

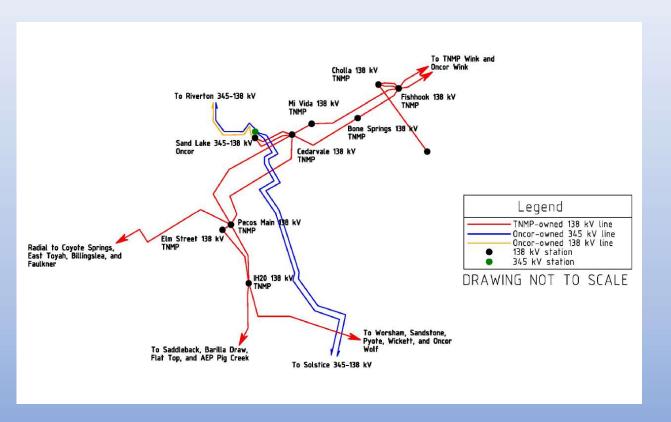
Overview of TNMP Silverleaf and Cowpen 345/138 kV Stations Project

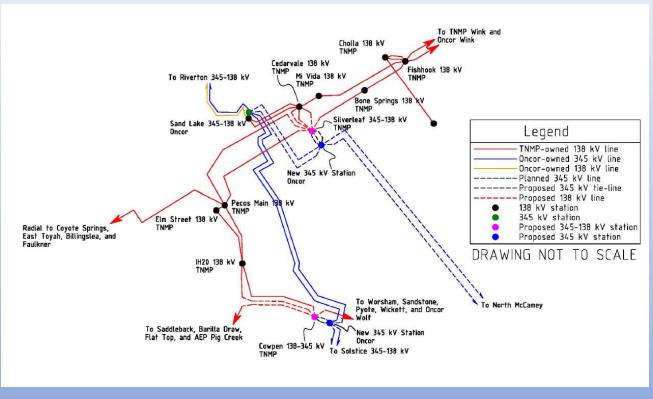
Tao Xia, TNMP Transmission Planning ERCOT RPG Meeting
July 18, 2023



Project Summary

- New 345kV/138kV TNMP Silverleaf station inter-tied with a new 345 kV Oncor station cut into North McCamey to Sand Lake line. Cedarvale Pecos 138 kV line #1 and #2, Cedarvale Bone Springs 138 kV line bisected and extended to Silverleaf.
- New 345kV/138kV TNMP Cowpen station inter-tied with a new 345 kV Oncor station cut into Sand Lake to Solstice line. IH20 – Salt Draw 138 kV line, Birds of Prey Tap – Harpoon Tap 138 kV line bisected and extended to Cowpen.







Project Overview

- Reliability driven Tier-1 Project
- Critical Status Designation requested
- \$299 million and CCN (Certificate of Convenience and Necessity) required
- Estimated in-service: June 2027
- Both thermal overloads and voltage violations in the Reeves and Ward counties in the Far West weather zone addressed



Solution Performance

New Load Locations and Integration Outlook

Point of Delivery (Station Name)	PSSE Bus #	Total Load Requested (MW)	Amount of Load Which can be Accommodated Either Immediately or Upon Completion of Committed System Improvement Projects ^a (MW)	Remaining Amount of Load Requiring Completion of RPG Projects as Set Forth in Section 4 (MW)
Pyote	38001	300	50	0 ^b
Worsham	38021	10	10	0
Collie Field	38038	150	0	150
County Road	38047	15	15	0
Saddleback	38058	35	35	0
Flat Top	38069	17	17	0
Coyote Springs	38113	5	5	0
Faulkner	38124	300	42	0 ^c
Cedarvale	38145	700	397	303
Lone Star	38190	300	300	0
Cholla	38195	300	23	0 ^d
Tarbush	38295	300	40	260
	Total	2432	934	713

a. The meaning of committed system improvement projects is (a) Tier 4 projects and (b) RPG projects that recently have been endorsed or are currently under review.

b. The requestor has revised the load request from the original 300 MW down to 50 MW.

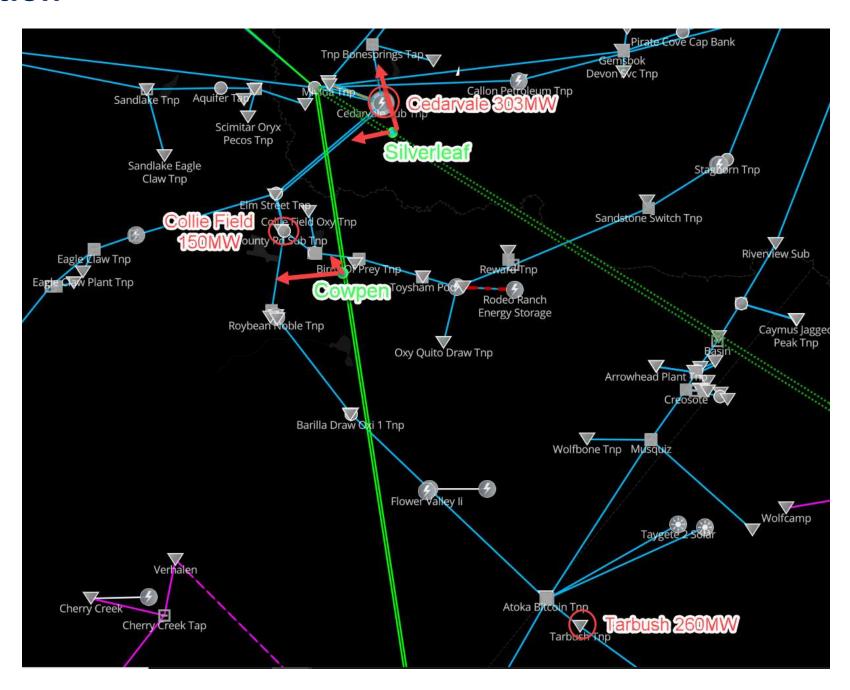
c. The requestor has revised the load request from the original 300 MW down to 42 MW.

d. The requestor has revised the load request from the original 300 MW down to 23 MW.



Solution Illustration

Illustration of injections of 345 kV sources at Silverleaf and Cowpen to the 138 kV system in the area creating the conditions to serve additional TNMP committed loads at Cedarvale, Collie Field and Tarbush





Questions?