ORIGINAL

Tucson Electric Power
88 East Broadway Blvd., P.O. Box 711,
Tucson, AZ 85702

January 31, 2013

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

Re: Notice of Filing – Tucson Electric Power Company's 2013-2022 Ten-Year Plan
Docket No. E-00000D-13-0002

Pursuant to ARS § 40-360.02, enclosed please find an original and thirteen copies of Tucson Electric Power Company's ("TEP") 2013-2022 Ten-Year Plan.

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

Sincerely,

Jessica Bryne

Jessica Bryne

cc: Prem Bahl, Utilities Division, ACC
Compliance Section, ACC

Tucson Electric Power

TUCSON ELECTRIC POWER COMPANY
TEN YEAR PLAN
FOR YEARS
2013-2022

SUBMITTED TO THE
ARIZONA CORPORATION COMMISSION
JANUARY 2013

DOCKET NO: E-00000D-13-0002

CONTENTS

INTRODUCTION

EHV Transmission System

Tucson Electric Power Company ("TEP") is a member of WestConnect and the Southwest Area Transmission ("SWAT") Sub-Regional Planning Group. TEP participates in various SWAT subcommittees, including: Central Arizona Transmission ("CATS"), Colorado River Transmission ("CRT"), and Southeast Arizona Transmission System ("SATS") study groups. Each of these subcommittees has been involved in studying various generation and transmission projects to enhance and increase utilization of the existing system. The SATS study includes all or part of Pima, Pinal, Cochise, and Santa Cruz counties and has the largest direct impact on TEP. TEP has chaired this subcommittee since its inception.

138kV Local Transmission System

TEP performs an annual review of its 138kV system performance over a ten-year planning horizon. This results in a schedule for new facilities and upgrades to existing facilities assuring adequate transmission capacity within TEP's service territory as the Tucson metropolitan area continues to develop. Capital improvements are proposed for the TEP 138kV system to accommodate new 138/13.8kV substations, address increased line loading, and mitigate localized stability issues.

Power flow analysis is conducted to identify thermal overloads and voltage violations under normal and contingency conditions as required by the NERC Reliability Standards and the WECC System Performance Criteria. Proposed projects are then determined such that the performance measures of the NERC Reliability Standards and WECC System Performance Criteria are met for Category A, B and C conditions.

TEP EHV and local area 138kV transmission systems with facility additions or uprates are shown graphically in Figures 1, 2, and 3, and followed by individual project descriptions. Note that in-service dates shown as "TBD" are beyond the ten-year horizon. Figure 1, *Existing and Planned EHV Transmission Facilities Map;* and Figure 2, *Existing and Planned EHV Transmission Facilities One-Line Diagram* show existing and proposed EHV transmission for portions of TEP and neighboring systems. Existing 500kV, 345kV, 230kV, and 138 kV lines are depicted as solid red, green, blue, and orange lines respectively. Proposed lines are shown in the same colors, but as thicker dashed lines. Lines owned by others are shown in the same color but as dotted lines. Proposed Substations are shown in the same color but with a black border.

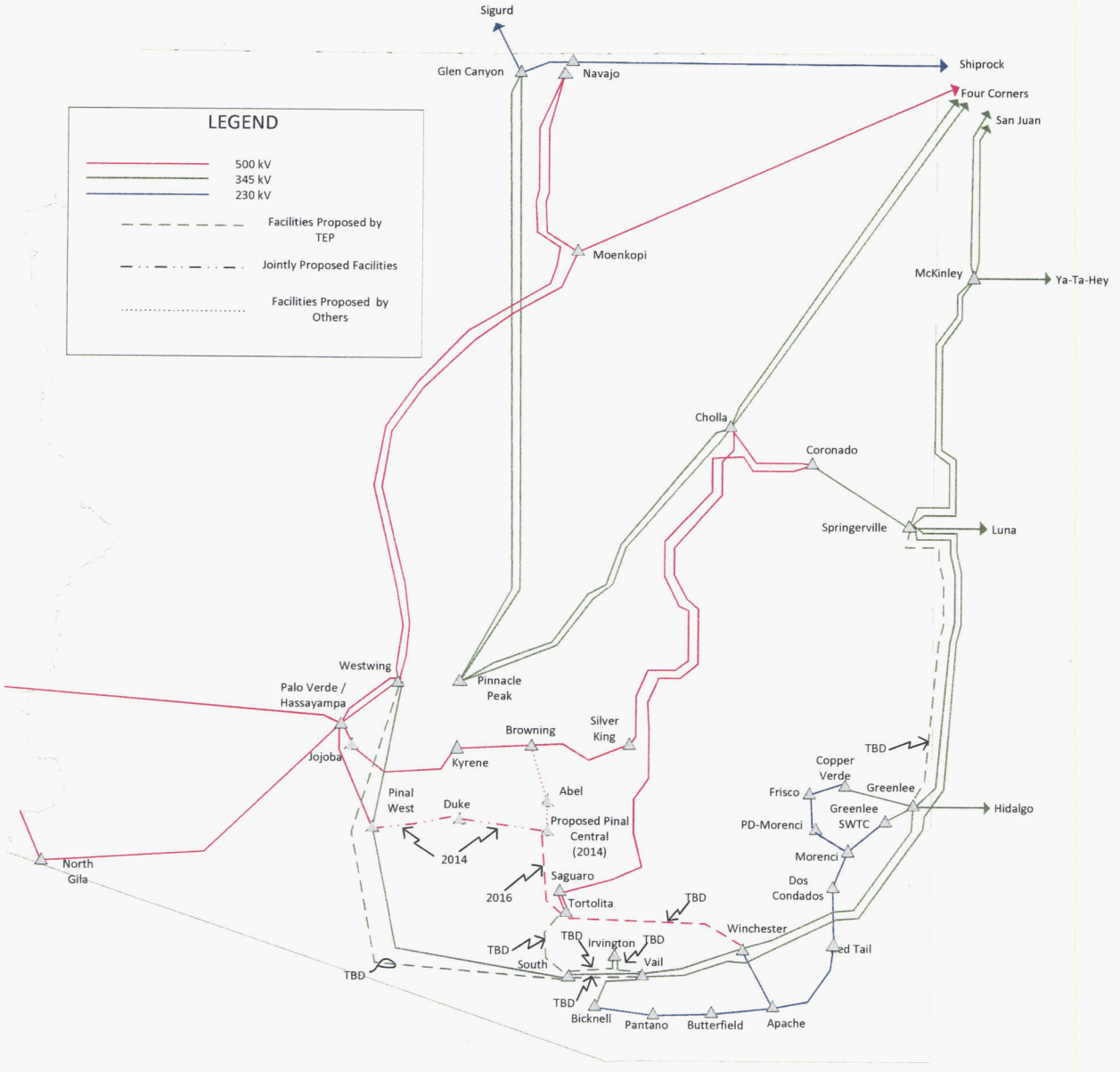

Figure 1. Existing and Planned EHV Transmission Facilities Map

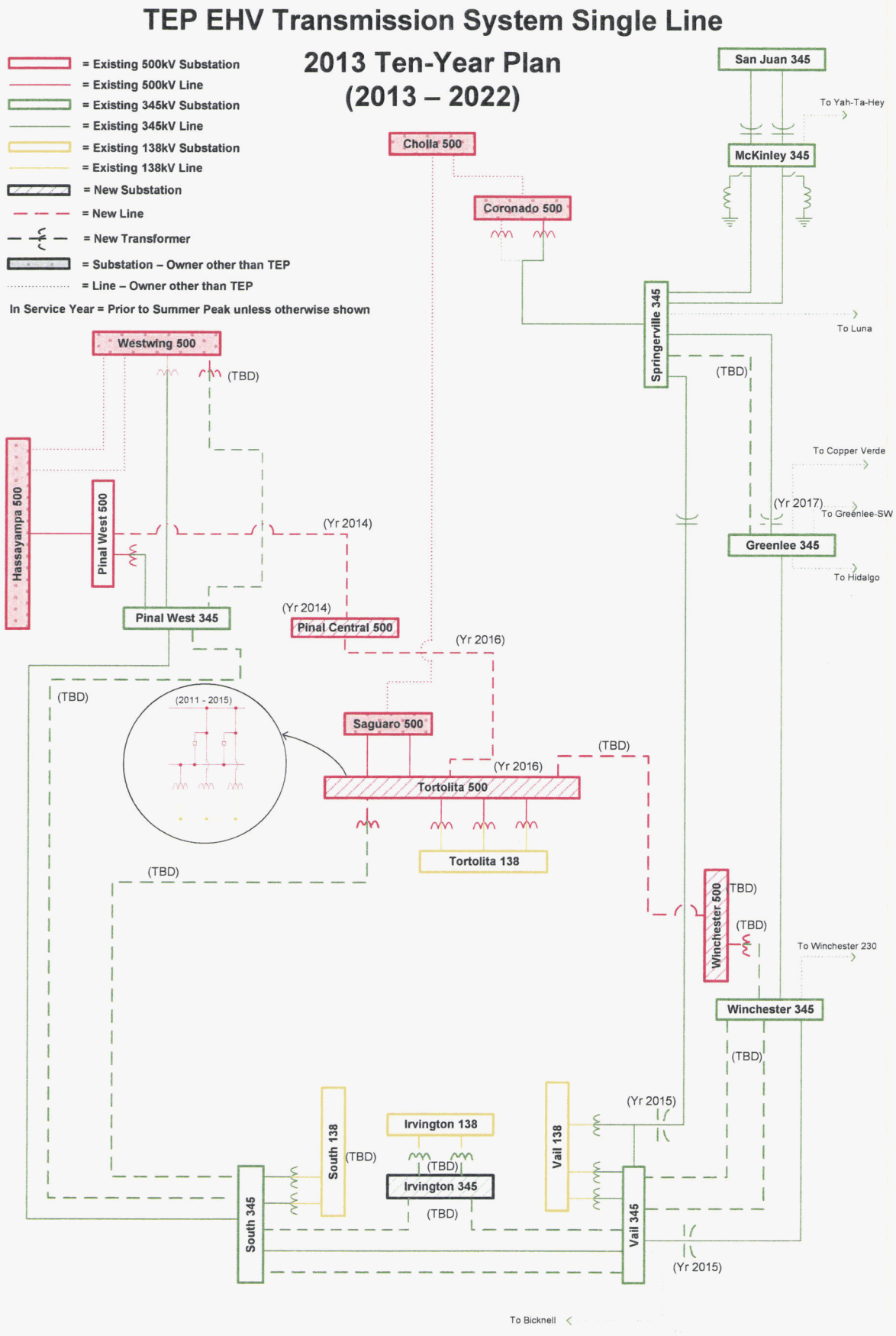

Figure 2. Existing and Planned EHV Transmission Facilities Single-Line Diagram

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Series Capacitor Replacement at Vail 345kV Substation (Springerville – Vail 345kV Line)
Size	
a) Voltage	345-kV
b) Capacity	1195 MW Continuous/1494 MW Emergency
c) Point of Origin	Vail Substation
d) Point of Termination	Vail Substation
e) Length	NA
Routing	NA
Purpose	To upgrade existing equipment.
Date	
a) Construction Start	2014
b) In-Service Date	2015
Is Certificate Necessary	No
Technical Studies	Completed

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Pinal Central Substation to Tortolita Substation
Size	
a) Voltage	500-kV
b) Capacity	System dependent
c) Point of Origin	Future Pinal Central substation
d) Point of Termination	Tortolita Substation (Sec. 14 T10S R10E)
e) Length	Approximately 38 miles
Routing	In accordance with the CEC approved in Decision No. 73282 (July 30, 2012).
Purpose	To reinforce TEP's EHV system and to provide a higher capacity link for the flow of power from the Palo Verde area into TEP's northern service territory.
Date	
a) Construction Start	2014
b) In-Service Date	2016
Is Certificate Necessary	Case # 165
Technical Studies	Completed

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Series Capacitor Replacement at Vail 345kV Substation (Winchester – Vail 345kV Line)
Size	
a) Voltage	345-kV
b) Capacity	1195 MW Continuous/1494 MW Emergency
c) Point of Origin	Vail Substation
d) Point of Termination	Vail Substation
e) Length	NA
Routing	NA
Purpose	To upgrade existing equipment.
Date	
a) Construction Start	2014
b) In-Service Date	2015
Is Certificate Necessary	No
Technical Studies	Completed

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Series Capacitor Replacement at Greenlee 345kV Substation (Springerville – Greenlee 345kV Line)
Size	
a) Voltage	345-kV
b) Capacity	1195 MW Continuous/1494 MW Emergency
c) Point of Origin	Greenlee Substation
d) Point of Termination	Greenlee Substation
e) Length	NA
Routing	NA
Purpose	To upgrade existing equipment.
Date	
a) Construction Start	2016
b) In-Service Date	2017
Is Certificate Necessary	No
Technical Studies	Completed

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Vail Substation to Irvington Substation
Size	
a) Voltage	345-kV
b) Capacity	System dependent
c) Point of Origin	Vail Substation (Sec. 4 T16S R15E)
d) Point of Termination	Irvington Substation (Sec. 03 T15S R14E)
e) Length	Approximately 11 miles
Routing	Unknown
Purpose	To reinforce TEP's EHV system and to provide a new tie between TEP's HV and EHV systems.
Date	
a) Construction Start	TBD
b) In-Service Date	TBD
Is Certificate Necessary	Yes
Technical Studies	Studies in progress via SATS, SWAT and internal TEP study efforts.

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Irvington Substation to South Substation
Size	
a) Voltage	345-kV
b) Capacity	System dependent
c) Point of Origin	Irvington Substation (Sec. 03 T15S R14E)
d) Point of Termination	South Substation (Sec. 36 T16S R13E)
e) Length	Approximately 16 miles
Routing	Unknown
Purpose	To reinforce TEP's EHV system and to provide a new tie between TEP's HV and EHV systems.
Date	
a) Construction Start	TBD
b) In-Service Date	TBD
Is Certificate Necessary	Yes
Technical Studies	Studies in progress via SATS, SWAT and internal TEP study efforts.

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Tortolita Substation to Winchester Substation
Size	
a) Voltage	500-kV
b) Capacity	System dependent
c) Point of Origin	Tortolita Substation (Sec. 14 T10S R10E)
d) Point of Termination	Winchester Substation
e) Length	Approximately 80 miles
Routing	In accordance with the CEC approved in Decision 46801 (January 23, 1976).
Purpose	To reinforce TEP's EHV system and to provide a higher capacity link for the flow of power from the Palo Verde area into TEP's eastern transmission system.
Date	
a) Construction Start	TBD
b) In-Service Date	TBD
Is Certificate Necessary	Case # 23
Technical Studies	Studies in progress via SWAT, SATS and internal TEP study efforts.

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Vail Substation to South Substation – 2nd circuit
Size	
a) Voltage	345-kV or 500-kV
b) Capacity	System dependent
c) Point of Origin	Vail Substation (Sec. 4 T16S R15E)
d) Point of Termination	South Substation (Sec. 36 T16S R13E)
e) Length	14 miles
Routing	Parallel and adjacent to existing Vail – South Line
Purpose	To reinforce TEP's EHV system and to provide additional transmission capacity between Vail and South Substations
Date	
a) Construction Start	TBD
b) In-Service Date	TBD
Is Certificate Necessary	Case # 15
Technical Studies	Studies in progress via SWAT, SATS and internal TEP study efforts.

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Springerville Substation to Greenlee Substation - 2nd circuit
Size	
a) Voltage	345-kV
b) Capacity	System dependent
c) Point of Origin	Springerville Substation (Sec. 34 T11N R30E)
d) Point of Termination	Greenlee Substation (Sec. 29 T5S R31E)
e) Length	110 Miles total; 27 Miles in Arizona.
Routing	Parallel and adjacent to existing Springerville to Greenlee line.
Purpose	To deliver power and energy from major TEP interconnections in the Four Corners and Eastern Arizona regions.
Date	
a) Construction Start	TBD
b) In-Service Date	TBD
Is Certificate Necessary	Case #'s 12, 30, 63 and 73
Technical Studies	Studies conducted in coordination with neighboring utilities formed the basis for the design of TEP's original EHV system in the 1970's. This project is based on that original work. Detailed studies will be performed in the future upon a determination of need for this project by TEP.

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Tortolita Substation to South Substation
Size	
a) Voltage	345-kV
b) Capacity	System dependent
c) Point of Origin	Tortolita Substation (Sec. 23 T10S R10E)
d) Point of Termination	South Substation (Sec. 36 T16S R13E)
e) Length	68 Miles
Routing	From Tortolita Substation south through Avra Valley to existing Westwing-South 345-kV transmission line right-of-way, then parallel and adjacent to existing Westwing – South line to South Substation.
Purpose	To reinforce TEP's EHV system and to provide a high capacity link for the flow of power in Southern Arizona.
Date	
a) Construction Start	TBD
b) In-Service Date	TBD
Is Certificate Necessary	Case # 50
Technical Studies	Studies conducted in coordination with neighboring utilities formed the basis for the design of TEP's original EHV system in the 70's. This project is based on that original work. Detailed studies will be performed in the future upon a determination of need for this project by TEP.

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Westwing Substation to South Substation – 2nd circuit
Size	
a) Voltage	345-kV or 500-kV
b) Capacity	System dependent
c) Point of Origin	Westwing Substation (Sec. 12 T4N R1W)
d) Point of Termination	South Substation (Sec. 36 T16S R13E)
e) Length	178 Miles
Routing	Parallel and adjacent to existing Westwing to South line and will include loop-in to Pinal West.
Purpose	To deliver power and energy from major TEP interconnections in the Northwest Phoenix region.
Date	
a) Construction Start	TBD
b) In-Service Date	TBD
Is Certificate Necessary	Case # 15
Technical Studies	Studies conducted in coordination with neighboring utilities formed the basis for the design of TEP's original EHV system in the 1970's. This project is based on that original work. Detailed studies will be performed in the future upon a determination of need for this project by TEP. To be reviewed in SWAT, SATS and internal TEP studies.

HV Plans

The TEP 138kV existing and planned local area transmission system is shown in Figure 3. *TEP Local Area 138kV Ten Year Transmission Plan.* Existing substations and lines are shown as green blocks and solid black lines respectively. Proposed substations are shown as yellow blocks and proposed lines are in red. Reconductor projects are shown in subdued red.

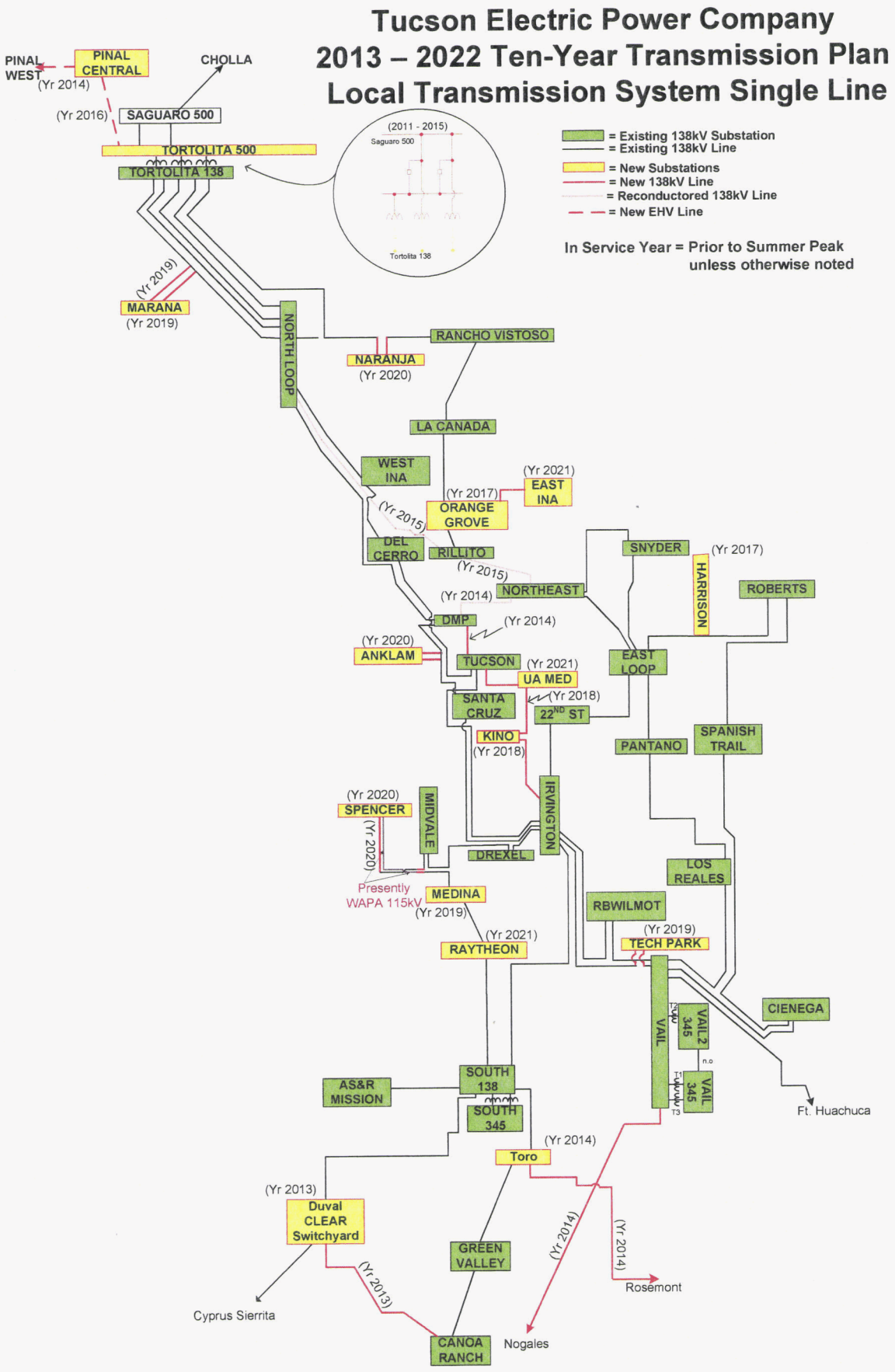

Figure 3. TEP Local Area 138kV Ten Year Transmission Plan

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Vail Substation to East Loop Substation through Spanish Trail and Roberts Substations, looping-in the Roberts-East Loop line to the new Harrison Substation.
Size	
a) Voltage	138-kV
b) Capacity	System dependent
c) Point of Origin	Vail Substation (Sec. 4 T16S R15E)
d) Point of Termination	East Loop Substation (Sec. 8 T14S R15E)
e) Length	Phase 1: Vail Substation to East Loop Substation - 22 Miles Phase 2: East Loop – Roberts – 7 miles Spanish Trail to Roberts – 5.75 miles Phase 3: Vail Substation to East Loop Substation - 22 Miles Phase 4: East Loop – Harrison – approximately 3 miles Roberts – Harrison – approximately 4 miles
Routing	East and north from Vail Substation along existing transmission line to Irvington and Houghton Roads, then north along Houghton Road to Speedway Boulevard, then east and north to Roberts Substation and west along Speedway to East Loop Substation.
Purpose	To provide additional electric service to the eastern portion of TEP's service area and to reinforce the local transmission system.

Date		
a) Construction Start	1976	
b) In-Service Date	Phase 1 - 1977 (Completed)	Spanish Trail Substation to East Loop and Vail Substation
	Phase 2 - 1983 (Completed)	Roberts Substation and associated 138-kV lines
	Phase 3 – TBD	Third 138-kV line from Vail to East Loop Substation
	Phase 4 - 2017	Harrison Substation loop-in of the Roberts-East Loop 138 kV line
Is Certificate Necessary	Case # 8.	

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Irvington Substation to East Loop Substation (through 22nd Street Substation)	
Size		
a) Voltage	138-kV	
b) Capacity	System dependent	
c) Point of Origin	Irvington Substation (Sec. 03 T15S R14E)	
d) Point of Termination	East Loop Substation (Sec. 08 T14S R15E)	
e) Length	Irvington – East Loop – 9 Miles	
	Phase 1: Irvington Station to 22nd Street Substation – 4 miles	
	Phase 2: 22nd Street to East Loop Substation – 5 miles	
Routing	North and East of Irvington Substation, through 22nd Street Substation, then East and North to East Loop Substation.	
Purpose	To provide additional electric service to the central area of TEP's service area and to reinforce the local transmission system.	
Date		
a) Construction Start	1985	
b) In-Service Date	Phase 1 – 1994 (Completed)	Irvington Station to 22nd St. Substation
	Phase 2 – 2000 (Completed)	22nd Street to East Loop Substation
	Phase 3 – TBD	2nd Circuit of Phase I
Is Certificate Necessary	Case # 66.	

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation		South Substation to Duval CLEAR Switchyard through future Canoa Ranch Substation and Green Valley Substation
Size		
	a) Voltage	138-kV
	b) Capacity	System dependent
	c) Point of Origin	South Substation (Sec. 36 T16S R13E)
	d) Point of Termination	Duval CLEAR Switchyard (Sec. 10 T18S R12E)
	e) Length	South – Green Valley – Approximately 15 miles Green Valley – Canoa Ranch – Approximately 3.5 miles Canoa Ranch – Duval CLEAR Switchyard – Approximately 7.5 miles
Routing		Uses existing transmission, sub-transmission, and overhead distribution route.
Purpose		To provide additional electrical service to southern area of TEP's service area and to reinforce the local transmission and distribution system.
Date		
	a) Construction Start	1995
	b) In-Service Date	Phase 1 -1997 (Completed) — South 138-kV line to Green Valley. Phase 2a -2006 (Completed) — 138-kV line from Green Valley to Canoa Ranch Substation Phase 2b- 2013 — Extend 138-kV line from Canoa Ranch Substation site to future Duval CLEAR Switchyard
Is Certificate Necessary		Case # 84 (Extension approved in 2006 Commission Decision No. 69680 (June 28, 2007))

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	DeMoss Petrie Substation – Tucson Station 138 kV
Size	
a) Voltage	138-kV
b) Capacity	System dependent
c) Point of Origin	DeMoss Petrie 138 kV Substation
d) Point of Termination	Tucson 138 kV Substation
e) Length	2.5 miles
Routing	South from DeMoss Petrie for approximately 1.25 miles, turn west for approximately 0.1 miles, turn south for approximately 0.5 miles, then east for approximately 0.4 miles, then northeast for approximately 0.2 miles. (Freeway Route)
Purpose	Required to meet reliability criteria of a localized voltage instability specific to loss of both the North Loop-West Ina and Irvington-Tucson 138 kV circuits.
Date	
a) Construction Start	2013
b) In-Service Date	2014
Is Certificate Necessary	Case # 157

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Future Toro Switchyard —to Rosemont Substation 138 kV
Size	
a) Voltage	138-kV
b) Capacity	Load > 120 MVA Toro STATCOM: 50-75 MVAr
c) Point of Origin	Future Toro Switchyard that will be a loop-in of the TEP South – Green Valley 138 kV Line (Sec. 29 T17S R14E)
d) Point of Termination	Future Rosemont Switchyard (Sec. 30 T18S R16E)
e) Length	Approximately 13.2 Miles
Routing	Approximately 1 mile east from Toro, then southeast to the intersection of Santa Rita Road and Helvetia Road, then northeast to Rosemont.
Purpose	To provide electrical service to large mine load located east of Green Valley, AZ
Date	
a) Construction Start	2013
b) In-Service Date	2014
Is Certificate Necessary	Case # 164

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Santa Cruz Substation – Anklam Substation – DeMoss Petrie Substation 138kV
Size	
a) Voltage	138-kV
b) Capacity	System dependent
c) Point of Origin	Santa Cruz 138 kV Substation
d) Interim Point	Future Anklam 138 kV Substation
d) Point of Termination	DeMoss Petrie 138kV Substation
e) Length	Approximately 2 miles from existing circuit
Routing	Anklam to tie into the existing Del Cerro – Tucson 138kV circuit with approximately two mile extension of double circuit 138 kV pole-line.
Purpose	Required to serve load at the new Anklam 138/13.8 kV Substation
Date	
a) Construction Start	2019
b) In-Service Date	2020
Is Certificate Necessary	Yes

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Loop existing Irvington Station to Vail Substation #2 line through future University of Arizona Tech Park Substation.
Size	
a) Voltage	138-kV
b) Capacity	System dependent
c) Point of Origin	Vail – Irvington Corridor
d) Point of Termination	Future U of A Tech Park Substation approximately (Sec. 28 T15S R15E)
e) Length	Approximately 2 miles of double-circuited line
Routing	Loop existing Irvington – Vail #2 line into future U of A Tech Park substation
Purpose	To provide additional electric service to the U of A Tech Park expansion and the southern part of TEP's service area.
Date	
a) Construction Start	2018
b) In-Service Date	2019
Is Certificate Necessary	Yes

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Interconnection of Tortolita – North Loop 138 kV with future TEP Marana 138 kV Substation
Size	
a) Voltage	138-kV
b) Capacity	System dependent
c) Point of Origin	Tortolita 138 kV Substation
d) Interim Point	Future Marana 138kV Substation
e) Point of Termination	North Loop 138 kV Substation
f) Length	Approximately 4 miles from existing circuit
Routing	Loop-in a circuit from the Tortolita- North Loop corridor at the Trico-Marana Rd. alignment and extend approximately 4 miles of double-circuit pole-line west across I-10 to proposed Marana substation site near Sanders Rd.
Purpose	Required to serve load at the new Marana 138/13.8 kV Substation located approximately 9 miles south-southeast of the Tortolita Substation
Date	
a) Construction Start	2018
b) In-Service Date	2019
Is Certificate Necessary	Yes

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	North Loop Substation - Rancho Vistoso Substation 138kV loop-in for new Naranja Substation
Size	
a) Voltage	138-kV
b) Capacity	System dependent
c) Point of Origin	North Loop 138 kV Substation
d) Interim Point	Future Naranja 138 kV Substation
e) Point of Termination	Ranch Vistoso 138 kV Substation
f) Length	Approximately 3 miles from existing circuit
Routing	Loop-in the North Loop – Rancho Vistoso line and extend approximately 3 miles of new double circuit pole-line generally south of Tangerine Rd. along Thornydale Rd. to the substation site subject to future CEC determination.
Purpose	Required to serve load at the new Naranja 138/13.8 kV Substation located in the vicinity of Thornydale Rd. and Lambert Ln.
Date	
a) Construction Start	2019
b) In-Service Date	2020
Is Certificate Necessary	Yes

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Orange Grove Substation –East Ina Substation 138kV
Size	
a) Voltage	138-kV
b) Capacity	System dependent
c) Point of Origin	Future Orange Grove 138 kV Substation
d) Point of Termination	Future East Ina 138kV Substation
e) Length	Approximately 4 miles
Routing	To be determined
Purpose	Required to serve load at the new East Ina 138/13.8 kV Substation
Date	
a) Construction Start	2020
b) In-Service Date	2021
Is Certificate Necessary	Yes

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Irvington Substation –Tucson Station #2 138 kV
Size	
a) Voltage	138-kV
b) Capacity	System Dependent
c) Point of Origin	Irvington Substation
d) Interim Point	New Kino Substation
e) Interim Point	New UA Med Substation
f) Point of Termination	Tucson Station
g) Length	Phase 1: Irvington – Kino – approximately 6 miles Kino – Tucson – approximately 5 miles Phase 2: Kino – UA Med – approximately 6 miles UA Med – Tucson – approximately 3 miles
Routing	To be determined
Purpose	To increase load serving capability and reliability in Central Tucson.
Date	
a) Construction Start	2017
b) In-Service Date	Phase 1 - 2018: Irvington Substation to new Kino Substation to Tucson Station 138 kV lines Phase 2 - 2021: Loop Kino Substation to Tucson Station Substation 138-kV line into UA Med Substation
Is Certificate Necessary	Yes

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	South – Midvale 138 kV Loop-in for future Medina, Spencer, and Raytheon 138kV substations
Size	
a) Voltage	138-kV
b) Capacity	System dependent
c) Point of Origin	Midvale 138 kV Substation
d) Interim Points	Phase 1: Future Medina 138kV Substation Phase 2: Future Spencer Substation (Sec. 2 T15S R12E) Phase 3 : Future Raytheon 138 kV Substation
e) Termination Point	South 138kV Substation
f) Length	Phase 1: Midvale-Medina – 1 span from existing circuit Phase 2: Midvale-Spencer approximately 8 miles of double-circuit 138 kV Phase 3: Medina – Raytheon – 1 span from existing circuit
Routing	Phase 1: Medina Substation will be adjacent to existing Midvale - South 138kV circuit Phase 2: Generally West of Midvale Substation along Valencia Road, then generally north on Spencer Road subject to future CEC determination. Phase 3: Raytheon Substation will be adjacent to existing Midvale - South 138kV circuit
Purpose	Phase 1: Required to serve load at the new Medina 138 kV Substation Phase 2: To provide additional electrical service to the far western portion of TEP's service area and to reinforce the local distribution system. Phase 3: Required to serve load at the new Raytheon 138 kV Substation

Date	
a) Construction Start	Phase 1: 2018 Phase 2: 2019 Phase 3: 2020
b) In-Service Date	Phase 1: 2019 Phase 2: 2020 Phase 3: 2021
Is Certificate Necessary	Phase 1: No Phase 2: Yes Phase 3: No

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	Northeast - Rillito 138kV Line Reconductor
Size	
a) Voltage	138-kV
b) Capacity	System Dependent
c) Point of Origin	Northeast Substation
d) Point of Termination	Rillito Substation
e) Length	Approximately 5 Miles
Routing	Existing
Purpose	To increase TEP load serving capability.
Date	
a) Construction Start	2015
b) In-Service Date	2016
Is Certificate Necessary	No

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	DeMoss Petrie – Northeast 138kV Line Reconductor
Size	
a) Voltage	138-kV
b) Capacity	System Dependent
c) Point of Origin	DeMoss Petrie Substation
d) Point of Termination	Northeast Substation
e) Length	Approximately 6 Miles
Routing	Existing
Purpose	To increase TEP load serving capability.
Date	
a) Construction Start	2013
b) In-Service Date	2014
Is Certificate Necessary	No

TUCSON ELECTRIC POWER COMPANY
10 YEAR PLAN
TRANSMISSION FACILITIES

Line Designation	North Loop – Rillito 138kV Line Reconductor
Size	
a) Voltage	138-kV
b) Capacity	System Dependent
c) Point of Origin	North Loop Substation
d) Point of Termination	Rillito Substation
e) Length	Approximately 11 Miles
Routing	Existing
Purpose	To increase TEP load serving capability.
Date	
a) Construction Start	2014
b) In-Service Date	2015
Is Certificate Necessary	No

TUCSON ELECTRIC POWER COMPANY

10 YEAR PLAN

TRANSMISSION FACILITIES

Line Designation	TEP 138kV Substation Capacitor Additions[i]
Size	
a) Voltage	138-kV
b) Capacity	System Dependent
c) Point of Origin	TBD
d) Point of Termination	TBD
e) Length	NA
Routing	NA
Purpose	Voltage support of the TEP 138kV system.
Date	
a) Construction Start	2018
b) In-Service Date	2022
Is Certificate Necessary	No

[i] Potential locations include Drexel, Duval CLEAR, Marana, Rillito, Tortolita, Vail, and West Ina