



CPS Large Load Project – Updated ERCOT Independent Review (EIR) Scope

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RPG Meeting
February 2, 2026

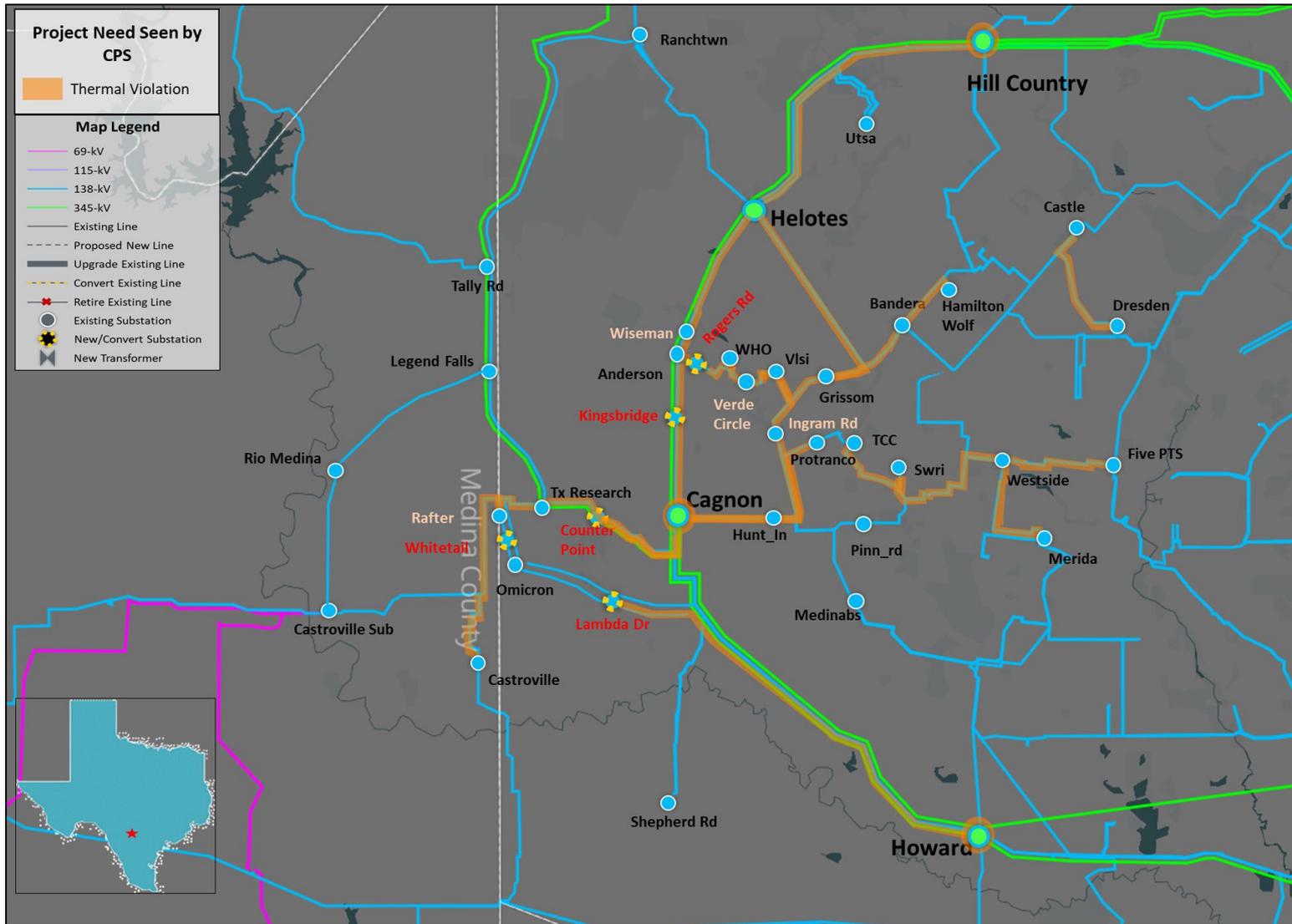
Introduction

- CPS Energy submitted the Large Load Additions Project for Regional Planning Group (RPG) review in June 2025.
 - This Tier 1 project is estimated to cost \$333.7 million and will require a Certificate of Convenience and Necessity (CCN)
 - Estimated in-service date (ISD) is Summer Peak 2035
 - To address the reliability concerns seen by CPS Energy with addition of approximately 2 GW Load by 2035
- CPS presented a project overview and ERCOT provided a project scope at the August 2025 RPG Meeting
 - <https://www.ercot.com/calendar/08262025-RPG-Meeting>

Introduction (cont.)

- STEC submitted the Medina Load Project for Regional Planning Group (RPG) review in December 2025.
 - This Tier 1 project is estimated to cost \$492 million and will require a Certificate of Convenience and Necessity (CCN)
 - Estimated in-service date (ISD) is June 2031
 - To address the reliability concerns seen by STEC with addition of approximately 1 GW Load
- ERCOT is currently conducting a single ERCOT Independent Review (EIR) by combining these two projects (25RPG020 and 25RPG046)

Study Area Map with the violations as seen by CPS Energy



New Loads Proposed by CPS Energy

- New Load Stations
 - Rogers Road, tapped between the existing Anderson and Westover Hills 138-kV transmission line;
 - Kingsbridge, tapped between the existing Wiseman and Cagnon 138-kV transmission line;
 - Counter Point, tapped between the existing Omicron and Cagnon 138-kV transmission line;
 - Whitetail, tapped between the existing Omicron and Rafter 138-kV transmission line; and
 - Lambda Drive, tapped between the existing Counter Point and Howard 138-kV transmission line.
- Loads Added at Existing Station
 - Wiseman
 - Verde Circle
 - Rafter
 - Ingram Road

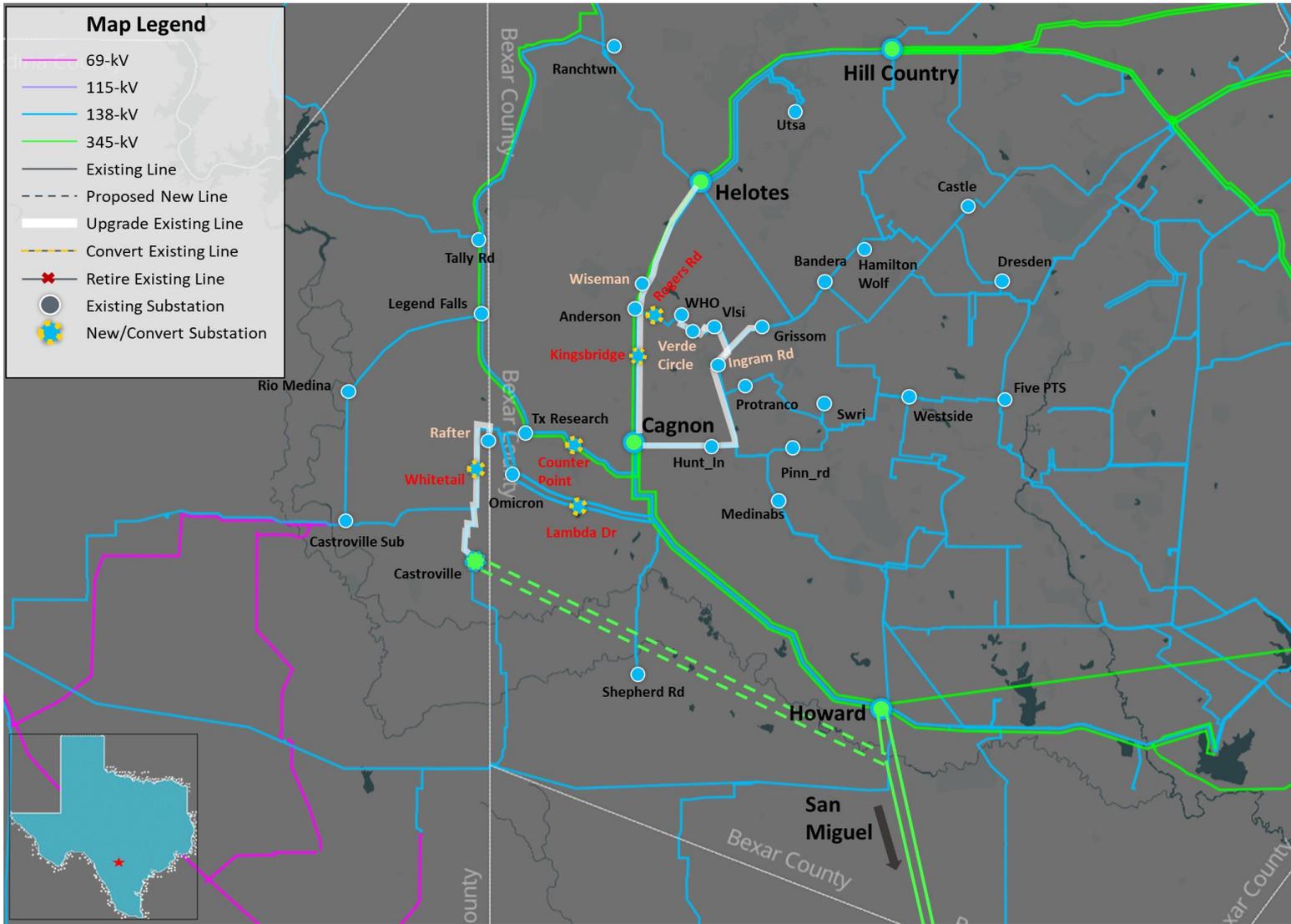
Project Proposed by CPS Energy

Project Name	Project ISD
Rebuild existing 138 kV Transmission Line from Grissom to VLSI (~3 miles) with minimum Normal and Emergency rating of 698 MVA.	SUM Peak 2028
Rebuild existing 138 kV Transmission Line from Cagnon to VLSI (~9 miles) with minimum Normal and Emergency rating of 698 MVA.	SUM Peak 2030
Construct a new 138 kV Transmission line from Grissom to Ingram (~1 mile) with minimum Normal and Emergency rating of 698 MVA.	SUM Peak 2031
Rebuild the existing 138 kV Transmission Line from Verde Circle to VLSI (~0.26 miles) with minimum Normal and Emergency rating of 698 MVA.	SUM Peak 2032
Rebuild the future 138 kV Transmission Line from Anderson to Rogers Rd to Westover Hills (~2 miles) with minimum Normal and Emergency rating of 698 MVA.	SUM Peak 2032
Rebuild the existing 138 kV Transmission Line from Verde Circle to Westover Hills in existing easement (~2 miles) with minimum Normal and Emergency rating of 698 MVA.	SUM Peak 2032
Rebuild existing 138 kV Transmission corridor from Anderson to Cagnon, which includes future 138kV Transmission Line(s) Cagnon to Kingsbridge and Kingsbridge to Wiseman. (~5 miles) with minimum Normal and Emergency rating of 698 MVA.	SUM Peak 2032
Rebuild the existing 138 kV Transmission corridor from Anderson to Helotes, which includes future 138kV Transmission Line Helotes to Wiseman. (~8 miles) with minimum Normal and Emergency rating of 698 MVA.	SUM Peak 2032
Construct a new 50 MVAr Capacitor Bank at Kingsbridge	SUM Peak 2032
Construct a new 50 MVAr Capacitor Bank at Rogers Rd	SUM Peak 2032

Project Proposed by CPS Energy (Continued)

Project Name	Project ISD
Rebuild the existing 138 kV Transmission Line from Castroville to Rafter Circuit 1 and construct a new 138 kV Transmission Line from Castroville to Rafter Circuit 2 (~6 miles) with minimum Normal and Emergency rating of 698 MVA.	SUM Peak 2035
Construct a new Castroville 345/138-kV Switching Station with three 600 MVA autotransformers.	SUM Peak 2035
Loop Howard to Miguel Circuit 1 into the new 345-kV Castroville station.	SUM Peak 2035
Construct a new 50 MVAr Capacitor Bank at Whitetail	SUM Peak 2035

Project Proposed by CPS Energy



Updated Load Additions in the Study

- Load additions in the study region
 - CPS provided additional loads in October 2025
 - AEP provided load additions in November 2025
 - STEC submitted Medina County Load Project (25RPG046) with load additions in December 2025

Updated Study Assumptions Base Case

- Study Region
 - Bexar county in South Central Weather Zone, focusing on the transmission elements near the Medina, Atascosa, Bandera, Kendal, Comal, Wilson and Guadalupe Counties.
 - Monitor surrounding counties that are electrically close to the area
- Steady-State Base Case
 - Final 2025 Regional Transmission Planning (RTP) 2031 summer peak case was used as a seed case, posted in Market Information System (MIS), will be updated to construct the summer peak load study base case
 - Case: 2025RTP_2031_SUM_12222025
 - Link: <https://mis.ercot.com/secure/data-products/grid/regional-planning>

Updated Study Assumptions – Transmission

- Based on the October 2025 Transmission Project and Information Tracking (TPIT) posted on MIS, projects with in-service dates before June 1, 2035, within the study area will be added to the study base case if not already modeled in the case
 - TPIT Link: <https://www.ercot.com/gridinfo/planning>
 - See Appendix A for a list of transmission projects added
- Transmission projects identified in the 2025 RTP as placeholder projects within the study area will be removed to develop the study base case
 - See Appendix B for a list of placeholder projects removed
- The following project is also included in the base case development
 - CPS Helotes 345/138-kV Switching Station and Autotransformer Addition at Eastside Switching Station Project and Reactive Power Planning Project

Updated Study Assumptions – Generation

- New generation that met Planning Guide Section 6.9(1) condition with Commercial Operation Date (COD) before the end of June 1, 2031, in the study area at the time of the study, but not already modeled in the RTP cases, will be added to the case based on the December 2025 Generator Interconnection Status (GIS) report posted in MIS in January 2026
 - GIS Link: <https://www.ercot.com/gridinfo/resource>
 - See Appendix C for a list of generation projects added
- 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 case

Updated Study Assumptions – Load & Reserve

- Load in study area
 - New loads in the study area will be added to the study base case
- Reserve
 - Load outside of study Weather Zone(s) will be adjusted to maintain the reserve consistent with the 2025 RTP

Updated Contingencies & Criteria

- Contingencies for Study Region
 - NERC TPL-001-5.1 and ERCOT Planning Criteria
 - Link: <http://www.ercot.com/mktrules/guides/planning/current>)
 - P0 (System Intact)
 - P1, P2-1, P7 (N-1 conditions)
 - P2-2, P2-3, P4, and P5 (345-kV only)
 - P3: G-1+N-1 (G-1: Leon Creek U1, San Miguel U1, Sunray Solar U1, JK Spruce U1 Units)
 - P6: X-1+N-1 (X-1: Cagon, Hill Country, Howard 345/138-kV transformer)
- 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
 - Planned maintenance outage
 - Long-Term Load-Serving Capability Assessment
 - TSP(s) will provide Cost and Feasibility Assessment
- Generation Addition and Load Scaling Sensitivity Analyses
 - Planning Guide Section 3.1.3(4)
- Subsynchronous Oscillation (SSO) Assessment
 - Nodal Protocol Section 3.22.1.3(2)
- 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

Deliverables

- Tentative Timelines
 - Status updates at future RPG meetings
 - Final recommendation – Q2 2026

Thank you!



Stakeholder comments also welcomed through:

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Appendix A – Transmission Projects

- List of transmission projects added to study base case

RPG/TPIT No	Project Name	Tier	Project ISD	TSP
67329	San Miguel to Cruce 345 kV lines	Tier 1	Dec-26	STEC
99207	Rebuild (5.4 miles) Cagnon to VLSI transmission line to at least 698MVA	Tier 1	May-28	CPS
99857	LCRATSC_Gooseneck_Substation_Addition	Tier 1	Sep-28	LCRATSC
99922	Green Valley Substation Addition	Tier 1	Dec-28	LCRATSC
91312	Austrop - Zorn Transmission Line Upgrade	Tier 1	May-29	LCRATSC
98595	Solstice to Howard: Construct New 765 kV Single Circuit Line	Tier 1	Dec-30	AEP TNC
81594	Dunlay substation	Tier 2	Apr-26	STEC
71917	Upgrade STEC castroville to Pearson to 138kV	Tier 2	Apr-26	STEC
73098	Castroville Cut-in 138 kV	Tier 2	Oct-26	ETT
81590	Rio Medina substation	Tier 2	Jan-27	STEC
85008	Add Rio Medina - Legend Falls Tline	Tier 2	Jul-27	STEC
99784	Lytle: Expand 345 kV Station	Tier 2	Nov-30	AEP TCC
61404	Boerne Split-Welfare Transmission Line Upgrade	Tier 3	Jan-26	LCRATSC
76576	Asherton to Uvalde: Convert to 138 kV	Tier 3	Mar-26	AEP TCC
76569	Asherton: Rebuild 138 kV station	Tier 3	Dec-26	AEP TCC
61406	Kendall - Welfare Transmission Line Upgrade	Tier 3	Jun-27	LCRATSC
91392	Bergheim_Autotransformer_Upgrade	Tier 3	Dec-27	LCRATSC

Appendix A – Transmission Projects Cont.

- List of transmission projects added to study base case

RPG/TPIT No	Project Name	Tier	Project ISD	TSP
100285	Comfort_Kendall_Transmission_Line_Upgrade	Tier 3	May-28	LCRATSC
67915	Asherton to West Batesville: Rebuild 138 kV Line	Tier 3	Nov-31	AEP TCC/ETT
99187	This involves moving Harmony to a different bus/bay at Hill Country to alleviate the loading on HC auto 3 & 4.	Tier 4	Jan-26	CPS
44946	CPSE_New_Scenic_Loop_138kV_Load_Serving_Station	Tier 4	Jan-26	CPS
80319	Devine: Install Cap Bank	Tier 4	Mar-26	ETT
71319	Upgrade Pearsall Station	Tier 4	May-26	STEC
99904	Install a new 138kV transmission line approximately .1 miles long to connect the generator's interconnection facilities to Leon Creek Switchyard.	Tier 4	May-26	CPS
99185	This involves moving Potranco to a different bus/bay at Cagnon to alleviate the loading on Cagnon auto 3 & 4.	Tier 4	May-26	CPS
45029	Grandview Highland Hills Rebuild	Tier 4	Jun-26	CPS
76242	Lytle: Construct New 138 kV Terminal	Tier 4	Aug-26	ETT
73063	Big Foot to Lytle: Convert to 138 kV	Tier 4	Aug-26	AEP TCC
72268	CPSE_New Ingram Rd Substation	Tier 4	Oct-26	CPS
45136	CPSE_New Midtown Substation	Tier 4	Dec-26	CPS
92743	Rebuild ~3 miles of double-ckt from VLSI to Grissom transmission line with normal and emergency ratings of at least 478MVA	Tier 4	May-27	CPS

Appendix A – Transmission Projects Cont.

- List of transmission projects added to study base case

RPG/TPIT No	Project Name	Tier	Project ISD	TSP
100257	Hill Country Auto #4 will be replaced Summer 2027 to a 10% impedance auto.	Tier 4	May-27	CPS
91708	New San Geronimo Substation	Tier 4	Jul-27	STEC
80315	Big Foot to Pearsall: Convert to 138 kV	Tier 4	Dec-27	AEP TCC
80317	Dilley Switch to Pearsall: Convert to 138 kV, Reroute from Dilley to Dilley Switch, Rebuild Dilley to Dilley Switch 69 kV, and Double Circuit Dilley Switch to Pearsall with Dilley to Dilley Switch	Tier 4	Dec-27	AEP TCC
99802	Aetos: Construct New 138 kV Station	Tier 4	Dec-27	AEP TCC
73100	Asherton to Piloncillo: Rebuild 138 kV Line	Tier 4	Dec-27	AEP TCC
76768	Upgrade Pearson -Pearsall	Tier 4	May-28	STEC
45125	Quintana Rd to South San Rebuild	Tier 4	May-28	CPS
2308	36th St to Merida - 138 kV Transmission Line Rebuild	Tier 4	May-28	CPS
81659	Lytle: Construct New 138 kV Terminal	Tier 4	Dec-28	AEP TCC/ETT
3021	Sulphur Springs - New 138kV Substation	Tier 4	May-29	CPS
4320	CPSE_Brooks to Chavaneaux MLSE	Tier 4	Jan-30	CPS
2304	Chavaneaux_Chavaneaux Tap Rebuild (Brooks to Chavaneaux ckt)	Tier 4	Jan-30	CPS
1549	Devine Switch breaker addition	Tier 4	Dec-30	STEC

Appendix A – Transmission Projects Cont.

- List of transmission projects added to study base case

RPG/TPIT No	Project Name	Tier	Project ISD	TSP
45068	Merida to Harlandale Rebuild	Tier 4	May-31	CPS
57910	Uvalde to West Batesville: Rebuild 138 kV Line	Tier 4	Nov-31	AEP TCC
50647	CPSE_Merida to Westside MLSE	Tier 4	Jan-32	CPS
76790	Upgrade Pearsall Auto	Tier 4	May-32	STEC
2306	Randolph - 138 kV Substation Equipment Upgrade	Tier 4	Jun-32	CPS
3334	Fort Sam to Kirby and Fort Sam to Tenth Street MLSE Upgrade	Tier 4	Dec-32	CPS
73364	CPSE_New_Omicron_Substation	Tier 4	Oct-25	CPS
88046	Rebuild Omicron to Rafter	Tier 2	Oct-25	CPS
55873	Upgrade Moore to Hondo Creek 138 kV line	Tier 2	Dec-25	STEC
70536	New 138 kV Verde Circle Substation	Tier 4	Dec-25	CPS

Appendix B – Transmission Projects

- List of transmission projects removed from the study base case

TPIT No	Project Name	County
2025-SC07	Medina (5305) to 36th St (5427) 138-kV Line Upgrade	Bexar
2025-SC11	Lytle (5290) Area 138-kV Line Upgrades	Medina
2025-SC15	Omicron (5326) Area 138-kV Line Additions and Upgrades	Bexar
2025-SC16	Hamwolf (5187) to Bandera (5020) 138-kV Line Upgrade	Bexar
2025-SC17	Martinez (5295/5294) 345/138-kV Transformer Addition	Bexar
2025-W03	Carver (60412) to Poblano (8009) 69-kV to 138-kV Line Conversion	Edwards, Sutton, Uvalde

Appendix C – New Generation Projects to Add

GINR	Project Name	Fuel	Projected COD	Max Capacity (~MW)	County
21INR0334	Nightfall Solar	SOL	06/30/2026	180.9	Uvalde
23INR0479	Taormina Storage	BAT	05/26/2029	231.9	Bexar
24INR0533	Padua Grid BESS Unit 2	BAT	03/16/2026	150.9	Bexar
26INR0407	Rock Creek BESS	BAT	03/29/2028	251.1	Kendall
28INR0024	Padua Grid BESS Unit 3	BAT	05/15/2026	201.4	Bexar