



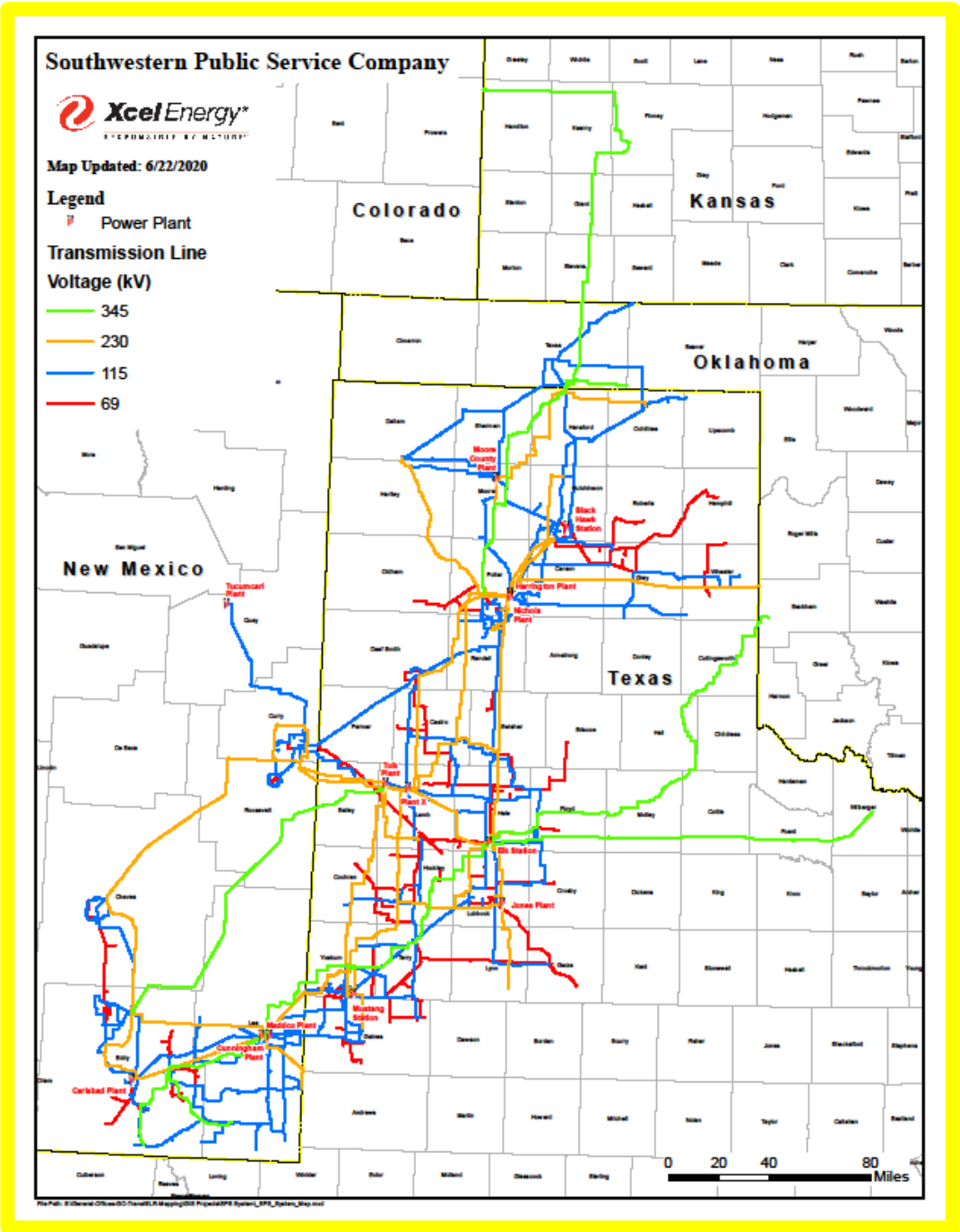
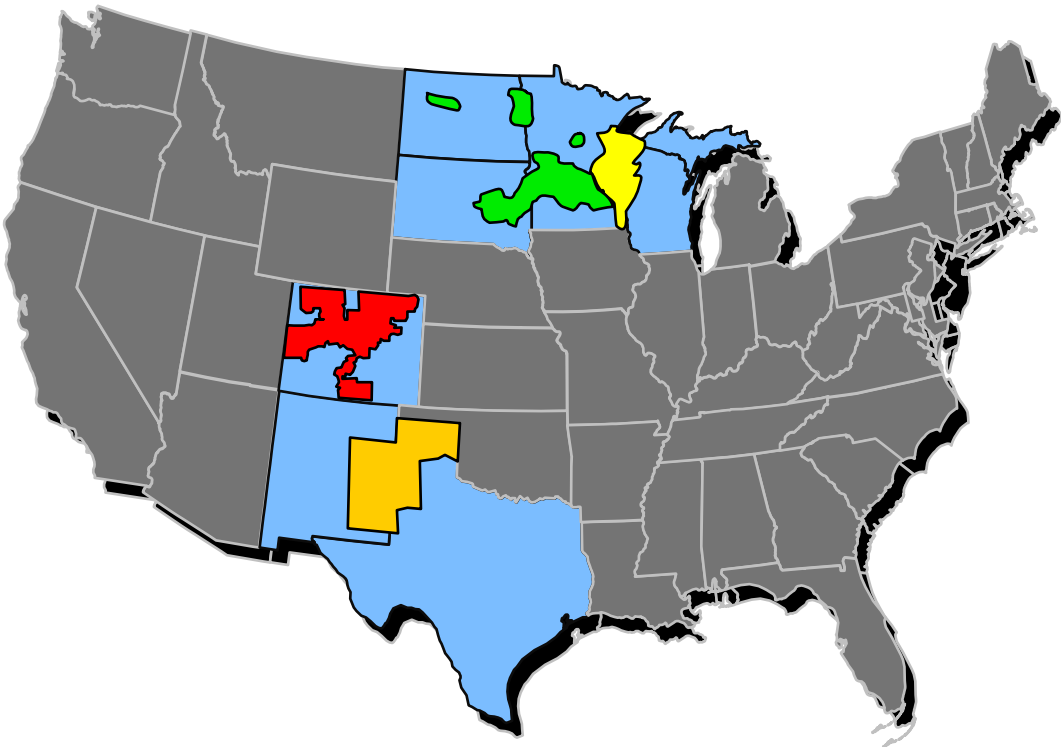
XCEL ENERGY-TEXAS AND NEW MEXICO SUB-REGIONAL TRANSMISSION PLANNING MEETING

Jarred Cooley – Manager, Transmission Planning

October 21, 2021

System Maps

Xcel Energy



Disclaimer

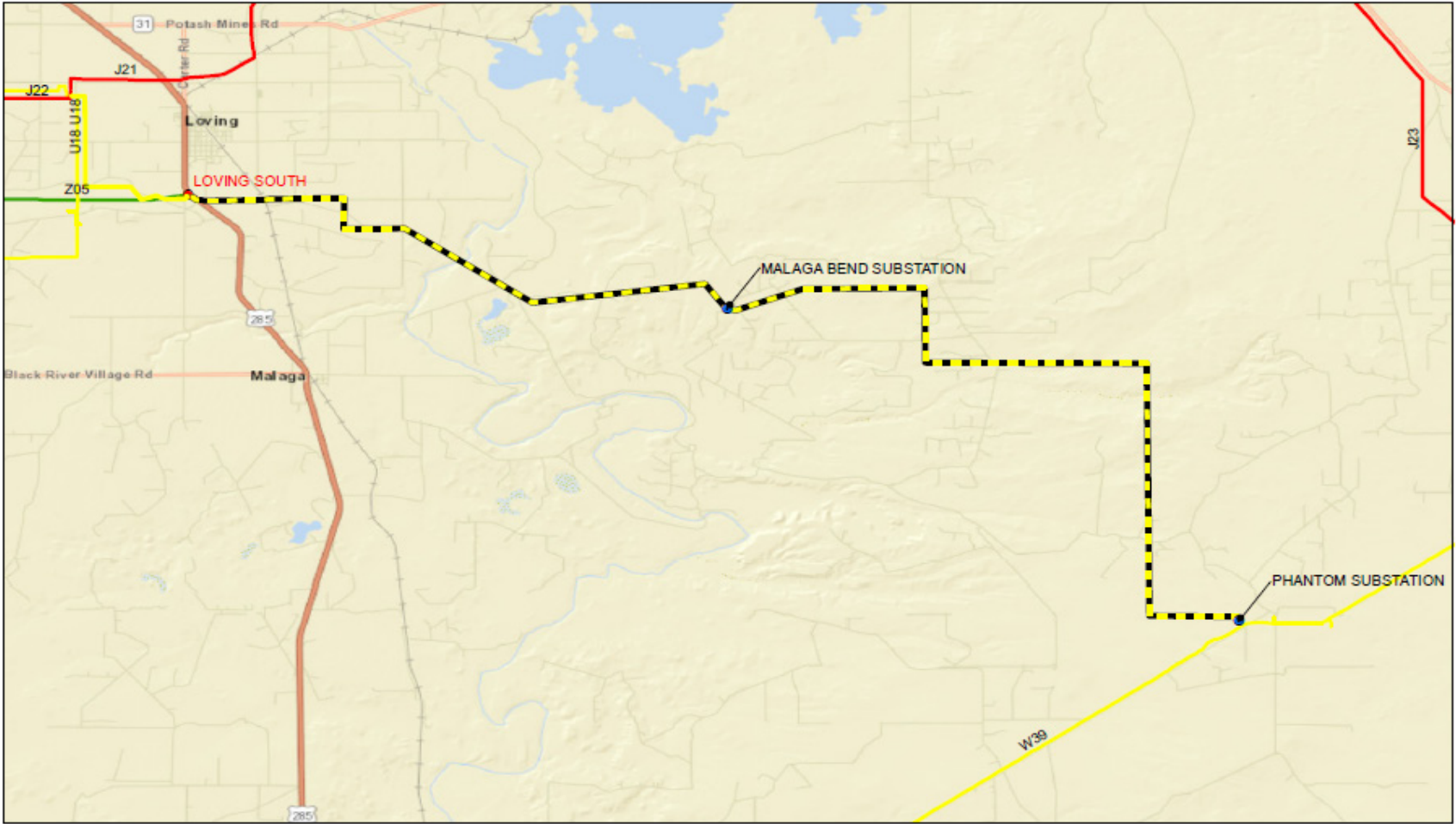
- All in-service dates (ISDs) of Active or Future projects are proposed and subject to change
- All projects have the possibility of changing based on new / evolving information
- These are projects from a Planning perspective as required from a reliability, load or generation interconnection, asset renewal, etc.
- Presentation is for informational purposes

TRANSMISSION SYSTEM ADDITIONS

Sept 2020 – Sept 2021



Loving South to Malaga Bend to Phantom (New)



Voltage: 115 kV

ISD: November 2020

NTC: No

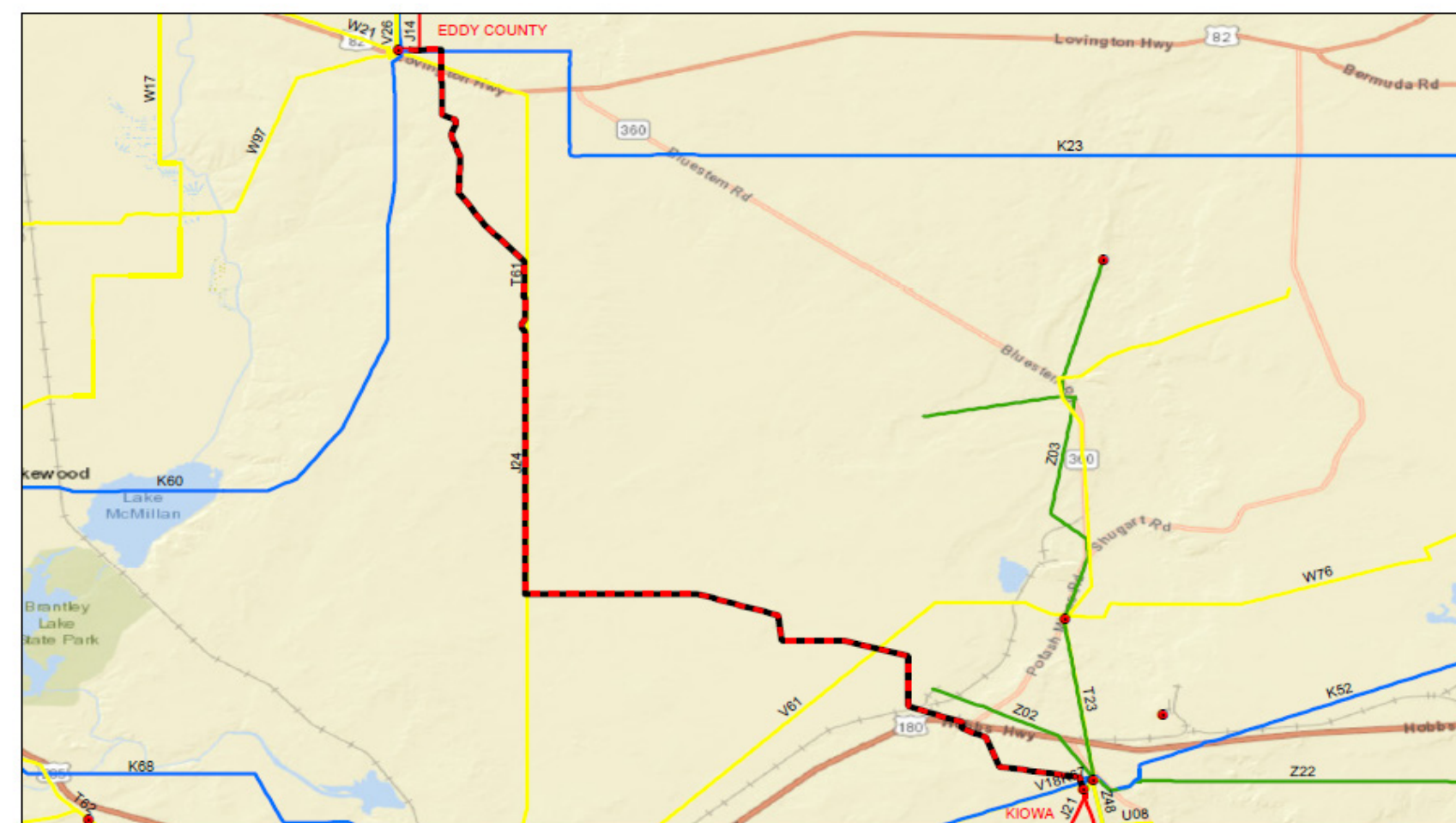
Description: Build a new 115 kV line (~21 miles long) from Loving South to the new Malaga Bend Dist. sub to the new 115 kV Phantom substation. Installing 2 Dist. transformers at Malaga Bend

Need: Load Growth / Reliability

SPS Transmission	Project
69kV	Loving South-Malaga Bend 115kV
115kV	Malaga Bend-Phantom 115kV
230kV	Malaga Bend Substation
345kV	Phantom Substation
SPS Existing Substation	
SPS New Substation	



Eddy to Kiowa (New)



Voltage: 345 kV

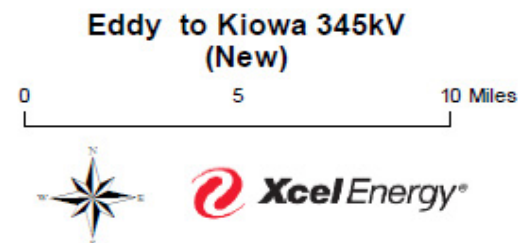
ISD: November 2020

NTC: Yes

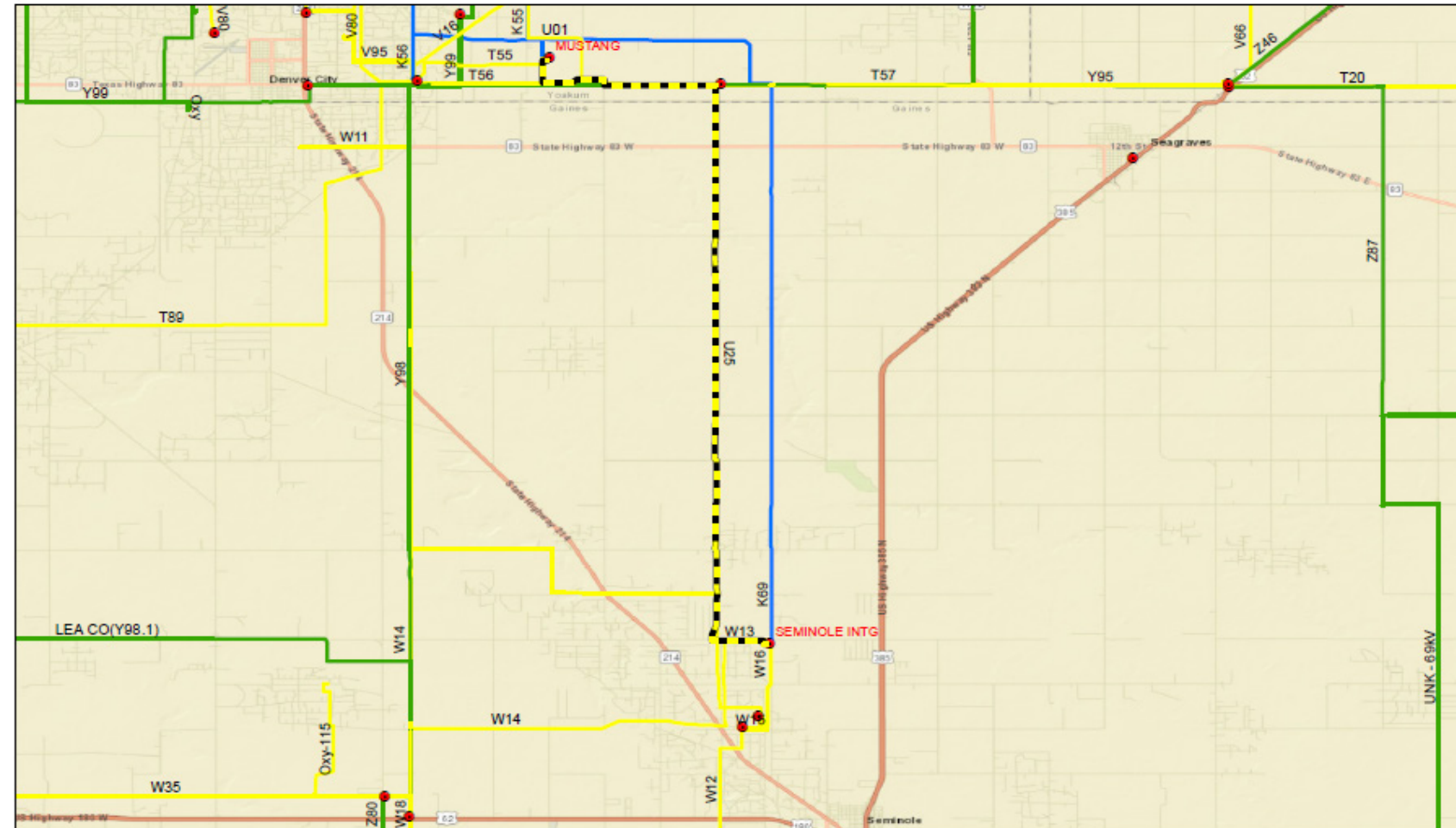
CCN: Yes

Description: Build a new 345 kV line (~34 miles long), expand substations at both ends

Need: Load Growth/Reliability



Mustang to Seminole (New)



Voltage: 115 kV

ISD: December 2020

NTC: Yes

CCN: Yes

Description: Build a new line (~20 miles long), expand substations at both ends

Need: Reliability



Mustang to Seminole 115kV
(New)



Rolling Hills to Northwest Interchange (Rebuild)

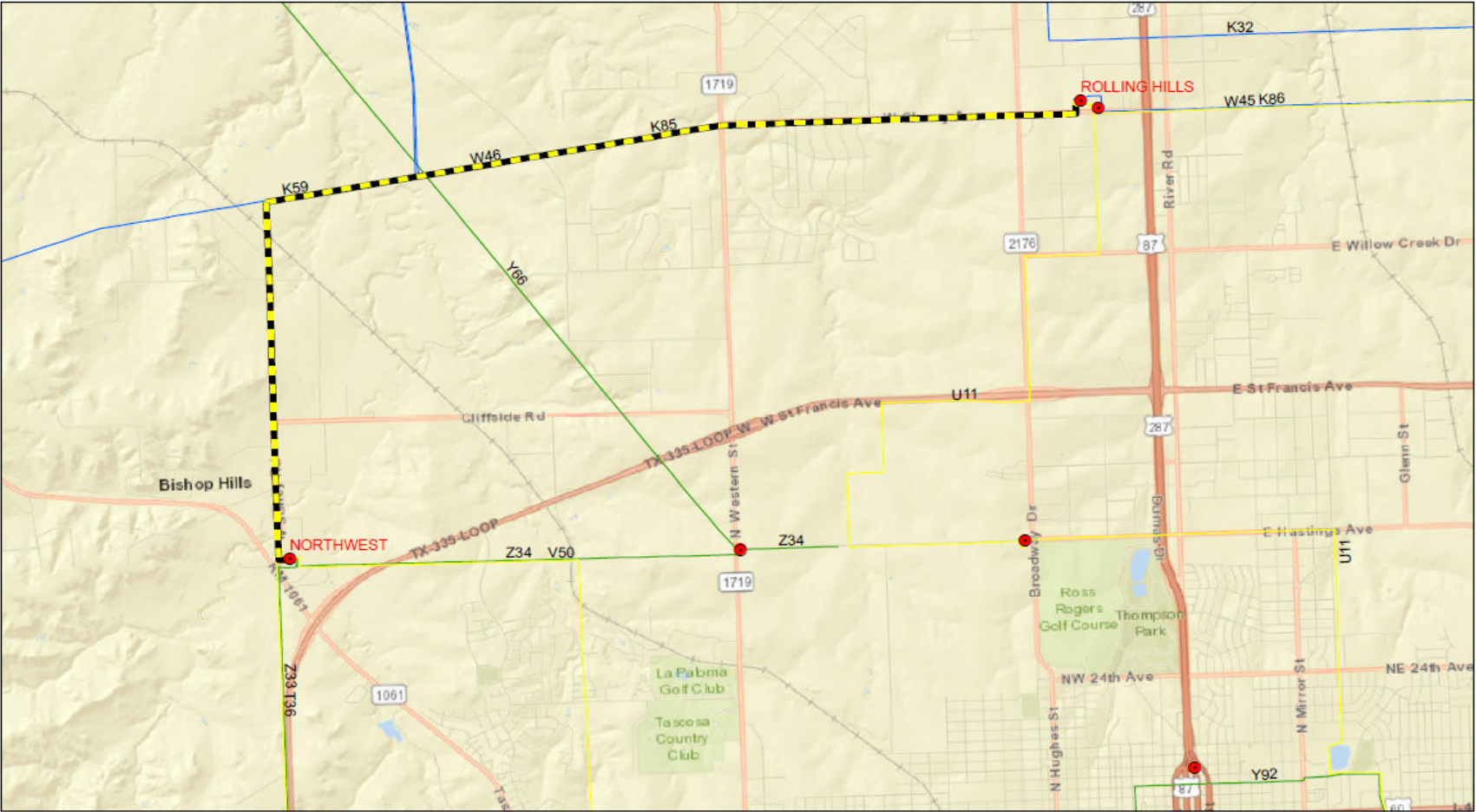
Voltage: 115 kV

ISD: May 2021

NTC: Yes

Description: Rebuild existing line (~8.3 miles long) to higher rated conductor

Need: Reliability



SPS Transmission Project

- 69kV
- 115kV
- 230kV
- 345kV
- SPS Existing Substation
- SPS New Substation
- W46 Rolling Hills to Northwest Intg. 115kV



W39 Rolling Hills to Northwest Intg. 115kV (Rebuild)

0 1 2 Miles



Hale County to Cox (Rebuild)

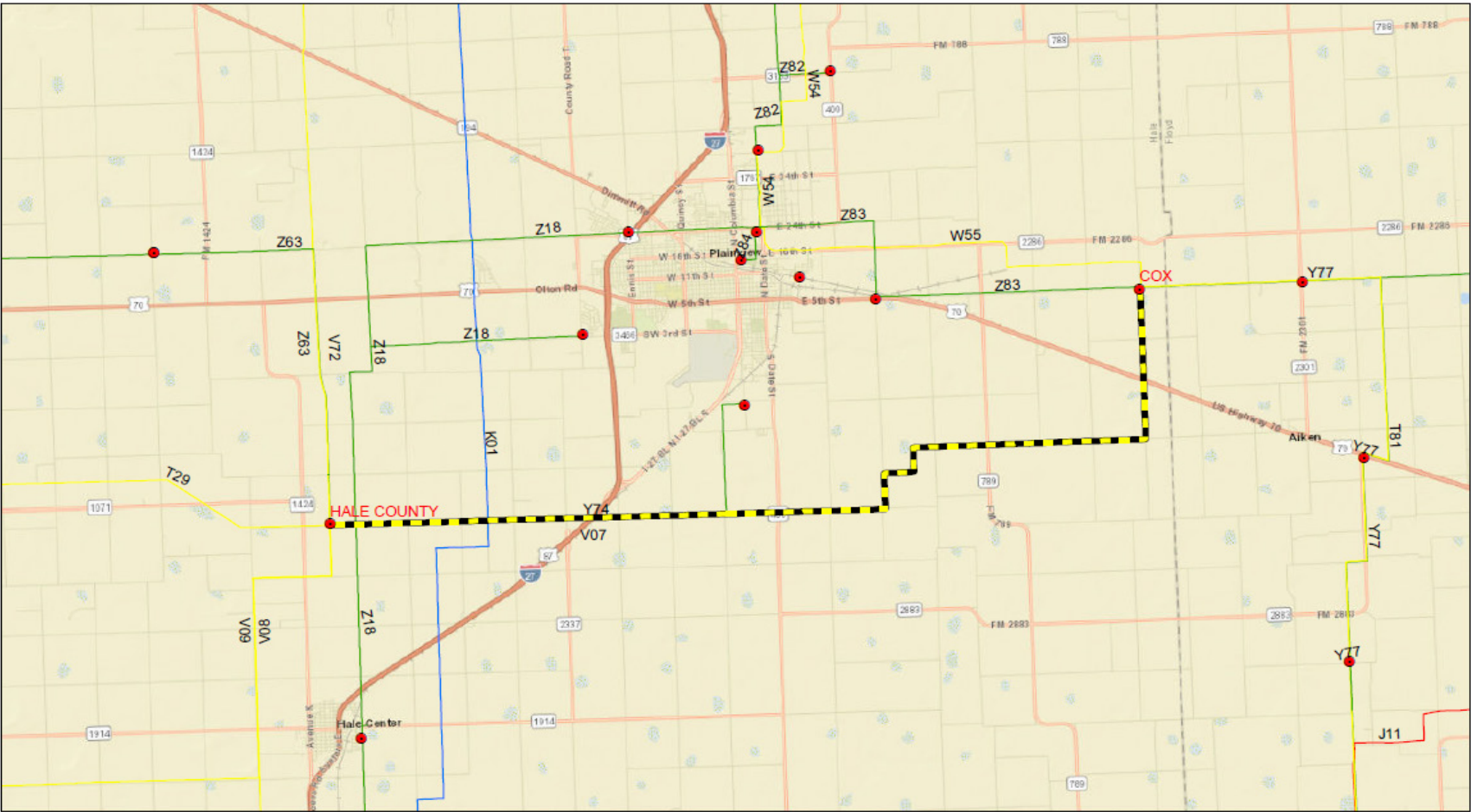
Voltage: 115 kV

ISD: May 2021

NTC: Yes

Description: Rebuild existing line (~20 miles long) to a higher rated conductor

Need: Reliability



SPS Transmission

- SPS Existing Substation
- 69kV
- 115kV
- 230kV
- 345kV

Project

- V07 Hale County to Cox 115kV



V07 Hale County to Cox 115kV
(Rebuild)

0 2.5 5 Miles



TRANSMISSION SYSTEM ADDITIONS

Active and Future



Amarillo Distribution Additions

Voltage: 115 kV and 69 kV

NTC: No

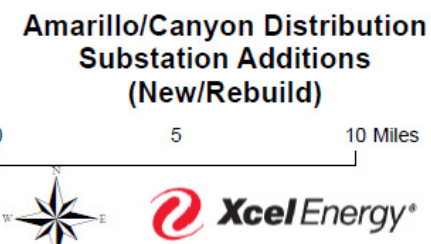
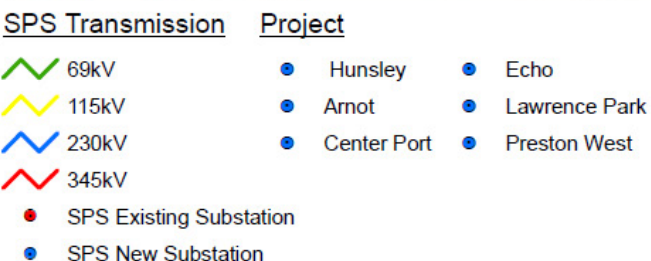
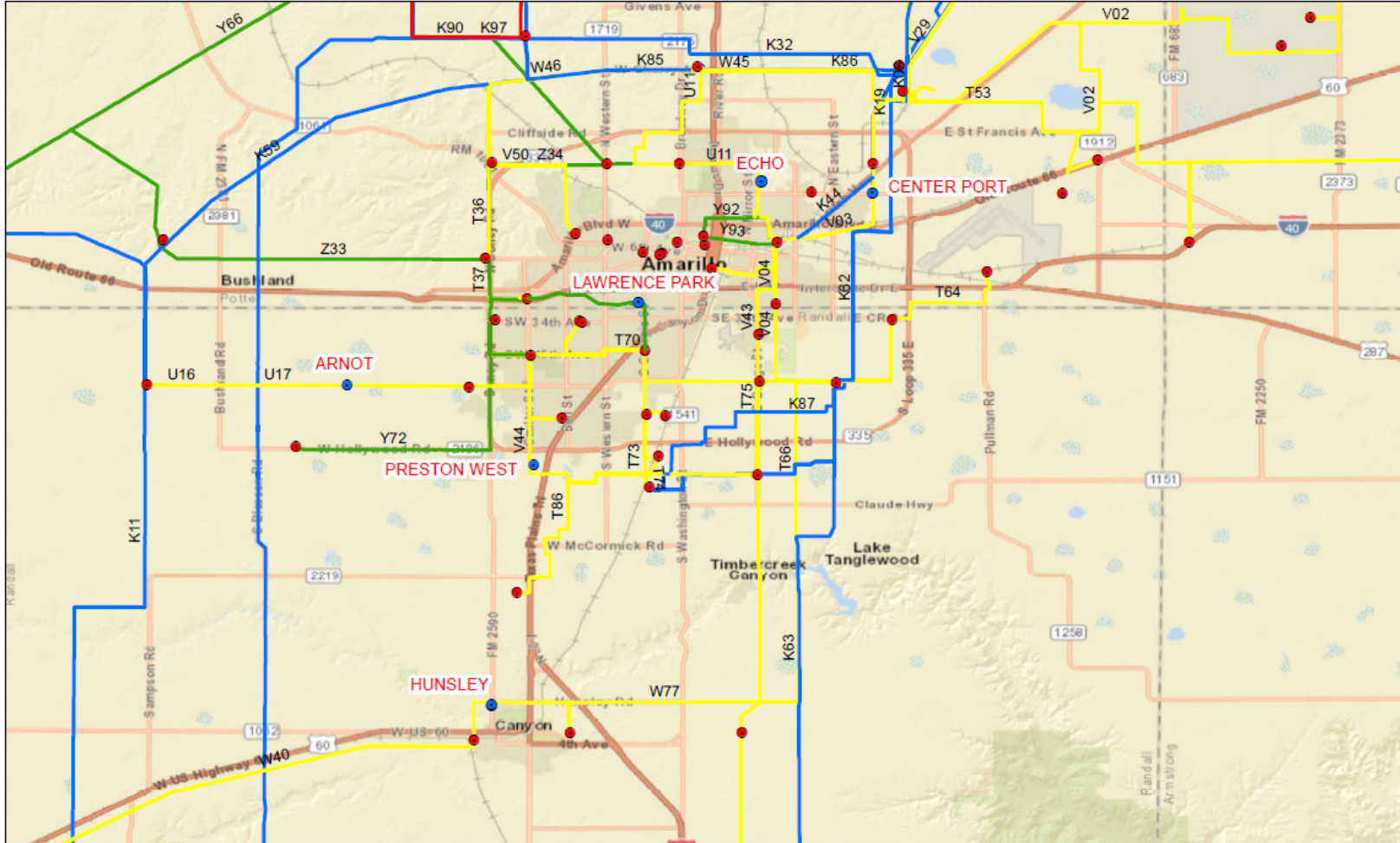
Description: Six SPS Distribution projects

- Hunsley (December 2020)
- Center Port (April 2022)
- Preston West (June 2022)
- Echo (April 2023)
- Arnot (November 2023)

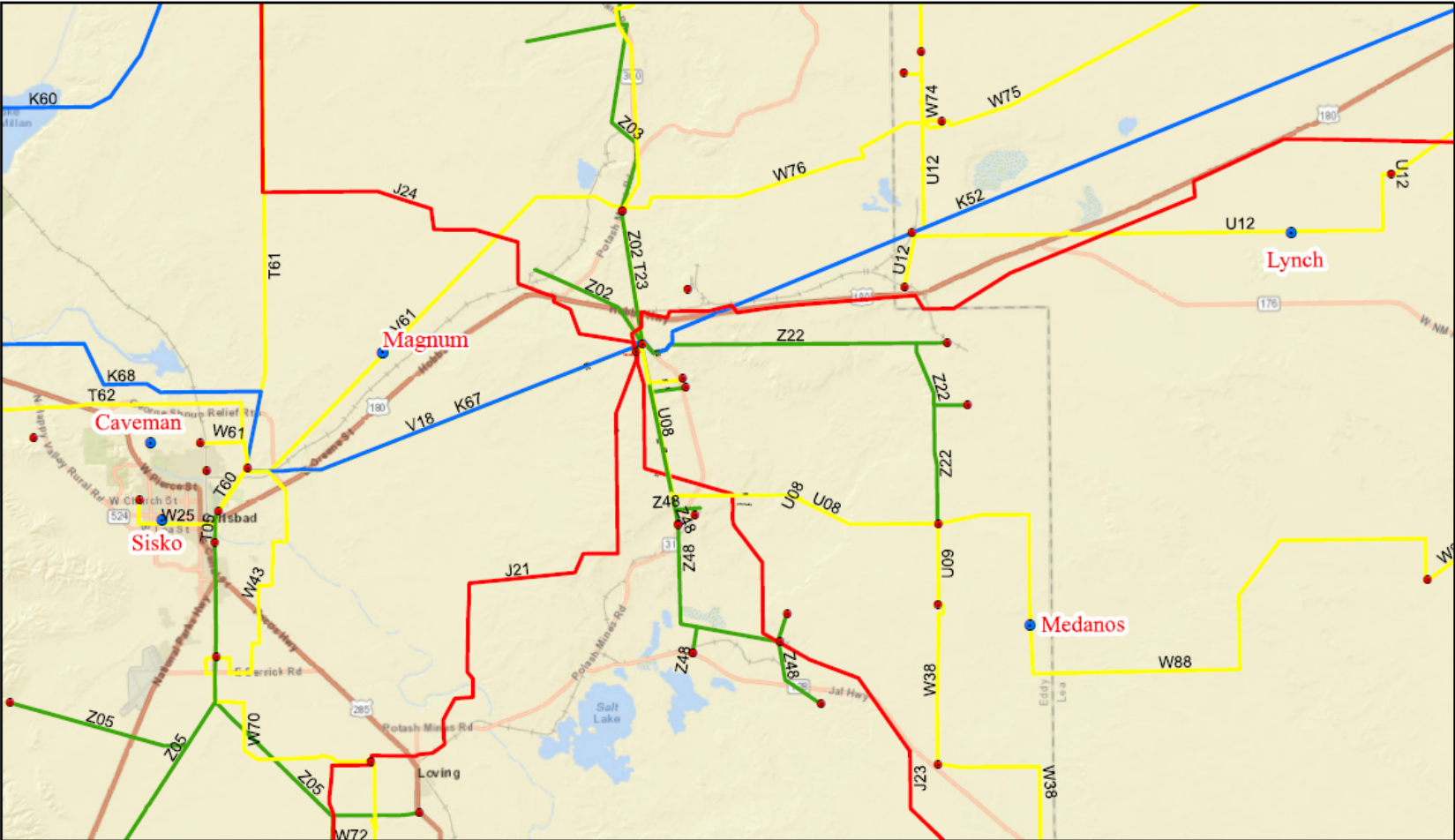
Need: Distribution driven

- Lawrence Park (Dec 2022)

Need: Asset Renewal



SE New Mexico Distribution Additions (New)



Voltage: 115 kV

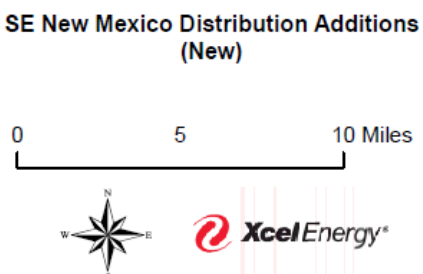
NTC: No

Description: 5 new SPS substations

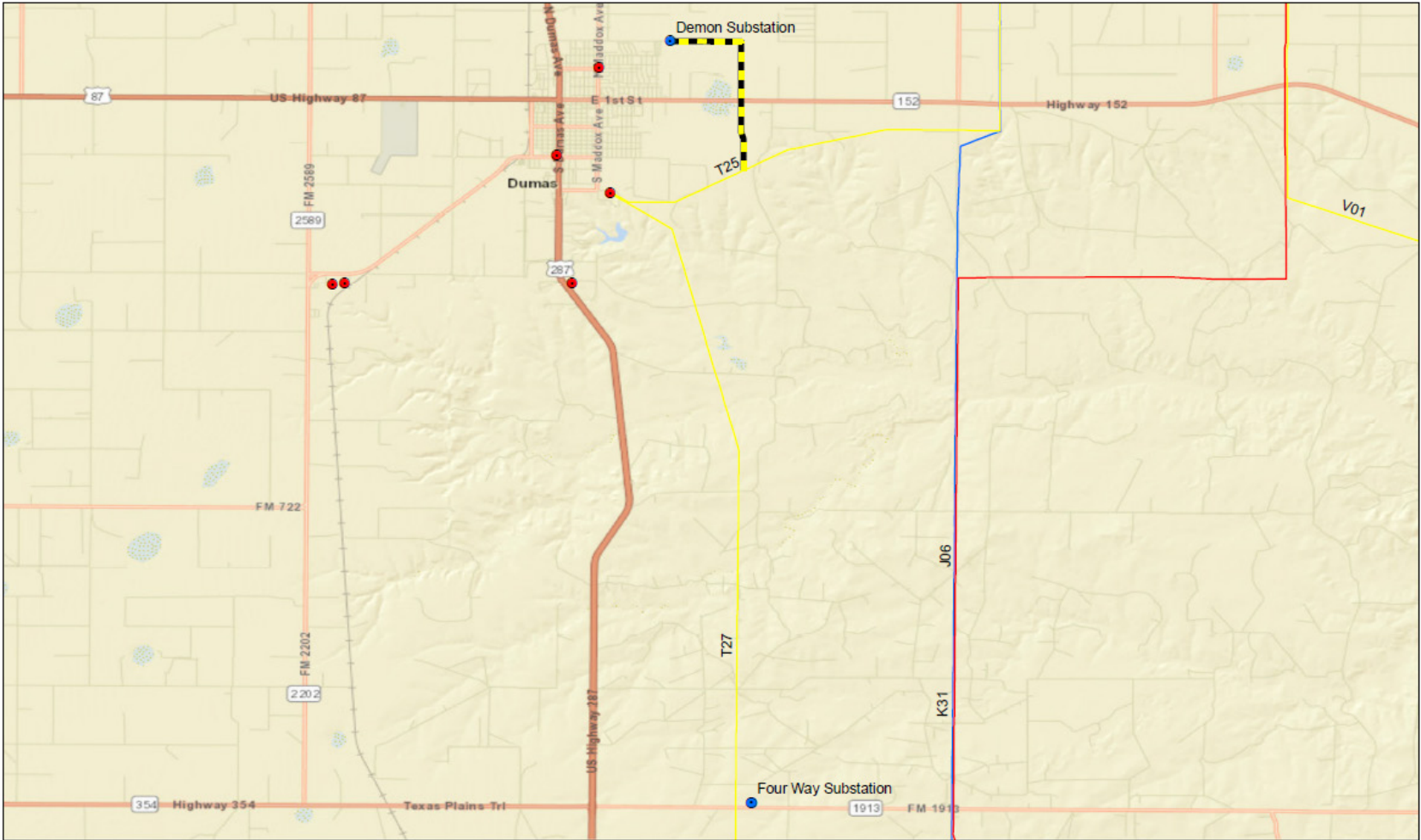
- Medanos (October 2020)
- Sisko (April 2021)
- Lynch (May 2021)
- Caveman (June 2022)
- Magnum (Nov. 2023)

Need: Distribution Driven

SPS Transmission	Project
69kV	Magnum Substation
115kV	Sisko Substation
230kV	Medanos Substation
345kV	Lynch Substation
SPS Existing Substation	Caveman Substation
SPS New Substation	



SPS Northern Area Distribution Additions (New)



Voltage: 115 kV

NTC: No

Description: Two new SPS substations

- Four Way (Feb 2022)
- Demon (May 2023)

Need: Distribution Driven

SPS Transmission

- 69kV
- 115kV
- 230kV
- 345kV
- SPS Existing Substation
- SPS New Substation

Project

- Four Way Substation
- Demon Substation
- T25 115kV Tap



Demon & Four Way 115kV Substations

0 2.5 5 Miles



Callahan Distribution Substation (New)

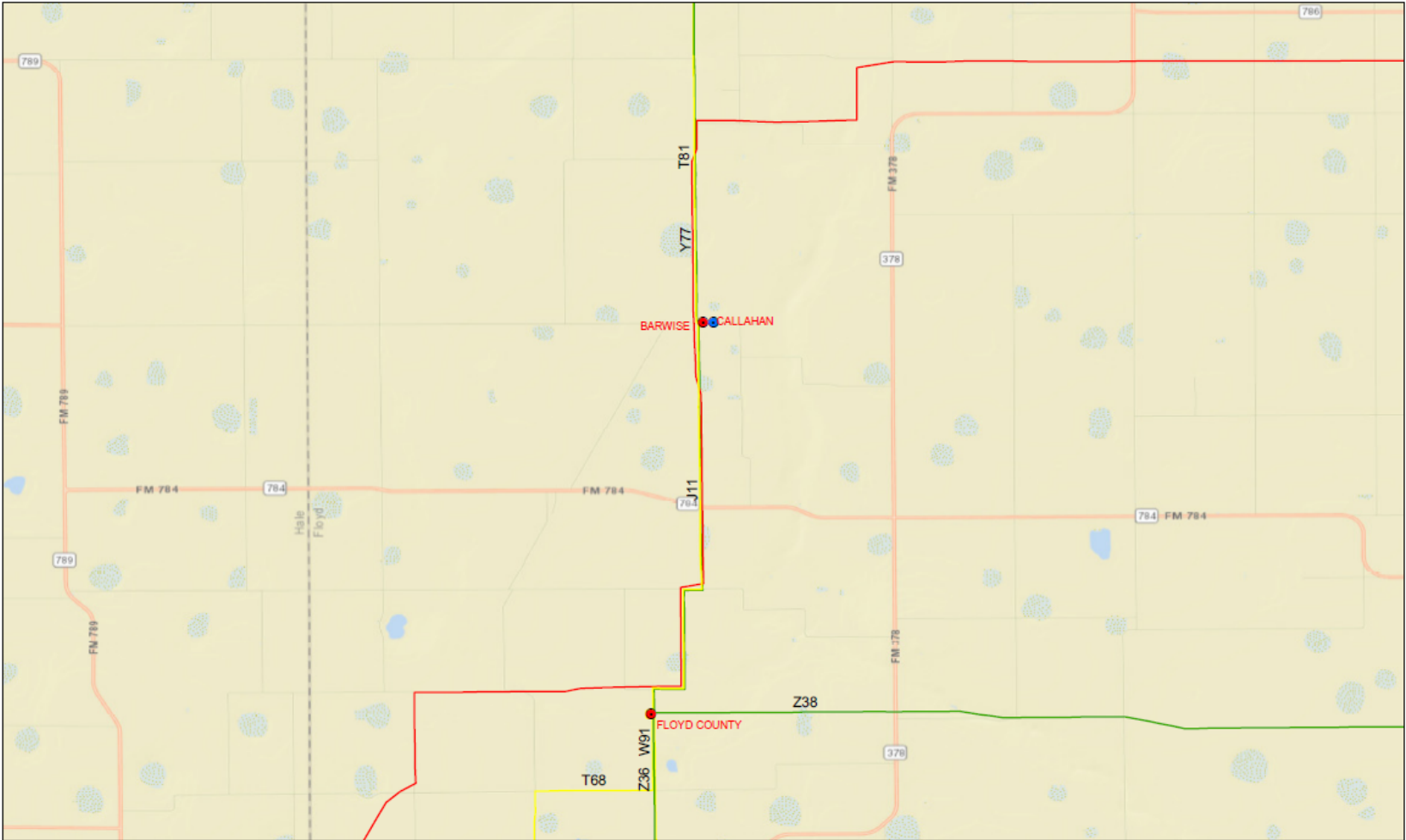
Voltage: 115 kV

ISD: June 2022

NTC: No

Description: New SPS
Distribution substation

Need: Distribution driven



SPS Transmission	Project
69kV	Callahan Substation
115kV	
230kV	
345kV	
SPS Existing Substation	
SPS New Substation	



Callahan Substation 115kV
(New)

0 1 2 Miles



China Draw to Phantom to Roadrunner (New)

Voltage: 345 kV

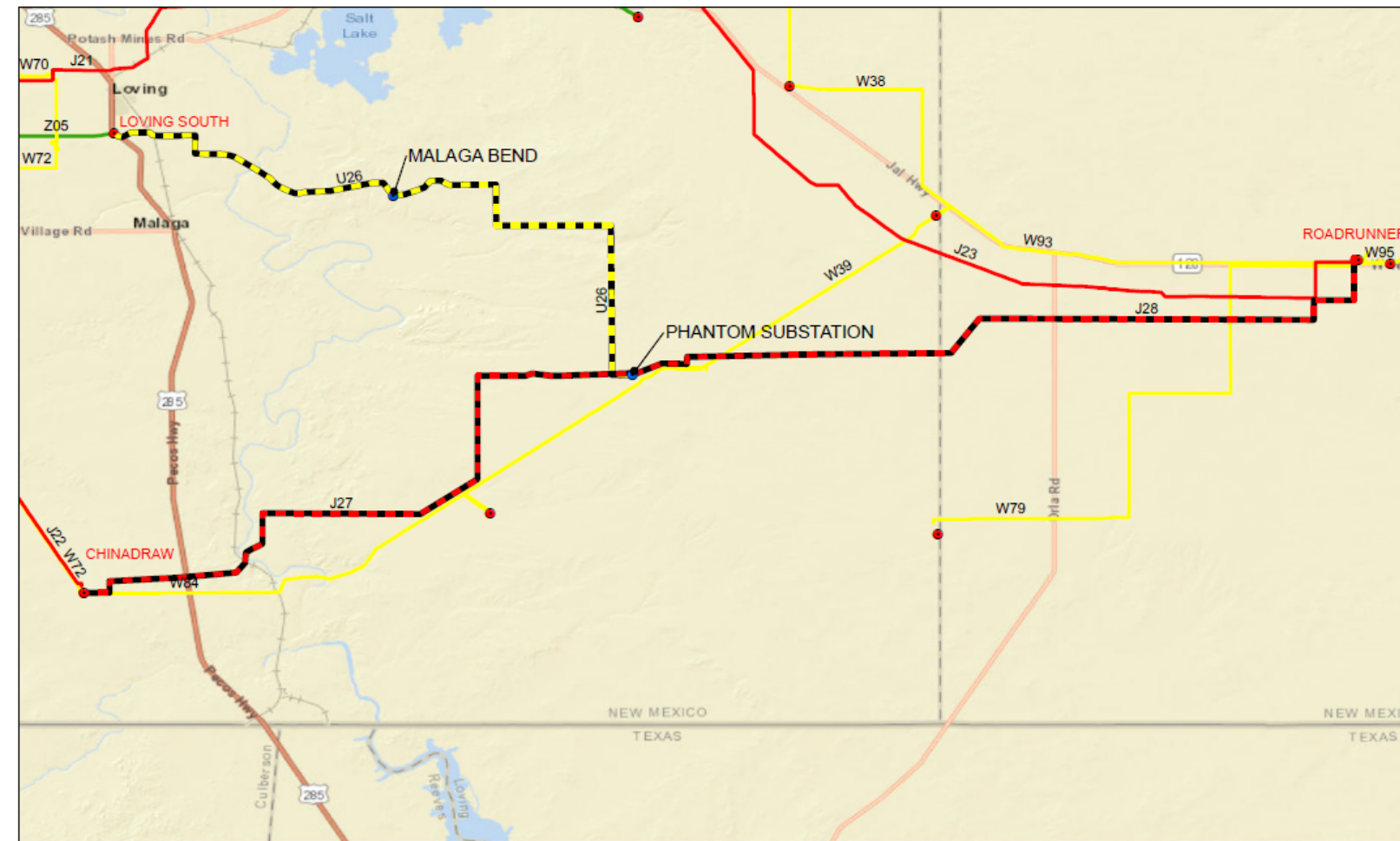
ISD: November 2021

NTC: Yes

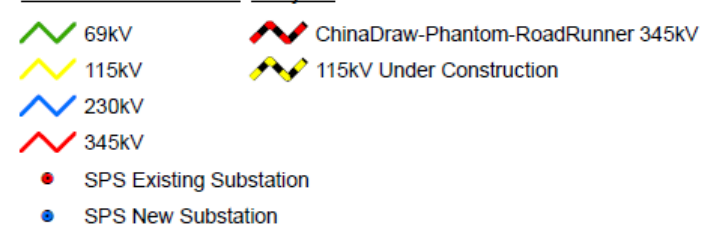
CCN: Yes

Description: Build a new 345 kV line (~42 miles long), expand China Draw and Roadrunner substations, and build a new Phantom 345/115 kV substation with two transformers

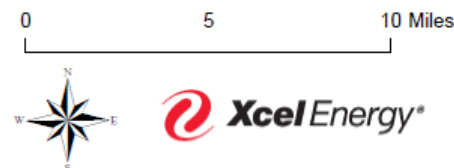
Need: Load Growth/Reliability



SPS Transmission Project



China Draw to Phantom to Roadrunner 345kV (New)



Tierra Blanca Substation (New)

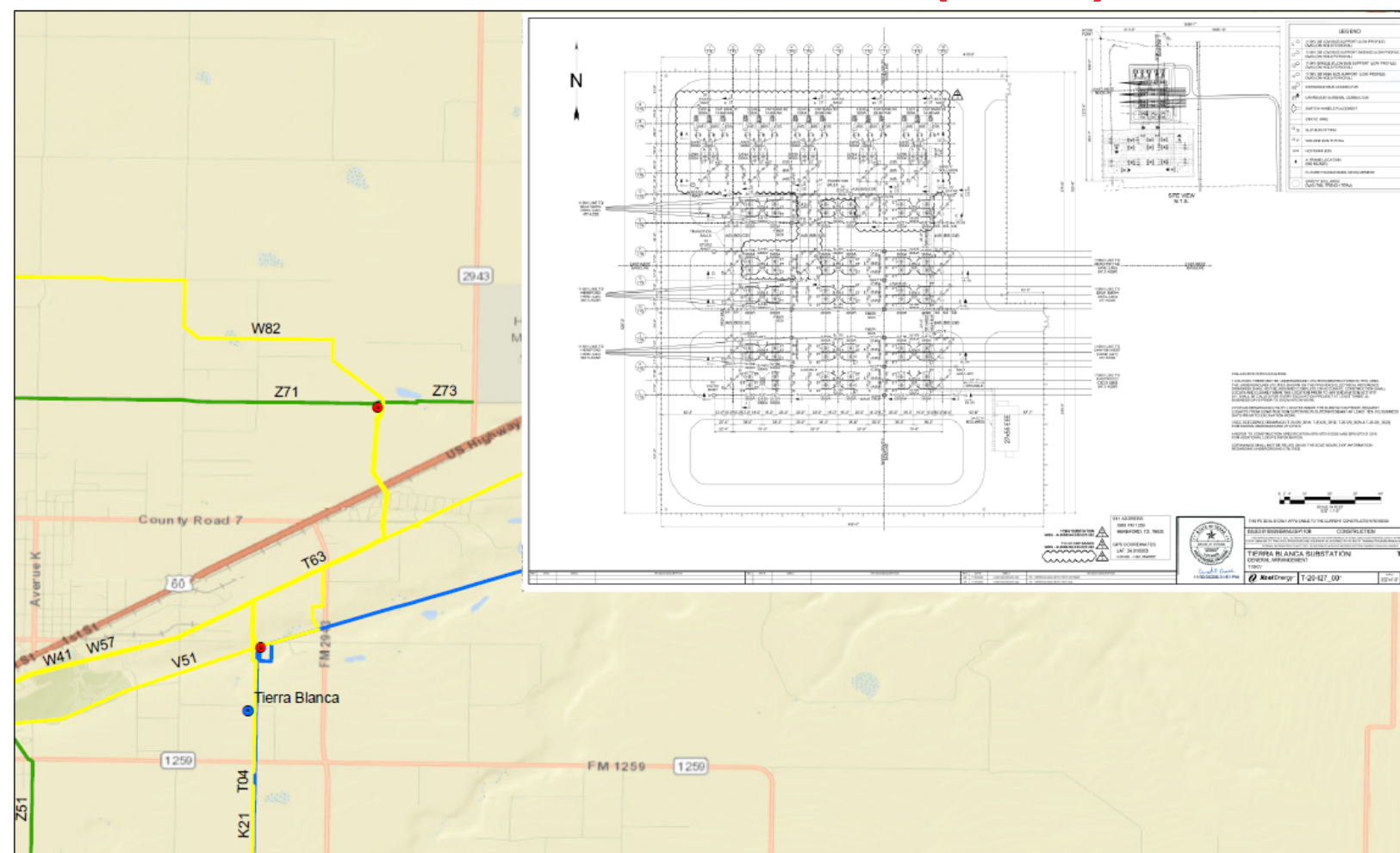
Voltage: 115 kV

ISD: November 2021

NTC: No

Description: Build a new breaker and a half substation and reterminate five 115 kV lines from SPS Deaf Smith substation (existing straight bus)

Need: Reliability



Tuco to Hale County to Plainview (Rebuild)

Voltage: 69 kV

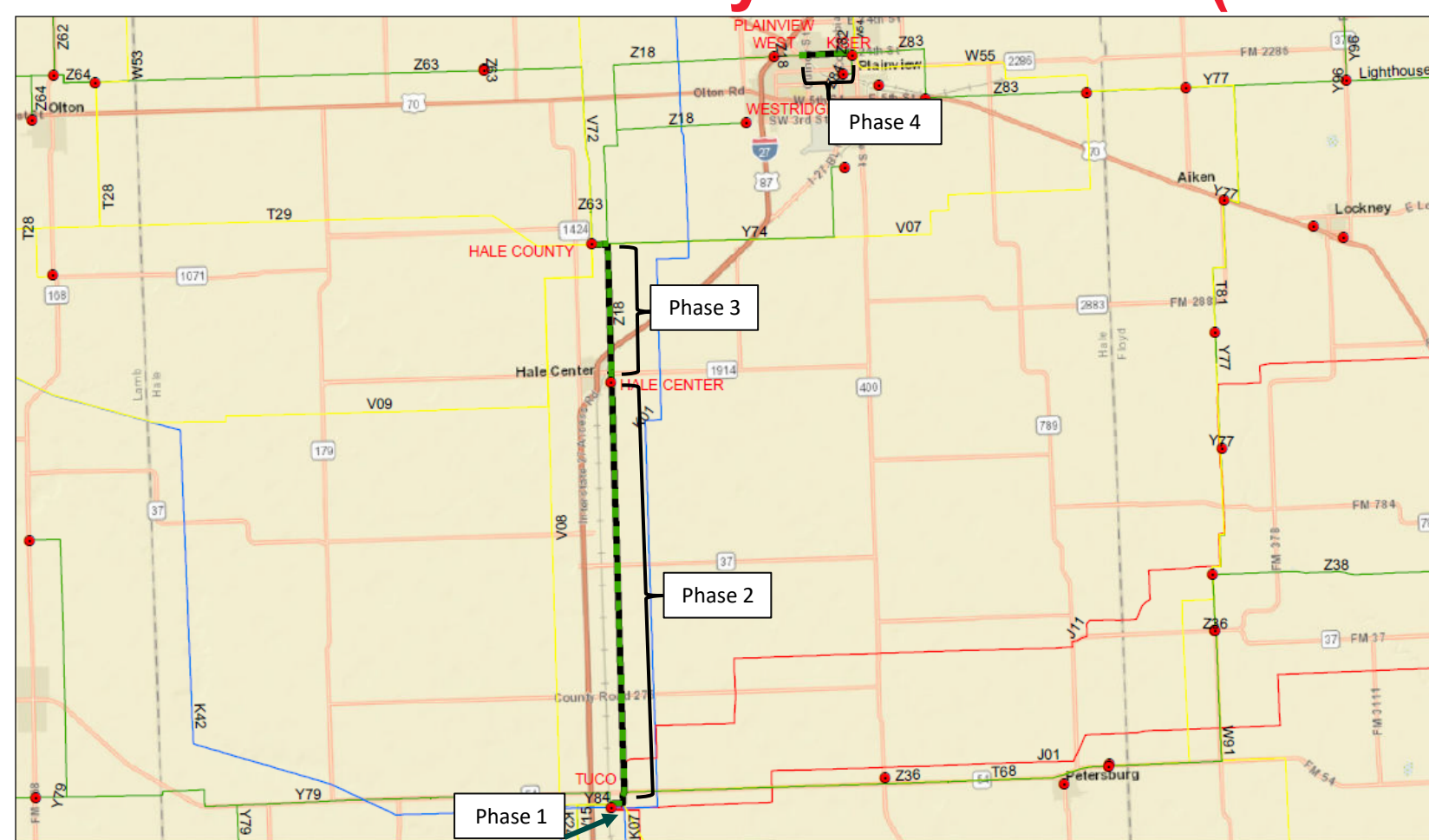
ISD: varied

- Phase 1: Dec 2019
- Phase 2: April 2021
- Phase 3: May 2022
- Phase 4: Oct 2020

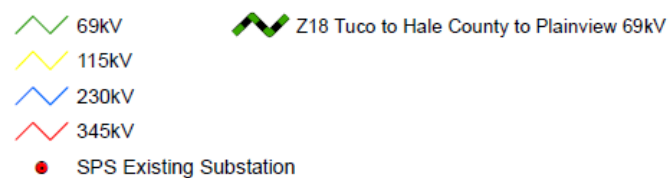
NTC: No

Description: Spaced out across 4 stages, rebuild 69 kV line

Need: Asset Renewal



SPS Transmission Project



Z18 Tuco to Hale County
to Plainview 69kV
(Rebuild)



Tolk 230 kV Substation (Conversion)

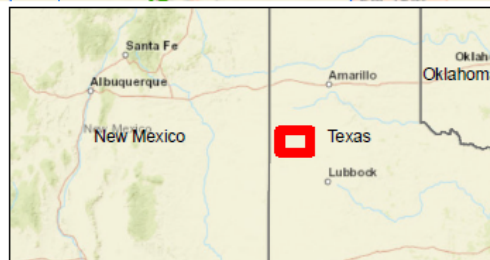
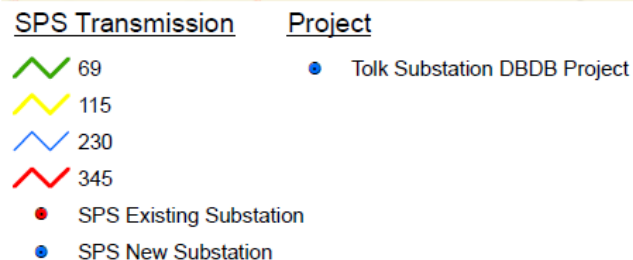
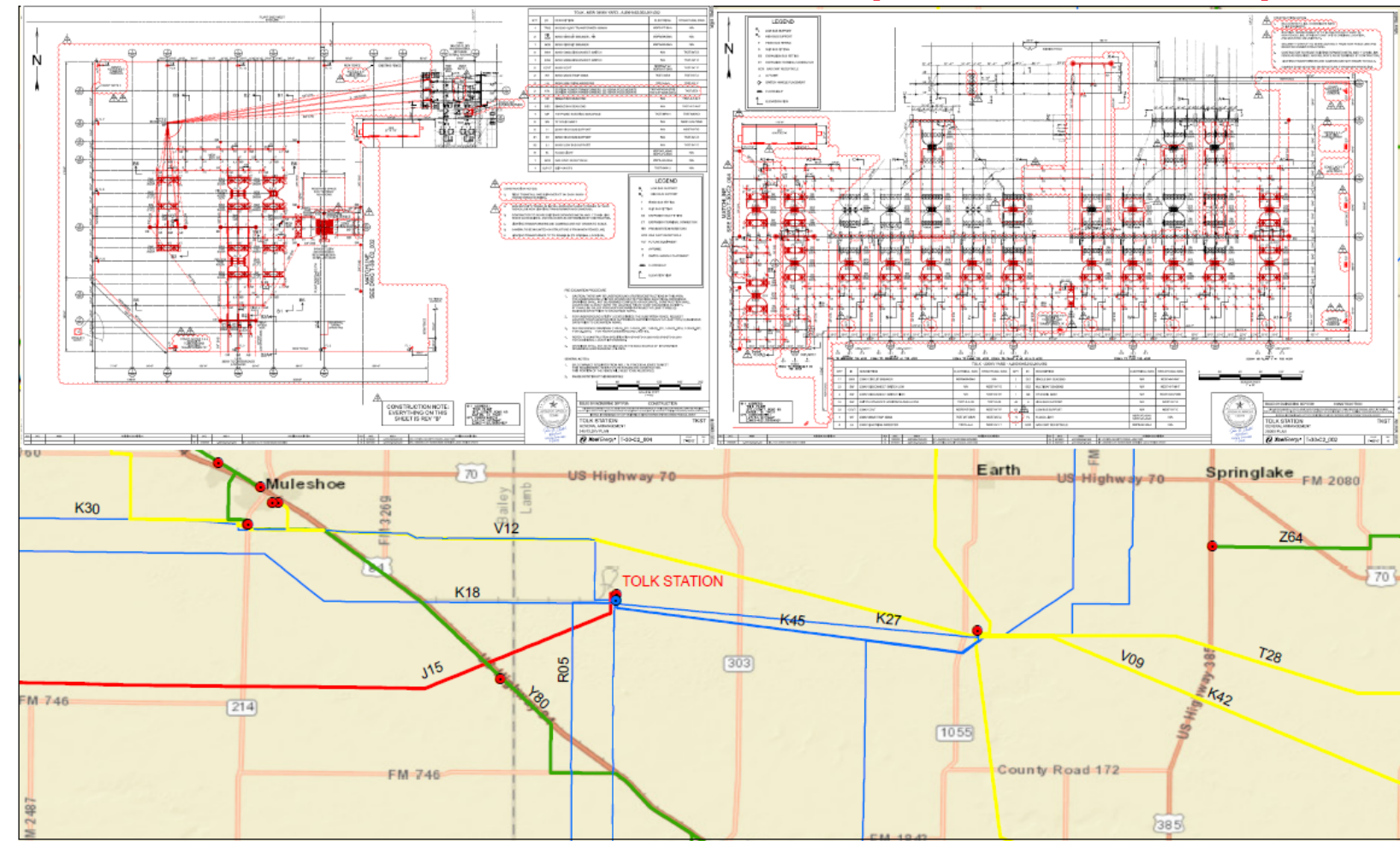
Voltage: 230 kV

ISD: May 2022

NTC: No

Description: Convert the existing 230 kV straight bus at Tolk to a double breaker - double bus configuration

Need: Reliability



**Tolk Substation
(230 kV Conversion)**



Y58 Hutchinson County to Gray County (Rebuild)

Voltage: 69 kV

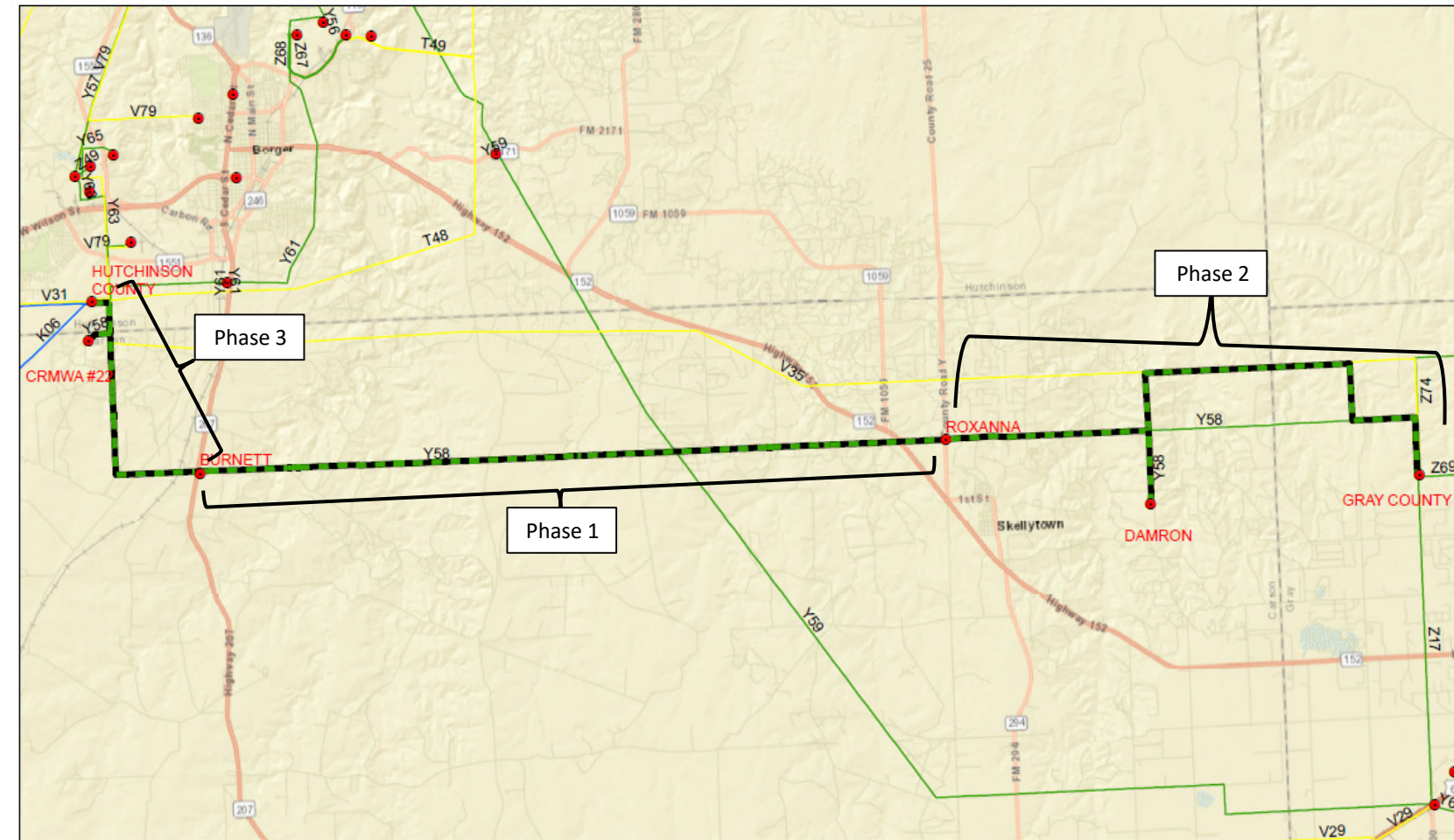
ISD: varied

- Phase 1: May 2021
- Phase 2: August 2022
- Phase 3: December 2022

NTC: No

Description: Rebuild existing 69 kV line (~26 miles long)

Need: Asset Renewal



SPS Transmission Project



Y58 Hutchinson County to Gray County 69kV (Rebuild)

0 2.5 5 Miles



W21 Eagle Creek to Eddy County (Rebuild)

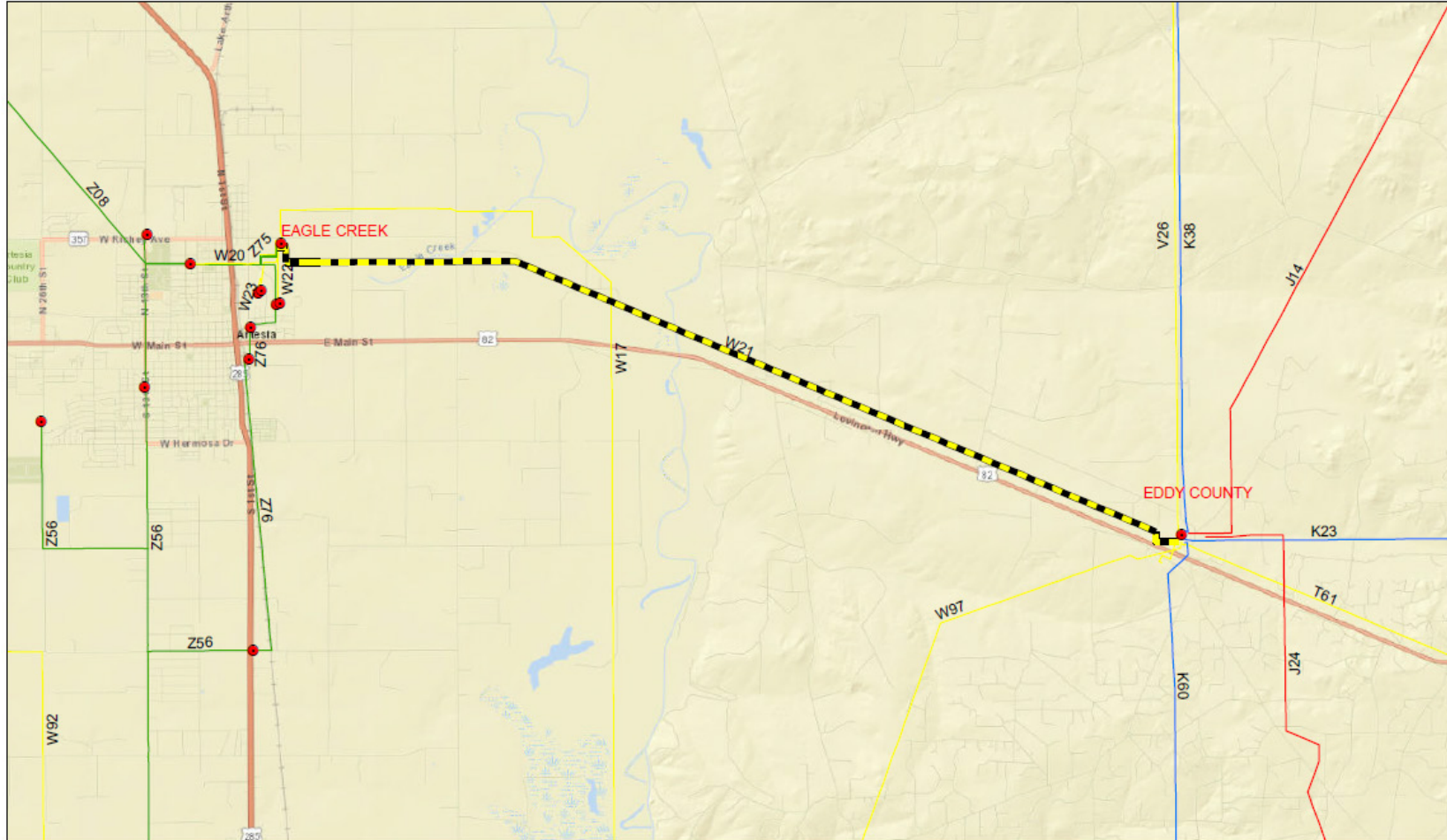
Voltage: 115 kV

ISD: December 2022

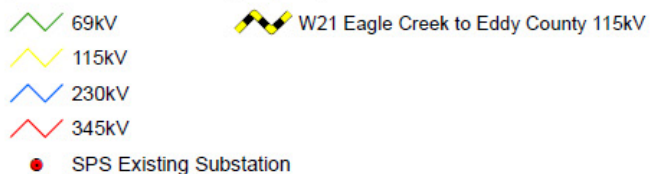
NTC: No

Description: Rebuild existing 115 kV line (~9 mile long)

Need: Asset Renewal



SPS Transmission Project



W21 Eagle Creek to Eddy County 115kV (Rebuild)

0 1 2 Miles



T14 Taylor to Hobbs North (Rebuild)

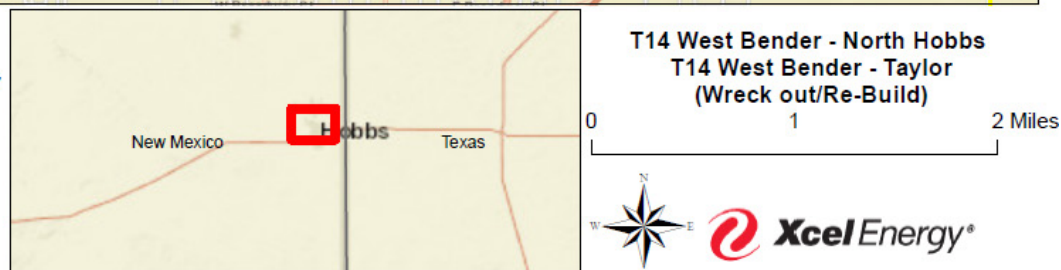
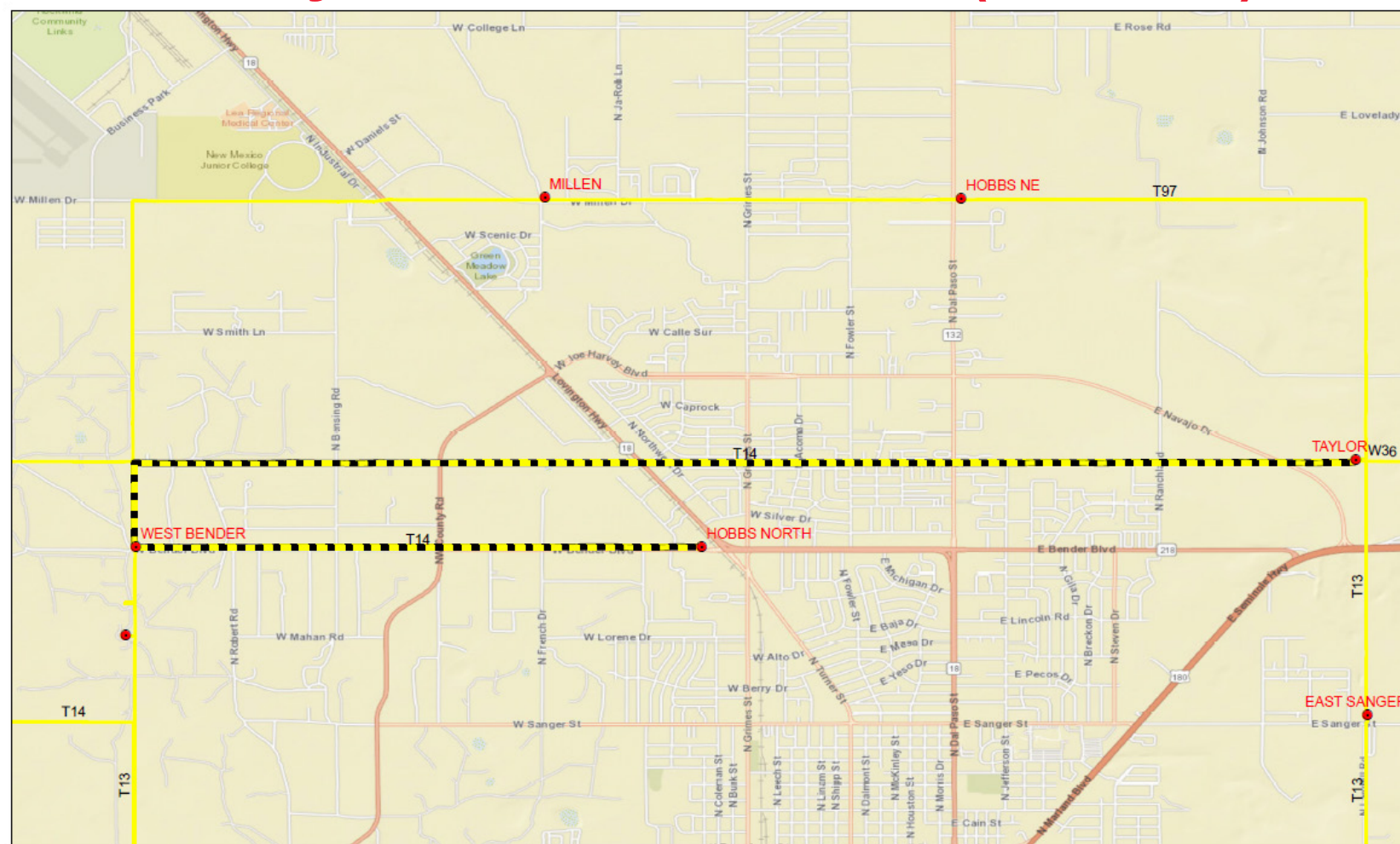
Voltage: 115 kV

ISD: December 2022

NTC: No

Description: Rebuild 115 kV line (~9 miles long)

Need: Asset Renewal



Eagle Creek 2nd TR (Expansion)

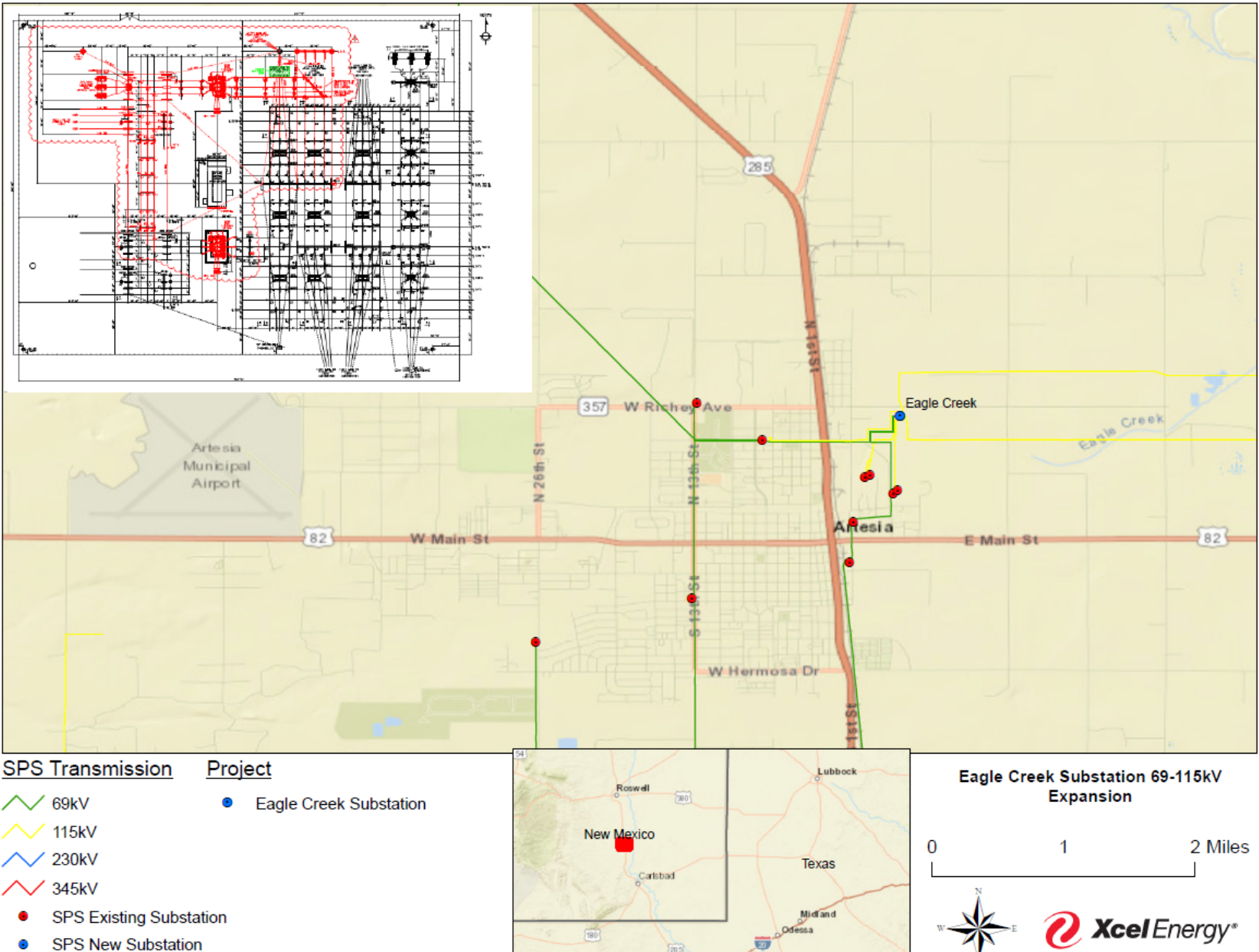
Voltage: 115 kV and 69 kV

ISD: May 2023

NTC: No

Description: Expand the existing Eagle Creek substation with a 2nd 115/69 kV TR. Wreck out Artesia Interchange substation

Need: Asset Renewal



V16 Terry County to Denver City (Rebuild)

Voltage: 115 kV

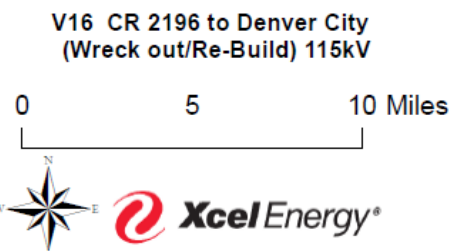
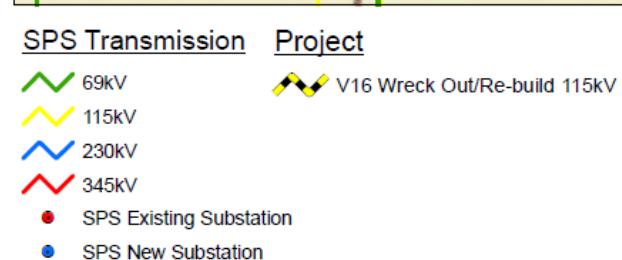
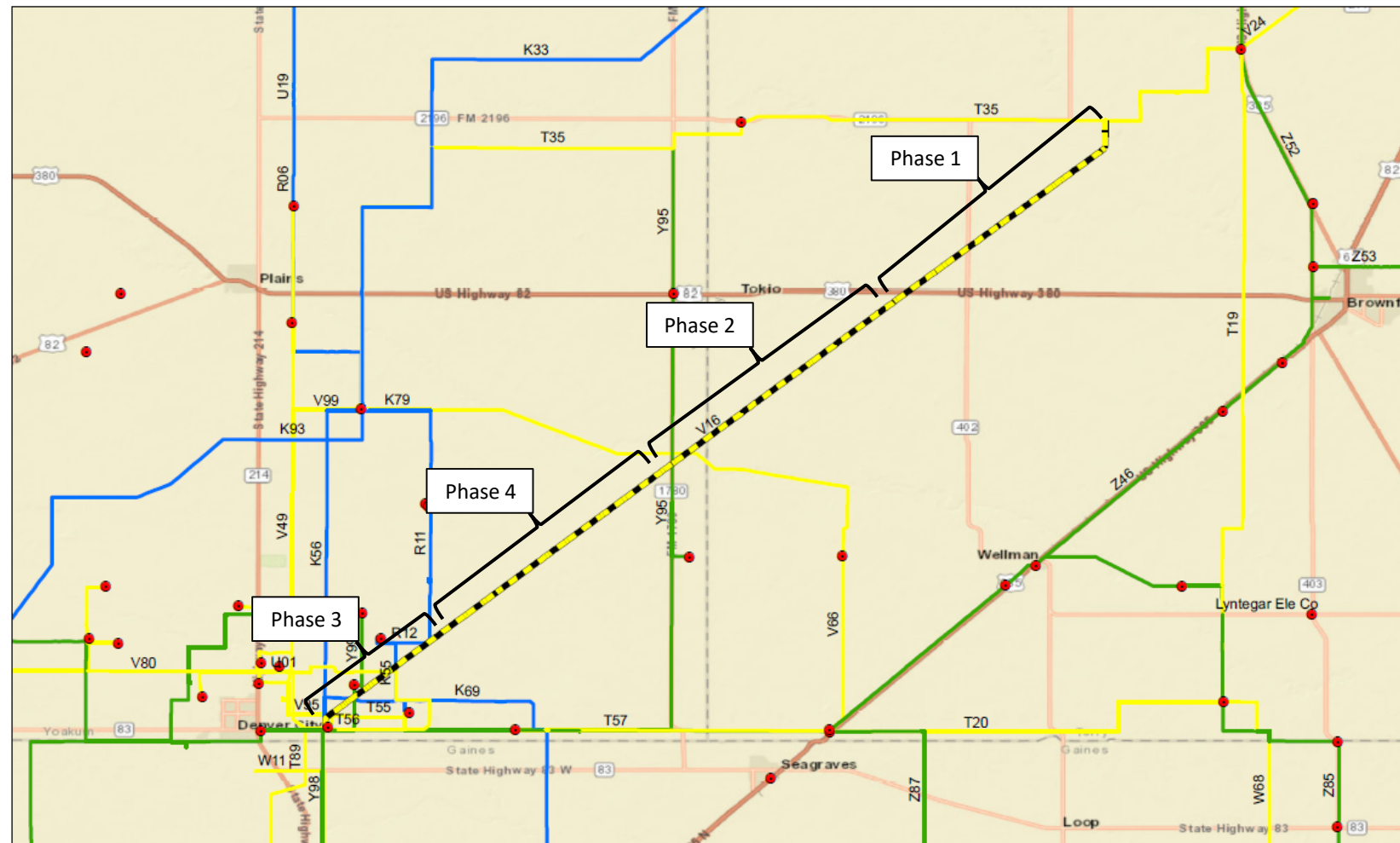
ISD: varied

- Phase 1: May 2022
- Phase 2: December 2022
- Phases 3 & 4: May 2023

NTC: No

Description: Rebuild 115 kV line (~35 miles long)

Need: Asset Renewal



Z51 Hereford South toward Dimmitt (Rebuild)

Voltage: 69 kV

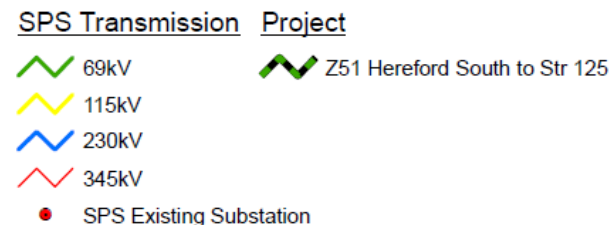
ISD: varied

- Phase 1: May 2022
- Phase 2: December 2022
- Phase 3: May 2023

NTC: No

Description: Rebuild 69 kV line (~14 miles) from Hereford South to structure #125, north of Dimmitt tap

Need: Asset Renewal



Z51 Hereford South to Z51.2 Str 125
Wreck Out/Re-Build 69kV

0 3 6 Miles



Tuco to Indiana (Rebuild)

Voltage: 115 kV

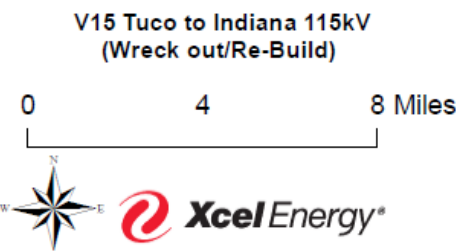
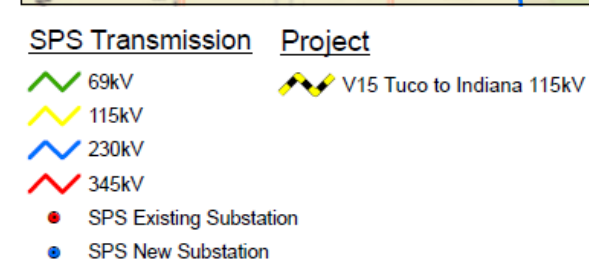
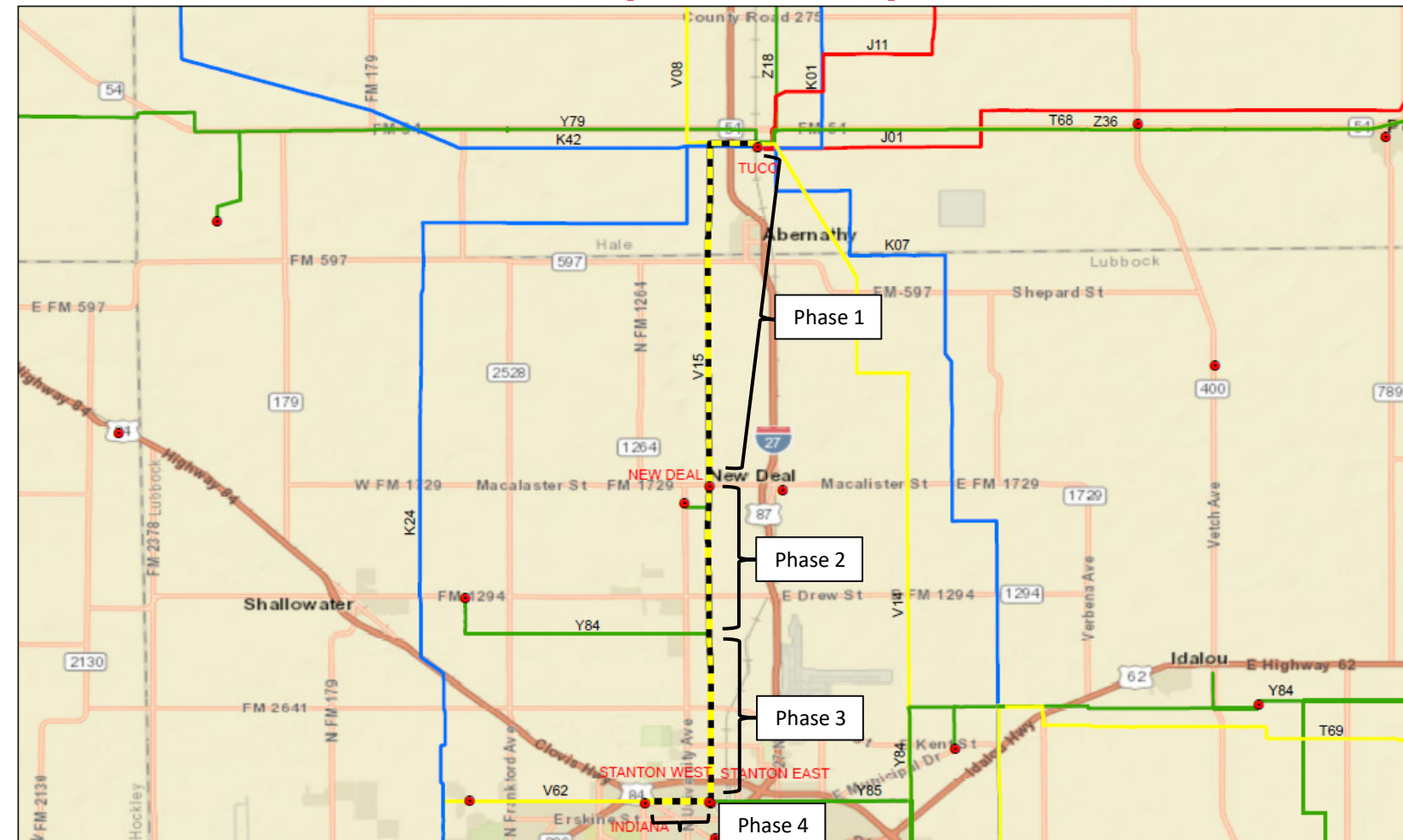
ISD: varied

- Phase 1: Oct 2022
- Phase 2: Dec 2022
- Phase 3: May 2023
- Phase 4: Nov 2023

NTC: No

Description: Rebuild the double circuit 115/69 kV line (~19 miles)

Need: Asset Renewal



Z63 From V72 to Structure 310 (Rebuild)

Voltage: 69 kV

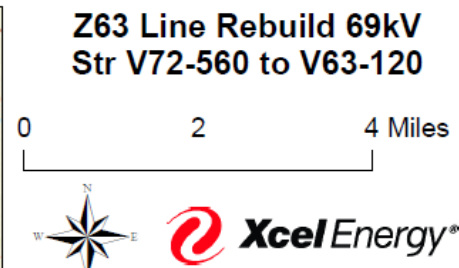
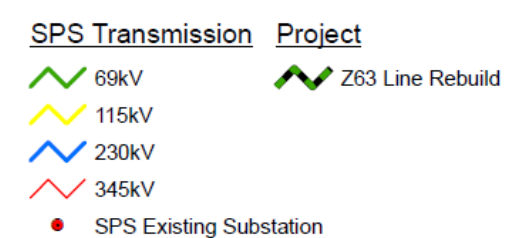
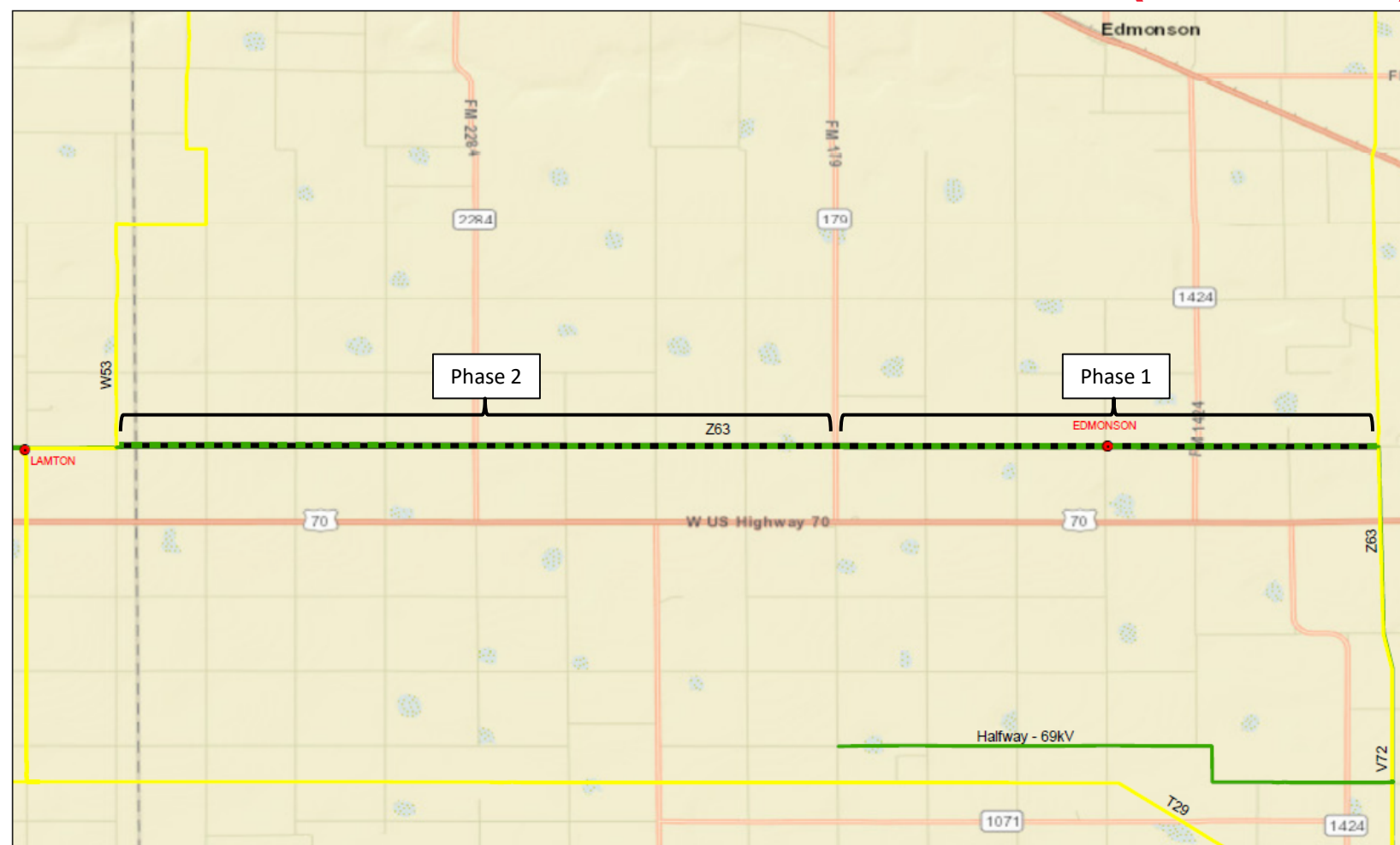
ISD: varied

- Phase 1: May 2023
- Phase 2: Nov 2023

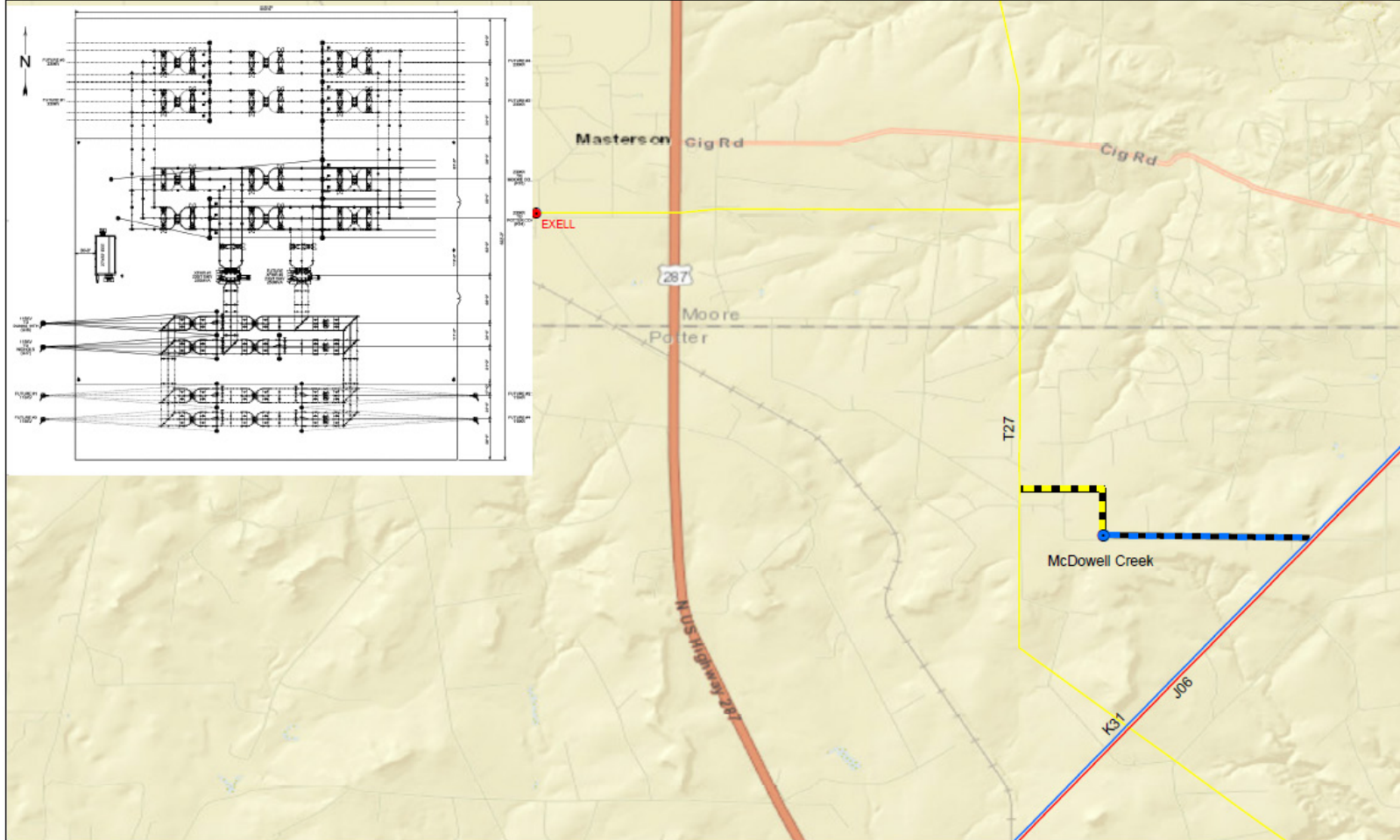
NTC: No

Description: Rebuild 69 kV line (~14 miles) from structures #62 to #310

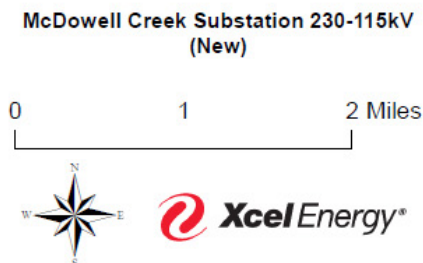
Need: Asset Renewal



McDowell Creek Substation (New)



SPS Transmission	Project
69kV	McDowell Creek Substation
115kV	R14/15 to McDowell Creek 230kV
230kV	U36/37 to McDowell Creek 115kV
345kV	
SPS Existing Substation	
SPS New Substation	



Voltage: 230 kV and 115 kV

ISD: December 2023

NTC: Yes

Description: Tap Moore Co–Potter Co 230 kV line and install a 230/115 kV transformer connecting to the 115 kV line from Nichols to Dumas 19th

Need: Reliability

Z83 Cox to Kiser (Rebuild)

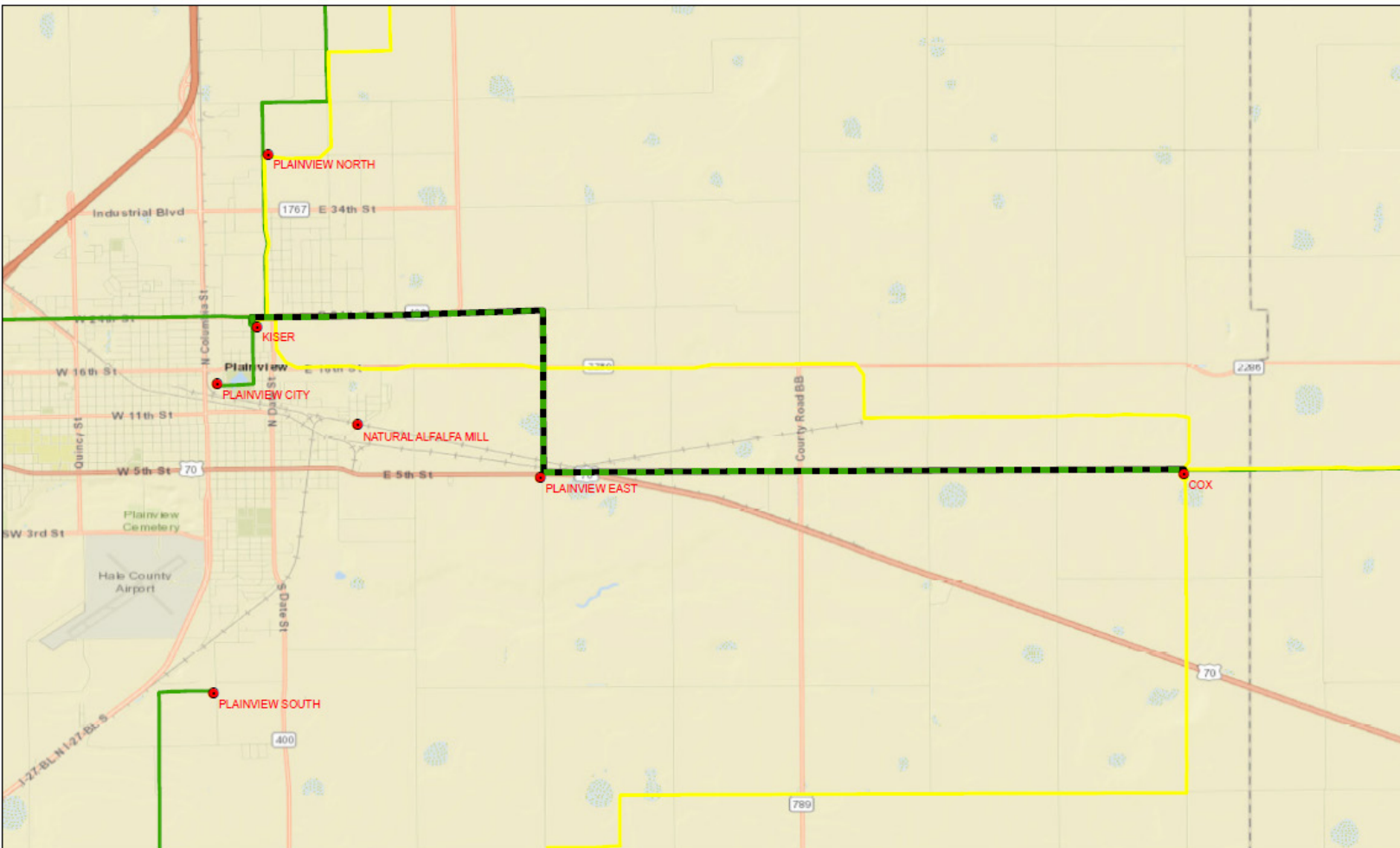
Voltage: 69 kV

ISD: December 2023

NTC: No

Description: Rebuild 69 kV line (~ 9 miles)

Need: Asset Renewal



SPS Transmission Project

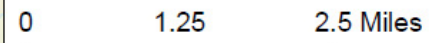
- 69kV
- 115kV
- 230kV
- 345kV

- SPS Existing Substation

Project
Z83 Kiser to Cox 69kV



Z83 Line Rebuild 69kV Kiser to Cox



Additional Asset Renewal Projects of note

- Rebuild REC Sandhill tap on 69kV (circuit Y80)
 - Rebuild 0.1 miles of 69 kV line and a switch, located west of Amherst, TX
 - ISD: December 2022
- Rebuild Cliffside to Frying Pan Switch on 69 kV (circuit Y66)
 - Rebuild ~10 miles of 69 kV line, located northwest of Amarillo, TX
 - ISD: December 2022
- End of Life Replacements on Tuco to Lamb County (circuit Y79)
 - Significant crossarm replacements and some structure replacements
 - ISD: May 2022

Continued work on House Bill 4150 investigations and remediations

- Thank you to everyone we have had to coordinate with in these investigations and the willingness to figure out solutions to the clearance issues

ADDITIONAL INFORMATION

Cancelled NTC Projects

Network Upgrades Associated with DISIS 2016-002

2020 Integrated Transmission Plan (ITP) Project list

Power for the Plains

Cancelled NTC Projects

Submitted 8 projects to be cancelled/withdrawn to SPP

- Reasons:
 - Primarily was a clean up effort
 - Relooked at equipment ratings and verified we meet the desired rating – no project necessary
 - Work was completed by another project
 - HPILS load point in SE NM (Toboso Flats) never happened

DISIS 2016-002 Network Upgrades

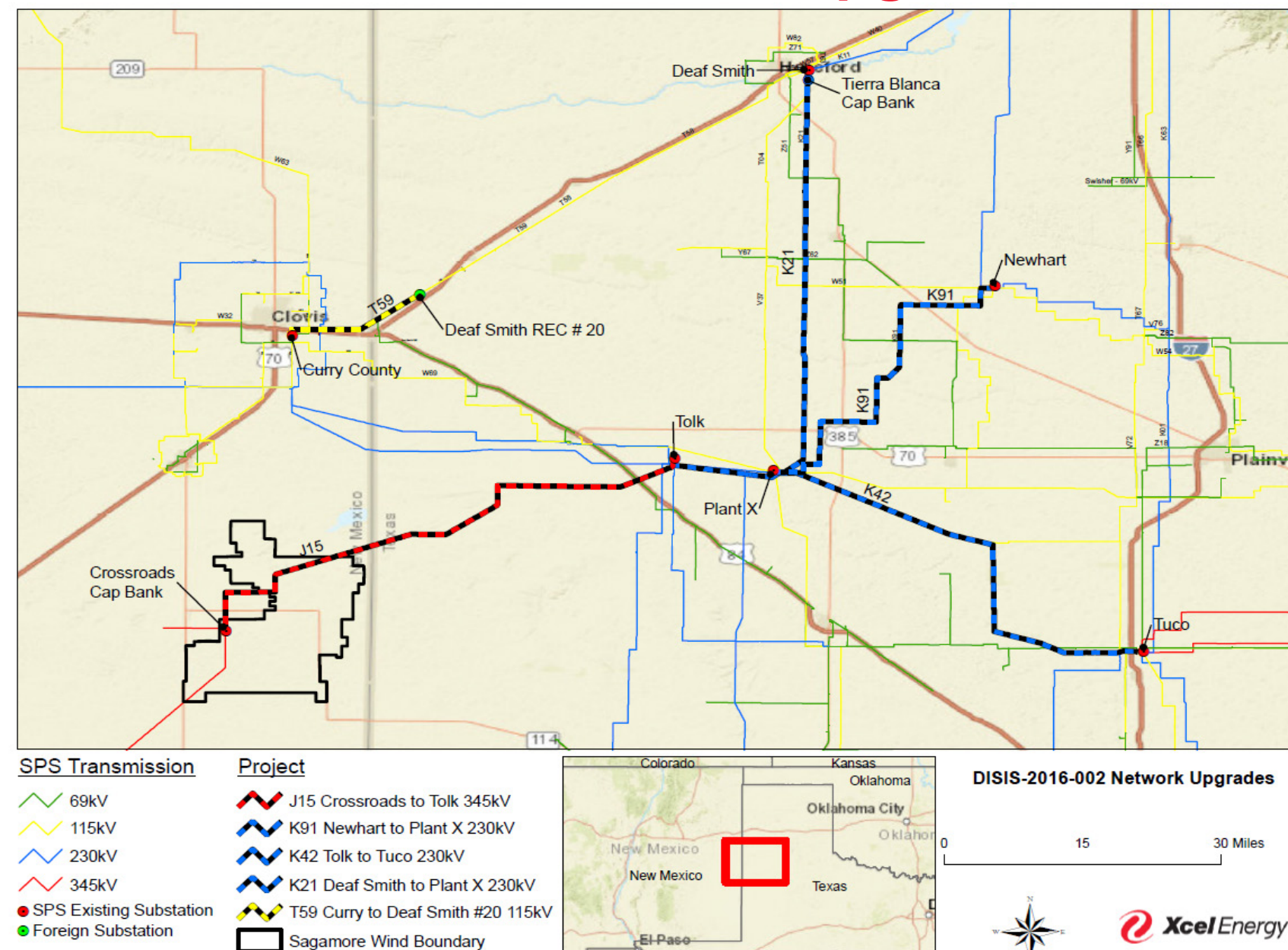
Voltage: 345, 230, 115 kV

ISD: see next slide

NTC: No, GIA – Direct
Assigned to the customers

Description: see next slide

Need: Generation
Interconnection



DISIS 2016-002 Network Upgrades*

- Newhart – Plant X 230 kV line (uprate) ➤ ISD: April 2020
- Tolk – Tuco 230 kV line (uprate) ➤ ISD: April 2020
- Crossroads – Tolk 345 kV line (uprate) ➤ ISD: April 2020
- Crossroads – Eddy Co 345 kV line (uprate) ➤ ISD: April 2020
- Deaf Smith – Plant X 230 kV line (uprate) ➤ ISD: August 2020
- Crossroads capacitor bank – 100 MVAR ➤ ISD: November 2020
- Curry – Deaf Smith #6 115 kV (rebuild) ➤ ISD: December 2020
- Tuco capacitor bank – 100 MVAR ➤ ISD: May 2021
- Tolk 2nd 345/230 kV transformer ➤ ISD: October 2021
- Tierra Blanca capacitor bank – 100 MVAR ➤ ISD: November 2021

2020 Integrated Transmission Plan (ITP) Projects

- Lubbock South – Allen – Quaker 115 kV
 - Need: Reliability
 - Description: Upgrade terminal equipment and rebuild 9.6 miles of 115 kV line
 - Carlisle - Murphy 115 kV
 - Need: Reliability
 - Description: Rebuild 4.0 miles of line
 - Lubbock South – Wolfforth 230 kV
 - Need: Reliability
 - Description: Upgrade line/terminal equipment
- ISD: Under Internal Review
 - LP&L move to ERCOT
 - ISD: Under Internal Review
 - LP&L move to ERCOT
 - ISD: May 2022

2020 Integrated Transmission Plan (ITP) Projects (continued)

- Bushland – Deaf Smith 230 kV
 - Need: Reliability
 - Description: Upgrade line/terminal equipment

➤ ISD: May 2022
- Newhart – Potter 230 kV
 - Need: Reliability
 - Description: Upgrade line/terminal equipment

➤ ISD: May 2022
- Hereford – Deaf Smith #20
 - Need: Reliability
 - Description: Upgrade terminal equipment and rebuild 43.7 miles of 115 kV line
 - Multiple Segments

➤ ISD: Under Internal Review

 - Sagamore Wind Farm

Power for the Plains Website

<http://www.powerfortheplains.com/>

- Description for some of the projects
- Routing maps, when available
- General project information

Additional Questions

If you have questions that we were not able to address during this meeting, please email them to:

Roxanne.I.king@xcelenergy.com

We will take questions until October 27, 2021. The questions and answers will then be communicated out to those that RSVP'd for today's meeting

