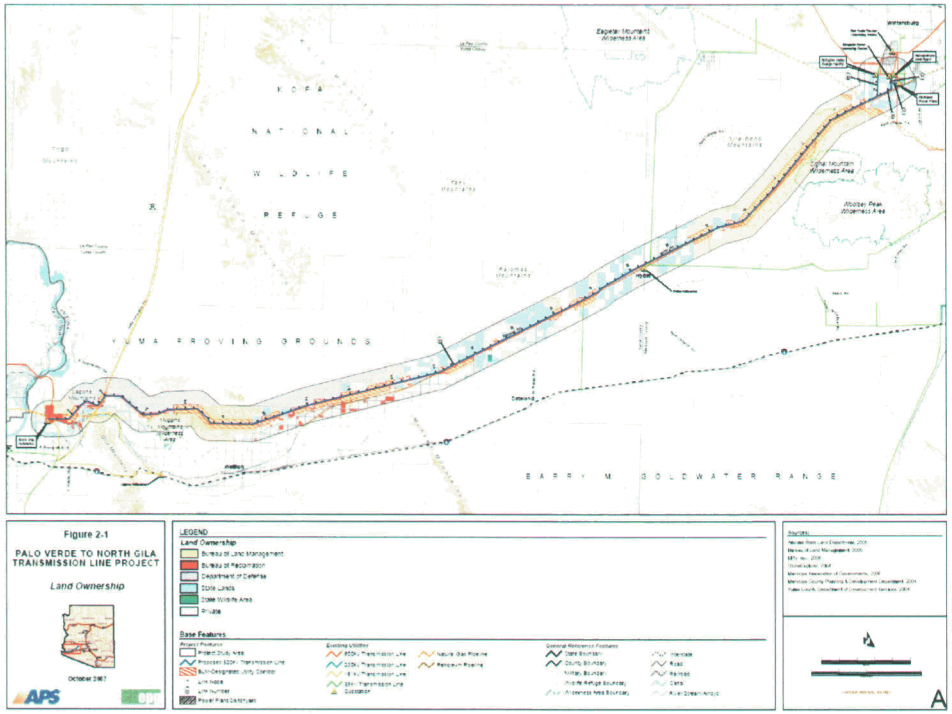
Witness Background

- Environmental studies project manager and provided testimony before the Siting Committee in Case Numbers:
  - 86: RS 16 Project
  - 89: Gila Bend to Ajo 230kV Transmission Line Project
  - 97: Morenci Water & Electric 345kV Intertie Project
  - 115: Southwest Valley 500kV Transmission Line Project
  - 120: North Valley 230kV Facility Siting Project
  - 128: Palo Verde Hub to TS-5 Substation 500kV Transmission Project



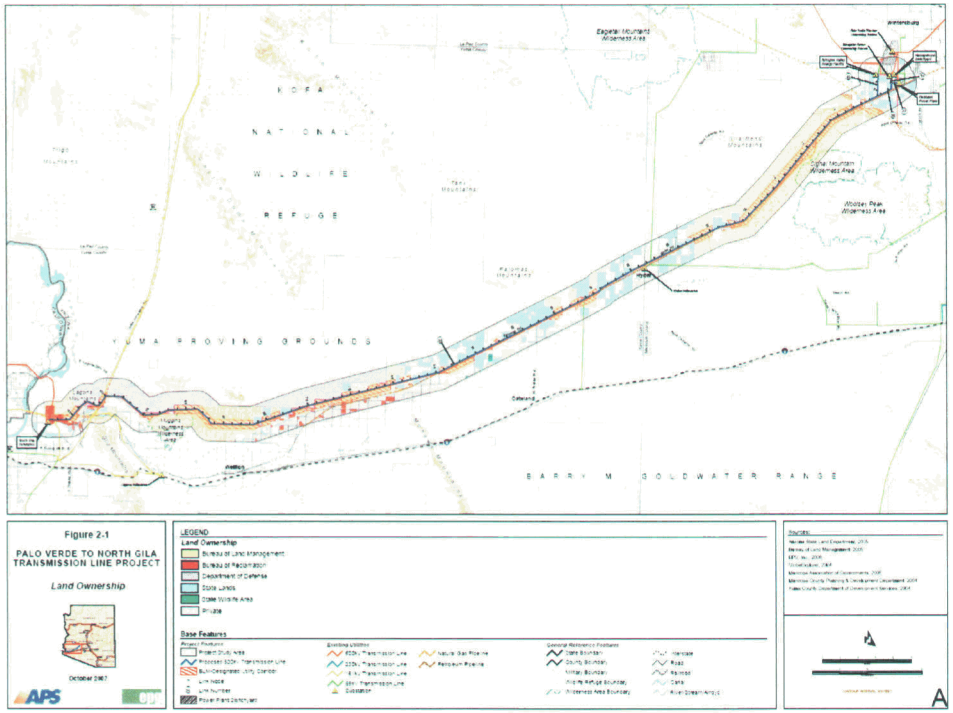
Outline of Testimony

- Overview of the environmental studies
- Environmental resource analysis
- Virtual tour of proposed route
- Environmental compatibility



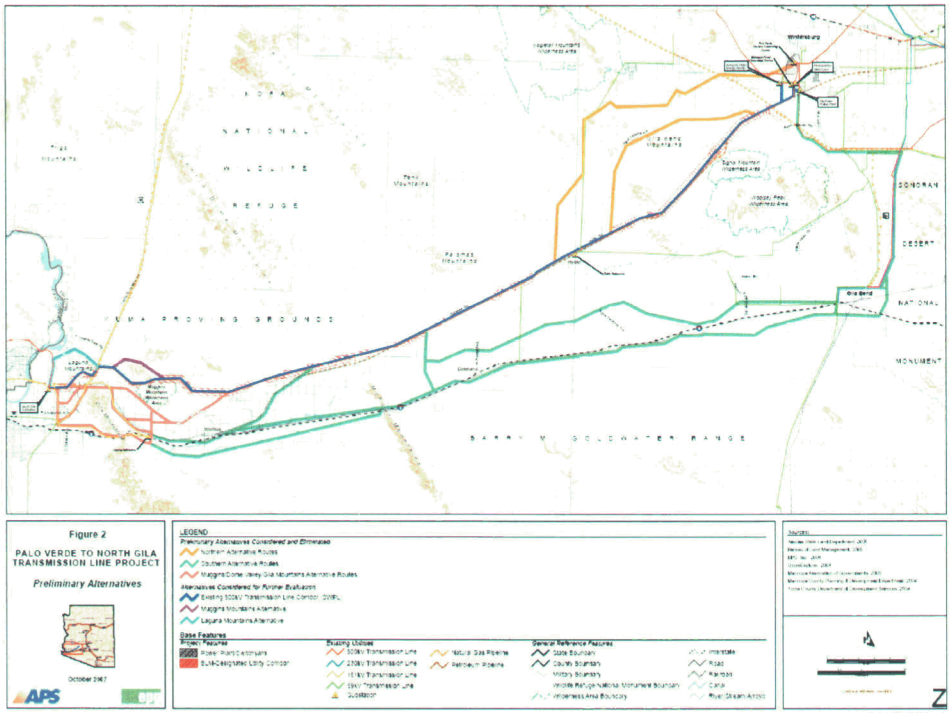
Overview of the Environmental Studies

- Initial review of a broad range of transmission line alternatives and sites
- Prepared Environmental Assessment
- Prepared environmental exhibits for the Certificate of Environmental Compatibility Application
- Public and agency input was considered throughout the planning process



Alternatives Review

- Reviewed 550 miles of transmission line alternatives
- Northern, Southern, and Muggins\Dome Valley\Gila Mountain alternatives
- Laguna and Muggins Mountains alternatives
- After review of alternatives was complete, the BLM recommended the Proposed Route for detailed study in the EA



Proposed Route

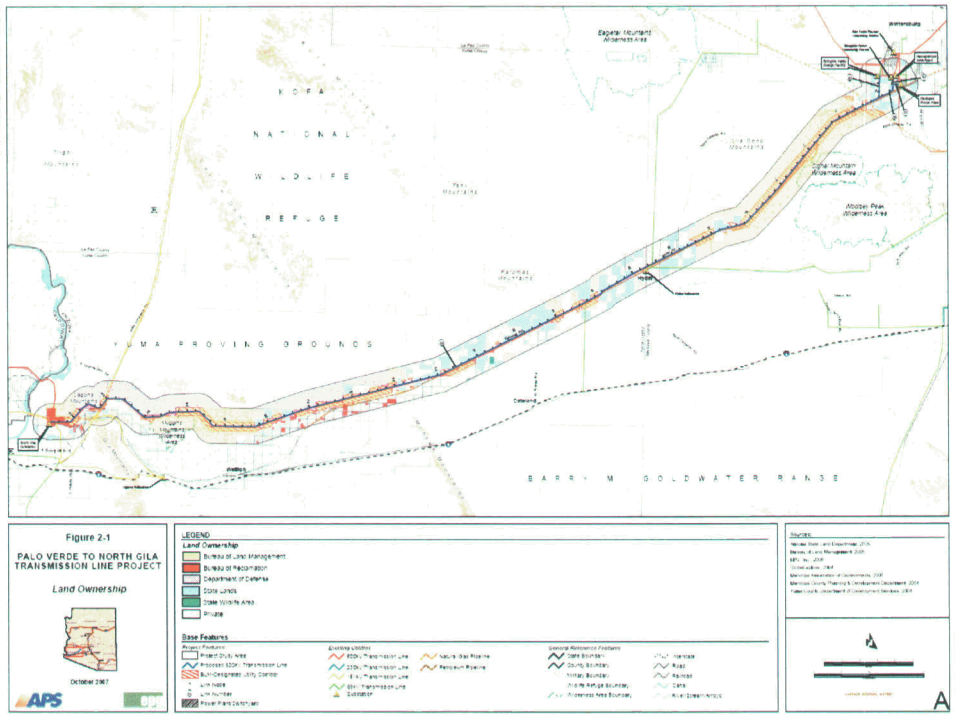
- The Proposed Route was carried forward for detailed evaluation for the following reasons:
  - Parallels the existing 500kV transmission line
  - Within a BLM-designated utility corridor on BLM lands, which comprise approximately 50% of the route
  - Crosses public land for over 80% of the route

	BLM (distance in miles)	Reclamation (distance in miles)	YPG (distance in miles)	Arizona State Trust (distance in miles)	Private (distance in miles)	Total Length (distance in miles)
Proposed Route (Arlington Valley Energy Facility Interconnection)	54.6	1.5	8.7	21.6	24.2	110.6
Proposed Route (Hassayampa Switchyard Interconnection)	54.6	1.5	8.7	23.1	23.7	111.6
Proposed Route (Redhawk Power Plant Interconnection)	54.6	1.5	8.7	23.2	23.3	111.3

AA

NEPA Process

- National Environmental Policy Act (NEPA) compliance required prior to granting of federal rights-of-way
- BLM, Lower Sonoran Field Office – lead federal agency
- Cooperating federal agencies
  - BLM, Yuma Field Office
  - Yuma Proving Grounds
  - Bureau of Reclamation
- FONSI issued November 2007



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  - Yuma Proving Grounds
  - Bureau of Reclamation
- FONSI issued November 2007

APS

FINDING OF NO SIGNIFICANT IMPACT

Name of Environmental Assessment: Palo Verde Hub to North Gila Substation
Environmental Assessment No.: AZ-220-2006-008
Case File No: AZA-33305
Bureau of Land Management Office: Phoenix District, Lower Sonoran Field Office

Finding of No Significant Impact: Upon review of the Environmental Assessment (EA) prepared for the above-named project and incorporated herein by reference, no significant long-term impacts on the human (socioeconomic) or natural environment would result. Short-term, temporary impacts on soils, water resources, biological resources, cultural resources, air quality, noise, and land use associated with construction activities of the proposed transmission line were identified which could be reduced by mitigation, and therefore are not considered significant. Long-term impacts on scenic quality were considered low to moderate, while the potential for long-term residual collision hazard for birds was considered low.

Recommendation: Grant a right-of-way to Arizona Public Service Company (APS) for construction, operation, and maintenance of a 500 kilovolt (kV) transmission line. The transmission line would originate from the Palo Verde Hub (PV Hub) at either an open transmission interconnection position in the Arlington Energy Facility, the Hassayampa Switchyard, or the Redhawk Power Plant. The transmission line would be constructed primarily with lattice tower structures paralleling the existing Southwest Power Link 500 kV Transmission line (SWPL) and connect into the North Gila Substation in Yuma, Arizona. The proposed right-of-way would be 200 feet wide, approximately 110 to 130 miles in length, of which approximately 55 miles would be located on Bureau of Land Management (BLM) administered lands. APS would implement the recommended Standard Operating Procedures and Mitigation Measures listed in Attachment A. The transmission line would be owned by APS and operated by APS and other project proponents.

Stipulations: APS is to implement the recommended Standard Operating Procedures and Mitigation Measures listed in Attachment A. Compliance with stipulations and mitigation measures will be monitored during project implementation. BLM issuance of the right-of-way grant is conditional upon APS obtaining all other federal, state, and local permits required to construct and operate the transmission line. APS is required to obtain the required Certificate of Environmental Compatibility from the Arizona Corporation Commission. The BLM has fulfilled requirements in accordance with the Section 106 process regarding cultural resource issues and requirements regarding biological resource issues.

Rationale: The EA for the Proposed Action has been prepared in accordance with National Environmental Policy Act (NEPA) requirements, including the public involvement procedures prescribed by 40 CFR §1506.6. The project design and mitigation measures proposed in the EA are integral to the Proposed Action and would reduce short-term and long-term environmental impacts to a level of insignificance. Issuance of right-of-way grant AZA-33305 to APS for the construction, operation, and maintenance of an electric transmission line is consistent with the Lower Gila South Resource Management Plan (BLM, 1988) which defines land uses along the San Diego Gas and Electric utility corridor and the Yuma District Resource Management Plan (BLM, 1986 and 1987) which defines uses along the Interconnection utility corridor.

Recommendation of Finding: Project Manager — Date 11/6/07

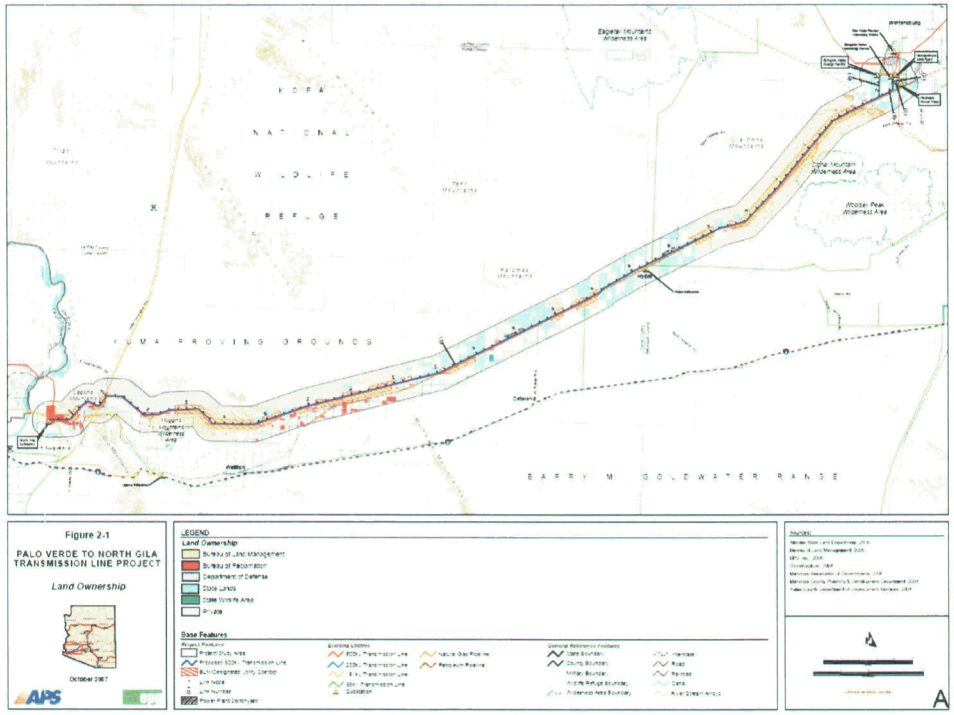
I concur:

Approval of Finding: Field Manager — Date 11/06/07

E

Environmental Studies

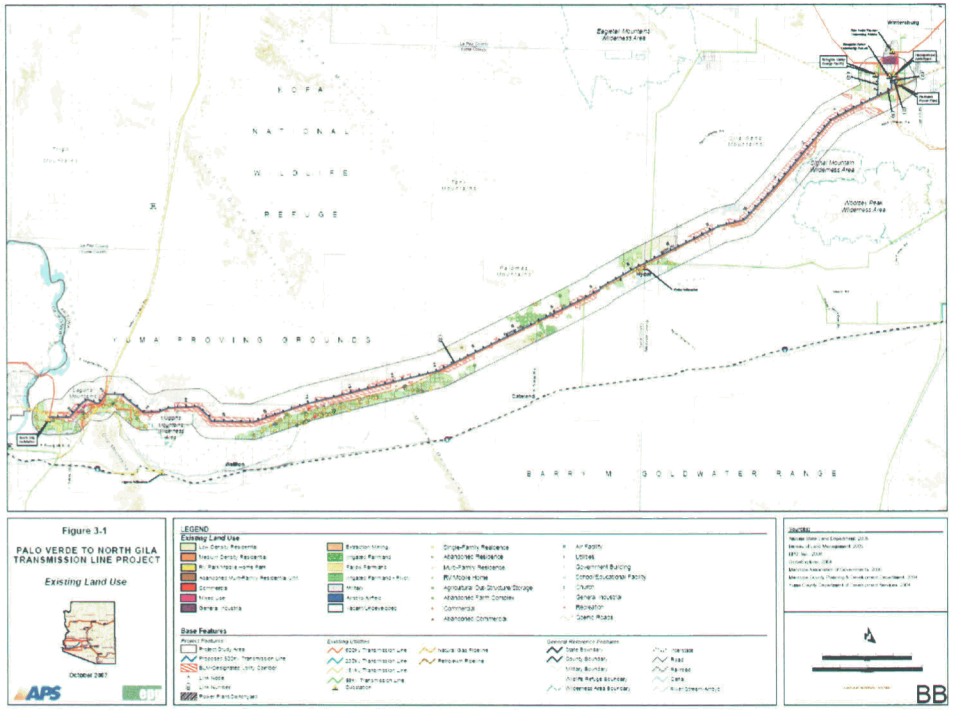
- Land use and recreation
- Biological resources
- Cultural resources
- Visual resources



Land Use Summary

Existing Land Use

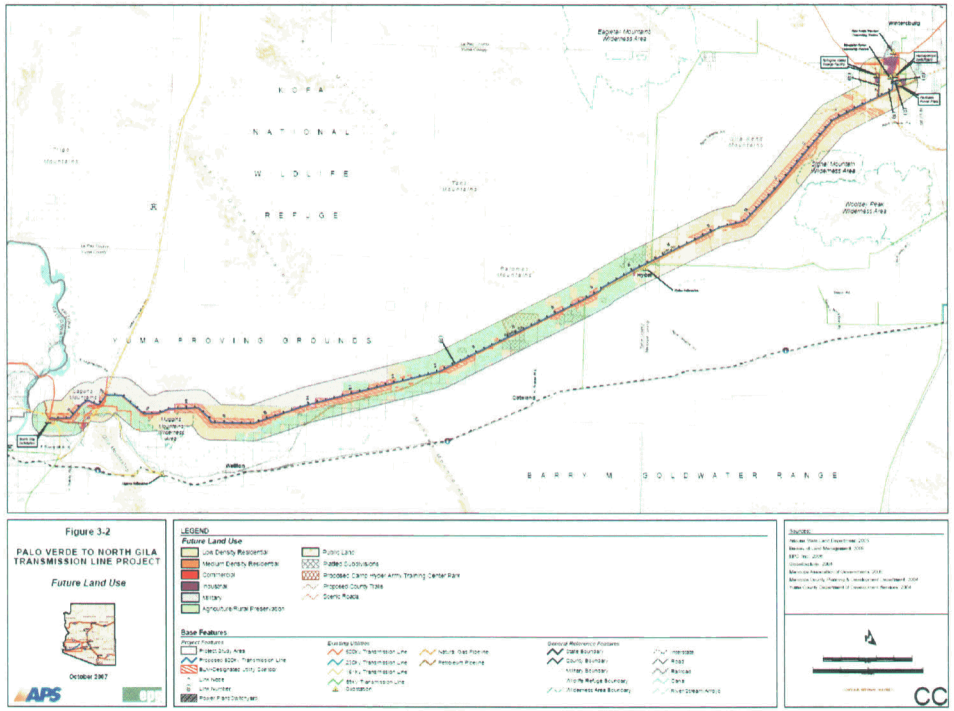
- Conforms with BLM resource management plans
- Primarily located on public land
- Parallels existing linear features for entire length, on north side
- Sparsely populated, primarily undeveloped study area
- Minimal land-use impact
  - 10 residences within ¼ mile, all on south side of existing 500kV transmission line
  - Crosses no more than 2 miles of in-production farmland
  - No impacts to military operations



Land Use Summary

Planned Land Use

- No current master planned developments in the study area
- Minimal impact on planned land uses based on coordination with local land-owners and jurisdictions within the study area



Biological Resources Summary

- Conducted field review and contacted BLM, Arizona Game and Fish Department (AZGFD), and the United States Fish and Wildlife Service (USFWS)
- No adverse effects to Threatened and Endangered species or unique habitats

Biological Resources Summary

- Mitigation
  - Project will comply with current BLM tortoise policy
  - Project will have biological monitors for Desert Tortoise, Gila Monsters, and Burrowing Owls
  - Native plant survey, restoration and reseeding
- Minimal impacts on biological resources

APS

AZGFD letter will be provided when available

Cultural Resources Summary

- A detailed cultural resource study for the project identified 21 archaeological sites that are located within the Area of Potential Effect (APE). Of these, 15 are eligible for listing on the National Register of Historic Places
- Most sites can be avoided through careful positioning of tower locations

Cultural Resources Summary

- In cooperation with the BLM, Bureau of Reclamation (BOR), Arizona State Land Department (ASLD), and the State Historic Preservation Office (SHPO), effects to cultural resources will be mitigated through the development of a Historic Properties Treatment Plan (HPTP)
- Five sites that cannot be avoided by the project will be addressed as part of the HPTP
- Mitigation measures contained in the HPTP will likely include archival research, archaeological excavation, and monitoring during construction

APS

epg

S.H.P.O. 2006-0239 (31496)

October 11, 2007

OCT 15 2007

James Garrison, Arizona State Historic Preservation Officer
Arizona State Parks
1300 W. Washington
Phoenix, Arizona 85007

Dear Mr. Garrison:

The attached letter supersedes our previous letter to you dated October 4, 2007. Please disregard the previous letter. If you have any questions, please let me know. Thank you for your time and consideration.

Sincerely,

Paul Trenter, Project Manager
Environmental Planning Group

cc: Paul Herndon, APS Project Manager

The Bureau of Land Management has taken the lead for Section 106 consultation for this project. We will be consulting with them on the cultural resources survey report and will be addressing their determinations of eligibility and their finding of effect.
Thank you,
Ann G. Howard 11-5-07
for S.H.P.O.

GG

Visual Resources Summary

- BLM Visual Resource Management System used as basis for analysis
- Proposed Route located within BLM-designated utility corridor
- Parallels existing 500kV transmission line
- Proposed Route primarily crosses areas of average to low scenic quality
- Key Observation Points include:
  - Dispersed Residences
  - Travel Routes (Agua Caliente Road, Dome Valley Road, U.S. 95)
  - Recreation

Visual Resources Summary

- Use of mitigation
  - Match existing structure spans
  - Match existing structure types
  - Dulled steel structures and non-specular conductors
  - Use existing access roads
- Virtual Route Tour including photo simulations depict the Proposed Route
- Minimal impacts on visual resources

Visual Simulation Process

- Identify key observation points and obtain photography
- Measure elements in the existing landscape for scaling reference (e.g., transmission structures, terrain, and buildings)
- Create 3-dimensional computer generated models based upon engineering/design drawings (e.g., transmission line, substations, and terrain)
- Integrate computer generated models with photography
- Render models (e.g., add textures and colors) and prepare final simulation

Existing Condition - 500kV single-circuit dull grey steel lattice transmission line crossing Highway 95 within a BLM-designated utility corridor and a 161kV steel H-frame paralleling the highway.

Simulated Condition - Proposed 500kV single-circuit dull grey steel-lattice transmission line crossing Highway 95 within a BLM-designated utility corridor.

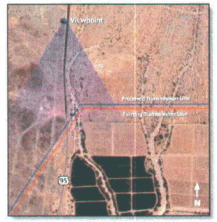


Photo Location: Viewpoint located 1/2 mile from the crossing of U.S. 95, adjacent to the southbound lane of the highway looking south.

Photographic Details:
Date: March 15, 2007
Time: 10:38am
Focal Length: 50mm
Atmospheric Conditions: Clear

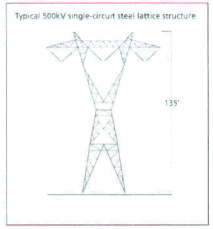


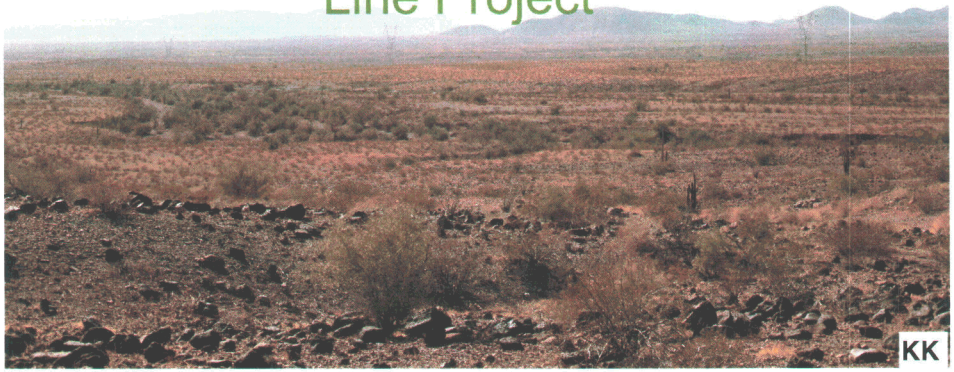
Exhibit G-13
JJ

Virtual Route Tour Process

- Acquire and process aerial imagery and integrate into Google Earth
- Integrate GIS project data into Google Earth
- Verify location of project facilities and points of interest
- Add reference data (e.g., ownership and existing utilities) and formal reference data (e.g., symbols, line weights, colors, and text)
- Render video clips (e.g., flyover, static photos, and visual simulations)
- Produce final Virtual Route tour

APS

Palo Verde Hub to North Gila 500kV Transmission Line Project



KK

Proposed Route is Environmentally Compatible

- Factor 1: Existing plans of the state, local government and private entities for other developments at or in the vicinity of the proposed site.
  - *The Proposed Project does not conflict with relevant federal, state, and local government plans that fall within the study area, and no current developments are planned within the study area*

ARS TITLE PAGE NEXT DOCUMENT PREVIOUS DOCUMENT

40-360.06. Factors to be considered in issuing a certificate of environmental compatibility

A. The committee may approve or deny an application and may impose reasonable conditions upon the issuance of a certificate of environmental compatibility and in so doing shall consider the following factors as a basis for its action with respect to the suitability of either plant or transmission line siting plans:

1. Existing plans of the state, local government and private entities for other developments at or in the vicinity of the proposed site.
2. Fish, wildlife and plant life and associated forms of life upon which they are dependent.
3. Noise emission levels and interference with communication signals.
4. The proposed availability of the site to the public for recreational purposes, consistent with safety considerations and regulations.
5. Existing scenic areas, historic sites and structures or archaeological sites at or in the vicinity of the proposed site.
6. The total environment of the area.
7. The technical practicability of achieving a proposed objective and the previous experience with equipment and methods available for achieving a proposed objective.
8. The estimated cost of the facilities and site as proposed by the applicant and the estimated cost of the facilities and site as recommended by the committee, recognizing that any significant increase in costs represents a potential increase in the cost of electric energy to the customers or the applicant.
9. Any additional factors which require consideration under applicable federal and state laws pertaining to any such site.

B. The committee shall give special consideration to the protection of areas unique because of biological wealth or because they are habitats for rare and endangered species.

C. Notwithstanding any other provision of this article, the committee shall require in all certificates for facilities that the applicant comply with all applicable nuclear radiation standards and air and water pollution control standards and regulations, but shall not require compliance with performance standards other than those established by the agency having primary jurisdiction over a particular pollution source.

LL

Proposed Route is Environmentally Compatible

- Factor 2: Fish, wildlife and plant life and associated forms of life upon which they are dependent. Note: The committee shall give special consideration to the protection of areas unique because of biological wealth or because they are habitats for rare and endangered species.
  - *The Proposed Project does not cross Threatened and Endangered species habitat. Minimal impacts to vegetation and special status species are anticipated because the Proposed Project will use existing access for the majority of the route*

APS

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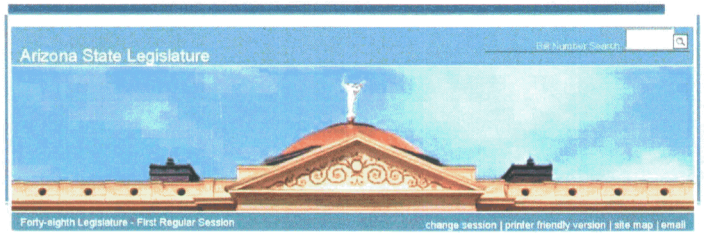
LL

Proposed Route is Environmentally Compatible

- Factor 4: The proposed availability of the site to the public for recreational purposes, consistent with safety considerations and regulations.
  - *The Proposed Project will not limit use of available recreation opportunities in the study area. The Maricopa County Regional Trail system often incorporates transmission line corridors as opportunities for new trails*



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LL

Proposed Route is Environmentally Compatible

- Factor 5: Existing scenic areas, historic sites and structures or archaeological sites at or in the vicinity of the proposed site.
  - *The Proposed Project primarily crosses areas of average to low scenic quality. Isolated residences within ½ mile of the Proposed Project are located south of the existing 500kV transmission line, minimizing impacts to viewers. Effects to cultural sites crossed by the Proposed Project will be mitigated according to the HPTP*

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LL

Proposed Route is Environmentally Compatible

- Factor 6: The total environment of the area.
  - *The Proposed Project is located on public land for over 80% of the route, including 50% that is located within a BLM-designated utility corridor on BLM land. The Proposed Project parallels an existing 500kV transmission line and associated access road throughout the entire route, minimizing impacts to environmental resources*

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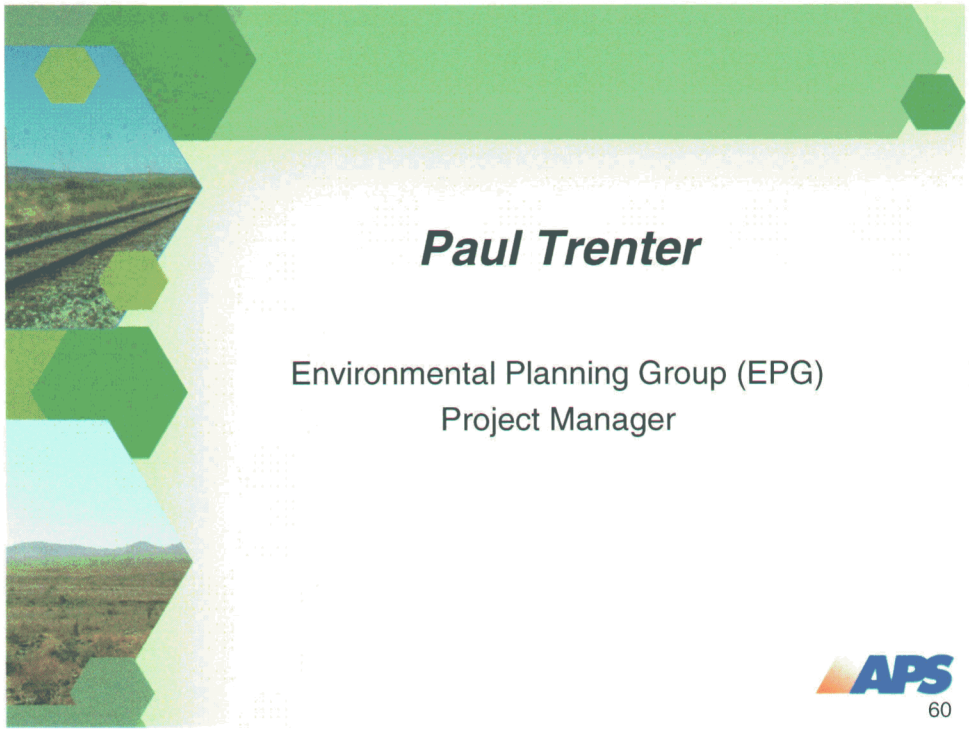
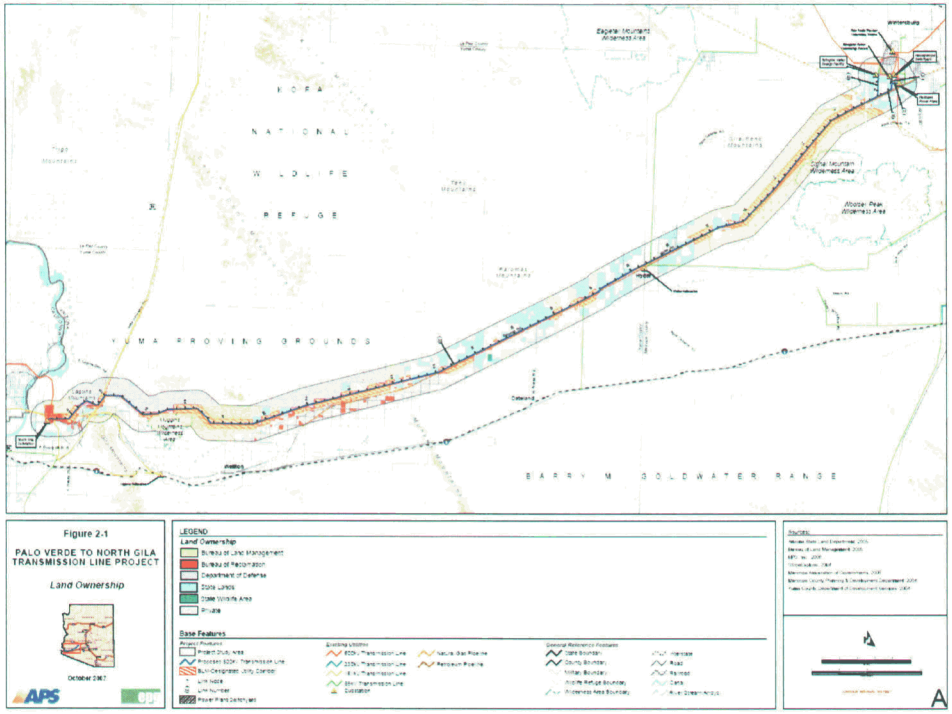


Paul Trenter

Environmental Planning Group (EPG)
Project Manager



2

BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY, IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES § 40-360, *et seq.*, FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE PALO VERDE HUB TO NORTH GILA 500kV TRANSMISSION LINE PROJECT, WHICH INCLUDES A 500kV TRANSMISSION LINE AND ASSOCIATED FACILITIES AND INTER-CONNECTIONS ORIGINATING FROM EITHER THE ARLINGTON VALLEY ENERGY FACILITY, SECTION 17, TOWNSHIP 1 SOUTH, RANGE 6 WEST, G&SRB&M, THE HASSAYAMPA SWITCHYARD, SECTION 15, TOWNSHIP 1 SOUTH, RANGE 6 WEST, G&SRB&M, OR THE REDHAWK POWER PLANT, SECTION 23, TOWNSHIP 1 SOUTH, RANGE 6 WEST, G&SRB&M, EACH LOCATED SOUTH OF INTERSTATE 10 NEAR WINTERSBURG ROAD IN AN UNINCORPORATED AREA OF MARICOPA COUNTY, ARIZONA, TO THE NORTH GILA SUBSTATION, FIVE MILES NORTHEAST OF THE CITY OF YUMA, YUMA COUNTY, ARIZONA, AT SECTION 11, TOWNSHIP 8 SOUTH, RANGE 22 WEST, G&SRB&M	Docket No. L-00000D-07-0566-0135 Case No. 135

CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

Pursuant to notice given as provided by law, the Arizona Power Plant and Transmission Line Siting Committee (the "Committee") held public hearings on November 19 and 20, 2007, all in conformance with the requirements of Arizona Revised Statutes ("A.R.S.") § 40-360, *et seq.*, for the purpose of receiving evidence and

deliberating on the Application of Arizona Public Service Company ("Applicant") for a Certificate of Environmental Compatibility ("Certificate") in the above-captioned case (the "Project").

The following members and designees of members of the Committee were present at one or more of the hearings for the evidentiary presentations and/or for the deliberations:

Laurie Woodall	Chairman, Designee for Arizona Attorney General, Terry Goddard
David L. Eberhart, P.E.	Designee for Chairman, Arizona Corporation Commission
Jack Haenichen	Designee for Director, Energy Department, Arizona Department of Commerce
Paul Rasmussen	Designee for Director, Arizona Department of Environmental Quality
Gregg Houtz	Designee for Director, Arizona Department of Water Resources
Jeff McGuire	Appointed Member
Michael Palmer	Appointed Member
Joy Rich	Appointed Member
A. Wayne Smith	Appointed Member
Michael Whalen	Appointed Member
Barry Wong	Appointed Member

The Applicant was represented by Thomas H. Campbell and Albert H. Acken of Lewis and Roca LLP. The following parties were granted intervention pursuant to A.R.S. § 40-360.05: Commission Staff, represented by Keith Layton and Charles Hains; _____ (add interveners), represented by _____.

At the conclusion of the hearings, the Committee, having received the Application, the appearances of the parties, the evidence, testimony and exhibits presented at the hearings, and being advised of the legal requirements of A.R.S. §§ 40-360 to 40-360.13 upon motion duly made and seconded, voted to grant the Applicant this Certificate of Environmental Compatibility (Case No. 135) for the Project.

The Project consists of approximately 110 miles of 500kV transmission line and required switchyard facilities and modifications. The Project Route (depicted on **Exhibit A** attached hereto) originates at one of the following: the Arlington Valley Energy Facility (Line Siting Case No. 98) located in Section 17, Township 1 South, Range 6 West, the Hassayampa Switchyard (Line Siting Case No. 110) located in Section 15, Township 1 South, Range 6 West, or the Redhawk Power Plant (Line Siting Case No. 95) located in Section 23, Township 1 South, Range 6 West.

If the Project originates at the Arlington Valley Energy Facility, the Project will have a 2,000-foot corridor (shown as Link 40 on **Exhibit A**) 1,000 feet on either side of a centerline, which proceeds east from the Arlington Valley Energy Facility along the southern edge of the north half of the northeast quarter of Section 17, and turns south along the eastern edge of Sections 17, 20, and 29, Township 1 South, Range 6 West G&SRB&M until reaching a common point for all route options, located at the eastern edge of Section 29, Township 1 South, Range 6 West G&SRB&M, 130 feet north of the Southwest Power Link ("SWPL") 500kV transmission line (Line Siting Case No. 52).

If the Project originates at the Hassayampa Switchyard, the Project will have a 2,000-foot corridor (Links 10 and 30) 1,000 feet on either side of the SWPL 500kV transmission line, centerline through Sections 15, 22, 27, and 28, Township 1 South, Range 6 West G&SRB&M, proceeding south to the common point described above.

If the Project originates at the Redhawk Power Plant, the Project will have a 2,000-foot corridor (Link 20) 1,000 feet on either side of the centerline, which proceeds west

from the Redhawk Power Plant along the northern section line of Sections 23 and 22, Township 1 South, Range 6 West G&SRB&M, to the beginning of Link 30, located at the midsection line of Section 22, Township 1 South, Range 6 West G&SRB&M, proceeding south to the common point described above.

All three interconnection options proceed to the beginning of Link 50, described as the common point above. For Link 50, the Project has a 2,000-foot corridor, which begins at the centerline of the existing SWPL 500kV transmission line and extends 2,000 feet north. From this location, the route proceeds generally southwest parallel to the SWPL 500kV transmission line. Link 50 terminates at the existing North Gila Substation located 5 miles northeast of the City of Yuma, in Section 11, Township 8 South, Range 22 West G&SRB&M. Conceptual models of tower types are depicted in Exhibts G-1 through G-8 of the application, attached hereto as **Exhibit B**.

This Certificate is granted upon the following conditions:

1. The Applicant shall obtain all required approvals and permits necessary to construct the Project.
2. The Applicant shall comply with all existing applicable ordinances, master plans and regulations of the State of Arizona, the County of Maricopa, the County of Yuma, the United States, and any other governmental entities having jurisdiction.
3. This authorization to commence construction of the Project shall expire ten years from the date the Certificate is approved by the Arizona Corporation Commission (the "Commission"); provided, however, that prior to such expiration the Applicatant or its assignees may request that the Commission extend this time limitation.
4. The Applicant shall make every reasonable effort to identify and correct, on a case-specific basis, all complaints of interference with radio or television

signals from operation of the transmission line and related facilities addressed in this Certificate. The Applicant shall maintain written records for a period of five years of all complaints of radio or television interference attributable to operation, together with the corrective action taken in response to each complaint. All complaints shall be recorded to include notations on the corrective action taken. Complaints not leading to a specific action of for which there was no resolution shall be noted and explained.

5. The Project shall comply with the following recommendations of the State Historic Preservation Office ("SHPO"):

    (a) [insert from SHPO letter once received]

6. Pursuant to A.R.S. § 41-844, if any archaeological, paleontological or historical site or object that is at least fifty years old is discovered on state, county or municipal land during plan-related activities, the person in charge shall promptly report the discovery to the Director of the Arizona State Museum, and in consultation with the Director, shall immediately take all reasonable steps to secure and maintain the preservation of the discovery. If human remains and/or furnerary objects are encountered on private land during the course of any ground-disturbing activities relating to the development of the subject property, Applicatant shall cease work on the affected area of the Project and notify the Director of the Arizona State Museum pursuant to A.R.S. § 41-865.

7. The Applicant shall design the transmission lines so as to mitigate impacts to raptors.

8. The Applicant shall use non-specular conductor and dulled surfaces for transmission line structures.

9. Within 120 days of the Commission decision granting this Certificate, Applicant will post signs in public rights-of-way giving notice of the Project corridor to the extent authorized by law. Within 45 days of securing easement or right-of-way for the Project, the applicant shall erect and maintain signs providing public notice that the property is the site of a future transmission line. Such signage shall be no smaller than a normal roadway sign. The Applicant shall place signs in prominent locations at reasonable intervals such that the public is notified along the full length of the transmission line until the transmission structures are constructed. The signs shall advise:

   (a) That the site has been approved for the construction of Project facilities;

   (b) The expected date of completion of the Project facilities; and

   (c) A phone number for public information regarding the Project.

   (d) The name of the Project;

   (e) The name of the Applicant; and

   (f) The Applicant's website.

   Sign placement will be reported annually in accordance with Condition 19.

10. In the event that the Project requires an extension of the term of this Certificate prior to completion of construction, Applicant shall use reasonable means to directly notify all landowners and residents within a one-half mile of the Project corridor for which the extension is sought. Such landowners and residents shall be notified of the time and place of the proceeding in which the Commission shall consider such request for extension.

11. Before construction on this Project may commence, the Applicant must file a Plan of Development approved by the Bureau of Land Management ("BLM") with Docket Control with copies to the affected areas of jurisdiction. Applicant will comply with the BLM's Standard Construction and Operating Procedures and Mitigation Measures, attached hereto as **Exhibit C**.

12. Applicant shall retain a qualified biologist to monitor all ground clearing/disturbing construction activities that may affect sensitive species or habitat. The biological monitor will be responsible for ensuring proper actions are taken if a special status species is encountered. If Sonoran desert tortoises are encountered during construction, the Applicant shall follow the Arizona Game & Fish Department's ("AGFD") Guidelines for Handling Sonoran Desert Tortoises.

13. With respect to the Project, Applicant shall participate in good faith in state and regional transmission study forums to coordinate transmission expansion plans related to the Project and to resolve transmission constraints in a timely manner.

14. The Applicant shall provide copies of this Certificate to the Yuma County Planning and Zoning Commission, the Maricopa County Planning and Development Department, the Arizona State Land Department, SHPO, and AGFD.

15. Prior to the date this transmission line is put into commercial service, the Applicant shall provide homebuilders and developers within one mile of the center line of the certificate route the identity, location, and a pictorial depiction of the type of power line being constructed, accompanied by a written description, and encourage the developers and homebuilders to

include this information in the developers' and homebuilders' homeowners' disclosure statements.

16. The Applicant shall submit a self-certification letter annually, identifying progess made with respect to each condition contained in the Certificate, including which conditions have been met. Each letter shall be submitted to the Utilities Division Director on December 1 beginning in 2008. Attached to each certification letter shall be documentation explaining how compliance with each condition was achieved. Copies of each letter along with the corresponding documentation shall be submitted to the Arizona Attorney General and Department of Commerce Energy Office. The requirement for the self-certification shall expire on the date the Project is placed into operation.

THE ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE

_____

Laurie A. Woodall, Chairman

3

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PALO VERDE HUB TO NORTH GILA 500kV TRANSMISSION LINE PROJECT

The public is invited to participate at a public hearing before the Arizona Power Plant and Transmission Line Siting Committee

Monday, November 19, 2007, and Tuesday, November 20, 2007

Starting at 9:00 a.m.

Hampton Inn and Suites

1600 East 16th Street

Yuma, Arizona 85365

If you are unable to attend the public hearings, please visit our Web site at siting.aps.com or call (888) 206-6166 for more information.

PALO VERDE HUB TO NORTH GILA 500kV TRANSMISSION LINE PROJECT

November 2007 • Issue 2

Project Update

This newsletter provides you with updates on the progress of the Palo Verde Hub to North Gila 500 kilovolt (kV) Transmission Line Project. In a prior newsletter (Issue 1, dated February 2006), APS provided information on a proposed transmission line route and facilities to meet future power demands in the greater Yuma area. The newsletter also discussed the federal and state requirements to obtain approval for the project. A copy of the February 2006 newsletter can be found on the project Web site (siting.aps.com), under Current Siting Projects, Palo Verde Hub to North Gila.

Project Description

The proposed transmission line will begin at the Palo Verde Hub at either the Arlington Valley Energy Facility, the Hassayampa Switchyard or the Redhawk Power Plant and will proceed southwest for approximately 110 miles on the north side of the existing Southwest Powerlink (SWPL) 500kV transmission line. The proposed route will terminate at the North Gila Substation, five miles northeast of Yuma, Ariz.

Federal Process

Under the direction of the Bureau of Land Management (BLM) Lower Sonoran Field Office, an Environmental Assessment (EA) for the project has been prepared. An EA report describes the project and potential impacts the project may have on the environment. The analysis was required because the majority of the proposed transmission line will be located on federal lands within a designated utility corridor. APS retained an environmental consulting firm, the Environmental Planning Group (EPG), based in Phoenix, to conduct the required environmental analysis of the project.

In preparing the EA, EPG reviewed alternatives studied during previous siting studies in this area, including the Environmental Impact Statement (EIS) prepared for the SWPL 500kV transmission

The APS Siting Team would like to thank members of the public for their participation in this project. We appreciate the time taken by those who attended the open houses held at the Dateland School and Arizona Western College on March 1 and 2, 2006. We value the input we received at the open houses, by phone, project Web site, e-mail and mail. All comments have been documented, reviewed and considered during the development of this project.

We look forward to the completion of this project to ensure our continued ability to provide affordable, safe and reliable electric service.

-Paul Herndon, APS Project Manager

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APS

For more information, please visit the project Web site at siting.aps.com

line. Approximately 550 miles of alternative corridors were considered. Based on secondary data collected as well as a recommendation from the BLM, the proposed route was selected. A detailed inventory, including site visits, was conducted for the study area, which was defined as a four-mile-wide corridor (two miles on each side of the proposed route). The inventory included land-use, cultural, biological, earth and water and visual resources. Based on the results of the inventory, impacts from the proposed project were assessed and appropriate mitigation was planned. Impacts from the proposed project are minimized because the proposed route is parallel to the existing SWPL 500kV transmission line and railroad. This route is also within a BLM-designated utility corridor on BLM land where APS will be able to use existing access roads for construction along nearly the entire route.

The proposed route crosses public land for 88 miles, or 80 percent, of the 110-mile route.

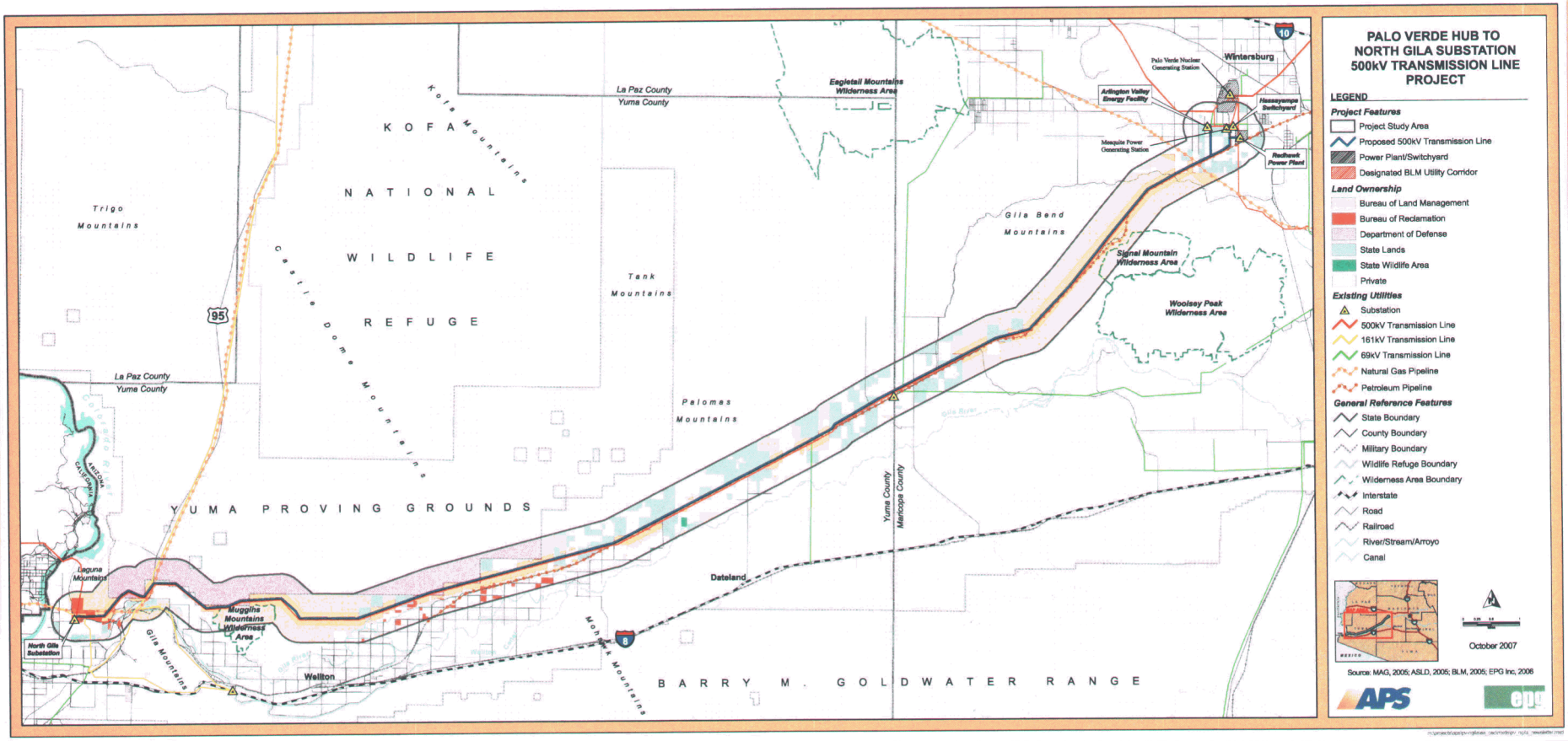
Using the information identified by the impact assessment, the EA was prepared and reviewed by the BLM, along with a separate detailed cultural resources report. The BLM will prepare a Decision Record to announce their approval of the project as proposed with the stated mitigation. The BLM must issue a Decision Record for the project to proceed.

State Process

In addition to the federal process, the State of Arizona also must approve the project before it can be constructed. To meet state permitting requirements, APS filed an application for a Certificate of Environmental Compatibility (CEC) for the project on October 3rd. The CEC is a document prepared to demonstrate that the project is environmentally compatible. It also contains information on the project need and cost and summarizes the public involvement activity for the project. APS has identified three different interconnection locations, as listed in the Project Description, in the CEC application in order to provide the Arizona Power Plant and Transmission Line Siting Committee (Siting Committee) with additional options for the interconnection of the proposed transmission line route. The three interconnection options all come together and follow a common route to the North Gila Substation. All interconnection options have been evaluated as part of the federal process.

The Siting Committee will hold public hearings on the project. The Siting Committee will vote to approve or deny the CEC and will forward its decision as a recommendation to the Arizona Corporation Commission (ACC). The Siting Committee will hold public hearings on November 19th and 20th, starting at 9a.m. at the Hampton Inn and Suites in Yuma, to consider the CEC application. The date and location of the public hearings have been posted in local newspapers, on signs along the route and on the project web site.

For general information on line siting in Arizona, view the Siting Committee's Web site at: http://www.cc.state.az.us/utility/electric/linesiting-faqs.htm.



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PROYECTO DE TRANSMISIÓN DE 500 KILOVOLTIOS (KV) DE LA ESTACIÓN PALO VERDE A NORTH GILA

Se invita a toda la comunidad a participar en la audiencia pública ante el Comité de Localización de Líneas de Transmisión y la Planta de Energía de Arizona

19 y 20 de Noviembre, 2007

Comienza en 9 mañanas

Hampton Inn and Suites

1600 East 16th Street

Yuma, Arizona 85365

Si no está en condiciones de asistir a una de nuestras audiencias públicas, por favor visite nuestro sitio electrónico, siting.aps.com o llame al (888) 206-6166 para más información.

PROYECTO DE TRANSMISIÓN DE 500 KILOVOLTIOS (KV) DE LA ESTACIÓN PALO VERDE A NORTH GILA

Noviembre 2007 • Edición 2

Lo más nuevo sobre el proyecto

Este boletín informativo tiene la intención de ponerlo al tanto sobre el progreso del Proyecto de Transmisión de 500 kilovoltios (kV) de la Estación Palo Verde a North Gila. En un boletín informativo anterior (Edición 1, con fecha de febrero de 2006), APS dio a conocer información sobre la ruta de la línea y las instalaciones propuestas para cumplir con la futura demanda de electricidad en el área metropolitana de Yuma. En el boletín informativo también se habló de los requisitos estatales y federales necesarios para obtener la autorización del proyecto. Puede encontrar una copia del boletín informativo de febrero de 2006 en el sitio electrónico del proyecto (siting.aps.com), bajo Proyectos actuales, Estación Palo Verde a North Gila.

Descripción del proyecto

La línea de transmisión propuesta se iniciará en la Estación Palo Verde, ya sea en la instalación de energía de Arlington Valley, en el patio de distribución Hassayampa o en la planta de energía Redhawk; de ahí correrá hacia el suroeste aproximadamente 110 millas, al norte de la línea de transmisión existente Southwest Powerlink (SWPL) de 500kV. La ruta propuesta terminará en la Subestación North Gila, a cinco millas al noreste de Yuma, Arizona.

Proceso federal

Bajo la dirección de las oficinas: Bureau of Land Management (BLM) y Lower Sonoran Field Office, se ha preparado una Valoración Ambiental (EA). El reporte ambiental describe el proyecto y sus posibles impactos en el medio ambiente. El análisis fue necesario debido a que la mayor parte de la línea de transmisión propuesta atravesará terrenos federales, localizados dentro de un corredor de servicios designado. APS contrató a una firma de consultoría en medio ambiente, Environmental Planning Group (EPG), con base en Phoenix, para conducir el requerido análisis ambiental del proyecto.

APS desea agradecer a los miembros del público su participación en este proyecto. Apreciamos el tiempo que han dedicado para asistir a las reuniones comunitarias realizadas en la escuela Dateland y en el Colegio Arizona Western, los días 1 y 2 de marzo de 2006. Valoramos las opiniones recibidas en las reuniones comunitarias, por teléfono, en la página de Internet del proyecto, por correo electrónico y por correo. Todos los comentarios se documentan, revisan y consideran durante el desarrollo de este proyecto.

Esperamos la conclusión de este proyecto para garantizar nuestra continua capacidad de ofrecer un servicio eléctrico accesible, seguro y confiable.

-Paul Herndon,
Gerente del Proyecto de APS

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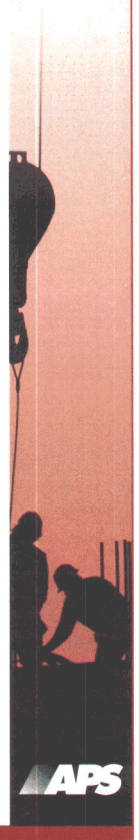

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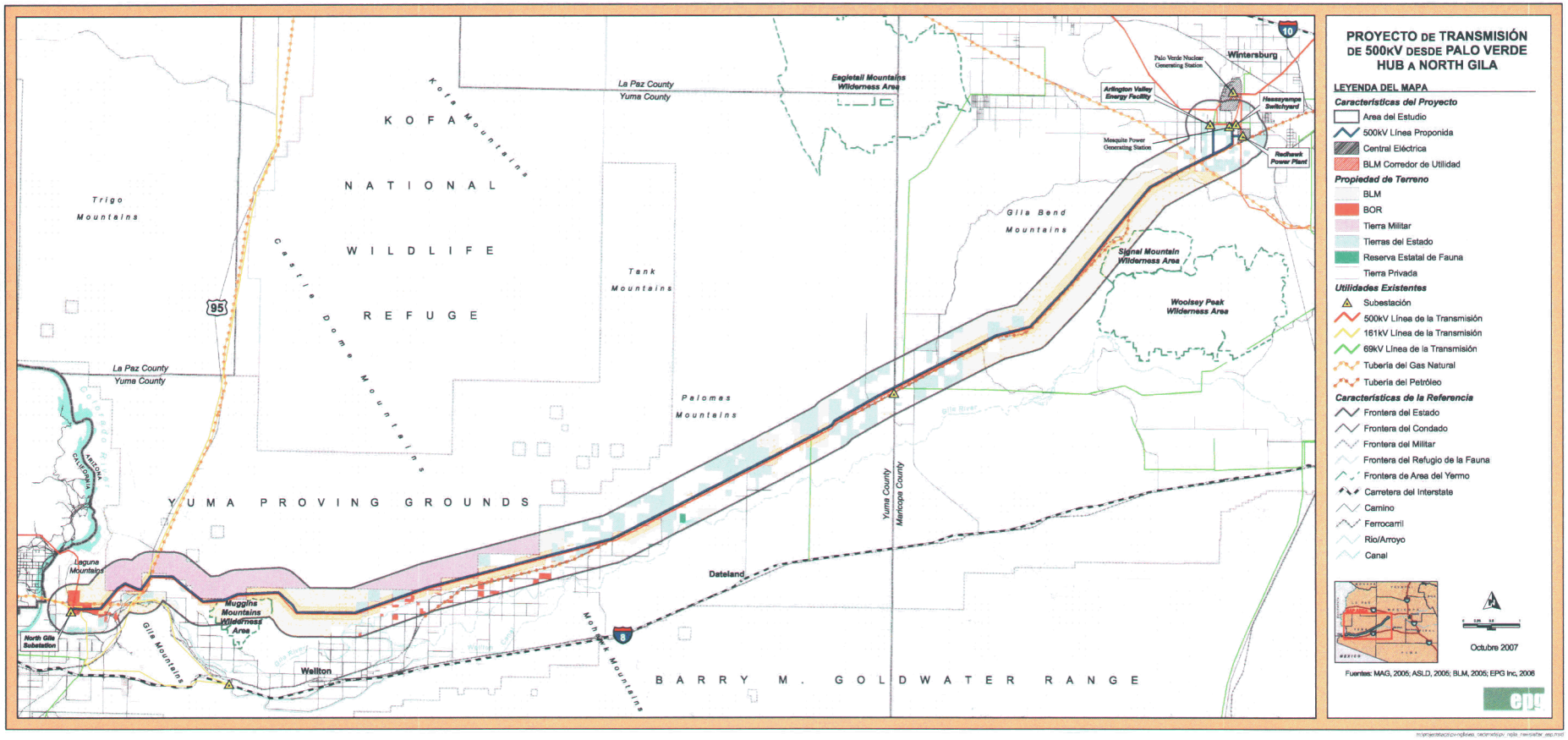
En preparación para la Valoración Ambiental (EA), la firma EPG revisó alternativas estudiadas durante estudios de localización previos en esta área, incluyendo la Declaración de Impacto Ambiental (EIS), preparada para la línea de transmisión SWPL de 500kV. Se tomaron en consideración aproximadamente 550 millas de corredores alternativos. Con base en la información secundaria recopilada, lo mismo que la recomendación de la oficina BLM, la ruta propuesta fue seleccionada como una alternativa final. Para el área de estudio se condujo un inventario en detalle, que incluyó visitas al sitio. Esta área se definió como un corredor de cuatro millas de ancho (dos millas de cada lado de la ruta propuesta). El inventario incluyó usos de la tierra, recursos culturales, biológicos, visuales, de la tierra y del agua. Segun los resultados del inventario, se valoró el impacto del proyecto propuesto y se planificaron métodos apropiados de mitigación. El impacto del proyecto propuesto se ha minimizado debido a que la ruta propuesta es paralela a la existente ruta de ferrocarril y línea de transmisión SWPL de 500kV. Esta ruta también se encuentra dentro del corredor de servicios designado por la oficina BLM en terrenos de BLM en donde APS estará en condiciones de utilizar los caminos de acceso existentes para construcción a lo largo de casi toda la ruta. La ruta propuesta cruza 88 millas de terrenos públicos, es decir, 80 por ciento de la ruta de 110 millas propuesta.

Utilizando la información identificada por la valoración de impacto ambiental, la oficina BLM preparó y revisó la EA, junto con un reporte de recursos culturales en detalle por separado. La BLM preparará un Registro sobre la Decisión para anunciar la aprobación del proyecto, tal y como se propuso en la declaración de mitigación. La oficina BLM debe emitir un Registro sobre la Decisión para que el proyecto pueda seguir adelante.

Proceso estatal

Además del proceso federal, el estado de Arizona también debe aprobar el proyecto antes de que se construya. Para cumplir con los permisos estatales requeridos, APS preparó una solicitud para obtener un Certificado de Compatibilidad Ambiental (CEC) para el proyecto del octubre el 3. El CEC es un documento que se prepara para demostrar que el proyecto es compatible con el medio ambiente. También incluye información sobre el propósito y necesidad del proyecto propuesto, descripción y costos y un resumen las actividades de participación pública relacionadas con este proyecto. APS ha identificado tres diferentes ubicaciones de interconexión, tal y como se mencionan en la descripción del proyecto, en la solicitud del CEC, para poder dar al Comité de Localización de líneas de Transmisión y Plantas de Energía de Arizona, opciones adicionales de interconexión de la ruta de la línea de transmisión propuesta. Las tres opciones de interconexión vienen juntas y siguen una ruta común a la Subestación North Gila. Como parte del proceso federal, se han evaluado todas las opciones de interconexión.

El Comité de Localización sostendrá audiencias públicas sobre el proyecto. Los miembros del comité votarán para aprobar o negar el CEC y enviarán su decisión, a manera de recomendación, a la Comisión de Corporaciones de Arizona (ACC). El Comité de Localización llevará a cabo audiencias públicas a partir de noviembre el 19 y 20, comenzando en 9 mañanas en las Hampton Inn and Suites en Yuma para considerar la solicitud del CEC. Las fechas y lugares de las audiencias públicas han sido anunciadas en periódicos locales, letreros a lo largo de la ruta y en el sitio electrónico del proyecto.



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In September 2007, letters were sent to the individuals listed in Table S-1 to provide project information and to request additional information on planned developments as necessary. A sample letter is included in this section as well as all project correspondence received from Table S-1 letter recipients throughout the duration of the project.

TABLE S-1
LETTER RECIPIENTS

Contact Name and Title	Jurisdiction/Agency
Kevin Harper Field Office Manager	Bureau of Land Management, Lower Sonoran Field Office
Becky Heick Field Manager	Bureau of Land Management, Yuma Field Office
Ron Moulton Restructuring and Transmission Planning Manager	Western Area Power Administration
Jim Adams Rights-of-Way Director	Arizona State Lands Department
Charlene FitzGerald Planning Manager	Arizona Department of Transportation
Matt Holm Principle Planner	Maricopa County Planning Department
Eric Anderson	Maricopa Association of Governments
Michael W. Sabatini Planning Division Manager	Maricopa County Department of Transportation
William C. Scalzo Director	Maricopa County Parks and Recreation
Timothy Phillips General Manager	Maricopa County Flood Control District
Monty Stansbury Planning Director	Yuma County Planning Department
F.M. "Mack" Luckie Executive Director	Yuma Metropolitan Planning Organization
William Beck Public Works Director	Yuma County Public Works
Don Pope Manager	Yuma County Waters Users Association
James Rhodes District Manager	Yuma Mesa Irrigation District
Charles Slocum General Manager	Wellton-Mohawk Irrigation and Drainage District
Wade Noble Attorney	North Gila Valley Irrigation and Drainage District
Lorne Froats President	Hyder Valley Irrigation and Water Delivery District
Rex Green General Manager	Yuma Irrigation District

TABLE S-1 LETTER RECIPIENTS	
Gary L. Rinehart Town Manager	Town of Wellton
Chris Peterson Director, Government Affairs	Union Pacific Railroad
Whitewing Ranch	Whitewing Ranch
Jack Mccaffery	Kinder Morgan

4141 NORTH 32nd STREET
SUITE 102
PHOENIX, ARIZONA 85018
602 956-4370
602 956-4374
www.epgaz.com

September 13, 2007

Kevin Harper, Field Office Manager
BLM - Phoenix District
Lower Sonoran Field Office
21605 N. 7th Avenue
Phoenix, Arizona 85027-2099

Dear Mr. Harper:

Arizona Public Service Company (APS) plans to file an Application for a Certificate of Environmental Compatibility (CEC) for the Palo Verde Hub to North Gila 500kV (kilovolt) Transmission Project with the Arizona Power Plant and Transmission Line Siting Committee (Siting Committee) in October 2007. The proposed project is needed to support the increased development and growth, occurring and anticipated, in the Yuma Region. The project will strengthen the entire Yuma area transmission system by providing an additional electrical transmission source to the region. This project primarily involves a single-circuit 500kV electric transmission line and upgrades to two existing switchyards (see attached map). The project is designed to interconnect at one of three sites at the Palo Verde Hub and proceed southwest where the project will interconnect with APS' existing North Gila Substation, northeast of Yuma, Arizona. The proposed route parallels an existing 500kV transmission line for the entire length of the project and will be located on the north side of the existing line, within a Bureau of Land Management (BLM) designated utility corridor on BLM land (see attached map). APS will request Siting Committee approval for a CEC for the route as it has been determined as being environmentally compatible and would adequately address the project need.

Arizona Administrative Code Rule R14-2-219 directs an applicant to include in its Application an Exhibit H addressing the following:

"To the extent the applicant is able to determine, state the existing plans of the State, local government and private entities for other developments at or in the vicinity of the proposed site or routes."

This letter is a request for any information or comments that your organization wishes to provide regarding development plans for inclusion in the Application. Specifically, please advise me of any existing or future plans that may have changed since the completion of our data collection efforts in November 2006.

To allow your information to be included in the Application, please forward it to me no later than Friday, September 28th, at the address above.

Thank you for your cooperation.

Sincerely,

Paul J. Trenter, Project Manager
Environmental Planning Group

cc: Paul Herndon, APS Project Manager

September 28, 2007
2471-36

DATE RECEIVED 10/9/07

Mr. Paul J. Trenter, Project Manager
Environmental Planning Group
EPG
4141 North 32nd Street, Suite 102
Phoeniz AZ 85018

RE: The Palo Verde Hub to North Gila 500kv Transmission Project

Dear Mr. Trentor:

Union Pacific Railroad Company (Railroad Company) is in receipt of your September 13, 2007 letter notifying it of Arizona Public Service Company's intent to file an application for a Certificate of Environmental Compatibility for the Palo Verde Hub to North Gila 500kv Transmission Project. Information contained in your letter is insufficient to determine the proximity of this project to Railroad Company operations or if Railroad Company property is involved. It is critical that the Railroad Company understand what the proximity is, as the size and distance of this proposed line could have very serious and far reaching affects on Railroad Company operations and the safety of any persons on its right-of-way. For that reason, the Railroad Company must express its immediate concern and advise that professional studies may be necessary to determine the compatibility of the proposed facilities with Railroad operations.

If the line is expected to cross Railroad Company right-of-way, please be advised that any crossing with utility lines must be done in conformance with Railroad Company engineering and safety requirements in accordance with Railroad Company procedures and fees. The information and application forms concerning these, and in particular forms and specifications for wire line crossings, can be found on line at Web pages beginning with http://www.uprr.com/reus/pipeline/install.shtml. Crossings meeting Railroad Company requirements are routinely approved by the Railroad Company.

If for some reason parallel occupancy of Railroad Company right-of-way is contemplated however, a much different level of scrutiny must be undertaken by the Railroad Company due to the potential the line has for creating serious safety hazards, signal interference and capacity conflicts for Railroad Company projects. If this type of use of Railroad Company rights-of-way is contemplated, it **must** be critically evaluated by the Railroad Company in accordance with the formal application procedures found beginning on Web page http://www.uprr.com/reus/encroach/procedur.shtml. Please note that Railroad approval for this type of use of its rights-of-way in the area for this project **is not likely.**

Real Estate

UNION PACIFIC RAILROAD
1400 Douglas Street, Stop 1690
Omaha, Nebraska 68179-1690
fx. (402) 501-0340

Please add me to your mailing list and call me at (402) 544-8572 if you have any questions.

Sincerely,

Greg L. Pinker
Director – Contracts

CC via e-mail: Ms. Christine Smith – Union Pacific Railroad Company, Omaha, NE
Mr. Tom Ogee - Union Pacific Railroad Company, Omaha, NE
Mr. John Hovanec– Union Pacific Railroad Company, Omaha, NE
Mr. Mike Heald – Union Pacific Railroad Company, Omaha, NE
Mr. Gerard Sullivan – Union Pacific Railroad Company, Omaha, NE
Mr. Tim Beringer – Union Pacific Railroad Company, Omaha, NE
Mrs. Eilis Miller - Union Pacific Railroad Company, Omaha, NE

YUMA MESA IRRIGATION AND DRAINAGE DISTRICT
COUNTY 14½ AND 4TH AVENUE • 14329 SO. 4TH AVENUE EXT.
YUMA, ARIZONA 85365
(928) 726-4353 • FAX (928) 726-9618

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N.W. "BILL" PLUMMER
MANAGER-SECRETARY
A. JAMES CLARK
ATTORNEY
(928) 783-6233

September 14, 2007

Mr. Paul Trenter
Environmental Planning Group
epg
4141 North 32nd St. Ste 102
Phoenix, AZ 85018

Dear Mr. Trenter:

In response to your letter of September 13, 2007, the Yuma Mesa Irrigation and Drainage District has no comments on the APS proposed 500 kV transmission line from Palo Verde Hub to North Gila Substation.

Please note the change in District managers below.

Sincerely,

N. W. Plummer
Manager

APS

Paul E. Herndon
Facility Siting
Project Manager

Tel. 623-932-6729
Fax 623-932-6624
e-mail Paul.Herndon@APS.com

Mail Station 4609
PO Box 53933
Phoenix, Arizona 85072-3933

Tuesday, October 9, 2007

Colonel John R. Bullington
US Army
Commander, Yuma Proving Grounds
310 C. Street
Building 2105
Yuma, AZ 85365-9498

Colonel Bullington,

It was a pleasure to again meet with you and your staff on September 27, 2007. Thank you for taking the time to allow us to update you and your staff on our proposed Palo Verde Hub to North Gila Substation 500kV Transmission Line Project.

As discussed in the meeting, APS plans to construct the line no further north than 500 feet from the existing transmission line on YPG land, with a single exception west of Highway 95 where the conductor portion of the line will be approximately 570 feet from the existing line. No new structures are planned to be outside the 500 foot boundary. As discussed, terrain and engineering issues have created the need for this exception, and we appreciate your flexibility and understanding in this circumstance. Per the discussion at the meeting, APS understands that YPG does not have any operational conflicts with the project including the 570 foot exception.

APS appreciates the working relationship we have with the YPG, and your cooperation and support. If you or your staff has any questions or comments regarding this matter or this correspondence, please contact me at 623-932-6729 or by electronic e-mail at paul.herndon@aps.com. Thanks again for your consideration and help.

Respectively submitted,

Paul Herndon

Paul Herndon
Project Manager
Transmission and Facility Siting

Cc: Jim Marler

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October 11, 2007

Ginger Ritter, Project Evaluation Specialist
Arizona Game and Fish Department
2221 W. Greenway Road
Phoenix, Arizona 85023

Dear Ms. Ritter:

EPG is submitting to you one copy of the APS Palo Verde Hub to North Gila Substation 500kV Transmission Line Project application for a Certificate of Environmental Compatibility (CEC) for your review. The Arizona Corporation Commission State Power Plant and Line Siting Committee ("Committee") will hold hearings on the application beginning November 19 and 20, 2007, in Yuma, Arizona. During those hearings, APS would like to provide the Committee with any written comments you might have concerning Exhibits C and D of the CEC application.

The project involves the construction of a 500 kilovolt transmission line from the Palo Verde Hub near Wintersburg to the North Gila Substation, northeast of Yuma, Arizona. The project crosses Bureau of Land Management (BLM), Yuma Proving Grounds, Bureau of Reclamation, Arizona State Trust, and private land.

The project included the preparation of an environmental assessment (EA), which is included in the CEC application as Exhibit B-1. The EA was prepared on behalf of the BLM, Lower Sonoran Field Office. As part of the EA, biological resources within the study area were inventoried and evaluated, and impacts and appropriate mitigation measures were outlined. Arizona Game and Fish was consulted on the project.

Thank you for you assistance in this matter.

Sincerely,

Paul Trenter, Project Manager
Environmental Planning Group

cc: Paul Herndon, APS Project Manager

Enclosure

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October 11, 2007

James Garrison, Arizona State Historic Preservation Officer
Arizona State Parks
1300 W. Washington
Phoenix, AZ 85007

Dear Mr. Garrison:

EPG is submitting to you one copy of the APS Palo Verde Hub to North Gila Substation 500kV Transmission Line Project application for a Certificate of Environmental Compatibility (CEC) for your review. The Arizona Corporation Commission State Power Plant and Line Siting Committee ("Committee") will hold hearings on the application beginning November 19 and 20, 2007, in Yuma, Arizona. During those hearings, APS would like to provide the Committee with any written comments you might have concerning Exhibit E of the CEC application.

The project involves the construction of a 500 kilovolt transmission line from the Palo Verde Hub near Wintersburg to the North Gila Substation, northeast of Yuma, Arizona. The project crosses Bureau of Land Management (BLM), Yuma Proving Grounds, Bureau of Reclamation, Arizona State Trust, and private land.

The project included the preparation of an environmental assessment (EA), which is included in the CEC application as Exhibit B-1. The EA was prepared on behalf of the BLM, Lower Sonoran Field Office. As part of the EA, a cultural resource report was prepared, and was reviewed by Cheryl Blanchard of the BLM, and has been recently submitted to your office for review.

Thank you for you assistance in this matter.

Sincerely,

Paul Trenter, Project Manager
Environmental Planning Group

cc: Paul Herndon, APS Project Manager

Enclosure

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S.H.P.O.- 2006-0239 (34486)

October 11, 2007

OCT 15 2007

James Garrison, Arizona State Historic Preservation Officer
Arizona State Parks
1300 W. Washington
Phoenix, Arizona 85007

Dear Mr. Garrison:

The attached letter supersedes our previous letter to you dated October 4, 2007. Please disregard the previous letter. If you have any questions, please let me know. Thank you for your time and consideration.

Sincerely,

Paul Trenter, Project Manager
Environmental Planning Group

cc: Paul Herndon, APS Project Manager

The Bureau of Land Management has taken the lead for Section 106 consultation for this project. We will be consulting with them on the cultural resources survey report and will be addressing their determination of eligibility and their finding of effect.
Thank you,
Ann V. Howard 11-5-07
for S.H.P.O.

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FINDING OF NO SIGNIFICANT IMPACT

Name of Environmental Assessment: Palo Verde Hub to North Gila Substation
Environmental Assessment No.: AZ-220-2006-008
Case File No: AZA-33305
Bureau of Land Management Office: Phoenix District, Lower Sonoran Field Office

Finding of No Significant Impact: Upon review of the Environmental Assessment (EA) prepared for the above-named project and incorporated herein by reference, no significant long-term impacts on the human (socioeconomic) or natural environment would result. Short-term, temporary impacts on soils, water resources, biological resources, cultural resources, air quality, noise, and land use associated with construction activities of the proposed transmission line were identified which could be reduced by mitigation, and therefore are not considered significant. Long-term impacts on scenic quality were considered low to moderate, while the potential for long-term residual collision hazard for birds was considered low.

Recommendation: Grant a right-of-way to Arizona Public Service Company (APS) for construction, operation, and maintenance of a 500 kilovolt (kV) transmission line. The transmission line would originate from the Palo Verde Hub (PV Hub) at either an open transmission interconnection position in the Arlington Energy Facility, the Hassayampa Switchyard, or the Redhawk Power Plant. The transmission line would be constructed primarily with lattice tower structures paralleling the existing Southwest Power Link 500 kV Transmission line (SWPL) and connect into the North Gila Substation in Yuma, Arizona. The proposed right-of-way would be 200 feet wide, approximately 110 to 130 miles in length, of which approximately 55 miles would be located on Bureau of Land Management (BLM) administered lands. APS would implement the recommended Standard Operating Procedures and Mitigation Measures listed in Attachment A. The transmission line would be owned by APS and operated by APS and other project proponents.

Stipulations: APS is to implement the recommended Standard Operating Procedures and Mitigation Measures listed in Attachment A. Compliance with stipulations and mitigation measures will be monitored during project implementation. BLM issuance of the right-of-way grant is conditional upon APS obtaining all other federal, state, and local permits required to construct and operate the transmission line. APS is required to obtain the required Certificate of Environmental Compatibility from the Arizona Corporation Commission. The BLM has fulfilled requirements in accordance with the Section 106 process regarding cultural resource issues and requirements regarding biological resource issues.

Rationale: The EA for the Proposed Action has been prepared in accordance with National Environmental Policy Act (NEPA) requirements, including the public involvement procedures prescribed by 40 CFR §1506.6. The project design and mitigation measures proposed in the EA are integral to the Proposed Action and would reduce short-term and long-term environmental impacts to a level of insignificance. Issuance of right-of-way grant AZA-33305 to APS for the construction, operation, and maintenance of an electric transmission line is consistent with the Lower Gila South Resource Management Plan (BLM, 1988) which defines land uses along the San Diego Gas and Electric utility corridor and the Yuma District Resource Management Plan (BLM, 1986 and 1987) which defines uses along the Interconnection utility corridor.

Recommendation of Finding: _____ Project Manager — Date 11/6/07

I concur:

Approval of Finding: _____ Field Manager — Date 11/06/07

DECISION RECORD

Serial No.: AZA-33305
EA No.: AZ-220-2006-008

Decision:

It is decided that Arizona Public Service Company (APS) be granted a right-of-way by the Bureau of Land Management (BLM) 200 feet wide, approximately 110 to 130 miles in length, approximately 1600 acres (across lands managed by the BLM, Bureau of Reclamation and the Yuma Proving Ground), including the rights to design, construct, operate, maintain and own a 500 kilovolt (kV) electric transmission line.

The transmission line would originate from the Palo Verde Hub (PV Hub) at either an open transmission interconnection position in the Arlington Energy Facility, the Hassayampa Switchyard or the Redhawk Power Plant. The transmission line would be constructed primarily with lattice tower structures paralleling the existing Southwest Power Link 500 kV Transmission line (SWPL) and connect into the North Gila Substation in Yuma, Arizona.

Rationale for Decision:

The Proposed Action is consistent with the current Lower Gila South Resource Management Plan (BLM, 1988) which defines land uses along the San Diego Gas and Electric utility corridor and the Yuma District Resource Management Plan (BLM, 1986 and 1987) which defines uses along the Interconnection utility corridor.

The Proposed Action will provide needed electrical power to the continuing development and growth occurring and anticipated in the Yuma region. The project would strengthen the entire Yuma area transmission system by providing an additional extra-high voltage (EHV) electrical transmission source to the region.

Upon implementation of the attached standard operating procedures and mitigation measures, short-term and long-term environmental and human (socioeconomic) impacts identified in the Environmental Assessment would not be significant. Compliance monitoring would be conducted to ensure that these mitigation measures are properly implemented and that sensitive resources are protected.

Standard Operating Procedures and Mitigation Measures:

See Attachment A.

Field Manager

11/06/07
Date

APPENDIX A
STANDARD CONSTRUCTION AND OPERATING PROCEDURES AND MITIGATION MEASURES

1.	All construction vehicle movement outside of the right-of-way will be restricted to predesignated access, contractor acquired access, or public roads.
2.	The limits of construction activities will typically be predetermined, with activity restricted to and confined within those limits. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits. The right-of-way boundary will be flagged in environmentally sensitive areas described in the specific plan of development to alert construction personnel that those areas should be avoided.
3.	In construction areas where recontouring is not required, vegetation will be left in place wherever possible to avoid excessive root damage and allow for resprouting.
4.	In construction areas (e.g., marshalling yards, structure sites, spur roads from existing access roads) where ground disturbance is significant or where recontouring is required, surface restoration will occur as required by the landowner or land-management agency. The method of restoration will typically consist of returning disturbed areas to their natural contour (to the extent practical), reseeding or revegetating with native plants (if required), installing cross drains for erosion control, placing water bars in the road, and filling ditches. Seed must be tested and certified to contain no noxious weeds in the mix by the State of Arizona Agricultural Department. Seed viability must also be tested at a certified laboratory approved by the authorized officer.
5.	Watering facilities (e.g., tanks, developed springs, water lines, wells, etc.) will be repaired or replaced to their predisturbed conditions as required by the landowner or land-management agency if they are damaged or destroyed by construction activities.
6.	Prior to construction, all construction personnel will be instructed on the protection of cultural, paleontological, and ecological resources. To assist in this effort, the construction contract will address (a) federal and state laws regarding antiquities, fossils, and plants and wildlife, including collection and removal; and (b) the importance of these resources and the purpose and necessity of protecting them.
7.	Impact avoidance and mitigation measures for cultural resources developed in consultation with the SHPO, BLM, BOR, YPG, ASLD, and the tribes will be implemented.
8.	The project sponsors will respond to complaints of line-generated radio or television interference by investigating the complaints and implementing appropriate mitigation measures. The transmission line will be patrolled on a regular basis so that damaged insulators or other line materials that could cause interference are repaired or replaced.
9.	The project sponsors will apply necessary mitigation to minimize problems of induced currents and voltages onto conductive objects sharing a right-of-way, to the mutual satisfaction of the parties involved.
10.	All construction and maintenance activities shall be conducted in a manner that will minimize disturbance to vegetation, drainage channels, and intermittent and perennial streambanks. In addition, all existing roads will be left in a condition equal to or better than their condition prior to the construction of the transmission line.
11.	All requirements of those entities having jurisdiction over air quality matters will be adhered to and any necessary permits for construction activities will be obtained. Open burning of construction debris (cleared trees, etc.) will not be allowed on BLM administered lands.
12.	Fences and gates, if damaged or destroyed by construction activities, will be repaired or replaced to their original predisturbed condition as required by the landowner or the land-management agency. Temporary gates will be installed only with the permission of the landowner or the land-management agency, and will be restored to their original predisturbed condition following construction.
13.	The proposed hardware and conductor will limit the audible noise, radio interference (RI), and television interference (TVI) due to corona. Tension will be maintained on all insulator assemblies to assure positive contact between insulators, thereby avoiding sparking. Caution will be exercised during construction to avoid scratching or nicking the conductor

	surface, which may provide points for corona to occur.
14.	During operation of the transmission line, the right-of-way will be maintained free of construction related non-biodegradable debris.
15.	Totally enclosed containment will be provided for all debris. All construction waste including debris, litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials will be removed to a disposal facility authorized to accept such materials. A Spill Contingency Plan and Spill Prevention Control and Countermeasure (SPCC) Plan will be prepared. The SPCC Plan will address prevention and remediation of oil, hydraulic fluid, and petroleum fuel spills including spills that could enter navigable waters of the United States. Oils or chemicals will be hauled to an approved site for disposal. If a spill occurs on BLM land the respective BLM field office will be notified, and a copy of the manifest for disposal of the affected materials will be provided to the BLM.
16.	Structures will be constructed to conform to "Suggested Practices for Avian Protection on Power Lines" (Avian Power Line Interaction Committee 2006).
17.	Species protected by the Arizona Native Plant Law will be made available for salvage. A salvage plan approved by the BLM will be included in the specific plan of development.
18.	The alignment of any new access roads or overland routes will follow the designated area's landform contours where possible, providing that such alignment does not additionally impact resource values. This would minimize ground disturbance and reduce scarring.
19.	All new access roads not required for maintenance will be permanently closed using the most effective and least environmentally damaging methods appropriate to that area with concurrence of the landowner or land manager (e.g., stock piling and replacing topsoil, or rock replacement). This would limit access into the area. Fencing, signing, and other closure methods will be determined by the BLM and paid for by the contractor or APS.
20.	In designated areas, structures will be placed or rerouted so as to avoid sensitive features such as, but not limited to, riparian areas, watercourses, and cultural sites, or to allow conductors to clearly span the features, within limits of standard tower design.
21.	Transmission line structures will comply with Federal Aviation Administration Guidelines to minimize aircraft hazards (Federal Aviation 77).
22.	Special status species or other species of particular concern will continue to be considered during the construction phase of the Project, in accordance with management policies set forth by the BLM and other appropriate land management agencies. This will entail monitoring for plant and wildlife species of concern along the proposed transmission line and associated facilities (i.e., access roads and staging areas). In cases where such species are identified, appropriate action will be taken to avoid adverse impacts on the species and its habitat.
23.	The contractor or APS will submit to BLM a proposed road development plan for inclusion in the POD for the area in and around the Muggins Mountains. The goal of the plan is to limit new road construction to a minimum, restrict unauthorized use of maintenance roads, and discourage a travel route in the Muggins Mountains.
24.	As-built drawings, including locations of access roads, will be provided to the BLM as required by the right-of-way grant. The drawings will be provided in a format specified by the BLM.
25.	Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or federal land shall be immediately reported to the BLM authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values.

Other Mitigating Measures

1. All applicable regulations in accordance with 43 CFR 2800.

2. The holder shall construct, operate, and maintain the facilities, improvements, and structures within this right-of-way in strict conformity with the Plan of Development (POD) and made part of the grant. Any relocation, additional construction, or use that is not in accord with the approved POD, shall not be initiated without the prior written approval of the authorized officer. A copy of the complete right-of-way grant, including all stipulations and approved POD, shall be made available on the right-of-way area during construction, operation, and termination to the authorized officer. Noncompliance with the above will be grounds for an immediate temporary suspension of activities if it constitutes a threat to public health and safety or the environment.

3. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder or any person working on the holders behalf, on public or federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made the authorized officer to determine the appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of the evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

4. Construction holes left open over night shall be covered. Covers shall be secured in place and shall be strong enough to prevent livestock or wildlife from falling through and into a hole.

5. Within 30 days of completion, the holder will submit to the authorized officer, as-built drawings and a certification of construction verifying that the facility has been constructed (and tested) in accordance with the design, plans, specifications, and applicable laws and regulations.

6. During construction, the holder shall apply water for the purpose of dust control.

7. The holder shall trim trees in preference to cutting trees and shall cut trees in preference to bulldozing them as directed by the authorized officer.

8. Holder shall remove only the minimum amount of vegetation necessary for the construction of structures and facilities. Topsoil will be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation.

9. The holder shall maintain the right-of-way in a safe usable condition, as directed by the authorized officer.

10. The holder will be responsible for the total reclamation of the right-of way shall it ever be relinquished or terminated. This reclamation will include the scarification of the road surface and the reseeding of the entire disturbed area with a native seed mixture that will be approved by the Authorized Officer prior to the reclamation work.

11. The holder of this right-of-way grant or the holder's successor in interest shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.) and the regulations of the Secretary of the Interior issued pursuant thereto.

12. All design, material, and construction, operation, maintenance, and termination practices shall be in accordance with safe and proven engineering practices.

13. Construction sites shall be maintained in a sanitary condition at all times; waste materials at those sites shall be disposed of promptly at an appropriate waste disposal site. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.

14. The holder(s) shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder(s) shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

15. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901 et seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

16. Prior to termination of the right-of-way, the holder shall contact the authorized officer to arrange a pre-termination conference. This conference will be held to review the termination provisions of the grant.

17. Archeological sites that are eligible for National Register shall be spanned and avoided during construction and maintenance activities. If an eligible site cannot be spanned, impact avoidance and mitigation measures developed in consultation with the State Historic Preservation Office and other interested parties shall be implemented during post-Environmental Assessment phases of project implementation.

18. Prior to construction, a training program shall be instituted that would stress the importance of avoiding unintentional and intentional damage to cultural, paleontological, and ecological resources.

<u>Desert Tortoise Mitigation Measures</u>

19. A desert tortoise protection education program shall be presented to all employees, inspectors, supervisors, contractors, and subcontractors who carry out proposed activities at the project site. The education program shall include discussions of the following:
    - legal and sensitive status of the tortoise
    - brief discussion of tortoise life history and ecology
    - mitigation measures designed to reduce adverse effects to tortoises
    - protocols to follow if a tortoise is encountered, including appropriate contact points

20. A desert tortoise monitor (qualified desert tortoise biologist) will be required when constructing within Category 1 tortoise habitat. The biologist shall watch for tortoises wandering into construction areas, check under vehicles, check at least three times per day any excavations that might trap tortoises, and conduct other activities necessary to ensure that death and injury of tortoises are minimized.

21. Protocols for dealing with any tortoises found in project areas shall be in accordance with Arizona Game and Fish Department's Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects, revised August 7, 1996.

22. Vehicle use shall be limited to existing or designated routes to the extent possible. Areas of new construction shall be flagged or marked on the ground prior to construction. All construction workers shall strictly limit their activities and vehicles to areas that have been marked. Construction personnel shall be trained to recognize markers and understand the equipment movement restrictions involved.

23. Construction sites shall be maintained in a sanitary condition at all times. The project proponent shall be responsible for controlling and limiting litter, trash, and garbage by placing refuse in predator-proof, sealable receptacles. Trash and debris shall be removed when construction is complete

24. All features that can entrap tortoise (i.e., trenches, pits, and other features) in the project area shall be checked twice daily (morning and afternoon) for trapped desert tortoise.

25. During and after completion of the project, trenches, pits, and other features in which tortoises could be entrapped or entangled, shall be filled in, covered, or otherwise modified so they are no longer a hazard to desert tortoise.

26. All dogs in the project area shall be on a leash.

GUIDELINES FOR HANDLING SONORAN DESERT TORTOISES ENCOUNTERED ON DEVELOPMENT PROJECTS

Arizona Game and Fish Department
Revised January 17, 1997

The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

Desert tortoises of the Sonoran population are those occurring south and east of the Colorado River. Tortoises encountered in the open should be moved out of harm's way to adjacent appropriate habitat. If an occupied burrow is determined to be in jeopardy of destruction, the tortoise should be relocated to the nearest appropriate alternate burrow or other appropriate shelter, as determined by a qualified biologist. Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim. Tortoises should be moved quickly, kept in an upright position at all times and placed in the shade. Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises. Tortoises must not be moved if the ambient air temperature exceeds 105 degrees Fahrenheit unless an alternate burrow is available or the tortoise is in imminent danger.

A tortoise may be moved up to two miles, but no further than necessary from its original location. If a release site, or alternate burrow, is unavailable within this distance, and ambient air temperature exceeds 105 degrees Fahrenheit, the Department should be contacted to place the tortoise into a Department-regulated desert tortoise adoption program. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, will also be placed in desert tortoise adoption programs. Mangers of projects likely to affect desert tortoises should obtain a scientific collecting permit from the Department to facilitate temporary possession of tortoises. Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

Please keep in mind the following points:

- These guidelines do not apply to the Mohave population of desert tortoises (north and west of the Colorado River). Mohave desert tortoises are specifically protected under the Endangered Species Act, as administered by the U.S. Fish and Wildlife Service.

- These guidelines are subject to revision at the discretion of the Department. We recommend that the Department be contacted during the planning stages of any project that may affect desert tortoises.

- Take, possession, or harassment of wild desert tortoises is prohibited by state law. Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.

RAC:NLO:rc

6

TABLE 2-2 TYPICAL TRANSMISSION LINE CONSTRUCTION Estimated Personnel and Equipment Required		
Activity	**Personnel**	**Equipment**
Conductoring	25	equipment: 1 helicopter and fly ropes 3 drum pullers (1 light, 1 medium, 1 heavy) 2 splicing trucks 2 double-wheeled tensioners (1 light, 1 heavy) 6 wire reel trailers 2 diesel tractors 1 crane (20-ton) 1 drag 1 sagging equipment 4 trucks (5-ton) 6 pickup trucks 5 two-man lifts 1 water truck
Clean-up	4	equipment: 2 pickup trucks
Rehabilitation	4	equipment: 1 bulldozer (D-8) 1 pickup truck 1 motor grader
Biological Monitors	2	equipment: 2 pickup trucks
Total Personnel Required	76*	
*Additional personnel and equipment may be utilized in order to meet schedule.		

Right-of-Way Acquisition

New land rights, obtained in the name of APS, would be required for the proposed transmission line, switchyard(s), substations, and access roads. A grant for rights-of-way with a width of 200 feet, for the portions of the transmission line that would cross **federal** lands administered by the BLM, are being reviewed as part of the NEPA process. Authorization for the portions of the transmission line that cross the YPG, administered by the DOD, and Reclamation, also will be included in the NEPA process. Non-federal land, necessary for the transmission line right-of-way and switchyards/substations, would be obtained as easements or fee purchases. The appropriate federal agency receives right-of-way rental payments for those portions of the transmission line located on their land.

Pre-Construction Activities

During the preconstruction phase, a specific Plan of Development (POD) would be prepared. The POD would include detailed descriptions of standard construction and operating procedures and mitigation measures (Appendix A), Sonoran desert tortoise mitigation measures, a native plant survey plan, and a noxious weed plan for the project. These elements would be

TABLE 3-1 LAND OWNERSHIP CROSSED BY THE PROPOSED PROJECT	
Ownership	**Proposed Route (miles)**
BLM	54.6
Reclamation	1.5
DOD	8.7
Arizona State Land Department	21.6
Private	24.2
Total	**110.6**

Three irrigation districts are located within the study area. The WMIDD manages irrigation in the Mohawk Valley, between the Gila Mountains and Texas Hill. The Hyder Irrigation District manages irrigation in the Hyder Valley, near Hyder. **The North Gila Irrigation District manages irrigation in the vicinity of the North Gila Substation.**

The study area includes two county jurisdictions, Maricopa County and Yuma County, as shown on Figure 2-1 in Chapter 2.

Existing Land Use

Existing land uses include mostly vacant and undeveloped areas; utility and other infrastructure (the PVNGS and other power generation facilities, high-voltage transmission lines, and several natural gas pipelines); agriculture; mining; residential; dispersed commercial; grazing and livestock facilities; park, preservation, and recreation areas, and transportation routes. Through the use of BLM-designated utility corridors, the proposed project crosses a minimal amount of developed land. Existing land uses are shown on Figure 3-1.

Residential

Residential land uses include single-family residences and low-density residential areas. These residential land uses are mainly associated with agricultural service centers or communities in the Lower Gila River region. Agricultural operations with seasonal working quarters or labor camps were identified in several areas throughout the study area. Unincorporated communities within the study area include Hyder, Dome, and Roll. In addition, small settlements along major transportation routes identified within the study corridors may contain residential uses. Ten residences are located within ¼ mile of the proposed transmission line, all of which are on the south side of the existing transmission line.

The Wellton-Mohawk and Mohawk canals, are more than 1 mile away from the Proposed Route. The Gila Gravity Main Canal, located north of the North Gila Substation, is administered by the Gila Gravity Main Canal Administrative Board.

Major Utility Corridors (Designated, Proposed, or Recommended)

The BLM Lower Sonoran and Yuma Field Offices have identified the SDG&E Interconnect (SWPL 500kV transmission line) as a designated utility corridor from the PV Hub to the Colorado River. The BLM has designated this major utility corridor to cover a width of 1 mile.

Roads and Highways

U.S. or State Highway

U.S. 95 travels south and west from Quartzsite through the Laguna Mountains to Yuma and Somerton, Arizona. The Proposed Route crosses perpendicular to U.S. 95 at Link 50 Milepost 101.

County and Other Major Roads

County and paved roads are present in Maricopa and Yuma counties. Major county roads include Wintersburg Road, Elliot Road, Agua Caliente Road, Hyder Road, and Palomas Road. Other paved arterials connect settlements in the Wellton-Mohawk farming region and provide access to I-8 and other transportation routes.

Scenic Roads

Two scenic roads were identified in the study area. U.S. 95 and Dome Valley Road are designated by Yuma County as scenic roads.

Planned Land Use

General Plans

Zoning maps and general or comprehensive planning documents were utilized within the study area to delineate planned land uses. Table 3-2 lists these documents by county, with their adoption status.

Reclamation's, and DOD's compliance with the National Historic Preservation Act; and the Arizona State Land Department's (ASLD) compliance with the Arizona State Historic Preservation Act.

The area of potential effect (APE) for the proposed project is a 200-foot-wide corridor beginning at the Palo Verde Hub and terminating at the North Gila Substation, for a distance of approximately 110-112 miles. The exact beginning point at the PV Hub (Arlington, Redhawk, or Hassayampa), has not been determined at this time but may be any one of the three interconnections, all of which have been intensively surveyed for cultural resources. The interconnections average two to three miles in length. The cultural resource survey encompassed the 200-foot-wide APE for the proposed project, as well as a buffer that varied between 100 to 800 feet in various portions of the project area. The total acreage surveyed between May and June 2006, and September 2007, was 5,363.9 acres, 1,500.32 acres of which were on lands under the jurisdiction of the BLM Yuma Field Office (YFO), 1,496.96 acres on lands under the jurisdiction of the BLM Phoenix District Office (PDO), 72.72 acres on lands managed by Reclamation, 539 acres of land under the jurisdiction of the DOD, 990.90 acres of lands under the jurisdiction of the ASLD, and 764 acres of privately owned land.

3.4.1 Affected Environment

The cultural resource study for the proposed project identified 33 isolated occurrences (IOs), 16 previously recorded sites, and five newly recorded sites. A list of the previously and newly recorded sites located within the APE are presented in Table 3-3 below.

TABLE 3-3
SUMMARY OF SITES LOCATED WITHIN THE APE OF THE PROPOSED ALIGNMENT

Site Number	Recording Status	Jurisdiction	Description	Eligibility and Criterion
AZ L:12:15 (ASM)	Previously recorded	BLM YFO and DOD	69kV power line	Recommended Not Eligible
AZ S:15:7 (ASM)	Previously recorded	BLM YFO, ASLD, and private	69/12kV power line	**Recommended Eligible**
AZ S:15:10 (ASM)	Previously recorded	Private	Camp Hyder - World War II (1942-1944) military training base	Recommended Eligible – A, B
AZ S:16:37 (ASM)	Previously recorded	BLM PDO	Prehistoric artifact scatter	Recommended Eligible – D
AZ S:16:38 (ASM)	Previously recorded	BLM PDO	Historic Saddle Railroad Station	Recommended Eligible – A
AZ S:16:39 (ASM)	Previously recorded	BLM PDO	Papago Maneuvering Area	Recommended Eligible – A, B
AZ S:16:80 (ASM)	Newly recorded	BLM PDO	Historic trash scatter associated with historic Southern Pacific Railroad	Recommended Eligible – A, D

500kV transmission line, as well as the UPRR. The AZ S:16:37 (ASM) site **has been determined** eligible for listing on the NRHP under Criterion D for its potential to provide significant information on the organization of resource exploitation, technology, and social interaction during prehistory within the Dendora Valley. The proposed project extends across the central portion of the site. Anticipated disturbances across this approximately 3-mile site consist of the placement of approximately 12 lattice structures.

Site AZ X:7:10 (ASM) is a large lithic scatter located on lands managed by Reclamation. The site consists of 17 loci that that consist of flaked stone concentrations. The site also contains a light scatter of ceramics and two trail features. Disturbances to the site include the existing SWPL 500kV transmission line. The AZ X:7:10 (ASM) site has been previously determined to be eligible for listing on the NRHP under Criterion D for its potential to provide information on the subsistence and settlement strategies of the inhabitants of the North Gila Valley during the prehistoric period. The proposed project extends across the southern portion of the site. Anticipated disturbances across this approximately 1-mile-wide site consist of the placement of approximately 4 lattice structures.

Construction of the proposed project would directly affect the five sites outlined above. Specific effects to the archaeological sites would not be known fully until the detailed engineering and design for the transmission line have been completed. While most impacts can be avoided through spanning, there are five very large sites that are likely to be affected. Any adverse effects to these five sites would be mitigated by the development and implementation of a Historic Properties Treatment Plan (HPTP). The HPTP would be developed with the various land managing agencies and submitted to the Arizona State Historic Preservation Office (SHPO) for approval and the plan would be implemented prior to and during construction of the proposed project. Possible mitigation measures that would be identified in the HPTP include archival research, data recovery, and construction monitoring.

The project corridor maintains a distance from Anza National Historic Trail of between 1 and 5 miles and the trail is not crossed by the proposed project. The proposed transmission line will have no effect, physically or visually, upon the Anza National Historic Trail.

No-Action Alternative

Under the No-Action alternative, the proposed project would not be constructed, no cultural resources would be affected, and no environmental consequences would occur; however, the purpose and need for the project would not be met.

3.4.3 Native American Concerns

A total of thirteen Native American Tribes were contacted in February of 2006 by the BLM PDO concerning the proposed project. These included the Ak-Chin Indian Community, Chemehuevi

Indian Tribe, Cocopah Tribe, Colorado River Indian Tribes, Fort McDowell Yavapai Nation, Fort Mojave Indian Tribe, Fort Yuma Quechan Tribe, Gila River Indian Community, Hopi Tribe, Salt River Pima-Maricopa Indian Community, Tohono O'odham Tribal Nation, Yavapai-Apache Nation, and the Yavapai-**Prescott** Indian Tribe.

To date, the Fort Yuma Quechan, **Yavapai-Prescott, Fort Mohave Indian Tribe, and the BIA have** responded. In their letter dated February 27, 2006, **the Fort Yuma Quechan Tribe** acknowledged that transmission line construction, maintenance, and operation can affect cultural resources and indicated the need for an intensive cultural resource inventory.

The cultural resource study that was conducted (Rowe 2007) will be provided to the various Native American Tribes for comment and the BLM will continue to consult with them as the project moves forward. **There will be additional opportunities for the tribes to comment on documents as well as continued consultation with the tribes throughout the project.**

3.5 BIOLOGICAL RESOURCES

This section of the EA addresses biological resources, including vegetation, wildlife, and special status species related to the construction of the proposed project. Section 3.5.1, Affected Environment, provides a description of the affected biological resources for the proposed project. Section 3.5.2, Environmental Consequences, provides a description of the potential impacts to biological resources.

Secondary data were collected in order to characterize the biological resources in the study area. The information included the results of a literature search, secondary data from the BLM, a review of previous studies conducted in the area of the Proposed Action, and field visits to selected sites conducted between September 2005 and October 2006. Field visits were performed for reconnaissance purposes only and did not include any species-specific surveys.

A list of sensitive species anticipated in the area was compiled utilizing the U.S. Fish and Wildlife Service (USFWS) endangered species Internet site, personal contact with the BLM Field Office for the Sonoran Desert National Monument, and the AZGFD Heritage Data Management System (HDMS) Internet site (AZGFD 2006). This list is included in Appendix B of this document.

3.5.1 Affected Environment

The Palo Verde to North Gila transmission line corridor is located within the Lower Colorado River Valley Subdivision of Sonoran Desertscrub (Turner 1994). This vegetation community is dominated by creosote bush (*Larrea tridentata*). Other common species include ocotillo (*Fouquieria splendens*), foothill paloverde (*Parkinsonia microphylla*), ironwood (*Olneya tesota*), saguaro (*Carnegiea gigantea*), barrel cactus (*Ferocactus wislizenii*), and various species of

TABLE 4-1 PROJECTS LIST - CUMULATIVE EFFECTS		
Activities	**Location/Description**	**Status**
Proposed Wellton Mohawk 230kV Line Project	**The 230kV line would connect to the proposed Palo Verde Hub to North Gila 500kV Transmission Line Project at a new substation, and terminate at the Ligurta Substation. The proposed line is needed to serve load growth in WMIID service area and to provide WMIDD access to new generation resources**	**Future**
Proposed West Valley North 230kV Transmission Line Project	The 230kV transmission line and substation would be located on the east and north side of the White Tank Mountains and terminate at the TS-5 Substation	Future
Proposed Hassayampa–Pinal West 500kV Transmission Line	The Hassayampa–Pinal West 500kV transmission line is proposed to connect at the Hassayampa Switchyard south of PVNGS and terminate at a proposed substation near Mobile, Arizona	Future
Proposed PVNGS–Saguaro 500kV Transmission Line	The 500kV transmission line would start at PVNGS and terminate at the Saguaro Power Plant, paralleling the existing PVNGS–Kyrene 500kV line	Future
Proposed Sonora-Arizona Interconnection 345kV (two) transmission lines	The two 345kV transmission lines would start at either PVNGS or Hassayampa Switchyard and terminate in Sonora, Mexico	Future
Planned Northwest Buckeye Electrical Infrastructure	Additional 500kV, 230kV, and 69kV transmission lines identified in the APS 10-year plan. Lines would originate at the TS-5 Substation and provide electrical service to future development in the northeasterly portion of the Town of Buckeye, Arizona	Future
Planned Hassayampa–Jojoba 500kV Transmission Line	The 500kV transmission line would connect the Hassayampa Switchyard near PVNGS to the Jojoba Switchyard south of Buckeye, Arizona	Future
Proposed North Gila—TS-8 230kV Transmission Line	The 230kV transmission line would connect the North Gila Substation, 5 miles NE of Yuma, Arizona, to the planned TS-8 Substation, location to be determined, to serve the increasing need for electric energy in the city of Yuma	Future
Proposed Ethanol Plant	An ethanol plant to be built on a 20 acre site near Tacna, AZ	Future
U.S. 95 Widening	U.S. 95 is proposed to be widened from 2 lanes to 4 between 9E and Aberdeen Road within the YPG	Future
U.S. 195 Construction	**U.S. 195 is proposed to connect U.S. 95 to I-8 in order to complement the local and regional road network**	**Future**
Planned CANAMEX Commercial Transportation Corridor	An inter-continental commercial transportation corridor between Canada and Mexico. Located adjacent to Wickenburg Road in the project area	Future
Geothermal Resource Development in the Imperial Valley of California	**Development of geothermal resources in the Imperial Valley will continue to develop to serve growing need in California and Arizona**	**Future**
Existing Utilities/Public Services/Infrastructure		
Southwest Powerlink 500kV Line Clearance Maintenance Project	Conductor ground clearance project from PVNGS to North Gila Substation	Past, Present
PVNGS	Power plant located in unincorporated Arlington Valley, Arizona. Numerous 500kV lines interconnect at the PVNGS Switchyard	Past, Present
PVNGS Switchyard	Located near PVNGS, with numerous 500kV lines interconnecting at this switchyard	Past, Present, Future

5.4 LIST OF PREPARERS

5.4.1 Bureau of Land Management

Kevin Harper	Field Office Manager, **LSFO**
Camille Champion	Project Manager, **LSFO**
Jim Andersen	Realty Specialist, **LSFO**
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Cheryl Blanchard	Archaeologist, **LSFO**
Sandra Arnold	**Archaeologist, YFO**
Lori Young	Wildlife Biologist, **LSFO**
Winfred Wong	**Biologist, YFO**
Rich Hanson	Recreation Planner / Visual Resource Specialist, **LSFO**
Jack Ragsdale	Recreation Planner / Visual Resource Specialist, **LSFO**
Aaron Curtis	**Outdoor Recreation Planner, YFO**
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Jennifer Green	**Natural Resource Specialist, YFO**
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5.4.2 Arizona Public Service

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Barbara Heimer	Lands
Paul Richards	Transmission Engineering/Construction
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Robin Fries	Transmission Engineering/Construction
Mark Fallon	Communications
Betty Dayyo	Communications
Linda Henrickson	Interconnections/Agreements

5.4.3 Environmental Planning Group

Garlyn Bergdale	Principal-in-Charge
Paul Trenter	Project Manager
Kevin C. Duncan	Project Coordinator, Earth and Water Resources, Health and Safety Resources, Land Use Resources, Socioeconomics
Marc Schwartz	Visual Resources Manager

CHAPTER 6 - REFERENCES

6.1 LAND USE

Arizona Department of Transportation. 2006. http://www.dot.state.az.us.

_____. October 2007. http://www.azdot.gov/highways/Projects/SR195_I8_to_US95/Index.asp. Accessed October 30, 2007.

Curtis, Aaron. 2007. Yuma BLM Field Office. Phone Conversation with Kevin C. Duncan. March 12.

Dames & Moore. 1993. Southern Arizona Transmission Project EIS/EIR Draft.

EPG. 2005. Palo Verde Hub to TS-5 Substation 500kV Transmission Project EA. May 2005.

Lambeth, Byron. 2005. Phoenix Field Office of the Bureau of Land Management. Phone Conversation with EPG. December 14.

Maricopa County. August 2002. Maricopa County Comprehensive Plan - 2020 Eye to the Future.

_____. April 2005. Maricopa County Zoning Ordinance.

_____. May 2007. Old U.S. 80 Area Plan – 2020 Eye to the Future.

_____. September 2000. Tonopah Arlington Area Plan - 2020 Eye to the Future.

United States Department of Defense. 2006. http://www.yuma.army.mil. Accessed November 2005.

United States Department of the Interior. Bureau of Land Management. Phoenix Field Office. 2000. *Final Amendment and Environmental Assessment to the Lower Gila North Management Framework Plan and the Lower Gila South Resource Management Plan.* February 2000.

_____. 1994. *Decisions from the Lower Gila North Management Framework Plan Step III etc.* June 1994.

_____. 1990. Strategy for Desert Tortoise Habitat Management on public Lands in Arizona. October 1990.

_____. Phoenix Field Office. 1985. Final *Lower Gila South Resource Management Plan and Environmental Impact Statement*. 1986.

APPENDIX A
STANDARD CONSTRUCTION AND OPERATING PROCEDURES AND MITIGATION MEASURES

1.	All construction vehicle movement outside of the right-of-way will be restricted to predesignated access, contractor acquired access, or public roads.
2.	The limits of construction activities will typically be predetermined, with activity restricted to and confined within those limits. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits. The right-of-way boundary will be flagged in environmentally sensitive areas described in the specific plan of development to alert construction personnel that those areas should be avoided.
3.	In construction areas where recontouring is not required, vegetation will be left in place wherever possible to avoid excessive root damage and allow for resprouting.
4.	In construction areas (e.g., marshalling yards, structure sites, spur roads from existing access roads) where ground disturbance is significant or where recontouring is required, surface restoration will occur as required by the landowner or land-management agency. The method of restoration will typically consist of returning disturbed areas to their natural contour (to the extent practical), reseeding or revegetating with native plants (if required), installing cross drains for erosion control, placing water bars in the road, and filling ditches. Seed must be tested and certified to contain no noxious weeds in the mix by the State of Arizona Agricultural Department. Seed viability must also be tested at a certified laboratory approved by the authorized officer.
5.	Watering facilities (e.g., tanks, developed springs, water lines, wells, etc.) will be repaired or replaced to their predisturbed conditions as required by the landowner or land-management agency if they are damaged or destroyed by construction activities.
6.	Prior to construction, all construction personnel will be instructed on the protection of cultural, paleontological, and ecological resources. To assist in this effort, the construction contract will address (a) federal and state laws regarding antiquities, fossils, and plants and wildlife, including collection and removal; and (b) the importance of these resources and the purpose and necessity of protecting them.
7.	Impact avoidance and mitigation measures for cultural resources developed in consultation with **the SHPO,** BLM, **BOR, YPG, ASLD, and the tribes** will be implemented.
8.	The project sponsors will respond to complaints of line-generated radio or television interference by investigating the complaints and implementing appropriate mitigation measures. The transmission line will be patrolled on a regular basis so that damaged insulators or other line materials that could cause interference are repaired or replaced.
9.	The project sponsors will apply necessary mitigation to minimize problems of induced currents and voltages onto conductive objects sharing a right-of-way, to the mutual satisfaction of the parties involved.
10.	All construction and maintenance activities shall be conducted in a manner that will minimize disturbance to vegetation, drainage channels, and intermittent and perennial streambanks. In addition, all existing roads will be left in a condition equal to or better than their condition prior to the construction of the transmission line.
11.	All requirements of those entities having jurisdiction over air quality matters will be adhered to and any necessary permits for construction activities will be obtained. Open burning of construction debris (cleared trees, etc.) will not be allowed on BLM administered lands.

12.	Fences and gates, if damaged or destroyed by construction activities, will be repaired or replaced to their original predisturbed condition as required by the landowner or the land-management agency. Temporary gates will be installed only with the permission of the landowner or the land-management agency, and will be restored to their original predisturbed condition following construction.
13.	The proposed hardware and conductor will limit the audible noise, radio interference (RI), and television interference (TVI) due to corona. Tension will be maintained on all insulator assemblies to assure positive contact between insulators, thereby avoiding sparking. Caution will be exercised during construction to avoid scratching or nicking the conductor surface, which may provide points for corona to occur.
14.	During operation of the transmission line, the right-of-way will be maintained free of construction related non-biodegradable debris.
15.	Totally enclosed containment will be provided for all debris. All construction waste including debris, litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials will be removed to a disposal facility authorized to accept such materials. A Spill Contingency Plan and Spill Prevention Control and Countermeasure (SPCC) Plan will be prepared. The SPCC Plan will address prevention and remediation of oil, **hydraulic fluid, and petroleum fuel** spills including spills that could enter navigable waters of the United States. Oils or chemicals will be hauled to an approved site for disposal. **If a spill occurs on BLM land the respective BLM field office will be notified, and a copy of the manifest for disposal of the affected materials will be provided to the BLM.**
16.	Structures will be constructed to conform to "Suggested Practices for Avian Protection on Power Lines" (Avian Power Line Interaction Committee 2006).
17.	Species protected by the Arizona Native Plant Law will be made available for salvage. A salvage plan approved by the BLM will be included in the specific plan of development.
18.	The alignment of any new access roads or overland routes will follow the designated area's landform contours where possible, providing that such alignment does not additionally impact resource values. This would minimize ground disturbance and reduce scarring.
19.	All new access roads not required for maintenance will be permanently closed using the most effective and least environmentally damaging methods appropriate to that area with concurrence of the landowner or land manager (e.g., stock piling and replacing topsoil, or rock replacement). This would limit access into the area. Fencing, signing, and other closure methods will be determined by the BLM and paid for by the contractor or APS.
20.	In designated areas, structures will be placed or rerouted so as to avoid sensitive features such as, but not limited to, riparian areas, watercourses, and cultural sites, or to allow conductors to clearly span the features, within limits of standard tower design.
21.	Transmission line structures will comply with Federal Aviation Administration Guidelines to minimize aircraft hazards (Federal Aviation 77).
22.	Special status species or other species of particular concern will continue to be considered during the construction phase of the Project, in accordance with management policies set forth by the BLM and other appropriate land management agencies. This will entail monitoring for plant and wildlife species of concern along the proposed transmission line and associated facilities (i.e., access roads and staging areas). In cases where such species are identified, appropriate action will be taken to avoid adverse impacts on the species and its habitat.
23.	The contractor or APS will submit to BLM a proposed road development plan for inclusion in the POD for the area in and around the Muggins Mountains. The goal of the plan is to limit new road construction to a minimum, restrict unauthorized use of maintenance roads, and discourage a travel route in the Muggins Mountains.

24.	As-built drawings, including locations of access roads, will be provided to the BLM as required by the right-of-way grant. The drawings will be provided in a format specified by the BLM.
25.	**Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or federal land shall be immediately reported to the BLM authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values.**

COMPACT DISC

-Virtual Route Tour
Palo Verde Hub to North Gila Substation
500kV Transmission Project

TO REVIEW SEE DOCKET SUPERVISOR

DOCKET
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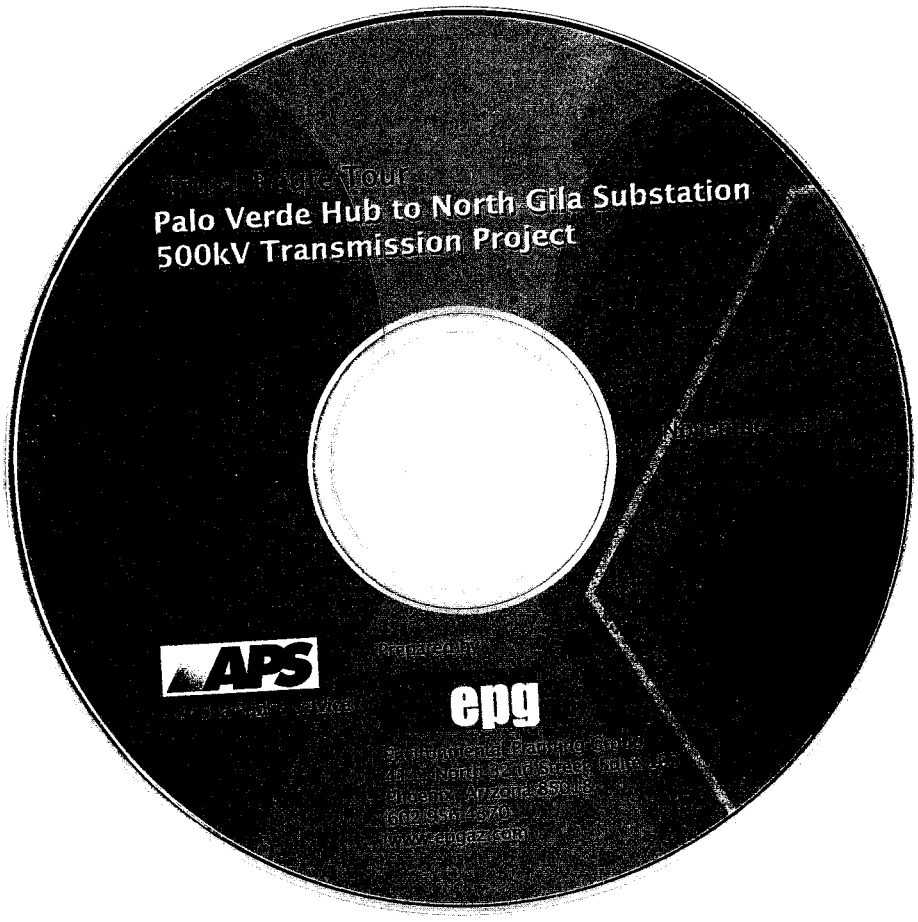
Palo Verde Hub to North Gila Substation
500kV Transmission Project
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