



San Antonio South Reliability Project

PRESENTED BY:

Kenneth Bowen, PE

Manager, Transmission Planning & Operations Engineering

David Milner, PE

Principal Engineer, Transmission Planning

January 25, 2023

Agenda



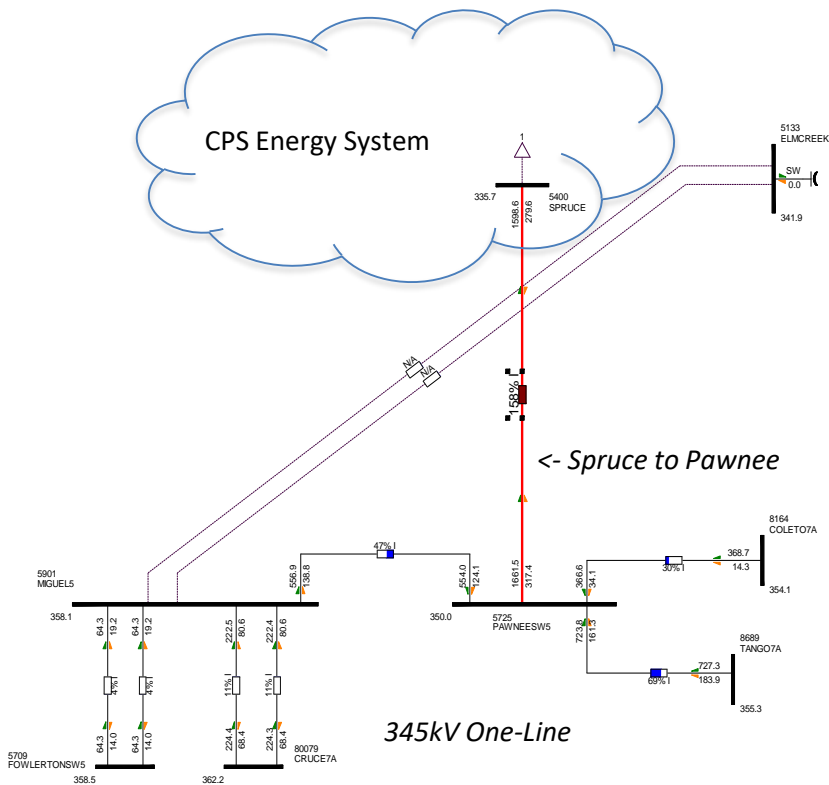
- **PROJECT OVERVIEW**
- **PROJECT NEED**
- **RECOMMENDED PROJECT**

PROJECT OVERVIEW



- **Reliability driven Tier-1 Project**
- **Driven by new generation additions in areas south and east of San Antonio, 345kV projects planned for the LRGV area, and generation retirements local to CPS Energy**
- **Cost Estimate: \$281M**
- **Need By: Summer Peak 2027**
- **~50-mile new double-circuit 345kV transmission line**
- **Multiple 138 kV and 345 kV upgrades and additions**
- **CPS Energy requests ERCOT to designate the project as Critical to the reliability of the ERCOT system**

PROJECT NEED



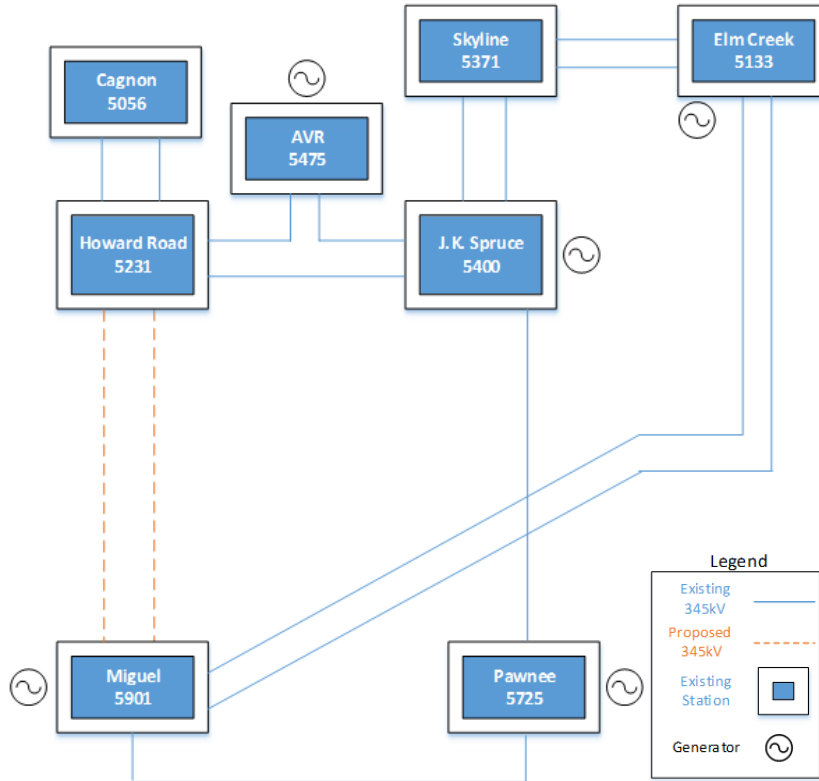
- Spruce to Pawnee overloads under contingency conditions**

Contingency Type	Monitored Element	Rating MVA	2027 Summer Peak (%) *	2026 High Wind Low Load (%) *
P1 Single	Spruce to Pawnee	1058	112	117
P7/ERCOT1 Common Twr	Spruce to Pawnee	1058	157	165
ERCOT2 Generator & Common Twr	Spruce to Pawnee	1058	174	176

**Overloads defined greater than 100% of circuit rating*

NERC and ERCOT criteria violations observed by Summer Peak 2027

RECOMMENDED PROJECT



- Construct Howard Rd to San Miguel double circuit 345kV transmission line
- Rebuild Cagnon to Howard Rd 345kV double circuit transmission line
- Rebuild Howard Rd to Leon Creek 138kV transmission line
- Add third autotransformer at Howard Rd switching station



Thank You