Combined CPS Energy Reactive Power Planning Project & CPS Energy Helotes 345/138-kV Switching Station and Autotransformer Addition at Eastside Switching Station Project – ERCOT Independent Review (EIR) Status Update

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RPG Meeting
February 2, 2026

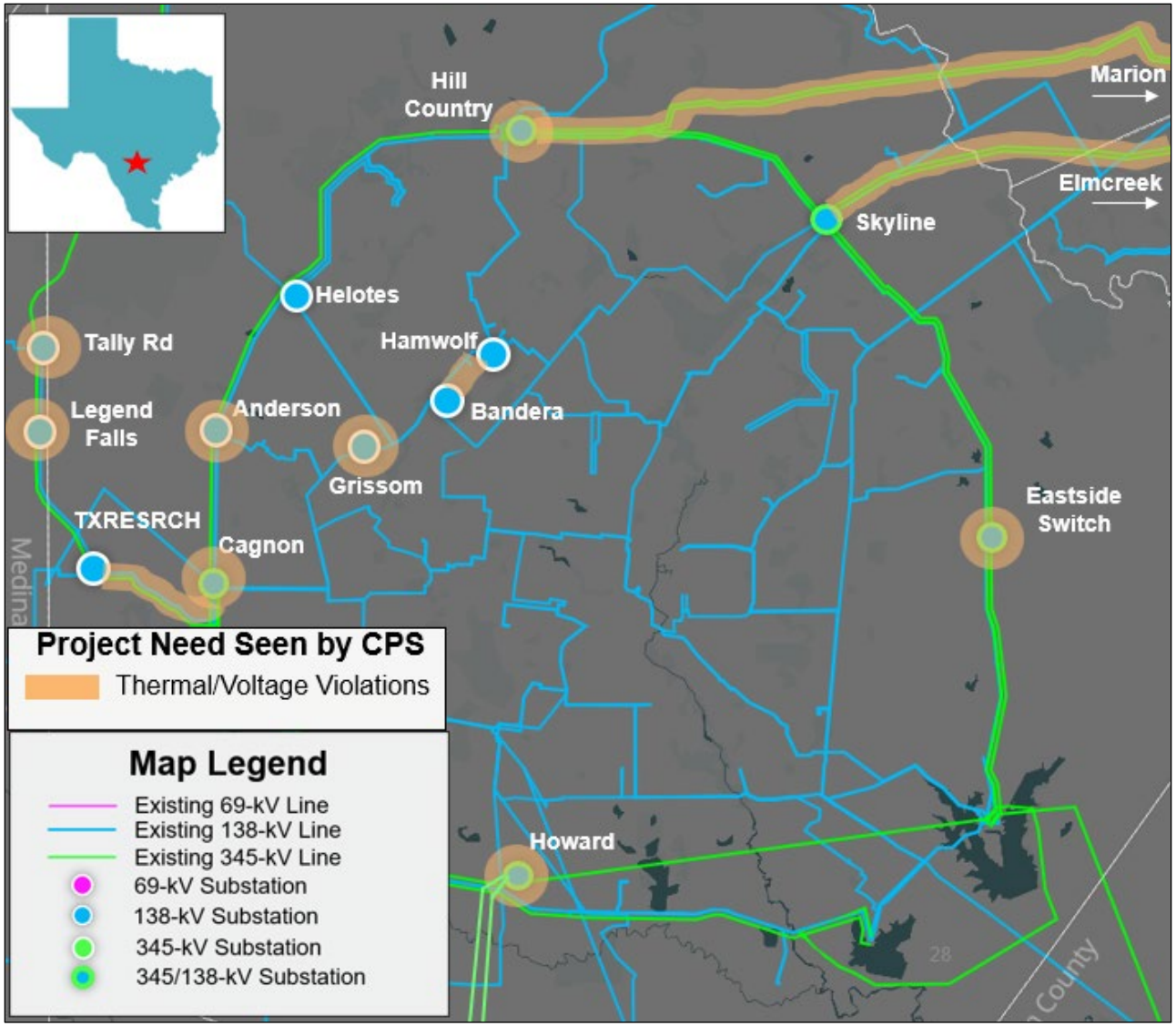
Introduction

- CPS Energy Reactive Power Planning Project (25RPG013) for Regional Planning Group (RPG) review in May 2025
  - This is a Tier 1 project with an estimated cost of $116.50 million and will not require a Certificate of Convenience and Necessity (CCN)
  - Estimated in-service date (ISD) is December 2029
  - This project is needed to address post-contingency voltage violations in the Bexar County
- CPS Energy Helotes 345/138-kV Switching Station and Autotransformer Addition at Eastside Switching Station Project (25RPG017) for Regional Planning Group (RPG) review in May 2025
  - This is a Tier 1 project with an estimated cost of $110.0 million and will not require a Certificate of Convenience and Necessity (CCN)
  - Estimated ISD is Summer 2028 and Summer 2029
  - This project is needed to address post-contingency thermal violations in the Bexar County

Introduction

- CPS presented a project overview and ERCOT provided a project scope at the July 2025 RPG Meeting
  - https://www.ercot.com/calendar/07292025-RPG-Meeting
- ERCOT provided a project update at the August, October, December 2025, and the January 2026 RPG Meetings
  - https://www.ercot.com/calendar/08262025-RPG-Meeting
  - https://www.ercot.com/calendar/10282025-RPG-Meeting
  - https://www.ercot.com/calendar/12162025-RPG-Meeting
  - https://www.ercot.com/calendar/01162026-RPG-Meeting
- ERCOT is currently conducting a single ERCOT Independent Review (EIR) by combining these two projects (25RPG013 and 25RPG017)

Recap – Study Area Map with Project Needs Seen by CPS



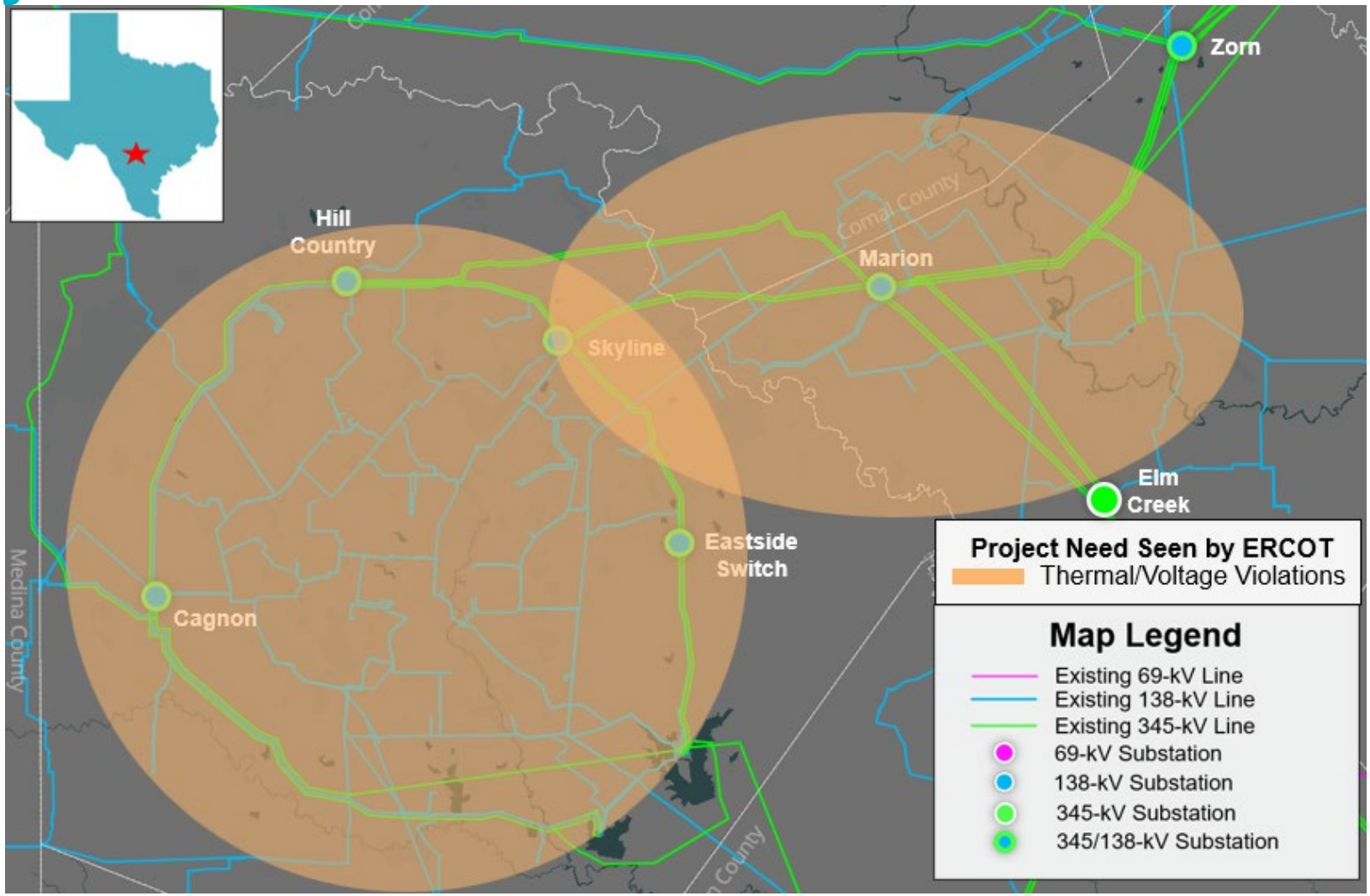
Recap – Preliminary Results of Reliability Assessment – Updated Base Case

Contingency Category	Unsolved Power Flow	Voltage Violations	Thermal Overloads
P1	10*	None	8*
P2, P4, P5	5	None	None
P3 (G-1+N-1)**	85	150+	25+
P6.2 (X-1+N-1)**	85	150+	25+
P7	8*	150+*	12*
Total	**100+**	**150+**	**25+**

*Violations seen in the basecase under P1 and P7 events were also seen under G-1+N-1 and/or X-1+N-1 events

**See Appendix D for list of G-1 generators and X-1 transformers tested

Recap – Study Area Map with Project Needs Seen by ERCOT



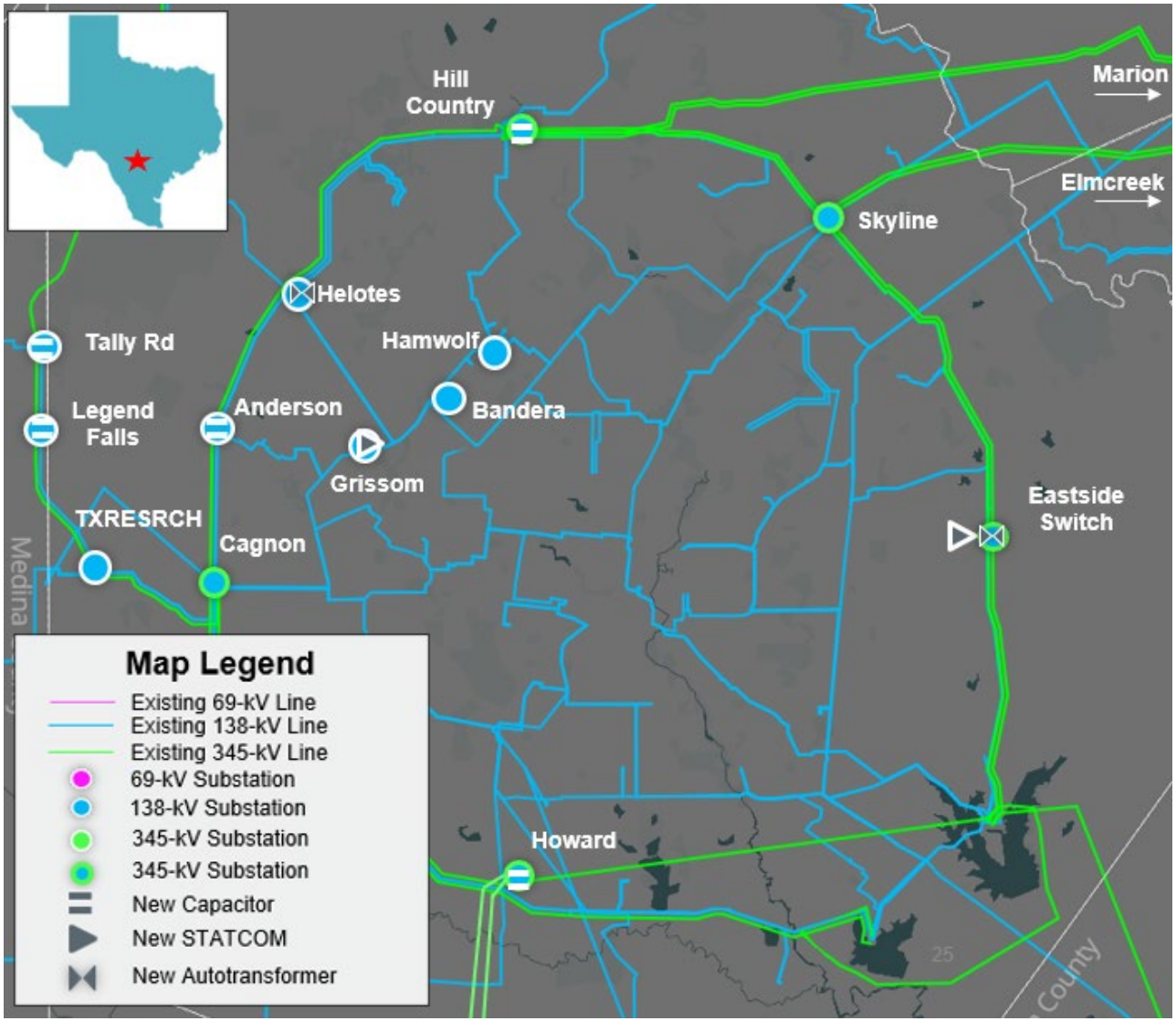
Option 1 – Combined CPS Project

- Construct a new Helotes 345-kV substation;
- Convert the existing Helotes 138-kV substation to a new 345/138-kV switching substation;
- Install two new 345/138-kV autotransformers at the new Helotes 345/138-kV switching substation with normal and emergency ratings of at least 600 MVA;
- Loop in the existing Hill Country to Cagnon 345-kV transmission line into the new Helotes 345-kV substation;
- Install a new 345/138-kV autotransformer at the existing Eastside 345/138-kV substation with normal and emergency ratings of at least 600 MVA; and

Option 1 – Combined CPS Project

- Install the following sized capacitors at the following 138-kV substations:
  - 50 MVAr, Hill Country
  - 50 MVAr, Anderson
  - 25 MVAr, Legend Falls
  - 50 MVAr, Howard
  - 25 MVAr, Talley Rd
- Install the following STATCOMs at the following 138-kV substations:
  - 300 MVAr, Grissom
  - 300 MVAr, Eastside Switch

Option 1 – Combined CPS Project



Option 2 – ERCOT Proposed Option

- Construct a new Helotes 345-kV substation;
- Convert the existing Helotes 138-kV substation to a new 345/138-kV switching substation;
- Install two new 345/138-kV autotransformers at the new Helotes 345/138-kV switching substation with normal and emergency ratings of at least 600 MVA;
- Loop in the existing Hill Country to Cagnon 345-kV transmission line into the new Helotes 345-kV substation;
- Install a new 345/138-kV autotransformer at the existing Eastside 345/138-kV substation with normal and emergency ratings of at least 600 MVA;
- Construct a new Kendall to Helotes 345-kV transmission line on double-circuit structures with normal and emergency ratings of at least 1980 MVA, approximately 39.1-mile;

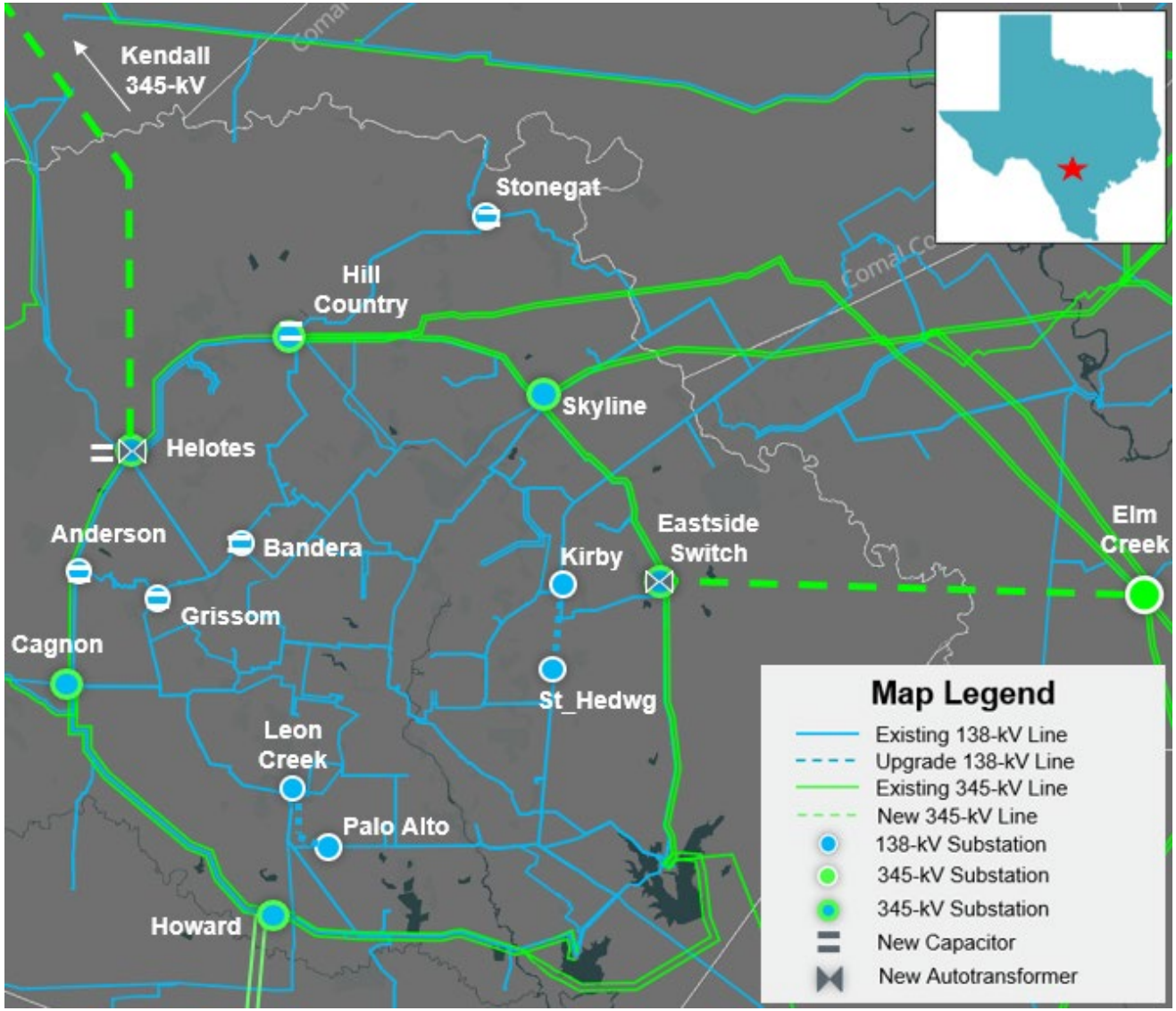
Option 2 – ERCOT Proposed Option

- Construct a new Elm Creek to Eastside 345-kV transmission line on double-circuit structures with normal and emergency ratings of at least 1980 MVA, approximately 23.4-mile;
- Rebuild the existing Kirby to St_Hedwg 138-kV transmission line on double-circuit structures with normal and emergency ratings of at least 478 MVA, approximately 2.67-mile;
- Rebuild the existing Leon Creek to Palo Alto 138-kV transmission line on double-circuit structures with normal and emergency ratings of at least 478 MVA, approximately 3.64-mile; and

Option 2 – ERCOT Proposed Option

- Install the following sized capacitors at the following 138-kV substations:
  - 50 MVAr, Grissom
  - 50 MVAr, Helotes
  - 50 MVAr, Bandera
  - 50 MVAr, Anderson
  - 50 MVAr, Hill Country
  - 50 MVAr, Stonegat

Option 2 – ERCOT Proposed Option



Option 3 – ERCOT Proposed Option

- Construct a new Helotes 345-kV substation;
- Convert the existing Helotes 138-kV substation to a new 345/138-kV switching substation;
- Install two new 345/138-kV autotransformers at the new Helotes 345/138-kV switching substation with normal and emergency ratings of at least 600 MVA;
- Loop in the existing Hill Country to Cagnon 345-kV transmission line into the new Helotes 345-kV substation;
- Install a new 345/138-kV autotransformer at the existing Eastside 345/138-kV substation with normal and emergency ratings of at least 600 MVA;

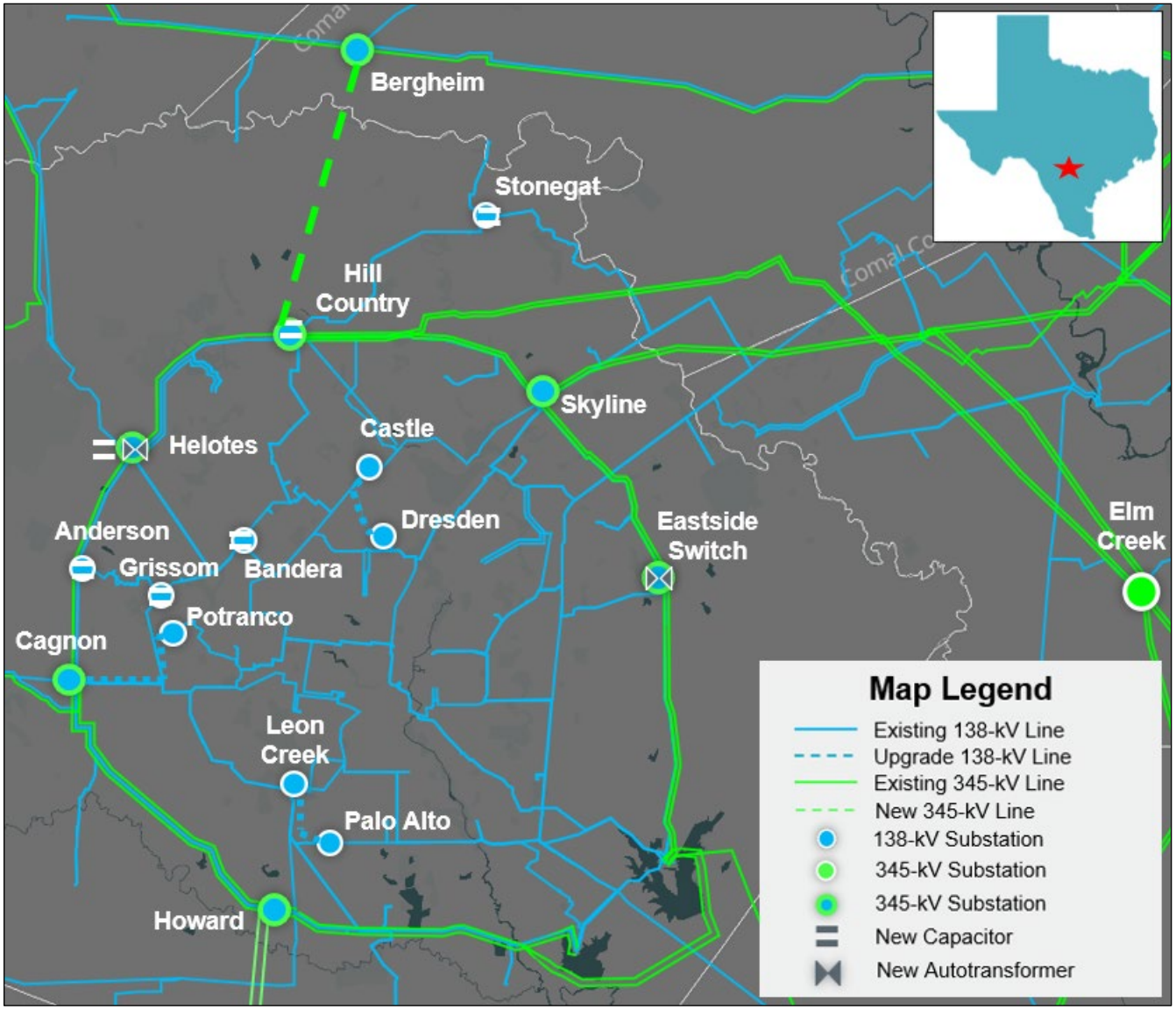
Option 3 – ERCOT Proposed Option

- Construct a new Hill Country to Bergheim 345-kV transmission line on double-circuit structures with normal and emergency ratings of at least 1980 MVA, approximately 14.28-mile;
- Rebuild the existing Castle to Dresden 138-kV transmission line on double-circuit structures with normal and emergency ratings of at least 478 MVA, approximately 3.79-mile;
- Rebuild the existing Cagnon to Potranco 138-kV transmission line on double-circuit structures with normal and emergency ratings of at least 478 MVA, approximately 5.87-mile;
- Rebuild the existing Leon Creek to Palo Alto 138-kV transmission line on double-circuit structures with normal and emergency ratings of at least 478 MVA, approximately 3.64-mile; and

Option 3 – ERCOT Proposed Option

- Install the following sized capacitors at the following 138-kV substations:
  - 50 MVAr, Grissom
  - 50 MVAr, Helotes
  - 50 MVAr, Bandera
  - 50 MVAr, Anderson
  - 50 MVAr, Hill Country
  - 50 MVAr, Stonegat

Option 3 – ERCOT Proposed Option



Recap – Preliminary Results of Reliability Assessment – Options

	N-1		G-1+N-1*		X-1+N-1*	
Option	Thermal Violations	Voltage Violations	Thermal Violations	Voltage Violations	Thermal Violations	Voltage Violations
1	None	None	7	None	None	None
2	None	None	None	None	None	None
3	None	None	None	None	None	None

*See Appendix D for list of G-1 generators and X-1 transformers tested

Preliminary Results of Planned Maintenance Outage Evaluation

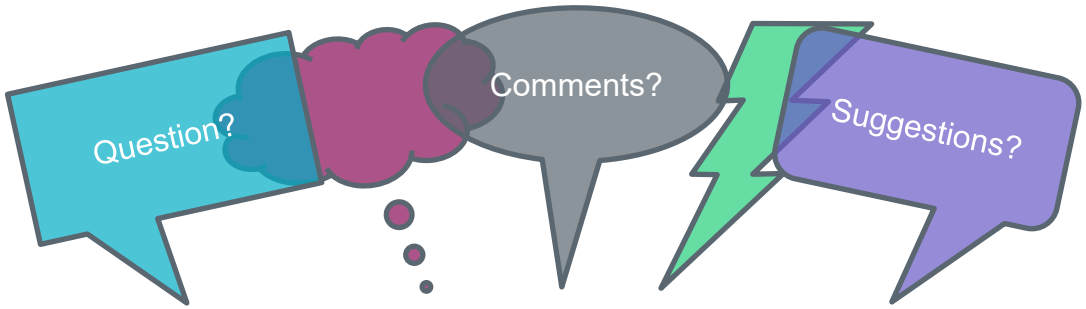
- ERCOT conducted planned maintenance outage evaluation on the options
  - Load level in the South-Central Weather Zone was scaled down to 80.3% of their summer peak loads in the study base case, respectively based on ERCOT load forecast and historical load, in order to mimic the off-peak load condition
  - N-2 contingencies were tested as a proxy for N-1-1. Any applicable violating contingencies were further tested with system adjustments
  - The transmission elements in the Bexar County were monitored in the maintenance outage evaluation
- Planned maintenance outage analysis results

Option	Voltage Violations	Thermal Overloads	Unsolved Power Flow
Base	None	12	None
1	None	18	None
2	None	5	None
3	None	5	None

Next Steps and Tentative Timeline

- ERCOT will evaluate options and provide status updates at future RPG meetings
  - Conduct Planned Maintenance Outage Evaluation
  - Conduct Long-Term Load-Serving Capability Assessment
  - Request TSPs to conduct Cost Estimate 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)
- Dynamics Assessment to ensure that the identified transmission upgrades do not result in system instability within the study area
- 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
  - Status updates at the future RPG meetings
  - Final recommendation – Q1 2026

Thank you!



Stakeholder comments also welcomed through:

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Appendix A – Transmission Projects Added

TPIT/RPG No	Project Name	Tier	Project ISD	TSP	County(s)
89912	GVEC_Olmos to Wilson 138 kV TL, T297	Tier 4	12/01/26	GVEC	Guadelupe

Appendix B – Transmission Projects Removed

RTP Project ID	Project Name	TSP(s)	County(s)
2024-SC19	Hillje (44200) to Zorn (7042) 345-kV Line Upgrades	CNP, AEN, LCRA TSC	Wharton, Fayette, Bastrop, Caldwell, Guadalupe
2024-SC26	Shaula (5380) to Elm Creek (5133) to Cachena (5068) 345-kV Line Upgrades	CPS	Wilson, Guadalupe, Dewitt

Appendix C – Generation Added

GINR	Project Name	Fuel	Project COD	Max Capacity (~MW)	County
20INR0162	Diamondback Solar	SOL	12/31/2027	203.8	Starr
21INR0359	Hickerson Solar	SOL	11/21/2025	311.1	Bosque
22INR0220	Lamkin Solar	SOL	08/08/2027	101.5	Comanche
22INR0239	Rockefeller Storage	BESS	06/01/2027	206.8	Schleicher
22INR0437	TORMES SOLAR	SOL	03/31/2027	382.1	Navarro
22INR0457	Anson BAT	BESS	08/01/2026	150.6	Jones
22INR0605	Camino Santiago Solar	SOL	02/18/2027	196.3	Milam
23INR0078	Shaw Solar	SOL	04/29/2026	124.7	Bandera
23INR0181	Starling Storage	BESS	05/15/2027	63.6	Gonzales
23INR0225	MRG GOODY SOLAR	SOL	05/02/2026	170.8	Lamar
23INR0479	Taormina Storage	BESS	05/26/2029	231.9	Bexar
23INR0538	Roadrunner Crossing BESS SLF	BESS	12/31/2025	150.4	Eastland
24INR0126	High Noon Storage	BESS	05/09/2028	94.0	Hill
24INR0181	Bynum Solar Project	SOL	12/01/2025	56.0	Coryell
24INR0188	Tehuacana Creek Solar SLF	SOL	03/10/2027	505.5	Navarro

Appendix C – Generation Added Cont.

GINR	Project Name	Fuel	Project COD	Max Capacity (~MW)	County
24INR0189	Tehuacana Creek BESS SLF	BESS	03/10/2027	419.0	Navarro
24INR0305	MRG Goody Storage	BESS	05/02/2026	52.3	Lamar
24INR0355	Anatole Renewable Energy Storage	BESS	03/31/2027	207.8	Henderson
24INR0364	Pitts Dudik II	SOL	02/04/2026	30.2	Hill
24INR0386	Black & Gold Energy Storage	BESS	06/30/2027	254.6	Menard
24INR0453	Longfellow BESS I	BESS	01/31/2026	55.0	Pecos
24INR0455	Longfellow BESS II	BESS	01/31/2026	105.8	Pecos
24INR0493	Crowned Heron BESS 2	BESS	03/31/2026	154.2	Fort Bend
24INR0528	Blanquilla BESS	BESS	05/15/2026	200.8	Nueces
24INR0533	Padua Grid BESS Unit 2	BESS	03/15/2026	150.9	Bexar
24INR0584	Houston IV BESS	BESS	06/03/2026	164.6	Harris
25INR0018	Yellow Cat Wind	WIN	04/01/2027	262.0	Navarro
25INR0046	Blue Skies BESS	BESS	12/31/2027	306.3	Hill
25INR0199	Bonham Solar 1	SOL	08/31/2026	138.4	Limestone
25INR0229	OCI Cobb Creek Solar	SOL	12/01/2026	203.1	Hill

Appendix C – Generation Added Cont.

GINR	Project Name	Fuel	Project COD	Max Capacity (~MW)	County
25INR0233	OCI Cobb Creek ESS	BESS	12/01/2026	201.6	Hill
25INR0391	Purple Sage BESS 1	BESS	05/30/2027	156.0	Collin
25INR0392	Purple Sage BESS 2	BESS	05/30/2027	156.0	Collin
26INR0034	Bracero Pecan Storage	BESS	04/01/2027	232.0	Reeves
26INR0296	Sherbino II BESS SLF	BESS	02/08/2026	77.4	Pecos
26INR0543	Three Canes Solar SLF	SOL	03/10/2027	333.0	Navarro
28INR0024	Padua Grid BESS Unit 3	BESS	05/15/2026	201.4	Bexar

Appendix D – G-1 Generators and X-1 Transformers

G-1 Generators	X-1 Transformers
Leon Creek U1	Cagnon X1 345/138-kV
Guadalupe Energy Center CTG 1	Howard Road X1 345/138-kV
	Hill Country X1 345/138-kV
	Martinez X1 345/138-kV