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UNS Electric, Inc.

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ARIZONA CORPORATION COMMISSION
DOCKET CONTROL

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January 29, 2015

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

Re: Notice of Filing – UNS Electric, Inc.’s 2015-2024 Ten-Year Plan
Docket No. E-00000D-15-0001

Pursuant to A.R.S § 40-360.02, enclosed for filing is an original and thirteen copies of
UNS Electric Inc.’s (“UNS Electric”) 2015-2024 Ten-Year Plan.

If you have any questions, please contact me at (520) 884-3680.

Sincerely,

Melissa Morales

ORIGINAL

cc: Compliance Section, ACC

Arizona Corporation Commission
DOCKETED
FEB 02 2015

DOCKETED BY



UNS Electric, Inc.

**TEN-YEAR PLAN
FOR YEARS
2015-2024**

SUBMITTED TO THE
ARIZONA CORPORATION COMMISSION
JANUARY 2015

Docket No: E-00000D-15-0001

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Introduction

This 2015-2024 Ten-Year Plan is submitted by UNS Electric, Inc. (“UNS Electric”) 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.

Previously reported facilities that have been canceled are not included. Projects not expected to be built within the 10-year planning horizon are shown as having in-service dates to be determined (“TBD”). These projects may move into the ten-year planning horizon in subsequent studies.

This report includes system maps depicting the existing transmission networks and planned or contemplated projects followed by individual project descriptions. The maps and descriptions are intended to be general planning-level documents to explain projects conceptually. Therefore the maps and descriptions do not represent specific routes or facility locations.

Load Forecasting

UNS Electric’s (UNSE) 2015 – 2024 Ten-Year Plan was developed based on UNSE’s Corporate Forecast approved in January 2014. This forecast takes into account distributed renewable generation and energy efficiency programs, as well as UNSE’s retail customer load. The load offset due to distributed renewable generation and energy efficiency programs did not alter the UNSE Ten-Year Plan.

Service Territories

Following this brief discussion of activities on the service territories are conceptual maps of the planned facilities and details of the proposed projects.

Mohave County

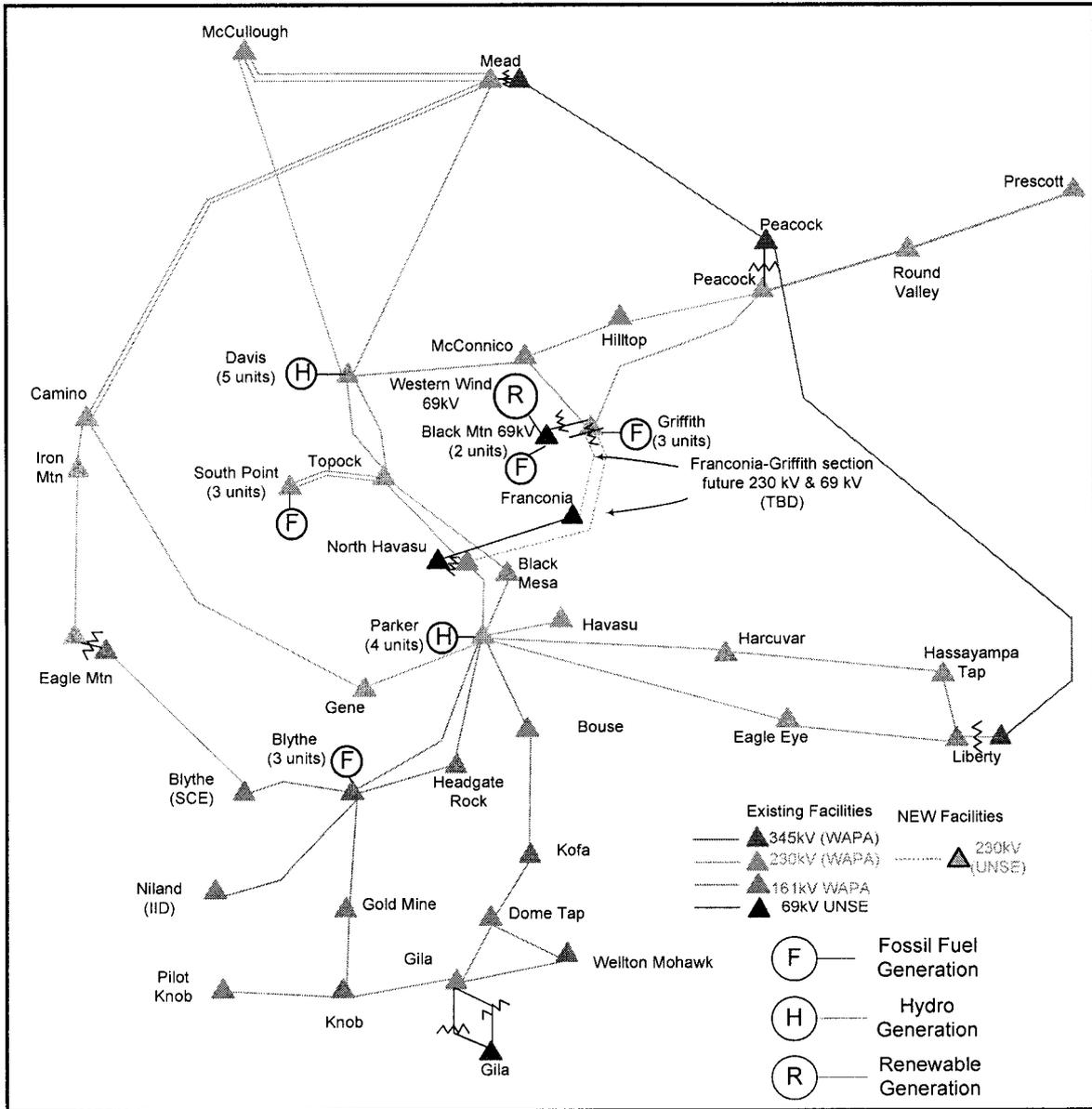
UNS Electric Mohave County load is dependent on the Western Area Power Administration’s (“Western”) ability to serve the majority of its transmission needs in Northwest Arizona. The Arizona Corporation Commission (the “Commission”) has approved a Certificate of Environmental Compatibility (“CEC”) (Case No. 88) for the Griffith – North Havasu 230 kilovolt (“kV”) line. The Commission subsequently extended the expiration date of this CEC to 2022. The timing for construction of this project will be determined by the growth of UNS Electric’s retail load and limitations on the ability of the Western transmission system to support this load growth. A portion of this project (North Havasu to Franconia) was completed in 2007 and is currently energized at 69kV to support distribution needs at Franconia. UNS Electric will continue to work with the Arizona subcommittee of the Southwest Area Transmission (“SWAT-AZ”) sub-regional planning group, or a designated work group of SWAT-AZ, to address issues in Mohave County.

Santa Cruz County

UNSE is served from a radial line that starts at Tucson Electric Power’s (TEP) Vail 138kV substation and continues south where it terminates at the UNSE 138kV Valencia Substation. UNSE has four (4) generators located at the Valencia substation that can serve Santa Cruz County loads should flow from the Vail substation be lost or should load exceed the capacity of the line.

Mohave County

Figure 1. Mohave County Transmission System



UNS Electric
10-YEAR PLAN
TRANSMISSION FACILITIES

Line Designation Size	Griffith – North Havasu Transmission
a) Voltage	230 kV
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 UNS Electric load centers in Mohave County.
Date	
a) Construction Start	North Havasu to Franconia, 2007
b) In-Service Date	North Havasu to Franconia, 2007 [Complete]
	Franconia to Griffith, TBD
Is Certificate Necessary	Case # 88 ¹ -- An extension was approved by the ACC in July 2012 which expires in 2022.
Technical Studies	Studies completed via CATS, CRT, and SWAT, and is part of the WestConnect Transmission Plan.

¹ Hilltop to Griffith portion of line already completed.

UNS Electric
10-YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	230kV – Mineral Park Transmission Line
Size	
a) Voltage	230 kV
b) Capacity	TBD
c) Point of Origin	McConnico or Griffith Substation
d) Point of Termination	Mineral Park Substation
e) Length	Approximately 17 miles
Routing	TBD
Purpose	TBD
Date	
a) Construction Start	TBD
b) In-Service Date	TBD
Is Certificate Necessary	Yes
Technical Studies	Required

Santa Cruz County

Figure 2. Santa Cruz County Transmission System

