PUBLIC

Texas New Mexico Power (TNMP) Climax to Bells Area Transmission System Improvements Project (26RPG017) – ERCOT Independent Review (EIR) Study Scope

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Regional Planning Group (RPG) Meeting
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Introduction

Texas New Mexico Power (TNMP) submitted the Climax to Bells Area Transmission System Improvements Project (26RPG017) for Electric Reliability Council of Texas' (ERCOT) Reginal Planning Group (RPG) review in April 2026

- This is a Tier 1 project with an estimated cost of approximately $225.4 million and will not require a Certificate of Convenience and Necessity (CCN)
- Estimated in-service date (ISDs) is December 2029
- This project is proposed to address the thermal overloads and voltage violations due to load growth in Grayson and Collin counties in the North Weather Zone

This project is currently under ERCOT Independent Review (EIR)

Study Area Map with Project Needs Seen by TNMP

Proposed Project by TNMP

Project Description

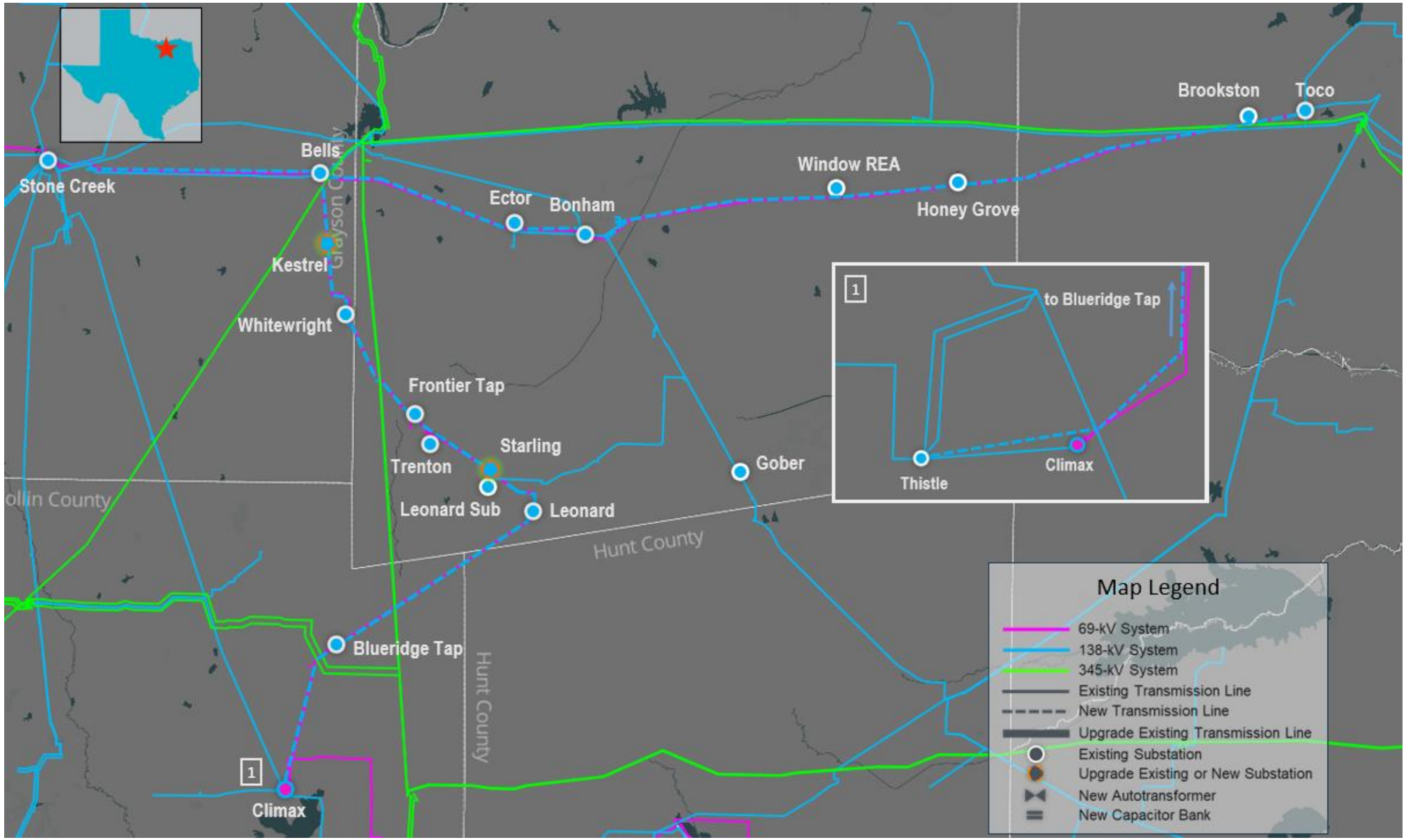
- Re-terminate the Climax terminal of the existing Climax to Blueridge Tap 69-kV transmission line into Thistle 138-kV substation, creating a new Thistle to Blueridge Tap 138-kV transmission line
- Upgrade the existing Thistle to Blueridge Tap to Blueridge 69-kV transmission line to operate at 138-kV, using a conductor rated at 1600 A or greater; increase the existing normal and emergency ratings of 36 MVA to at least 383 MVA, for approximately 7.3 miles
- Upgrade the existing Blueridge to Leonard to Trenton to Frontier to Whitewright to Bells 69-kV transmission line to operate at 138kV, using a conductor rated at 1600 A or greater; increase the existing normal and emergency ratings of 43 MVA to at least 383 MVA, for approximately 32.5 miles
- Construct a new Starling 138-kV substation by cutting into the upgraded Leonard to Trenton 138-kV transmission line, approximately 3 miles from Leonard, initially configured with three 138-kV, 3000 A circuit breakers in a three-breaker ring bus arrangement. The ultimate build-out will transition to a breaker-and-a-half scheme
- Construct a new Kestrel 138-kV substation by cutting into the upgraded Whitewright to Bells 138-kV transmission line, approximately 3.55 miles from Bells, initially configured with three 138-kV, 3000 A circuit breakers in a three-breaker ring bus arrangement. The ultimate build-out will transition to a breaker-and-a-half scheme
- Construct a new Starling to Leonard Sub 138-kV transmission line, on single-circuit structures with one circuit in place, using a conductor rated at 1600 A or greater with normal and emergency ratings of at least 383 MVA, for approximately 0.37 miles

Proposed Project by TNMP (continued)

Project Description

- Operate the 138kV line segment from Trenton to Starling to Leonard as normally closed
- Eliminate the existing138/69-kV autotransformers at Stone Creek, Bonham, and Toco switching stations
- Rebuild the existing Bells 138-kV Switch by installing three 138-kV, 3200 A circuit breakers in a ring bus arrangement
- Rebuild the existing Bonham 138-kV Switch by installing eight 138 kV, 3200 A circuit breakers in a breaker-and-a-half bus arrangement
- Rebuild the existing Windom 138-kV Switch by installing three 138 kV, 3200 A circuit breakers in a ring bus arrangement
- Rebuild the existing 69-kV transmission line from Stone Creek Switch to Bells Switch to Ector to Bonham Switch, on double-circuit-capable structures with one circuit in place, using a conductor rated at 2569 A or greater and operated at 138-kV; increase the existing normal and emergency ratings of 60 MVA to at least 614 MVA, for approximately 26.1 miles
- Upgrade the existing 69-kV transmission line from Bonham Switch to Windom REA to Honey Grove to Brookston to Toco Switch to operate at 138-kV using a conductor rated at 2569 A or greater; increase the existing normal and emergency ratings of 70 MVA to at least 614 MVA, for approximately 34.2 miles

Map of Proposed Project by TNMP



Study Assumptions

Study Region

- The project is located in Grayson, Fannin, and Collin counties in the North and North Central Weather Zones. All transmission elements in counties that are electrically close will be monitored

Steady-State Base Case

- Final 2025 Regional Transmission Planning (RTP) 2030 summer peak load case, published on Market Information System (MIS) on December 22, 2025, will be updated to construct the study base case

Transmission Updates

- New transmission projects (listed in Appendix A1), based on February 2026 Transmission Project and Information Tracking (TPIT) report and/or recently approved RPG project, will be added to the base case
- Transmission project (listed in Appendix A2) identified in the 2025 RTP in the study area that has not been approved by RPG will be removed

Study Assumptions (continued)

Generation Updates

- New generation that met ERCOT Planning Guide Section 6.9(1) (listed in Appendix B) based on the April 2026 Generator Interconnection Status (GIS) report will be added to the study base case
- Any generation that cancelled but was included in the 2025 RTP 2031 case will be removed based on April GIS report
- All generation will be dispatched consistent with the 2025 RTP methodology
- All recent retired/indefinitely mothballed units will be reviewed and opened (turned off), if not already reflected in the 2025 RTP Final cases

Load Updates

- New loads in Climax area in study region will be added to create the study base case

Reserve

- The reserve will be kept consistent with the 2025 RTP

Contingencies & Criteria

Contingencies for Study Region

- North American Electric Reliability Corporation (NERC) Reliability Standard TPL-001-5.1 and ERCOT Planning Criteria
  - P0 (System Intact)
  - P1, P2-1, P7 (N-1 conditions)
  - P2-2, P2-3, P4, and P5 (EHV only)
  - P3: G-1+N-1 (G-1: list in Appendix C)
  - P6-2: X-1+N-1 (X-1: list in Appendix C)

Criteria

- Monitor all 60-kV and above busses, transmission lines, and transformers in the study region (excluding generator step-up transformers)
- Thermal
  - Use Rate A for normal conditions
  - Use Rate B for emergency conditions
- Voltage
  - Voltages exceeding their pre-contingency and post-contingency limits
  - Voltage deviations exceeding 8% on non-radial load buses

Study Procedure

Need Analysis

- The reliability analysis will be performed to identify the need to serve the projected area load using the study base case

Project Evaluation

- Project alternatives will be tested to satisfy the NERC and ERCOT reliability requirements
- ERCOT may also perform the following studies
  - Maintenance Outage Evaluation
  - Long-Term Load-Serving Capability Assessment
- TSP(s) will provide Cost and Feasibility Assessment

Additional Analyses for Preferred Option

- Generation Addition and Load Scaling Sensitivity Analyses
  - ERCOT Planning Guide Section 3.1.3(4)
- SSO Assessment
  - ERCOT Nodal Protocol Section 3.22.1.3(2)
- Congestion analysis may be performed based on the preferred transmission upgrades to ensure that the identified transmission upgrades do not result in new congestion within the study area

Deliverables or Next Step

Tentative Timelines

- Provide status updates at the future RPG meetings
- ERCOT recommendation – Q4 2026

Key Takeaway: Seek ERCOT BOD endorsement in December 2026

Thank you!

Questions/Comments?

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Appendix

- Appendix A1: Transmission Projects to Add to Base Case
- Appendix A2: Transmission to Remove from Base Case
- Appendix B: Generation to Add to Base Case
- Appendix C: G-1 Generators and X-1 Transformers List

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Appendix A1: Transmission Projects to Add

TPIT/RPG	Project Name	Tier	Project ISD	County(s)
99321	Austin Ranch 138kV Capacitor Bank	Tier 4	May-27	Denton
91611	Spring to Rector 138 kV Line Upgrade	Tier 4	Sep-27	Cooke
92867	Oncor_ME_Renner Switch – Plano West Switch 138 kV Double-Circuit Line	Tier 4	May-26	Collin
92849	Oncor_ME_92849_Renner Switch 138kV Capacitor Bank	Tier 4	May-26	Collin
25RPG030	Bonham Switch to Toco Switch 69-kV Line Rebuild Project	Tier 4	Dec-28	Lamar and Fannin

Appendix A2: Transmission Project to Remove

RTP Project ID	Project Name	County(s)
2025-N07	Toco (1703) Area 69-kV to 138-kV Line Conversion	Fannin, Lamar

Appendix B: New Generation Projects to Add

GINR	Project Name	Fuel	Project COD	Max Capacity (~MW)	County
19INR0002	Grandfalls Solar	SOL	07/01/2027	175.6	Upton
21INR0265	Sisters Solar	SOL	05/31/2027	301.6	Ector
22INR0503	Tidwell Prairie II Batt	OTH	06/01/2026	203.6	Robertson
22INR0504	Barton Branch IA	OTH	03/01/2026	203.6	Robertson
24INR0136	Eagle Springs Storage	OTH	12/31/2026	33.1	Delta
24INR0137	Eagle Springs Solar	SOL	12/31/2026	77.2	Delta
24INR0442	Midnight Sun Energy Storage	OTH	06/29/2028	510.0	Crockett
24INR0485	Rutile BESS	OTH	03/31/2028	100.7	Runnels
25INR0101	Drake BESS	OTH	07/14/2026	257.3	Collin
25INR0112	August Draw Solar	SOL	06/27/2028	250.0	Reeves
25INR0368	Echols Grove, LLC	SOL	04/03/2027	201.2	Lamar
25INR0432	Brotherton Storage	OTH	05/01/2027	176.1	Anderson
25INR0628	Carolina Storage Wichita Falls	OTH	08/01/2028	202.0	Archer
26INR0255	Operation Sunshine	SOL	03/12/2028	603.2	Concho
26INR0357	Operation Sunshine Storage	OTH	03/12/2028	409.8	Concho
26INR0380	Pepper Solar Farm	SOL	09/20/2027	120.9	McLennan
26INR0530	Longview Wind	WIN	12/01/2028	352.6	Dawson
27INR0076	Bob Creek Wind	WIN	07/01/2028	240.0	Sterling
27INR0383	Windjammer Windpower	WIN	12/31/2028	292.6	Glasscock
27INR0435	Clairemont Solar 1	SOL	02/13/2029	251.8	Kent

Appendix B: New Generation Projects to Add (continued)

GINR	Project Name	Fuel	Project COD	Max Capacity (~MW)	County
23INR0421	Bee Branch IA	OTH	06/01/2027	200.5	Robertson
25INR0143	Ariji BESS	OTH	06/28/2027	100.3	Howard
25INR0430	Hackberry Creek Solar	SOL	07/01/2028	175.5	Mitchell
26INR0033	Fairway Storage	OTH	09/24/2027	120.3	Freestone
27INR0313	Spindletop Solar	SOL	12/29/2027	286.0	Nacogdoches
28INR0176	Gail Mountain Solar	SOL	08/25/2028	244.4	Borden
29INR0003	Aurelius Solar	SOL	06/30/2028	1124.2	Deaf Smith
29INR0004	Aurelius Wind	WIN	06/30/2028	621.6	Deaf Smith
29INR0025	Skyrider Wind	WIN	07/01/2028	370.0	Pecos
29INR0040	Gusty Windpower	WIN	12/31/2028	208.5	Glasscock
29INR0147	Selenite Springs Solar	SOL	08/30/2028	253.0	Pecos
30INR0018	Big Canyon Wind	WIN	07/01/2030	1500.0	Pecos
30INR0058	Springfield Solar	SOL	08/30/2028	400.0	Pecos
21INR0371	Pecan Prairie South	SOL	05/01/2027	133.0	Leon
26INR0098	Douie Solar	SOL	04/18/2028	221.2	Freestone
26INR0440	Hamby Solar	SOL	06/27/2028	205.8	Jones
28INR0013	Varadero Solar	SOL	04/01/2029	206.0	Limestone

Appendix C: G-1 Generators and X-1 Transformers List

Generator	Transformer
Panda Sherman Combined Cycle Train	Royse 345/138-kV Transformer
Coniglio Solar	Valley 345/138-kV Transformer