



**Pedernales Electric Cooperative, Inc.
(PEC) – Wimberley Loop
Transmission Project – ERCOT
Independent Review (EIR) Status
Update**

Caleb Holland

RPG Meeting
November 8, 2022

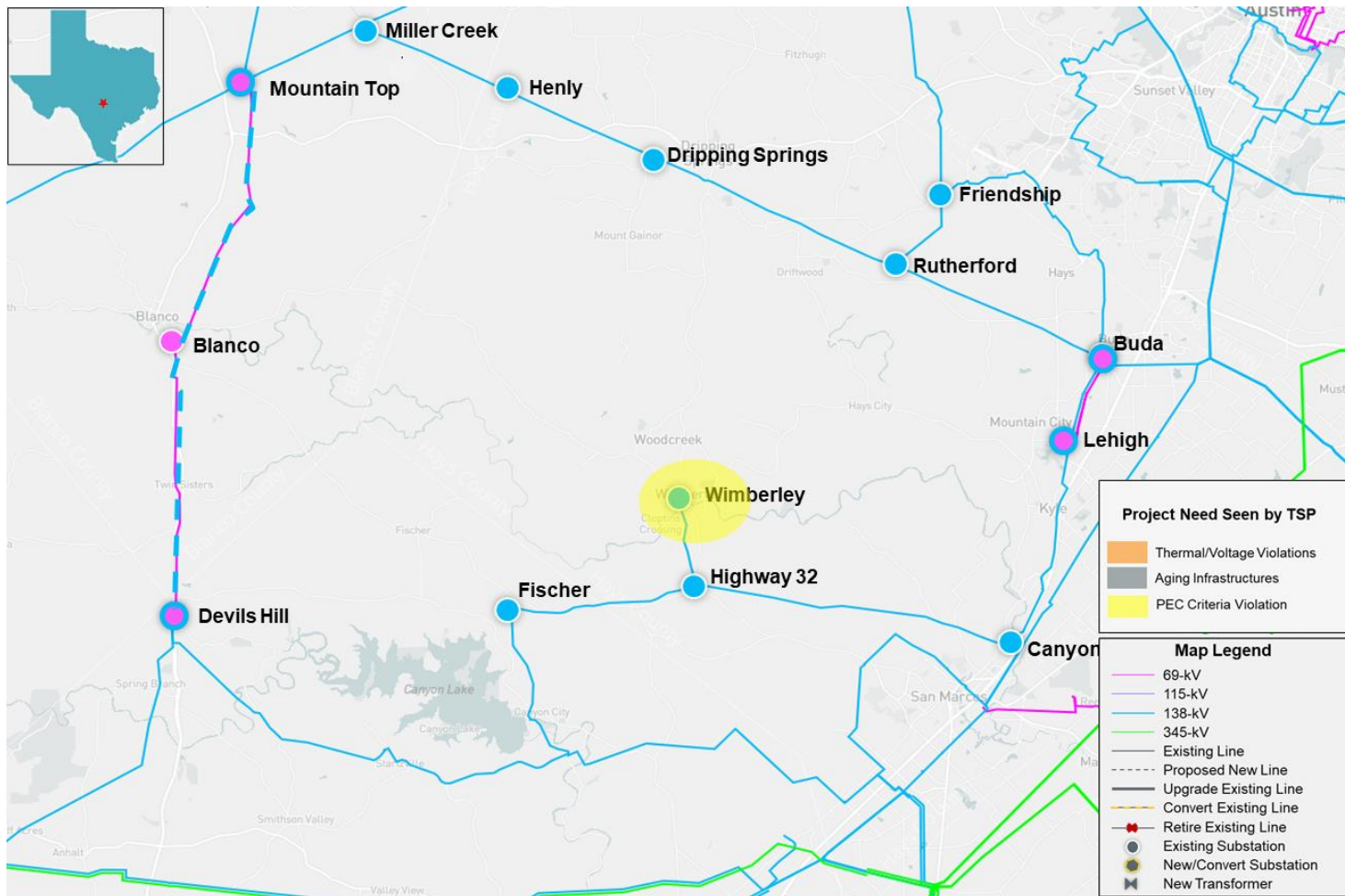
Recap

- Pedernales Electric Cooperative, Inc. (PEC) submitted the Wimberley Loop Transmission Study for Reginal Planning Group (RPG) review in August 2022
 - This Tier 2 project is estimated at \$77.3 million and will require a Certificate of Convenience and Necessity (CCN)
 - Estimated completion date is May 2027
- ERCOT provided the study scope, results of the reliability analysis, and project alternatives at the October RPG meeting
 - <https://www.ercot.com/calendar/event?id=1627677951500>
- ERCOT will provide preliminary results of option evaluation

Recap - (continued)

- The study area is the South Central Weather Zone (WZ), and the West WZ is electrically close to the project location. It focuses on the area surrounding Wimberley substation in Hays, Comal, Blanco, and Travis counties
- The final 2021 Regional Transmission Planning (RTP) 2027 South and South Central (SSC) summer peak case was updated to construct the study base case based on the scope presented in the October RPG meeting
- ERCOT reviewed the study case and confirmed the load at Wimberley has exceeded 20 MW. Per Nodal Protocol 3.11.4.9(4), ERCOT assumes that PEC planning criteria is valid
- No NERC or ERCOT criteria violations were found in the study area

Recap - Study Area Map with Project Need



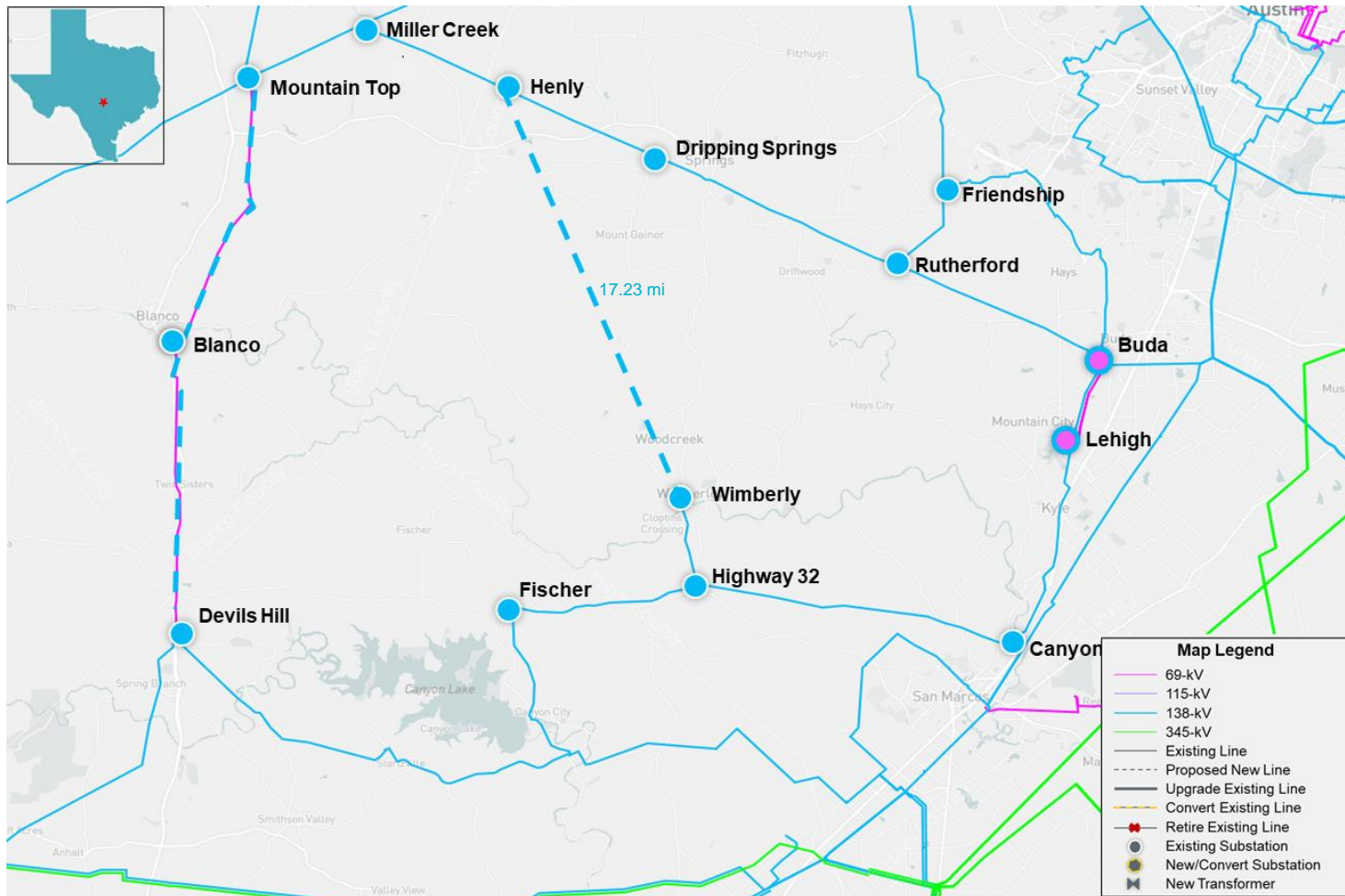
Note: Devils Hill to Blanco to Mountain Top 69-kV to 138-kV conversion (TPIT 70367A and 70367B, 22RPG033) to be completed independent of and prior to Wimberley Loop Project according to PEC

Option 1 - New Wimberley to Blanco 138-kV



Note: Devils Hill to Blanco to Mountain Top 69-kV to 138-kV conversion (TPIT 70367A and 70367B, 22RPG033) to be completed independent of and prior to Wimberley Loop Project according to PEC

Option 2 - New Wimberley to Henly 138-kV



Note: Devils Hill to Blanco to Mountain Top 69-kV to 138-kV conversion (TPIT 70367A and 70367B, 22RPG033) to be completed independent of and prior to Wimberley Loop Project according to PEC

Option 3 – New Wimberley to New Sub A Between Rutherford and Dripping Springs 138-kV



Note: Devils Hill to Blanco to Mountain Top 69-kV to 138-kV conversion (TPIT 70367A and 70367B, 22RPG033) to be completed independent of and prior to Wimberley Loop Project according to PEC

Option 4 – New Wimberley to New Sub B Between Rutherford and Buda 138-kV



Note: Devils Hill to Blanco to Mountain Top 69-kV to 138-kV conversion (TPIT 70367A and 70367B, 22RPG033) to be completed independent of and prior to Wimberley Loop Project according to PEC

Recap - Preliminary Results of Reliability Assessment – Options

- ERCOT conducted a reliability analysis, and no reliability criteria violations were found in any option
- All four options addressed the PEC planning criteria violation

	N-1		X-1 + N-1	
	Thermal Violations	Voltage Violations	Thermal Violations	Voltage Violations
Option 1	None	None	None	None
Option 2	None	None	None	None
Option 3	None	None	None	None
Option 4	None	None	None	None

Long-Term Load-Serving Capability Assessment

Assumptions:

1. Adjusted load up in substations identified in “List of Substation buses within the Study Area” section of 2021_Wimberley_Trans_final_r2 RPG submittal
2. Adjusted conforming load down outside of Southern, South Central, and West weather zones to balance power
3. Based on N-1 contingency limits

Preliminary Findings:

1. The preliminary results show that all options provide similar performance in terms of long-term load serving capability
2. Option 1 provides marginally better performance than the others

Option	Incremental Load-Serving Capability (MW)*
Option 1	235
Option 2	217
Option 3	208
Option 4	213

*All limits encountered were thermal limitations

Next Steps and Tentative Timeline

- ERCOT will perform a planned maintenance outage study and work with TSPs to obtain cost estimates and feasibility for each option
- Congestion analysis
 - Congestion analysis may be performed based on the recommended transmission upgrades to ensure that the identified transmission upgrades do not result in new congestion within the study area
- Tentative timelines
 - Final recommendation - Q4 2022

Thank you!



Stakeholder comments also welcomed through:

Caleb.Holland2@ercot.com

SunWook.Kang@ercot.com

Appendix

Projects Added

Appendix - Projects Added

TPIT No	Project Name	Tier	Project ISD	TSP	County
61356	Hays Energy-Henne Split Transmission Line Upgrade	4	May 2024	LCRA	Hays, Comal
61362	Henne-River Oaks Transmission Line Upgrade	4	May 2024	LCRA	Comal
61402	Boerne-Esperanza Transmission Line Upgrade	4	May 2024	LCRA	Kendall
61400	Esperanza-Fair Oaks Transmission Line Upgrade	4	May 2024	LCRA	Kendall
61404	Boerne Split-Welfare Transmission Line Upgrade	4	May 2024	LCRA	Kendall
61234	Antler-Bergheim Transmission Line Upgrade	4	May 2025	LCRA	Comal
61350	Antler-Highway 46 Transmission Line Upgrade	4	May 2025	LCRA	Comal
61358	Highway 46-River Oaks Transmission Line Upgrade	4	May 2025	LCRA	Comal
61406	Kendall-Welfare Transmission Line Upgrade	4	May 2025	LCRA	Kendall
61262A	Hunter to McCarty Lane Storm Hardening	4	Apr 2023	PEC,LCRA	Hays
54080	Lockhart - Lulig Transmission Line Overhaul	4	May 2023	LCRA	Caldwell
54082	Lockhart - Red Rock Transmission Line Overhaul	4	May 2023	LCRA	Caldwell, Bastrop
54103	Hilltop - Strahan Transmission Line Upgrade	4	May 2023	LCRA	Hays
61392	Bergheim-Fair Oaks Ranch Transmission Line Upgrade	4	May 2025	LCRA	Comal, Kendall
61264B	Marshall Ford to Trading Post Storm Hardening	4	Dec 2022	PEC	Travis
61264A	Marshall Ford to Trading Post Storm Hardening	4	Mar 2023	PEC	Travis
61266	Trading Post to Cedar Valley Storm Hardening	4	Apr 2024	PEC	Travis

Appendix - Projects Added (continued)

TPIT No	Project Name	Tier	Project ISD	TSP	County
61279	Nameless to Leander Transmission Line Upgrade	4	Apr-24	PEC	Travis
61274A	PEC_MarshallFord_Paleface_StormHardening	4	May-24	PEC	Travis
61274B	PEC_MarshallFord_Paleface_StormHardening	4	Nov-24	PEC	Travis
61268	Cedar Valley to Friendship Storm Hardening	4	Apr-25	PEC	Travis
61277	Lago Vista to Nameless Transmission Line Upgrade	4	Apr-25	PEC	Travis
61270	Friendship to Rutherford Storm Hardening	4	Apr-26	PEC	Travis