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Combined – CPS Energy – Large Load Additions Project (25RPG020) and South Texas Electric Cooperative (STEC) – Medina County Load Project (25RPG046) – ERCOT Independent Review (EIR) Status Update

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Regional Planning Group (RPG) Meeting
April 13, 2026

Introduction

CPS Energy submitted the Large Load Additions Project (25RPG020) for Electric Reliability Council of Texas' (ERCOT) Regional Planning Group (RPG) review in June 2025

- This is a Tier 1 project with an estimated cost of approximately $333.7 million and will require a Certificate of Convenience and Necessity (CCN)
- Estimated in-service date (ISD) is Summer Peak 2035
- This project is needed to addresses post-contingency reliability in Bexar and Medina counties with the addition of approximately 2 GW Load by 2035

This project is currently under ERCOT Independent Review (EIR)

- CPS Energy presented project overview and ERCOT provided EIR scope at the August 2025 RPG Meeting
- ERCOT provided EIR status updates at the February 2026 RPG Meeting
  - February 2026 RPG Meeting

Introduction

South Texas Electric Cooperative (STEC) submitted the Medina County Load Project (25RPG046) for Electric Reliability Council of Texas' (ERCOT) Regional Planning Group (RPG) review in December 2025

- This is a Tier 1 project with an estimated cost of $492 million and will require a Certificate of Convenience and Necessity (CCN)
- Estimated in-service date (ISD) is June 2031
- Addresses post-contingency reliability concerns seen by STEC with the addition of approximately 1 GW Load

This project is currently under (EIR)

- STEC presented project overview and ERCOT provided EIR scope at the February 2026 RPG Meeting

ERCOT will perform a combined EIR Study for CPS Energy Large Load Additions Project (25RPG020) and STEC Medina County Load Project (25RPG046)

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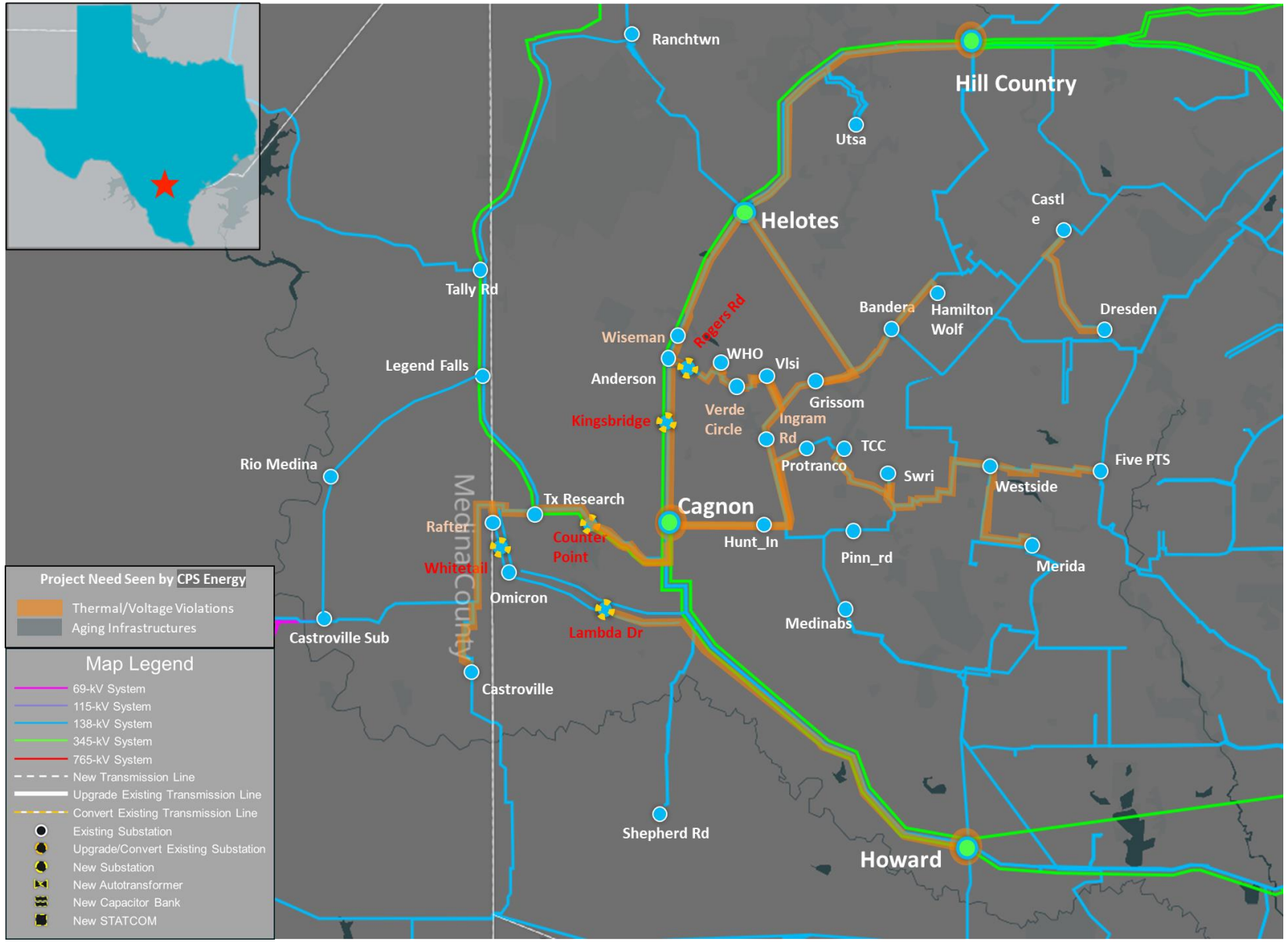
Study Area Map with Project Needs Seen by CPS Energy



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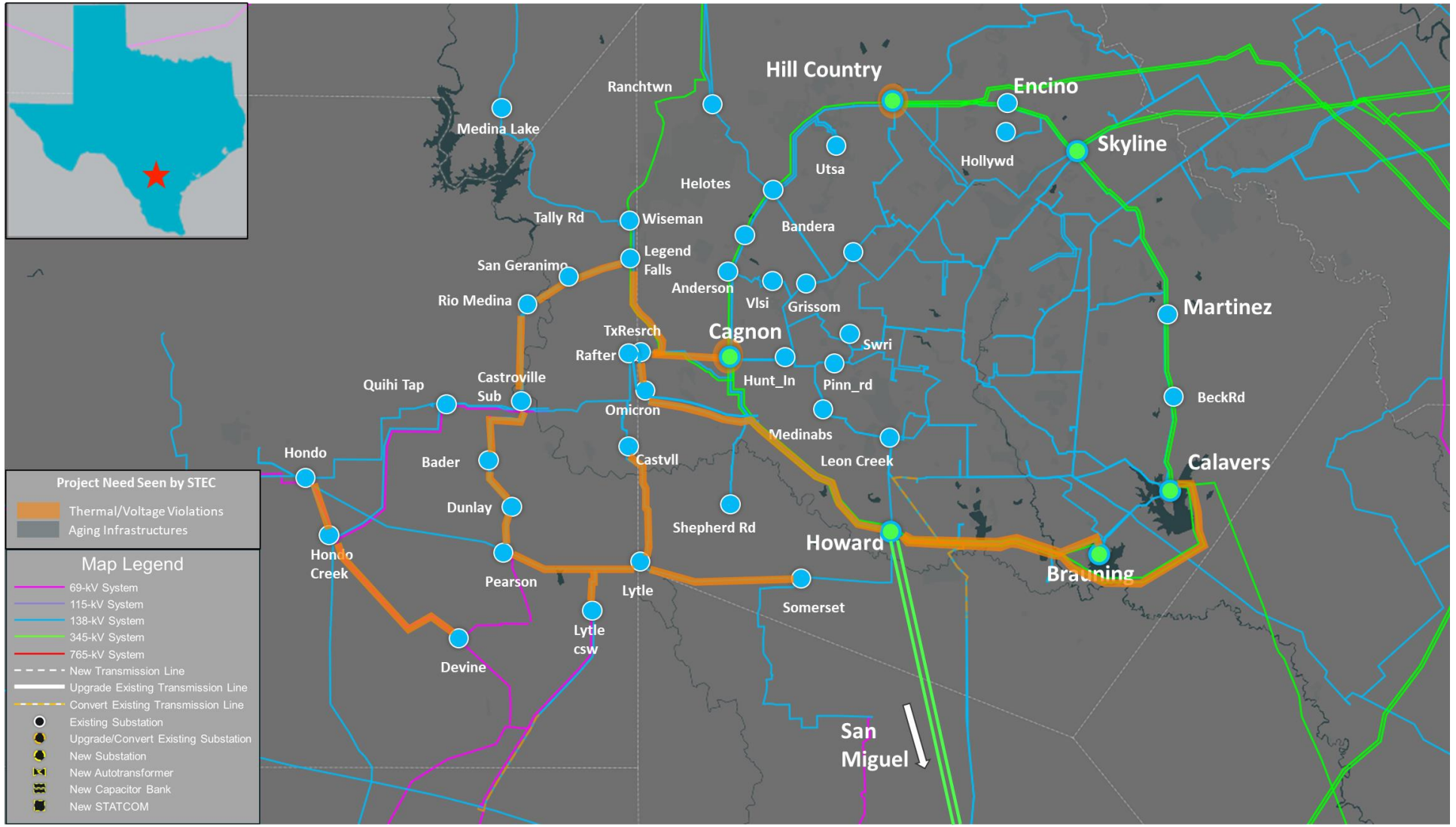
Study Area Map with Project Needs Seen by STEC



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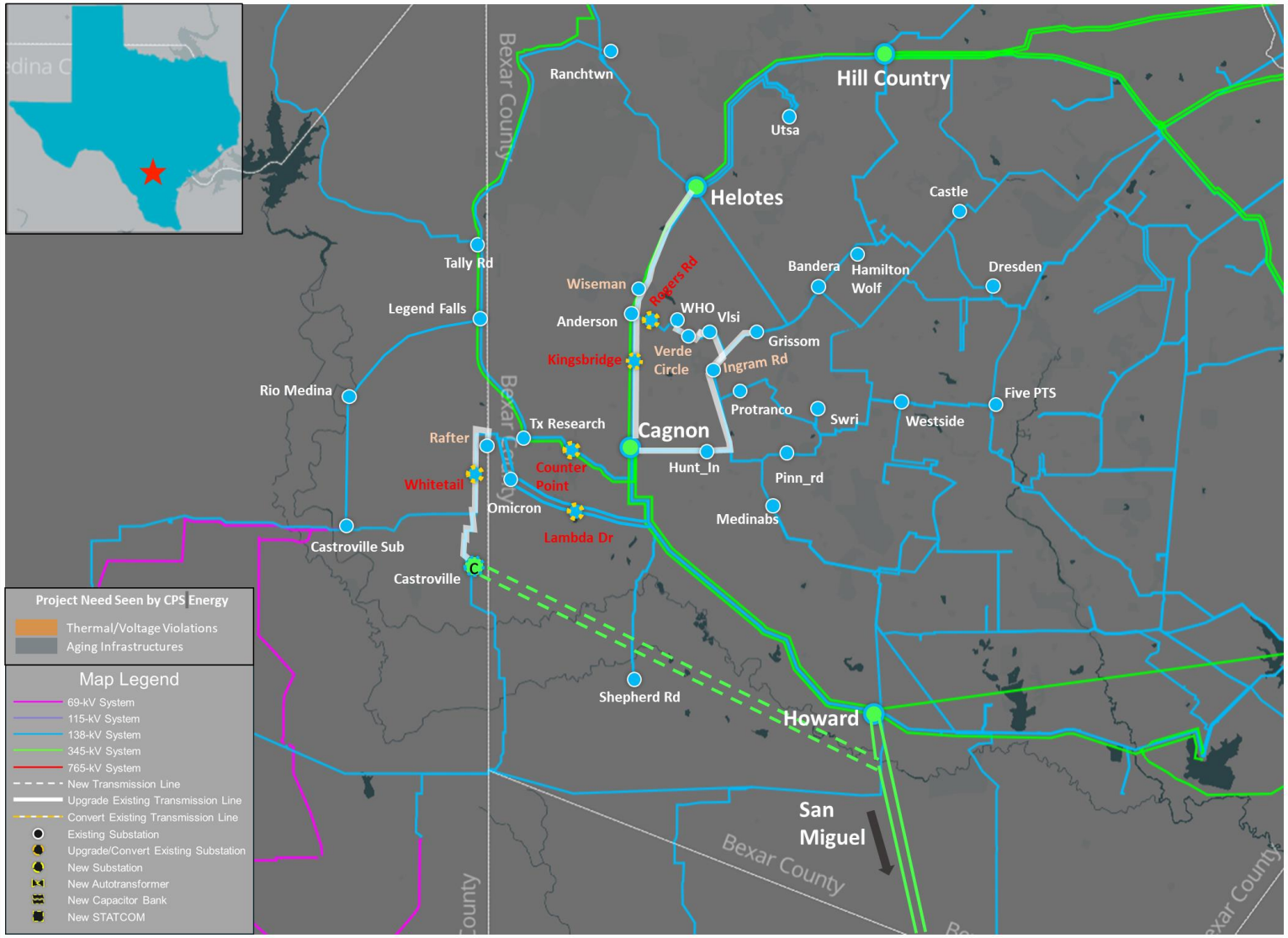
Proposed Project by CPS Energy

Summary of Upgrades

- New Castroville 345/138-kV station
  - Three auto Transformers
- Loop Howard to Miguel Circuit 1 into new 345-kV Castroville station
- 138-kV Transmission Lines
  - Rebuild Grissom to VLSI
  - Rebuild Cagnon to VLSI
  - Rebuild Grissom to Ingram
  - Rebuild Verde Circle to VLSI
  - Rebuild Anderson to Rodgers Rd
  - Rebuild Verde Circle to Westover Hills
  - Rebuild Anderson to Cagnon
  - Rebuild Anderson to Helotes
  - Rebuild existing 138-kV Transmission line and a new circuit 2 from Castroville to Rafter
- Install New Cap Banks
  - 50 MVAr at Kingsbridge
  - 50 MVAr at Rodgers Rd
  - 50 MVAr at Whitetail



* See Appendix D for the detailed description of the Proposed Project

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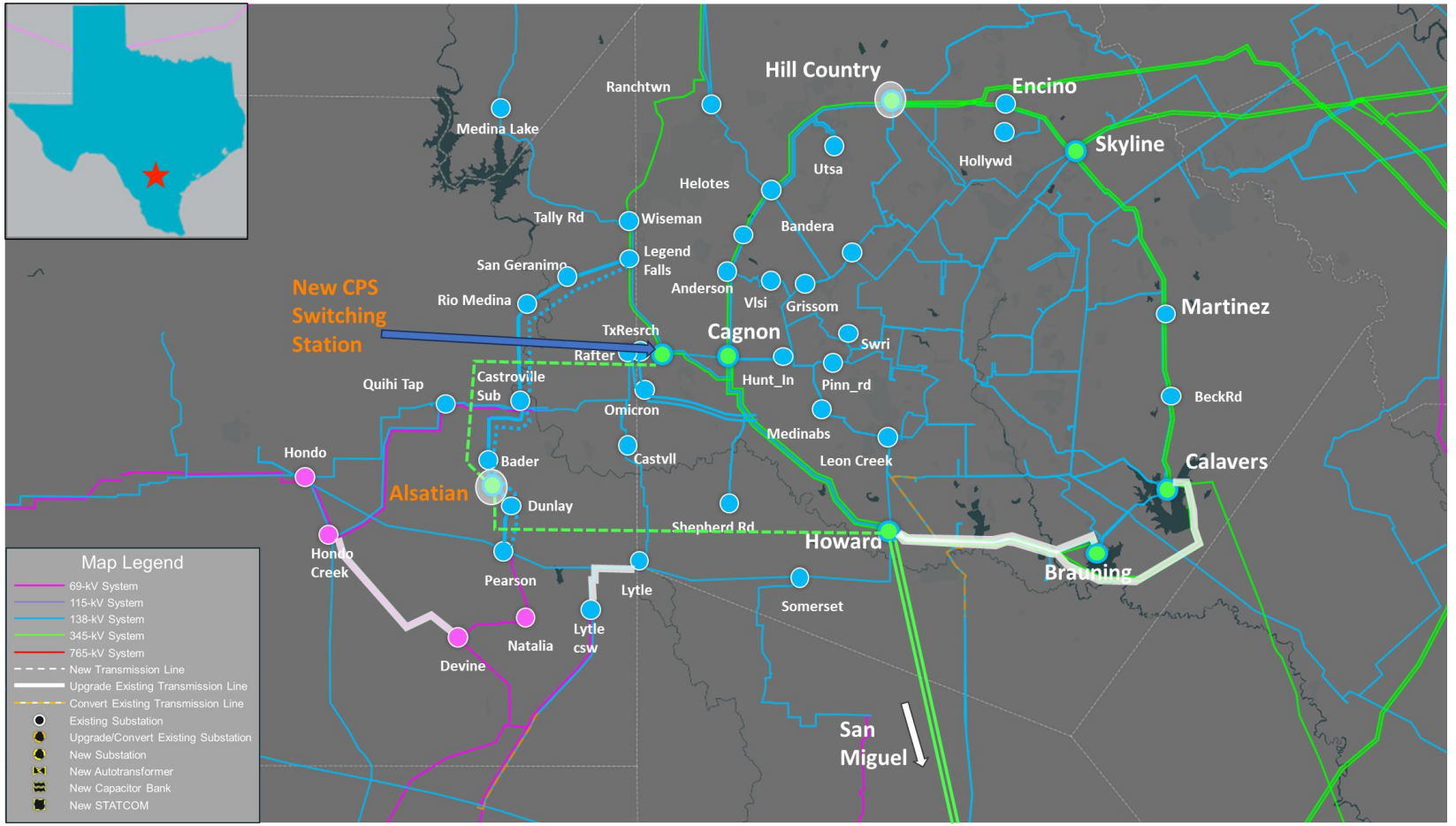
Proposed Project by STEC

Summary of Upgrades

- Add second circuit from Pearson to Castroville
- New Alsatian 345/138-kV station
  - Two auto Transformers
  - 162MVAr Cap Bank
- New CPS Energy Owned 345-kV Station that cuts Kendall to Cagnon
- New 345-kV line from Howard to Alsatian to New CPS Energy Owned 345-kV Station
- Rebuild Howard to Spruce and Howard to Brauning 345-kV transmission lines
- Option also include other 345-kV and 138-kV transmission line rebuilds
- **STEC also proposed additional Upgrades for Increased Long Term Load Serving Capability**



* See Appendix D for the detailed description of the Proposed Project

Study Assumption

Study Region

- The project is in Bexar, Medina in South Central Weather Zone, and the transmission elements in counties that are electrically close will be monitored

Steady-State Base Case

- Final 2025 Regional Transmission Planning (RTP) 2031 summer peak load case, published on Market Information System (MIS) on December 22, 2025, was updated to construct the study base case

Load Updates

- Approximately 2.5 GW new loads are added to the study base case

Reserve

- The reserve will be kept consistent with the 2025 RTP

Study Assumption (continued)

Transmission Updates

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

Generation Updates

- New generation (listed in Appendix B) that met ERCOT Planning Guide Section 6.9(1) condition with Commercial Operation Date (COD) before the June 2035 (ISD) 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 December 2025 Generator Interconnection Status (GIS) report published in MIS in January 2026
- All generation will be dispatched consistent with the 2025 RTP methodology

Preliminary Results of Reliability Assessment – Base Case

ERCOT conducted steady-state load flow analysis for the study base case according to the NERC Reliability Standard TPL-001-5.1 and ERCOT Planning Criteria to identify the project need

Contingency Category	Unsolved Power Flow	Voltage Violations	Thermal Overloads
P0: N-0	None	34	13
P1, P2-1, P7: N-1	27	5	32
P3: (G-1+N-1)*	4	None	1
P6-2: (X-1+N-1)*	10	12	16
Total	**41**	**51**	**60**

* See Appendix C for the list of G-1 generators and X-1 transformers being tested

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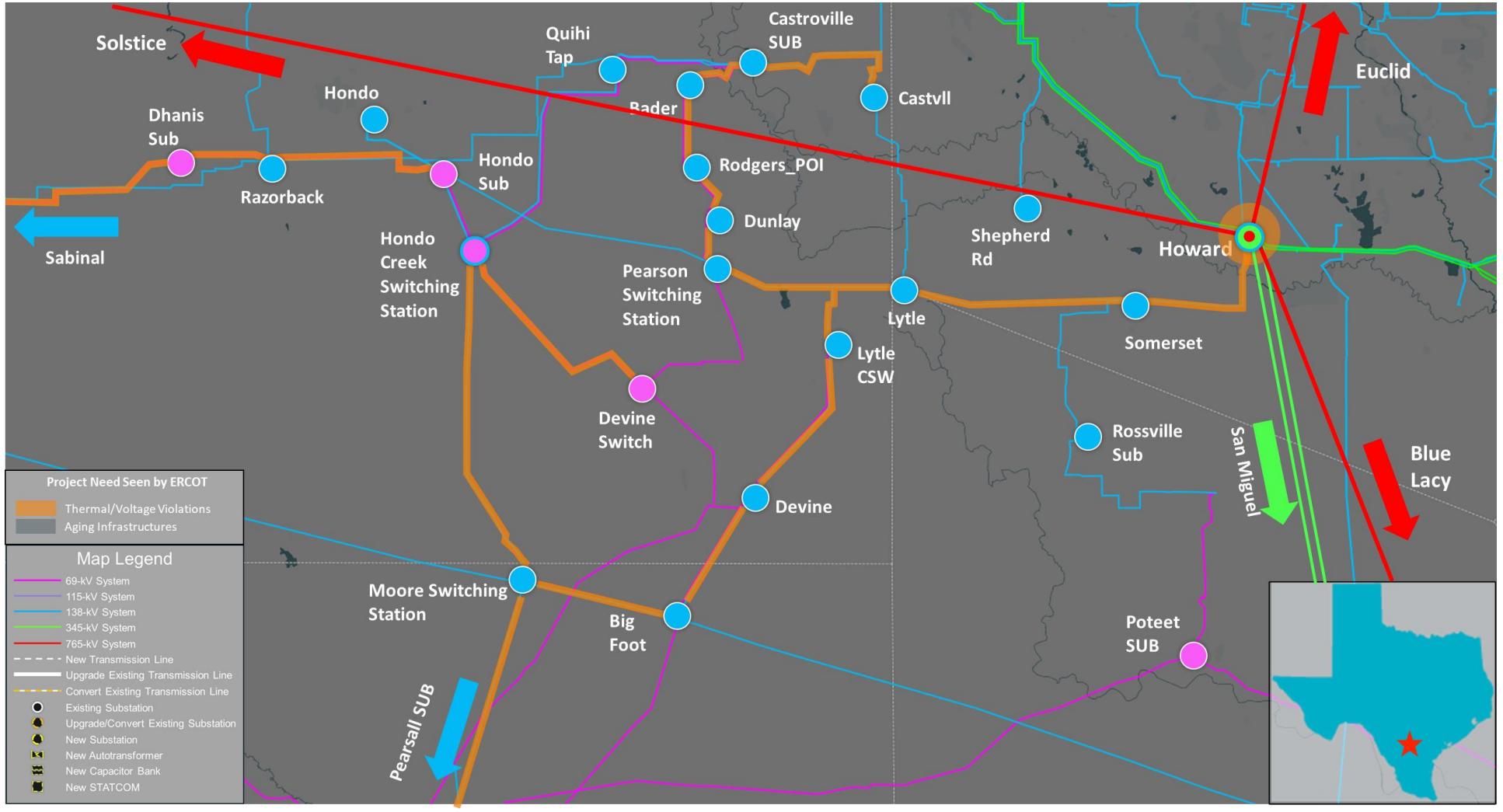
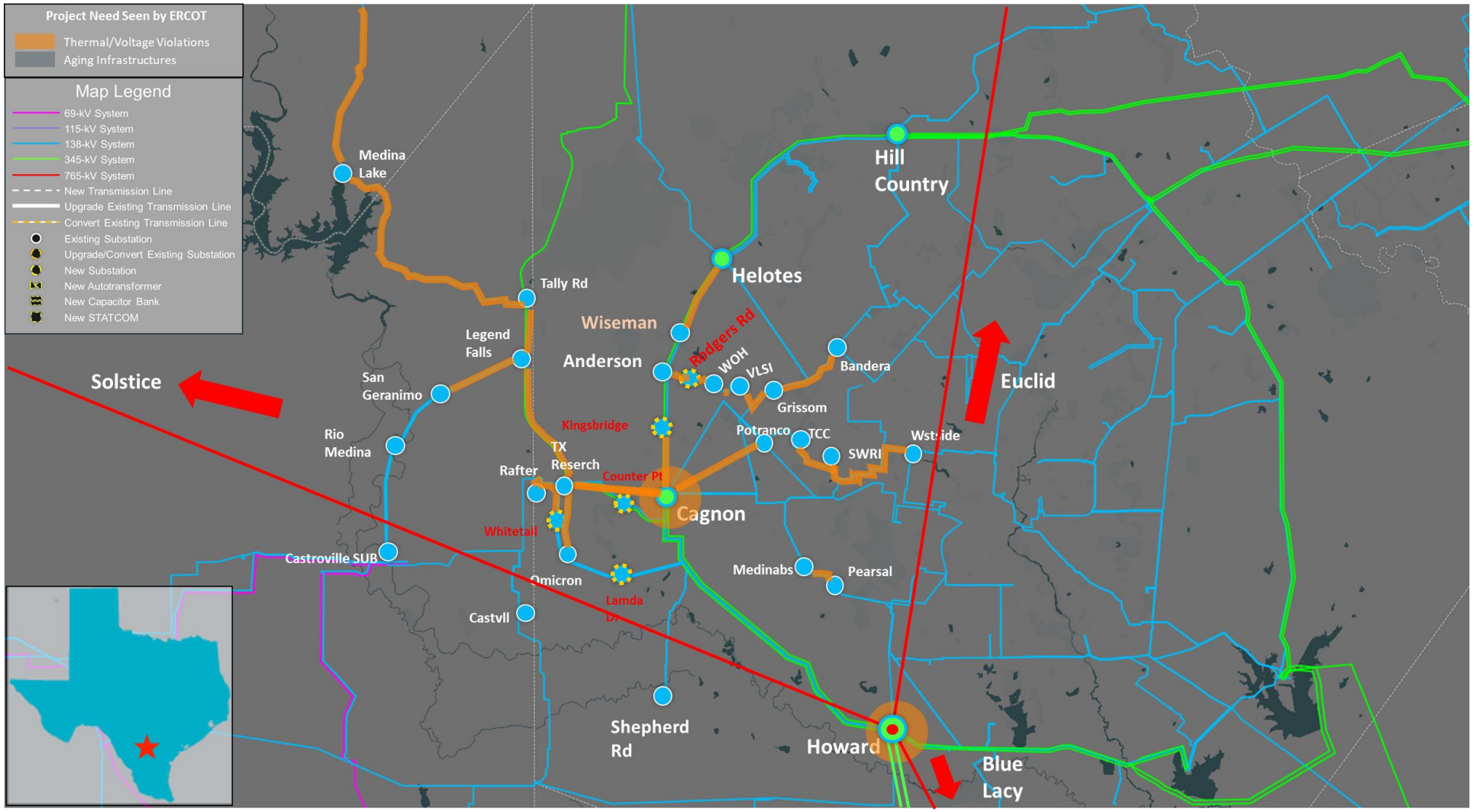
Study Area Map with Project Needs Seen by ERCOT – Southwest of San Antonio



Study Area Map with Project Needs Seen by ERCOT – Northwest of San Antonio



List of Options Considered

ERCOT developed the following options to resolve the reliability violation seen in the study area by ERCOT:

- Option 1 – CPS Energy Proposed Project
- Option 2 – STEC Proposed Project

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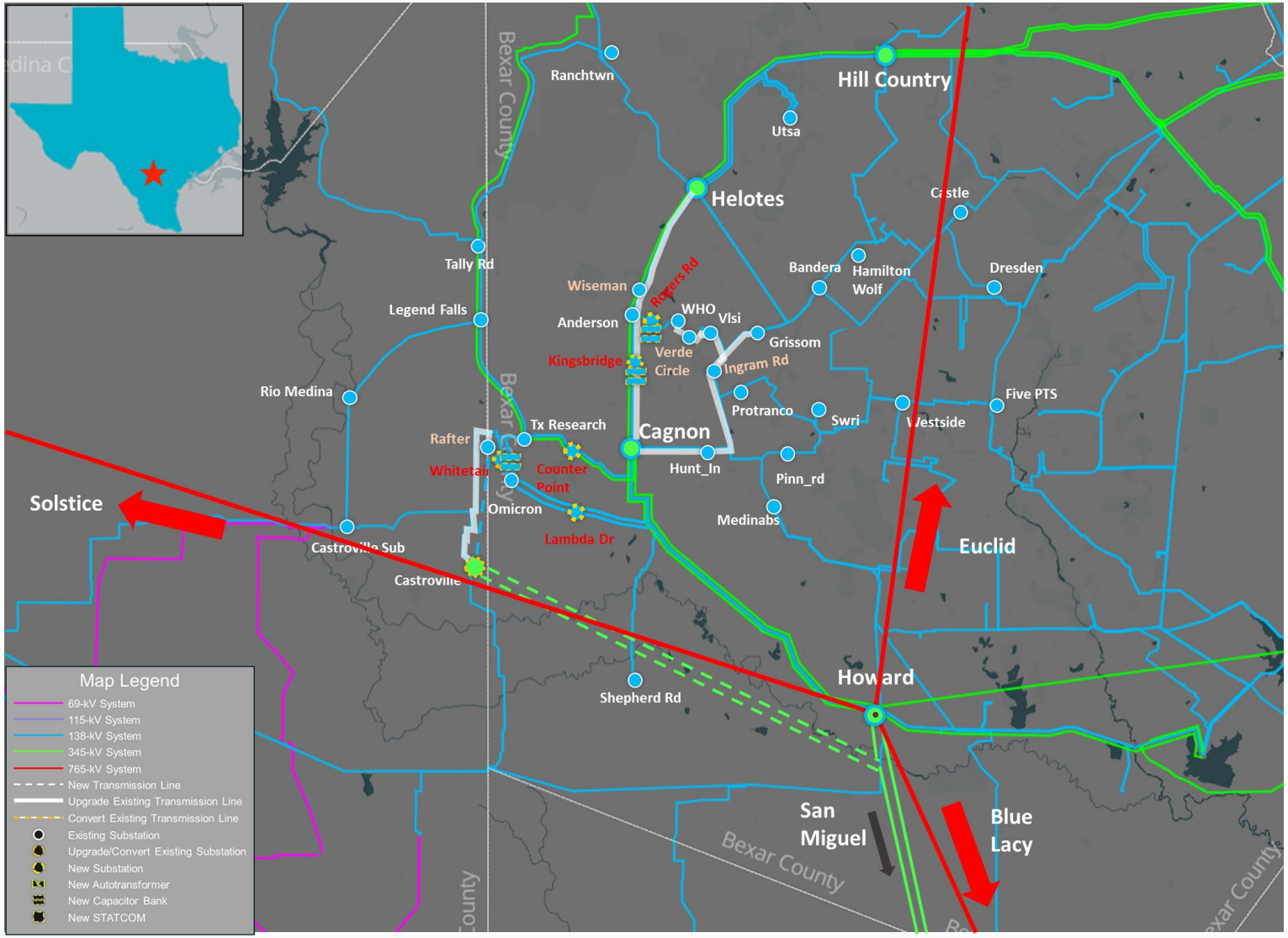
Option 1 – CPS Energy Proposed Option

Summary of Upgrades

- New Castroville 345/138-kV station
  - Three auto Transformers
- Loop Howard to Miguel Circuit 1 into new 345-kV Castroville station
- 138-kV Transmission Lines
  - Rebuild Grissom to VLSI
  - Rebuild Cagnon to VLSI
  - Rebuild Grissom to Ingram
  - Rebuild Verde Circle to VLSI
  - Rebuild Anderson to Rodgers Rd
  - Rebuild Verde Circle to Westover Hills
  - Rebuild Anderson to Cagnon
  - Rebuild Anderson to Helotes
  - Rebuild existing 138-kV Transmission line and a new circuit 2 from Castroville to Rafter
- Install New Cap Banks
  - 50 MVAr at Kingsbridge
  - 50 MVAr at Rodgers Rd
  - 50 MVAr at Whitetail



* See Appendix D for the detailed description of the Proposed Project

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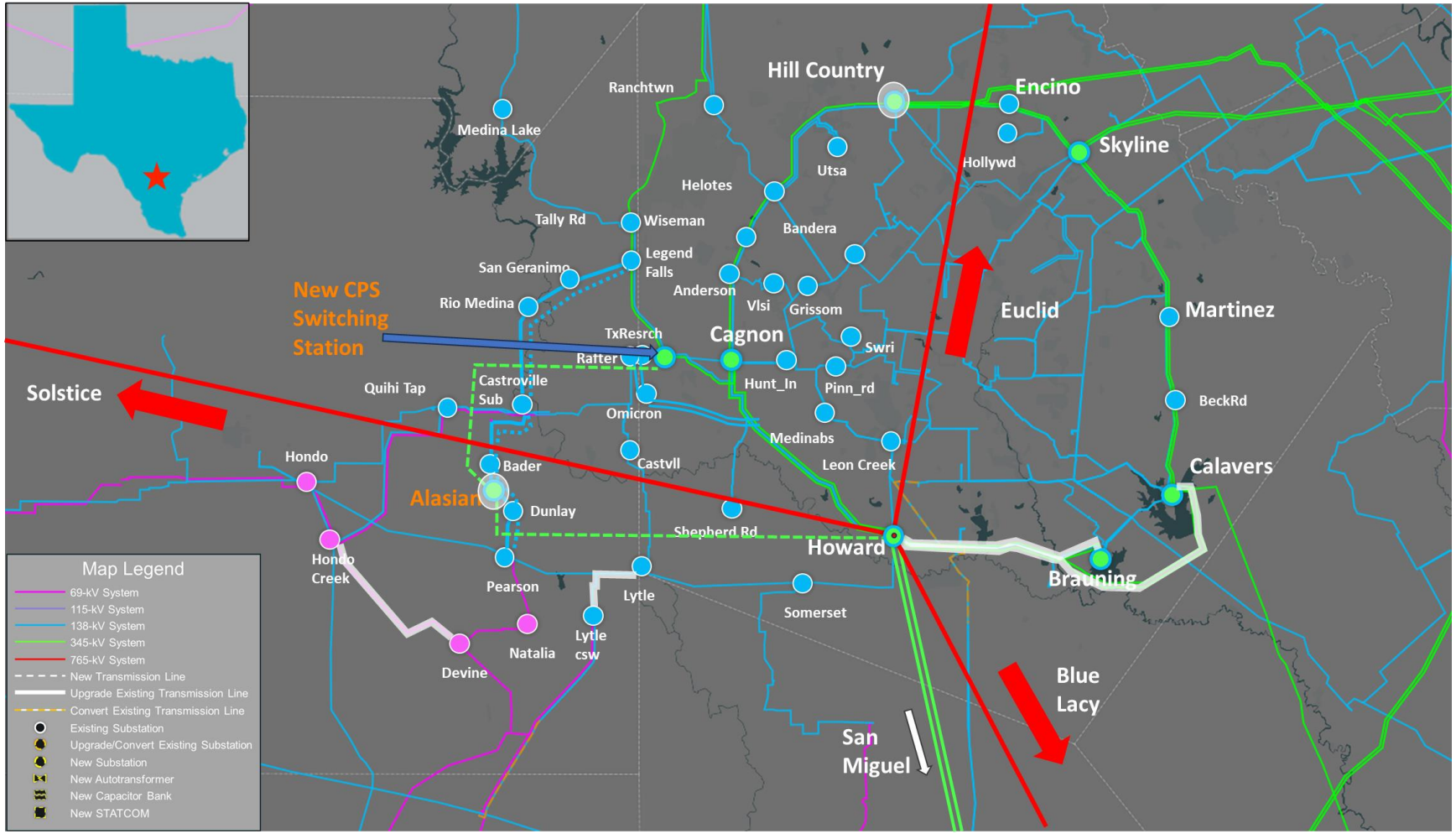
Option 2 – STEC Proposed Option

Summary of Upgrades

- Add second circuit from Pearson to Castroville
- New Alsatian 345/138-kV station
  - Two auto Transformers
  - 162MVAr Cap Bank
- New CPS Energy Owned 345-kV Station that cuts Kendall to Cagnon
- New 345-kV line from Howard to Alsatian to New CPS Energy Owned 345-kV Station
- Rebuild Howard to Spruce and Howard to Brauning 345-kV transmission lines
- Option also include other 345-kV and 138-kV transmission line rebuilds
- **STEC also proposed additional Upgrades for Increased Long Term Load Serving Capability**



* See Appendix D for the detailed description of the Proposed Project

Preliminary Results of Reliability Assessment – Options

ERCOT conducted steady-state load flow analysis for the all the option cases according to the NERC Reliability Standard TPL-001-5.1 and ERCOT Planning Criteria to evaluate the proposed project and alternatives options

Option	N-0		N-1		G-1+N-1*		X-1+N-1*		Unsolved Power Flow
	Thermal Violations	Voltage Violations	Thermal Violations	Voltage Violations	Thermal Violations	Voltage Violations	Thermal Violations	Voltage Violations	
1	3	1	17	20	2	1	3	2	2
2	None	None	7	None	None	None	3	None	None

Key Takeaway: Both Option 1 and Option 2 observed reliability violations, ERCOT will continue to evaluate other alternative Options to solve the reliability violations

* See Appendix C for the list of G-1 generators and X-1 transformers being tested

Deliverables and Next Step

Tentative Timelines

- ERCOT will continue to evaluation other alternative options
  - ERCOT may also perform the following studies
    - Maintenance Outage Evaluation
    - Long-Term Load-Serving Capability Assessment
  - TSP's will provide Cost Estimates and Feasibility Assessment
  - Additional Analysis
    - Generation Addition and Load Scaling Sensitivity Analyses
      - ERCOT Planning Guide Section 3.1.3(4)
    - Subsynchronous Oscillations (SSO) Assessment
      - ERCOT Nodal Protocol Section 3.22.1.3(2)
  - 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
- Provide status updates at the future RPG meetings
- ERCOT recommendation in Q3 2026

Key Takeaway: ERCOT recommendation in Q3 2026

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Thank you!
Questions/Comments?

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Appendix

- Appendix A1 – Transmission Projects Added
- Appendix A2 – Transmission Backed Out
- Appendix B – Generation Added
- Appendix C – G-1 Generators and X-1 Transformers List
- Appendix D – Option Description

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Appendix A1 – Transmission Projects Added

TPIT	Project Name	Tier	Project ISD	TSP(s)
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

Appendix A1 – Transmission Projects Added

TPIT	Project Name	Tier	Project ISD	TSP(s)
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
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

Appendix A1 – Transmission Projects Added

TPIT	Project Name	Tier	Project ISD	County(s)
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
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

Appendix A1 – Transmission Projects Added

TPIT	Project Name	Tier	Project ISD	County(s)
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	Sulpher 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
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

Appendix A1 – Transmission Projects Added

TPIT	Project Name	Tier	Project ISD	County(s)
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 A2 – Transmission Backed Out

RTP Project ID	Project Name	County(s)
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 B – Generation Added

GINR	Project Name	Fuel	Project COD	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

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

Generator	Transformer
Leon Creek U1	Cagnon 345/138-kV
San Miguel U1	Hill Country 345/138-kV
Sunray Solar	Howard 345/138-kV
JK Spruce	

Appendix D: Option Description – Option 1 – CPS Energy Proposed Option

- Rebuild existing 138 kV Transmission Line from Grissom to VLSI (~3 miles) with minimum Normal and Emergency rating of 698 MVA.
- Rebuild existing 138 kV Transmission Line from Cagnon to VLSI (~9 miles) with minimum Normal and Emergency rating of 698 MVA.
- Construct a new 138 kV Transmission line from Grissom to Ingram (~1 mile) with minimum Normal and Emergency rating of 698 MVA.
- Rebuild the existing 138 kV Transmission Line from Verde Circle to VLSI (~0.26 miles) with minimum Normal and Emergency rating of 698 MVA.
- 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.
- 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.
- 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.
- 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.
- Construct a new 50 MVAr Capacitor Bank at Kingsbridge
- Construct a new 50 MVAr Capacitor Bank at Rogers Rd

Appendix D: Option Description – Option 1 – CPS Energy Proposed Option

- 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.
- Construct a new Castroville 345/138-kV Switching Station with three 600 MVA autotransformers.
- Loop Howard to Miguel Circuit 1 into the new 345-kV Castroville station.
- Construct a new 50 MVAr Capacitor Bank at Whitetail

Appendix D: Option Description – Option 2 – STEC Proposed Option

- Add the second 138 kV circuit to the existing Pearson to Castroville corridor, which includes the following line segments: Pearson to Dunlay, Dunlay to the new STEC Alsatian station, new STEC Alsatian station to Bader, and Bader to Castroville, with a rating of 426/474 MVA Normal/Emergency rating.
- Construct a new STEC-owned Alsatian 345/138 kV station on the Bader to Pearson 138 kV line approximately 0.8 miles from the Bader station with two parallel 345/138 kV autotransformers with at least 675/675 MVA Normal/Emergency rating.
- Install a new 162 MVAr capacitor bank on the 138 kV side of the new STEC-owned Alsatian 345/138 kV station (Rodgers and Edwards POI).
- Construct a new CPS Energy-owned three-terminal 345 kV switching station on the Kendall to Cagnon 345 kV line approximately 5 miles from Cagnon station.
- Construct a new 345 kV transmission line from CPS Howard station to the new STEC-owned Alsatian 345/138 kV station with at least 1746/1746 MVA Normal/Emergency ratings. This line will have a single circuit installed with double circuit capable structures and will require a CCN.
- Construct a new 345 kV transmission line from a new CPS 345 kV switching station in the Cagnon to Kendall 345 kV transmission line to the new STEC-owned Alsatian 345/138 kV station with at least 1746/1746 MVA Normal/Emergency ratings. This line will have a single circuit installed with double circuit capable structures and will require a CCN.
- Install a new capacitor bank with at least 19.2 MVAr at STEC's Natalia 69 kV station.
- Rebuild STEC's Palo Duro to Dilley 138 kV line with a conductor rated at least 312/312 MVA Normal/Emergency rating.
- Install a new capacitor bank with at least 134 MVAr at AEP's Lytle 138 kV station.
- Install a new capacitor bank with at least 5.6 MVAr at AEP's Asherton 138 kV station.

Appendix D: Option Description – Option 2 – STEC Proposed Option

- Rebuild CPS Energy's Bandera to Hamilton Wolf 138 kV line with conductors rated at least 371/371 MVA Normal/Emergency rating.
- Rebuild CPS Energy's Cachena to Elmcreek 345 kV line with conductors rated at least 1250/1250 MVA Normal/Emergency rating.
- Rebuild CPS Energy's Howard to Spruce 345 kV line with conductors rated at least 1580/1580 MVA Normal/Emergency rating.
- Rebuild CPS Energy's Howard to Braunig 345 kV with conductors rated at least 1457/1457 MVA Normal/Emergency rating.
- Rebuild CPS Energy's/AEP's Lytle to Lytle 138 kV line with conductors rated at least 354/354 MVA Normal/Emergency rating.
- Upgrade CPS Energy's Hill Country 345/138 kV autotransformers #3 and #4 to at least 740/740 MVA Normal/Emergency rating.

Appendix D: Option Description – Option 2 – STEC Proposed Option Additional Upgrades for Long Term Load Serving

- Install a third 345/138kV autotransformer in parallel at the new Alsatian 345/138 kV station with at least 675/675 MVA Normal/Emergency rating.
- Add the second 138 kV circuit along the existing Legend Falls to STEC Castroville corridor, which includes the following line segments: Legend Falls to San Geronimo new station, San Geronimo to Rio Medina, and Rio Medina to Castroville, with a rating of 426/474 MVA Normal/Emergency rating.
- Install an additional 223 MVAr of reactive support at the new Alsatian 345/138 kV Station.
- Install a new capacitor bank with at least 55.01 MVAr at Pearsall Switching Station 69 kV bus.
- Rebuild STEC's Hondo Creek to Devine 69 kV line with conductors rated at least 109/109 MVA Normal/Emergency rating.
- Install a new capacitor bank with at least 9.2 MVAr at CPS Energy's Somerset 138kV station.
- Rebuild AEP's Big Foot to Pleasanton 138 kV line with conductors rated at least 147/147 MVA Normal/Emergency rating.
- Rebuild CPS Energy's Lytle to Somerset 138 kV line with conductors rated at least 339/339 MVA Normal/Emergency rating.
- Rebuild CPS Energy's Omicron to Rafter 138 kV line with conductors rated at least 642/642 MVA Normal/Emergency rating.
- Rebuild CPS Energy's Cagnon to Texas Research 138 kV with conductors rated at least 465/465 MVA Normal/Emergency rating.