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DOCKET CONTROL

January 31, 2008

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

Re: **Docket No. E-00000D-07-0376**

Docket Control:

Enclosed please find an original and thirteen copies of UNS Electric Inc.'s ("UNS Electric") "Ten-Year Plans" pursuant to Title 40, Chapter 2, Article 6.2, "Power Plant and Transmission Line Siting Committee", of the Arizona Revised Statutes. UNS Electric's RMR study is in the process of being finalized with input from Western and will be submitted to Commission Staff upon completion.

Enclosed is an additional copy of the filing that the Company requests you date-stamp and return in the self-addressed, stamped envelope for our files.

Sincerely,

Jessica Bryne
Regulatory Services

Arizona Corporation Commission
DOCKETED
JAN 31 2008

DOCKETED BY *NR*

cc: Ernest Johnson, ACC
Prem Bahl, ACC
Ed Beck, UNS Electric, Inc.
Compliance, ACC

The logo for UniSource Energy Services features the company name in a bold, sans-serif font. A thick, black, curved line arches over the top of the text, starting above the 'U' and ending above the 'y'.

UniSourceEnergy
SERVICES

UNS Electric

Ten-Year Plan
For Years

2008-2016

SUBMITTED TO THE
ARIZONA CORPORATION COMMISSION
JANUARY 2008

Docket No: **E-00000D-07-0376**

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Introduction

The following ten-year plan is submitted by UNS Electric, Inc. (UNSE) pursuant to A.R.S. § 40-360.02. Included with this plan are transmission facilities planned for both the Mohave and Santa Cruz County service territories.

UNSE plans include several transmission projects in the next ten years. The majority of the system upgrades are planned for the Santa Cruz service territory, while one planned facility upgrade and two projects are identified for the Mohave County region. Previously reported facilities that have been completed, canceled, or deferred beyond the upcoming ten-year period are not included. These plans are tentative information only, and pursuant to A.R.S. § 40-360.02 (F) are subject to change.

The following projects are proposed for the Mohave County Region:

- North Havasu – Griffith Transmission Line
- Mercator – McConnico Transmission Line

The following projects are proposed for the Santa Cruz County Region:

- Nogales 115 kV or 138 kV Transmission Line #2
- Gateway 345/115 kV or 345/138 kV Substation
- Valencia 115 kV or 138 kV Substation Expansion
- Upgrade existing 115 kV transmission system to 138 kV

In addition to planning UNSE transmission facilities, UNSE is actively involved in the following regional Arizona Transmission planning activities:

- Central Arizona Transmission Study (CATS)
- Central Arizona Transmission Study – High Voltage (CATS-HV)
- Joint Planning Agreement (JPA) with Western
- Southwest Area Transmission Planning Group (SWAT)
- Southeast Arizona Transmission Study (SATS)
- WestConnect Regional Planning

Service Territories

Following this brief discussion of activities in the service territories are maps of the planned facilities and a schematic for several of the proposed projects.

Mohave County

UNSE still considers the Griffith – North Havasu 230kV line as a viable alternative, and currently has an approved CEC (Case #88) for this line addition. UNSE has received an extension to the expiration date of this CEC. The timing for construction of this project is predicated on results of load growth in conjunction with limitations on the ability of Western Area Power to support this load growth. A portion of this project (North Havasu to Franconia) was completed in 2007 and is currently energized at 69kV for distribution needs at Franconia.

Santa Cruz County

The UNSE long-term plan to improve reliability for the Santa Cruz service territory is to construct a redundant transmission line to Valencia Substation from the new Gateway Substation per Case #111. The construction of this line is pending the receipt of permits from the Department of Energy, the U.S. Forest Service and the Bureau of Land Management.

UNSE installed an additional gas turbine in May 2006 at Valencia Substation in Nogales to provide peaking capability as well as additional support for Nogales during outages.

Plans are also under development for conversion of the existing 115kV line to 138kV with a future interconnection to TEP's Vail Substation.

Mohave County

UNS Electric

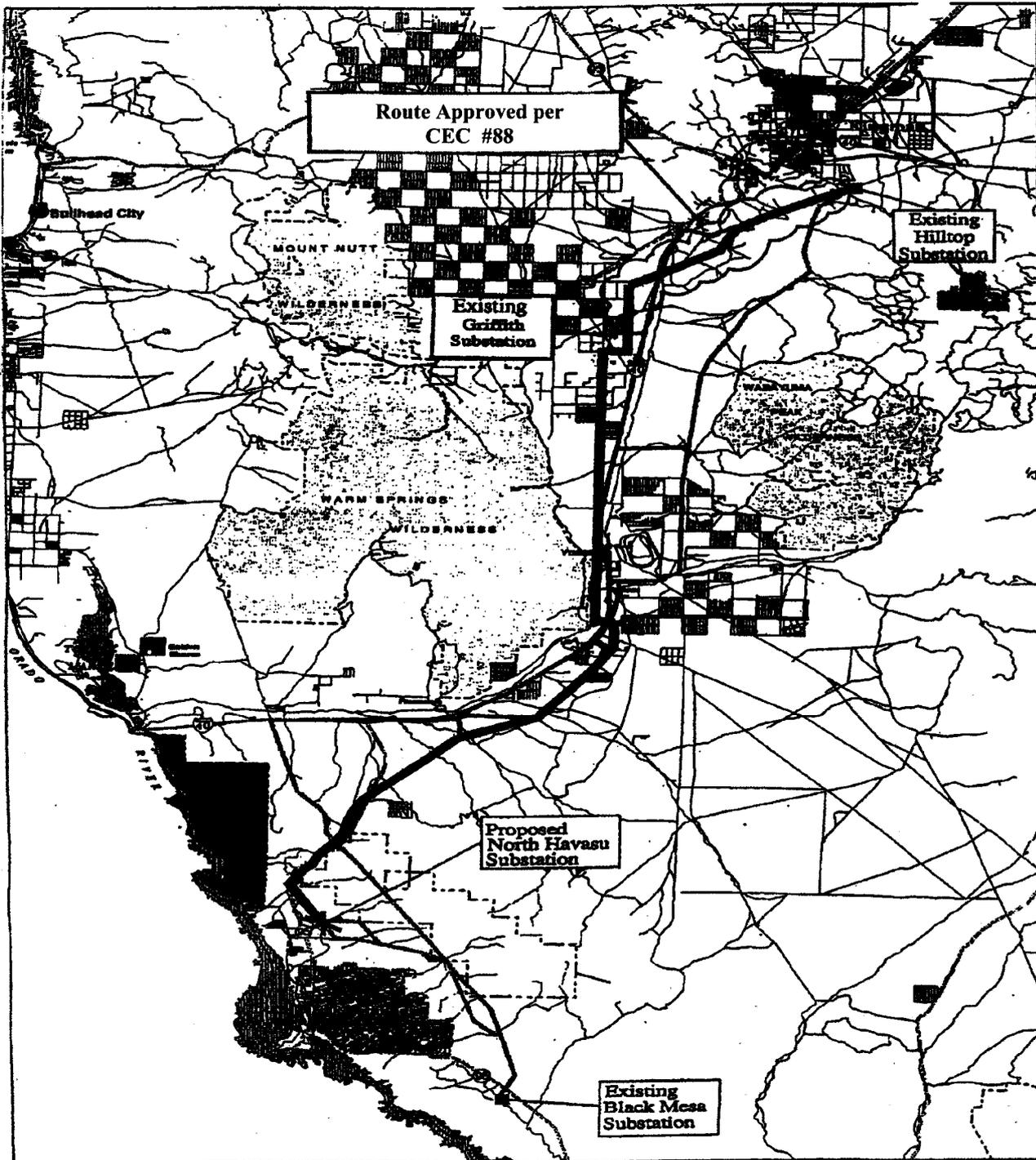
10 YEAR PLAN

TRANSMISSION FACILITIES

Line Designation	Griffith-North Havasu Transmission
Size	
a) Voltage	230 kV, 69 kV (double circuit)
b) Capacity	300 MVA (thermal)
c) Point of Origin	Griffith Substation
d) Point of Termination	North Havasu Substation
e) Length	Approximately 40 miles
Routing	West of and parallel to I-40 to Santa Fe Ranch Rd. interchange. Diagonal southeast to the Parker Davis line at Highway 95. Parallel to PD-1 to North Havasu Substation site southeast of the Lake Havasu City airport. Routing to be within corridor as approved and described in CEC Order #88.
Purpose	Reinforce the existing transmission grid and provide interconnection between UNSE load centers in Mohave County.
Date	
a) Construction Start	North Havasu to Franconia, 2007
b) In-Service Date	Under Review
Is Certificate Necessary	Case # 88 ¹ -- An extension was approved by the ACC
Technical Studies	Studies completed via CATS, WATS, and Palo Verde-Southeast Station study groups and is part of the WestConnect Transmission Plan.

¹ Hilltop to Griffith portion of line already completed.

Griffith – North Havasu Transmission Project



UNS Electric

10 YEAR PLAN

TRANSMISSION FACILITIES

Line Designation Golden Valley 230 kV Transmission Line Project
McConnico-Mercator Mill Substation Transmission

Size

- a) Voltage 230 kV single circuit, including combining some segments with the existing 69kV in a double circuit configuration
- b) Capacity 400 MVA (thermal) based on future extension of this circuit as part of the looped 230 kV system
- c) Point of Origin McConnico Substation
- d) Point of Termination Mercator Mill Substation
- e) Length Approximately 20 miles

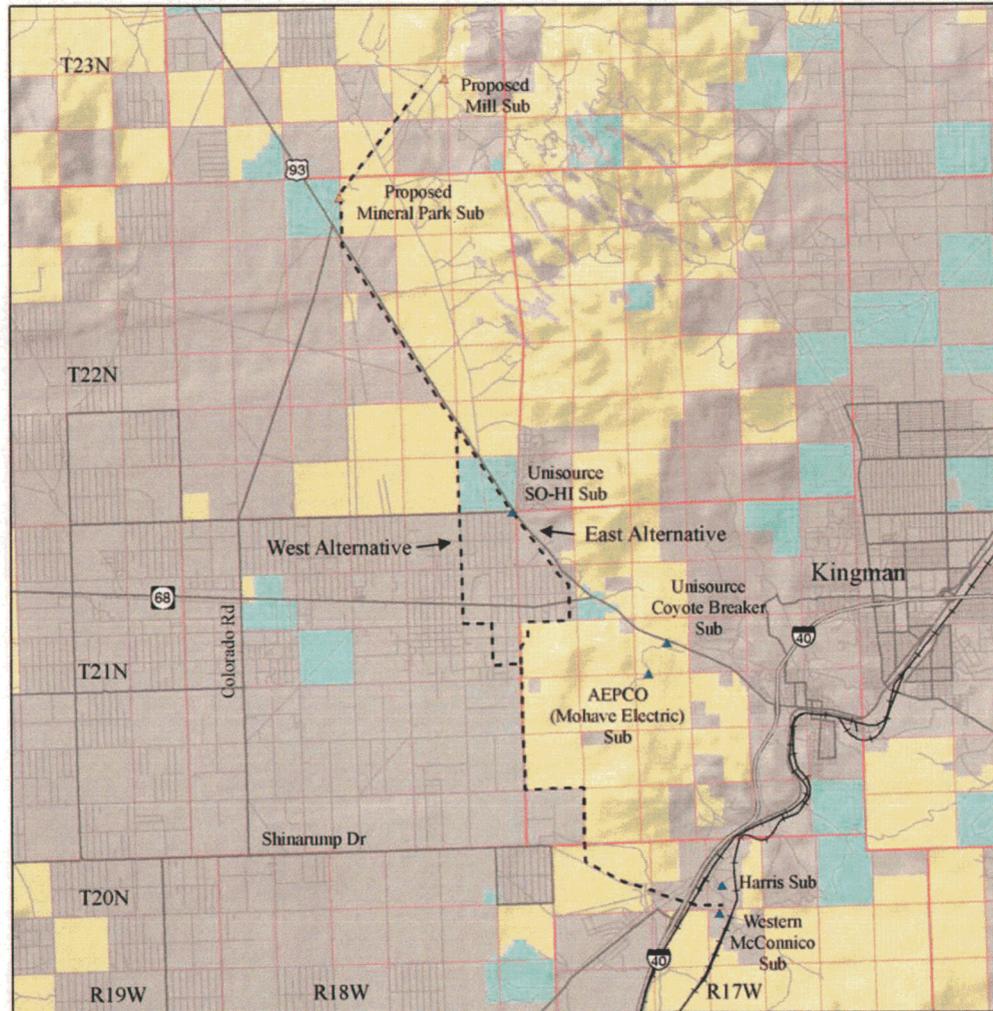
Routing

East Alternative: Parallel to existing transmission lines northwest of McConnico Substation, turning north along the west edge of Section 32, T21N, R17W. West along south edge of Section 30, T21N, R17W. Then north along Tooman Rd. Then northeast to Shipp Dr. and east along Shipp to Kofa Rd then north to US 93 and crossing US 93 to follow the west side Sections 10 and 3, T21N, R18W to the proposed Mineral Park Substation then following Mineral Park Road to the metering point. Mercator minerals will own the line from the metering point to the Mill Substation.

West alternative is the same except for diversion west from Tooman Rd along Collins Dr. then north along Bosque Rd.. West along Shipp Dr. and north along Bacobi Rd., to join with the existing transmission line along US 93.

Purpose	Serve mining load at Mercator's Mineral Park Mine and provide additional capacity to Golden Valley
Date	
a) Construction Start	mid 2008
b) In-Service Date	late 2008
Is Certificate Necessary	Yes, between McConnico Substation and the Metering Point
Technical Studies	siting application presently being developed

Golden Valley 230 kV Transmission Project



ARIZONA
Project Location

Legend

- Transmission Line Alternatives
- ▲ Existing Substation
- ▲ Proposed Substation
- Bureau of Land Management
- Private
- State

Project Location
Golden Valley
230kV Transmission
Line Project
UNS Electric Inc.

0 1 2 Miles

time-230Ten-Year-Plan-Map-Sx11.mxd 102207

UNS Electric
 10 YEAR PLAN
 TRANSMISSION FACILITIES

Line Designation	White Hills Substation
Size	
a) Voltage	345 kV, 69 kV
b) Capacity	300 MVA (transformer capacity)
c) Point of Origin	n/a
d) Point of Termination	n/a
e) Length	n/a
Routing	n/a
Purpose	To provide service to developments anticipated in Northwestern Mohave County.
Date	
a) Construction Start	2009
b) In-Service Date	2010
Is Certificate Necessary	No, this substation will be built adjacent to WAPA transmission line
Technical Studies	Studies in progress by WAPA as required through the Open Access Transmission Tariff process.

Santa Cruz County

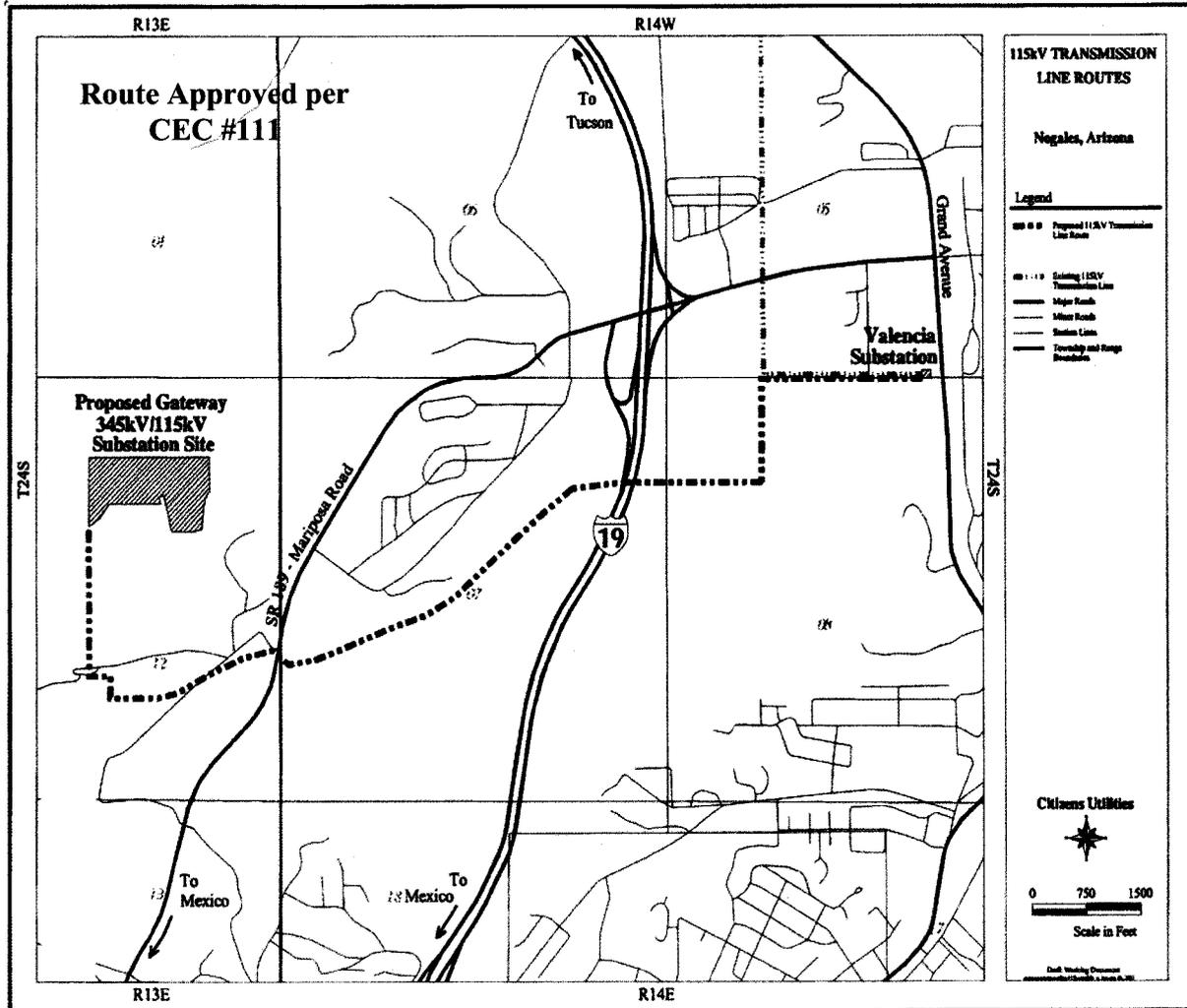
UNS Electric

10 YEAR PLAN

TRANSMISSION FACILITIES

Line Designation	Nogales Transmission Line #2
Size	
a) Voltage	115 kV or 138 kV
b) Capacity	110 MVA (thermal)
c) Point of Origin	Gateway 138 kV substation (new)
d) Point of Termination	Valencia Substation
e) Length	Approximately 3 miles
Routing	Generally South and East from TEP's proposed Gateway 345 kV substation crossing Interstate 19 and traversing private ROW. Routing to be within the corridor as described in the CEC.
Purpose	The additional transmission line increases transmission system reliability and provides additional load serving capacity to UNSE Santa Cruz Service Area.
Date	
a) Construction Start	Under Review
b) In-Service Date	Under Review
Is Certificate Necessary	Case # 111
Technical Studies	SWAT and internal UNSE studies.

Nogales Transmission Line #2



UNS Electric
 10 YEAR PLAN
 TRANSMISSION FACILITIES

Line Designation	Upgrade existing 115kV transmission line to Nogales
Size	
a) Voltage	138-kV
b) Capacity	System dependent
c) Point of Origin	Vail Substation
d) Point of Termination	Gateway Substation
e) Length	Approximately 60 miles
Routing	Generally South and West from TEP's Vail 345 kV substation to UNSE's Valencia Substation.
Purpose	The upgrade of the transmission line increases transmission system reliability and provides additional load serving capacity to UNSE's Santa Cruz Service Area.
Date	
a) Construction Start	2009
b) In-Service Date	2013
Is Certificate Necessary	Yes
Technical Studies	UNSE studies, SATS, WestConnect Plan.

UNS Electric
 10 YEAR PLAN
 TRANSMISSION FACILITIES

Line Designation	Valencia 115kV Substation Expansion
Size	
a) Voltage	Operating voltages include 115 kV and 13.2 kV Future voltage will be 138 kV
b) Capacity	110 MVA (line capacity)
c) Point of Origin	n/a
d) Point of Termination	n/a
e) Length	n/a
Routing	n/a
Purpose	The proposed substation facilities provide an interconnection and source for UNSE's second transmission line to its Santa Cruz Service Area and a future distribution substation, as provided for in CEC.
Date	
a) Construction Start	Under Review
b) In-Service Date	Under Review
Is Certificate Necessary	Case # 111
Technical Studies	Studied in SWAT and internal UNSE study efforts as well as SATS and WestConnect Plan.

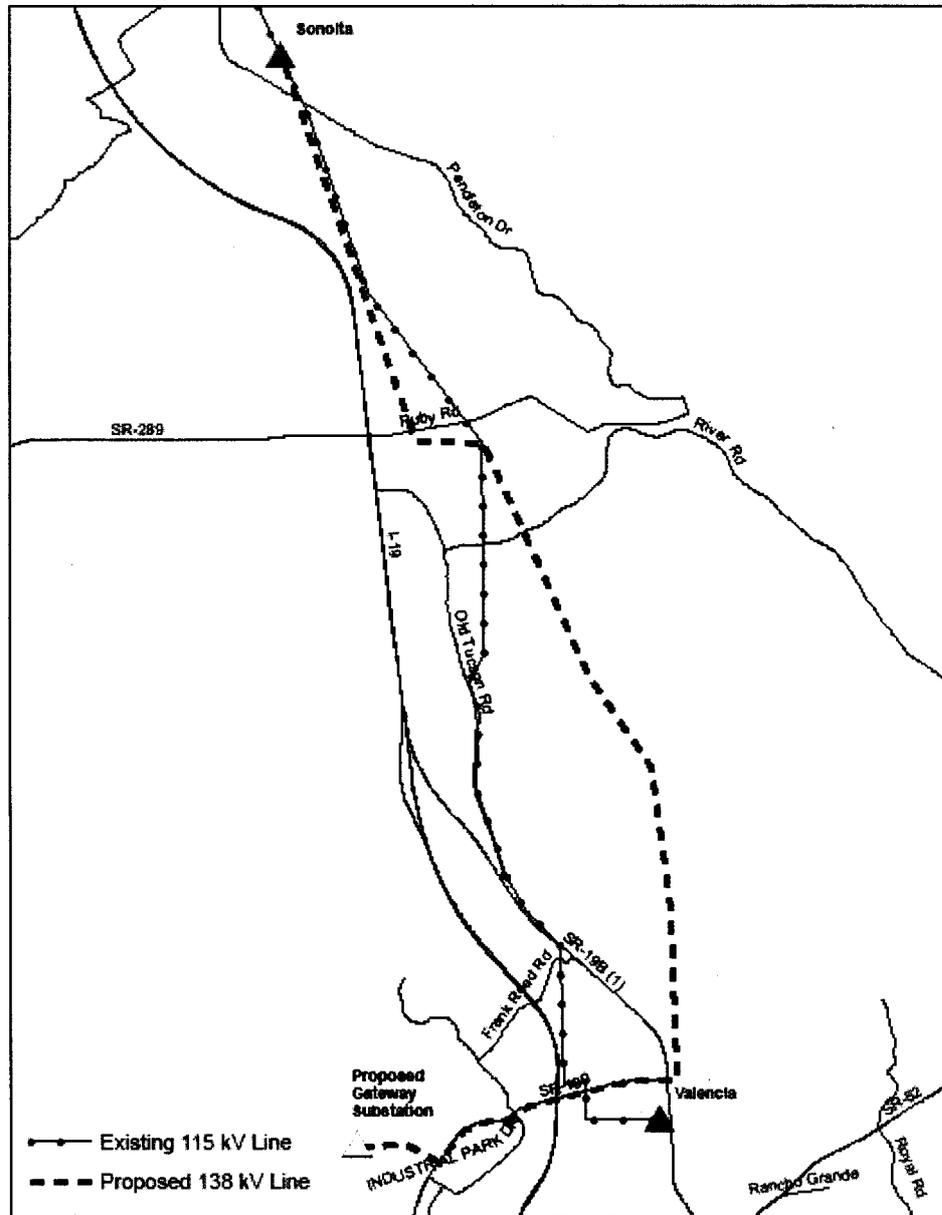
UNS Electric
 10 YEAR PLAN
 TRANSMISSION FACILITIES

Line Designation	Gateway 345/115 kV or 345/138 kV Substation
Size	
a) Voltage	Operating voltages include 345, 115 or 138, and 13.2 kV
b) Capacity	100 MVA
c) Point of Origin	n/a
d) Point of Termination	n/a
e) Length	n/a
Routing	Unknown
Purpose	The proposed substation facilities provide an interconnection and source for UNSE's second transmission line to its Santa Cruz Service Area and a future distribution substation, as provided for in CEC..
Date	
a) Construction Start	Under Review
b) In-Service Date	Under Review
Is Certificate Necessary	Case # 111 (see also TEP 10-year plan)
Technical Studies	Studied in SWAT and internal UNSE study efforts as well as SATS and WestConnect Plan.

UNS Electric
 10 YEAR PLAN
 TRANSMISSION FACILITIES

Line Designation	Gateway - Sonoita 138 kV Transmission Line
Size	
a) Voltage	138 kV
b) Capacity	System Dependent
c) Point of Origin	Gateway Substation
d) Point of Termination	Sonoita Substation
e) Length	Approximately 10 miles
Routing	Unknown
Purpose	To provide additional transmission capacity in the Nogales area.
Date	
a) Construction Start	Under Review
b) In-Service Date	Under Review
Is Certificate Necessary	Yes
Technical Studies	UNSE study.

Proposed Gateway to Sonoita 138 kV Line



Data Sources:
 UniSource, ADOT
 Projection:
 UTM Zone 12N NAD 1983 HARN

1:60,000
 1 inch equals 5,000 feet
 January 29, 2007

This map is for general planning purposes only.
 TEP and UniSource make no warranty of its accuracy

