

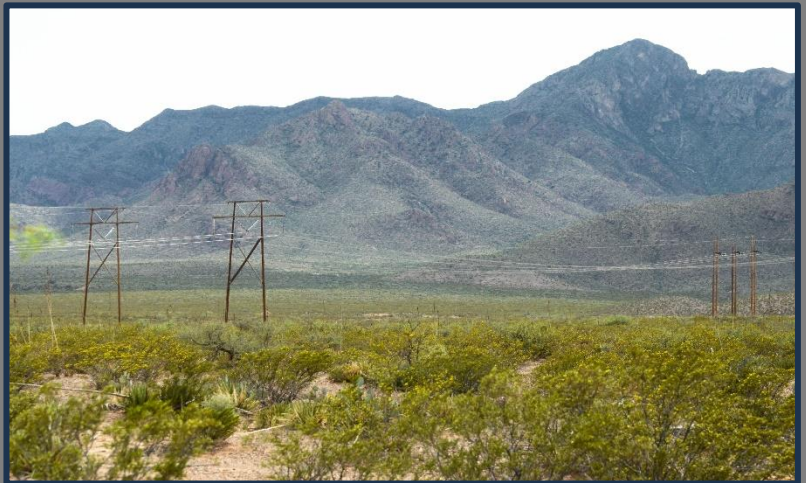
**El Paso Electric**

## **System Expansion Plan**

**2025-2034**

**Prepared By: System  
Planning &  
Interconnections**

**2024**



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## **1.0 EXECUTIVE SUMMARY**

El Paso Electric Company’s (“EPE”) System Planning & Interconnections Department performs System Expansion Plan (“Plan”) studies annually as described in EPE’s Open Access Transmission Tariff (“OATT”) Attachment K (“Attachment K”). This process is a technical evaluation of EPE’s Bulk Electric System performed for a ten-year planning horizon (currently from 2025 through 2034). The Plan determines system facility additions and upgrades necessary to comply with Western Electricity Coordinating Council (“WECC”) and the North American Electric Reliability Corporation (“NERC”) reliability requirements under these conditions:

- Equipment will not be loaded more than its normal facility limits for All Facilities in Service (“AFIS”).
- Equipment will not be loaded more than its emergency facility limits for any single-element (“N-1”) contingency.
- Real-time violations that have been identified because of actual system conditions or real-time contingency analysis will be addressed.
- Conformance with NERC Standard TPL-001-5 criteria, as applicable, will be applied to certain planning events.
- Equipment voltage limits (high or low) will not be exceeded.
- System Expansion Projects Scheduled for Completion before Peak of 2025, and Project Schedule for 2025-2034 System Expansion Plan Projects. Future local generation resources serving native load have been identified by EPE Resource Planning input and/or in a 2023 EPE L&R (with updates as of June 29, 2023) as detailed in the Generation Resources are summarized in Table 2. Input from EPE’s Resource planning on future generation was taken as modeling assumed this took first assumptions and modeling priority. Second modeling and assumptions priority for generation retirements and additions were 2023 EPE L&R (with updates as of June 29, 2023) assumptions.

This Plan’s content has been organized as follows:

- An Introduction Section briefly summarizes requirements and scope of the EPE System Expansion Plan
- A Planning Organizations Section list and summarizes all regional and subregional planning groups that EPE participates in.
- A General Assumptions Section that addresses Load Projections, Demand Side Management, Generation Resources, Reliability Criteria, System Operating Limit (“SOL”) Methodology for the Operating Horizon, Open Planning Meetings, and Base Case System Assumptions.
- The Tables Section consists of:
  - Table 1. which identifies Peak Energy Efficiency Adjustment assumed for the current System Expansion Plan.
  - Table 2. which identifies Projected EPE Local Generation assumed for the current

System Expansion Plan.

- Table 3A. identifies projects (driven by Transmission System Needs) scheduled for completion before the peak of 2025.
- Table 3B. lists a comparison between recommended completion dates for planned projects (driven by Transmission System Needs) listed in the 2023 System Expansion Plan and this current 2024 System Expansion Plan.
- Table 4A. lists new or modified projects driven by Transmission System needs for the current System Expansion Plan's first five (5) years: 2025-2029.
- Table 4B. lists new or modified projects driven by Transmission System needs for the current System Expansion Plan's last five (5) years: 2030-2034.
- Table 5. identifies reactive support projects identified in the current System Expansion Plan.
- A description of major EPE planned projects, driven by Transmission System Needs, for each year is provided under the Transmission Project Summary. Information includes the Project Name, Operating Voltage, Planned in Service Date, Project Description, and Project Justification.

The basis for native system peak demand projections has historically been set by EPE's annual Long-Term Forecast Report. Typically, EPE System Planning uses the expected native system MW demand value plus the 50% of the difference between the upper bound native system MW demand value less the expected native system MW demand value within EPE's latest Long-Term Forecast Report and are assumed as the EPE native system demand MW value for each future year (i.e., modeled within peak/summer powerflow cases). Incorporated within EPE's 2024 Long-Term Forecast Report and the 2023 Loads and Resources with updates as of June 29, 2023 ("L&R") are EPE Public Policy requirements. It is in this manner that Public Policy requirements are considered in the Plan. However, in this year's Plan, EPE System Planning averaged the native system peak MW demand growth experienced in the last 5 years and utilized it as a growth projection for the first five (5) years of the Plan (average of 92 MW of load growth year over year). For the last 5 years of the Plan, System Planning utilized a load growth of 50 MW per year.

The system performance analyses presented in this Plan include an assessment of outage impacts, generator interconnection impacts, and economic planning evaluations. The major projects identified within this report are summarized below by geographical area and estimated in-service year.

## **2.0 INTRODUCTION**

El Paso Electric Company’s (“EPE”) System Planning & Interconnections Department performs System Expansion Plan (“Plan”) studies annually as described in EPE’s Open Access Transmission Tariff (“OATT”) Attachment K (“Attachment K”). This process is a technical evaluation of EPE’s Bulk Electric System performed for a ten-year planning horizon (currently from 2025 through 2034). The Plan determines system facility additions and upgrades necessary to comply with Western Electricity Coordinating Council (“WECC”) and the North American Electric Reliability Corporation (“NERC”) reliability requirements under these conditions:

- Equipment will not be loaded more than its normal facility limits for All Facilities in Service (“AFIS”).
- Equipment will not be loaded more than its emergency facility limits for any single-element (“N-1”) contingency.
- Real-time violations that have been identified because of actual system conditions or real-time contingency analysis will be addressed.
- Conformance with EPE’s Planning Criteria for NERC Standard TPL-001-5.1 will be applied to certain planning events.
- Equipment voltage limits (high or low) will not be exceeded.

The projects presented within El Paso Electric Company System Expansion Plan 2025-2034 are a result of technical analyses performed by the System Planning & Interconnections Department. This new Plan updates and replaces EPE’s previous 2024-2034 System Expansion Plan.



### **3.0 PLANNING ORGANIZATIONS**

EPE is involved in regional and subregional planning organizations. EPE's participation in these planning organizations facilitates EPE's coordination of its transmission plans with the plans of the other transmission providers/entities. See EPE's OATT, Attachment K for more details on how these activities relate to EPE's planning process.

#### **3.1 Regional Planning Organizations**

##### **3.1.1 Western Electricity Coordinating Council (WECC)**

EPE actively participates in WECC committees.

WECC is a non-profit corporation approved by the Federal Energy Regulatory Commission (FERC) to serve as the Regional Entity tasked with assuring a reliable Bulk Electric System in the Western Interconnection geographical area of the United States of America.

##### **3.1.2 WestConnect**

EPE actively participates in the WestConnect regional transmission planning process.

WestConnect members collaboratively assess stakeholder needs and may develop cost-effective transmission projects. EPE is an active member participant in the WestConnect regional transmission planning process established by FERC Order No. 1000.

#### **3.2 Subregional Planning Group**

##### **3.2.1 Southwest Area Transmission (SWAT) Subregional Planning Group**

EPE actively participates in the activities of the Southwest Area Transmission (SWAT) Subregional Planning Group that is comprised of transmission regulators/governmental entities, transmission users, transmission owners, transmission operators and environmental entities.

The SWAT addresses future transmission needs on a subregional basis.

## **4.0 GENERAL ASSUMPTIONS**

### **4.1 Load Projections**

EPE's Long-Term Forecast Report provides energy and native system peak demand projections. The 2023 Forecast predicted a 10-year CAGR of 1.6% for native system peak demand. The 2023 Forecast predicted a Native System Energy increase for 2023 of 1.99% compared to year 2022. The 2023 Forecast also predicted that Native System Peak Demand in 2023 will increase 2.19% compared to the 2022 peak. The Forecast includes demand side management and energy efficiency programs as detailed in the next section.

The basis for native system peak demand projections has historically been set by EPE's annual Long-Term Forecast Report. Typically, EPE System Planning uses the expected native system MW demand value plus the 50% of the difference between the upper bound native system MW demand value less the expected native system MW demand value within EPE's latest Long-Term Forecast Report and are assumed as the EPE native system demand MW value for each future year (i.e., modeled within peak/summer powerflow cases). Incorporated within EPE's 2024 Long-Term Forecast Report and the 2023 Loads and Resources with updates as of June 29, 2023 ("L&R") are EPE Public Policy requirements. It is in this manner that Public Policy requirements are considered in the Plan. However, in this year's Plan, EPE System Planning averaged the native system peak MW demand growth experienced in the last 5 years and utilized it as a growth projection for the first five (5) years of the Plan (average of 92 MW of load growth year over year). For the last 5 years of the Plan, System Planning utilized a load growth of 50 MW per year.

Each substation load was projected for the planning years based on available historical 2023 coincident peak load, Distribution System's monthly (non-coincident) load reports, load projections from the latest 2023 Distribution Expansion Plan Report update ("2023 Distribution Plan Update"), plus other input from EPE Distribution planning, and input from EPE's Load Forecasting and Commercial Services departments. EPE System Planning & Interconnections Group forecasts future substation loads by substation transformers based on these inputs.

### **4.2 Demand Side Management**

In Attachment K within EPE's OATT (posted on EPE's website at [www.epelectric.com](http://www.epelectric.com)), EPE includes demand side resources through energy efficiency programs to mitigate the need for new transmission. Mandated energy efficiency goals accounted for in the Forecast are shown on Table 1. EPE expects an increase to its total cumulative energy efficiency load adjustments compared to the previous forecast. The 2023 Forecast shows a continuous increase in the energy efficiency demand adjustment with a projected peak of 97 MW in 2032.

Demand savings achieved through the EPE Energy Efficiency Programs are across all customer classes and across the whole transmission system. No single project or customer provides a significant amount of demand savings to dramatically impact the transmission system.

### **4.3 Generation Resources**

EPE's Resource Planning Department ("RP") identified future generation resources and purchased power to serve native load in its 2023 Loads & Resources 2024-2043 document ("L&R") dated June 29, 2023, and from further input from EPE's Resource Planning Department to this document. This document compares owned resources and power purchases against forecasted load to determine new resources that may be needed.

System Planning & Interconnections modeled generation based on the L&R and other documents while developing the Plan. The resource generation mix consists of photovoltaic ("PV"), battery energy storage system ("BESS"), gas and/or steam turbines. The generation reflected in Table 2 – Projected EPE Local Generation was assumed in the System Expansion Plan modeling.

### **4.4 Reliability Criteria**

The Plan follows Good Utility Practice and planning as described in EPE's OATT Attachment K. It uses a deterministic approach for transmission system planning. Each annual review verifies that modeling, assumptions, and planned facilities meet WECC and NERC compliance requirements under normal (N-0), and single contingency (N-1) conditions for EPE's transmission area. Under these two conditions, the network must be operated within WECC, NERC and EPE's Planning Criteria for NERC Standard TPL-001-5.1 to supply projected customer loads and firm transmission services over the ten-year planning horizon. In addition, for this 2024 Plan, there was some consideration to study results for initially-out-of-service (IOS) single bulk electric system (BES) element conditions. The Plan uses steady state powerflow analyses to identify transmission projects (facility upgrades and/or additions) required to mitigate any criteria violations with the goal of providing sufficient lead time to incorporate them. The Plan summarizes each individual expansion project's scope, in-service date, justification, and purpose. Additionally, EPE reviews operational planning cases to determine transmission line loading conditions, mitigation practices and the need to upgrade transmission lines to facilitate operational needs and practices.

The Plan focuses on facilities under heavy summer coincidental peak demand conditions which is typically considered worst case scenarios for EPE's system since EPE is a summer peaking utility. Light Winter cases are examined as well.

EPE strives to complete all system improvements in a prudent, safe, and timely fashion. Nevertheless, scheduling factors may delay projects forcing EPE to apply temporary alternatives or measures to mitigate potential overloads.

#### **4.5 Southwest Power Pool Reliability Coordinator Area System Operating Limit Methodology Western Interconnection Revision 1.1**

On April 1, 2024, Revision 2.0 of the Southwest Power Pool Reliability Coordinator Area System Operating Limit Methodology Western Interconnection went into effect. The latest revision of these methodology documents require that EPE operate its system in the pre-contingency state (All-Facilities-in-Service, AFIS) so that all facilities shall be within their normal (continuous) facility (thermal) ratings and that for the post-contingency state for single (element) contingencies, all facilities shall be within their emergency facility (thermal) ratings.

#### **4.6 Open Planning Meetings**

The transmission planning process, per Attachment K, includes Open Planning meetings while developing this Plan. Two meetings were held -- one in November 2023 and the second in March 2024 -- to allow third party participants to review or submit data and request studies of potential Stakeholder needs. Stakeholders are allowed to submit data up to posted due dates to be incorporated into EPE's Plan case models. Data submitted after the due dates will not be incorporated into the current Plan, although they will be considered in the next year's planning cycle, if applicable. To date, no applicable Stakeholder data has been submitted to EPE that was incorporated into the Plan. The purpose of the Plan is to identify and evaluate, on a regular basis, future electric transmission system modifications and additions or alternatives that may be required to serve the anticipated area load growth, existing third-party customers' transmission needs, Public Policy requirements and NERC/WECC reliability requirements in the EPE service territory for a ten-year planning horizon.

#### **4.7 Plan Case System Assumptions**

System expansion analyses utilize powerflow studies and stability studies for each Plan year from 2025 through 2034. These analyses incorporated in-progress system expansion projects assumed to be completed before the peak of 2025. System modeling also includes the following assumptions:

- The forecasted substation load for each Plan year was adjusted to the modified projected coincidental peak loads using the Forecast and historical load data.
- Generation, system configuration, imports, and interchange schedules -- including contractual agreements with third-party entities -- were set according to load demand in each Plan case.
- Plan cases modeled PNM's Afton G1 and Afton S1 as "Off" when the Arroyo PST power flow was set to 151 MW north to south.
- Eddy County flow from the DC tie was modeled at zero (0) MW open ended at the Artesia bus in each of the Plan cases.
- EPE's share of Southern New Mexico Imports ("SNMI") was set at a schedule of 645

MW (per contractual rights) and EPE imports (“EPI”) at 747 MW in all Plan cases.

- No on-line generation was modeled at Lordsburg. Luna Energy Facility (“LEF”) was left as scheduled in the WECC cases used with the assumption that 100 MW scheduled to EPE under the Phelps Dodge (Freeport) Exchange Agreement and additional power from LEF to EPE, if needed, to meet EPI of 747 MW.
- Rebuilding of 69 kV lines will be designed to operate at 115 kV to support conversion of the EPE 69 kV systems to 115 kV future operational use. Lines will operate at their planned voltage until future conversions are implemented.
- The 59 MVAR line shunt reactor at the Hidalgo 345 kV Substation bus end of the Hidalgo-Greenlee 345 kV Line and the 49 MVAR line shunt reactor at the Macho Springs 345 kV Substation bus end of the Macho-Springerville 345 kV Line are “must-on” line shunt reactors for every Plan case. However, the Luna 345 kV Line shunt reactors were modeled on or off as needed. These reactors can be switched off during an outage of a Path 47 345 kV line.

Note that the final generation sites may have not yet been determined for the resource additions called for in the L&R to be phased in from 2025 to 2034. Therefore, the transmission configuration used in the Plan studies may change requiring different upgrades assumed in future interconnection and facility studies, per FERC’s Large Generator Interconnection Procedures (“LGIP”).

## **4.8 Case Development**

### **4.8.1 WECC-Approved Cases**

Plan cases were developed with the General Electric Positive Sequence Load Flow (“GE- PSLF”) program, which was used for the numerous powerflow, and contingency studies performed for the Plan. Each case is a “database” of the WECC transmission system -- originating from the latest “WECC cases” for the appropriate year. These WECC-approved Heavy Summer and Light Winter base cases contain system configurations and conditions from other nearby Transmission Planners. System Planning & Interconnections then incorporates EPE’s latest forecasted loads, expected generation resources, both of which incorporate EPE’s Public Policy requirements, and any topology changes not already included in the WECC-supplied cases. Many projects listed in the previous plan are removed (or reverted to the existing topology) to re-verify their need and schedule in the current Plan.

### **4.8.2 Topology Changes**

In addition to the most current load and generation updates, System Planning & Interconnections incorporates topology changes not already included in the WECC-supplied cases such as planned substation- level and transmission changes. Substation changes, such as those detailed in EPE’s latest 2023 Distribution Plan Update with updates document, include capacity upgrades, additions, deletions, location changes, and/or postponements. Planned transmission changes typically include capacity upgrades, additions, deletions, location changes, and postponements that are usually driven

by the substation- level changes, generation changes, other studies (e.g., those in the LGIP), or routing changes due to regulatory orders or right-of-way issues or other input.

If a newly planned substation is postponed, any transmission changes associated with that substation may also be postponed. This may affect study results since many future projects depend on previously identified improvements. Factors affecting completion dates include, for example, those identified above. Where completion targets are not achieved, or in instances in which EPE experiences more rapid load growth than forecasted, EPE evaluates and identifies short-term corrective measures to mitigate impacts, as necessary.

Table 3A shows expansion projects that were called for and budgeted in the last Plan (2024-2033) but are now re-scheduled to be completed before the peak of 2025. These projects have been modeled in the 2025 Plan cases and beyond to help mitigate potential contingency overloads.

Table 3B shows a comparison between project schedule recommended completion dates for planned projects in the 2023 Plan and the current 2024 Plan.

New or modified Plan projects are summarized in Tables 4A & 4B and detailed in each year's project descriptions.

#### **4.9 System Improvement Methodology**

After Plan cases were modified as outlined above, contingency analyses are performed for each Plan year to identify reliability criteria violations on EPE facilities within EPE's service area. If violations were identified, mitigating improvements (e.g., Plan projects) were added to EPE's transmission system. Each year's Plan cases carried over the previous year's system improvements. These upgrades will be reflected in the following year's assessment.

Some Plan projects are a result of studies performed outside of System Planning & Interconnections, such as those from the LGIP, third-party generators or Transmission Service Requests while others are incorporated from the latest EPE capital budget. Projects listed in the Plan are specific to the expansion of the EPE internal electrical transmission system. Any projects outside the local electrical system planning area may be evaluated in separate studies.

Additionally, the Plan does not normally include maintenance projects nor external system expansion projects other than those in the WECC-approved base cases. Furthermore, projects associated with non-EPE large generator interconnections are not included unless a Large Generator Interconnection Agreement (LGIA) has been executed.

#### **4.10 Project's Summary Explained**

Tables 4A and 4B identify each year's system improvements. It also includes generic projects as "Additional Future Capital Improvements" added in each year to serve as placeholders in areas of the system where it is difficult, at present, to identify whether and how much specific transmission infrastructure may be necessary. In most cases, System Planning & Interconnections recommends a completion date by May of the given year (unless otherwise noted), to support peak summer

load.

The Plan also contains a brief description and justification for each planned system improvement along with basic one-line diagrams illustrating new additions broken down by year (included in Tabs 2025 through 2034). The planned in-service date of the recommended system improvement projects reflects the date the project was modeled to meet planning requirements and it does not represent the construction completion date of the project. Furthermore, deferred projects identified in prior expansion plans are also not included in Tabs 2025-2034. Deferred projects from prior expansion plans are listed on Table 3B.

Table 5 lists reactive devices needed in different locations of EPE's system scheduled for 2025-2034. This is to improve EPE's reactive capability and voltages profiles.

Projects in EPE's Distribution Plan are shown in Appendix A in Table A1 and A2. These planned projects for the BES are driven by distribution load growth.

#### **4.11 Acknowledgements**

This document was prepared by EPE System Planning & Interconnections in collaboration with contributions from the following EPE departments: Distribution Systems, TSR Engineering, Asset Management Services, Load Research & Data Analytics, Resource Planning, System Operations, and other EPE departments or personnel. Supporting documentation for the numerous studies is not included in this document due to space constraints.

## **5.0 TABLES**



**Table 1. Yearly Peak Energy Efficiency Adjustment**

Calendar Year	Total Energy Efficiency Demand Adjustment (MW)	Calendar Year	Total Energy Efficiency Demand Adjustment (MW)
2023	10	2028	58
2024	19	2029	68
2025	29	2030	78
2026	39	2031	87
2027	49	2032	97

**Table 2. Projected EPE Local Generation**

Generator	Type	Capacity (MW)	Recent/Planned In-Service Date (Month-YY)	Planned Retirement	Notes
Airport	PV	12			1
Chaparral	PV	10			1
Patriot	PV	10			1
Hatch	PV	5			1
Santa Teresa	PV	20			1
Macho Springs	PV	50			
Copper	Gas Combustion Turbine	63		Dec-30	
MPS 1	Gas Combustion Turbine	90			
MPS 2	Gas Combustion Turbine	90			
MPS 3	Gas Combustion Turbine	90			
MPS 4	Gas Combustion Turbine	90			
Newman G1	Gas Fired Steam Turbine	74			
Newman G2	Gas Fired Steam Turbine	74		Dec-27	
Newman G3	Gas Fired Steam Turbine	93		Dec-31	
Newman 4 GT1	Gas Combustion Turbine	70		Dec-31	
Newman 4 GT2	Gas Combustion Turbine	70		Dec-31	
Newman 4 ST1	Combined Cycle HRSG	80		Dec-31	
Newman 5 GT3	Gas Combustion Turbine	70			
Newman 5 GT4	Gas Combustion Turbine	70			
Newman 5 ST2	Combined Cycle HRSG	148			
Newman 6 GT5	Gas Combustion Turbine	252	Dec-23		
Rio Grande G6	Gas Fired Steam Turbine	45			
Rio Grande G7	Gas Fired Steam Turbine	44			
Rio Grande G8	Gas Fired Steam Turbine	139		Dec-33	
Rio Grande G9	Gas Combustion Turbine	88			

Generator	Type	Capacity (MW)	Recent/Planned In-Service Date (Month-YY)	Planned Retirement	Notes
Buena Vista	PV/BESS	120 (120 Solar, 50 Battery)			
Santa Teresa I & II	PV	150	May-25		2
Carne	PV/BESS	130 (130 Solar, 65 Battery)	May-25		2
Milagro	PV/BESS	150 (150 Solar, 75 Battery)	May-25		2
CL10S	PV	10	Dec -24		1, 2
Felina	PV	150	May-26		2
BCS4	PV	30	May-26		1
Buena Vista III	PV/BESS	100 (100 Solar, 50 Battery)	May-26		2
Renewable Generation Stand-alone Solar	PV	250	May-30		3
Renewable Generation Stand-alone Battery	BESS	283	May-30		3
CTR1	Gas Combustion Turbine	88	May-32		3
Renewable Generation Stand-alone Solar	PV	432	May-32		3
Renewable Generation Stand-alone Battery	BESS	381	May-32		3
CTR2	Gas Combustion Turbine	52	May-34		3
Renewable Generation Stand-alone Solar	PV	256	May-34		3
Renewable Generation Stand-alone Battery	BESS	226	May-34		3

Notes:

- 1) This photovoltaic generation connects into EPE's Distribution System.
- 2) LGIA Ratings.
- 3) Planned Facilities Pending Studies to determine location.

## 5.1 Project Changes from 2023 EPE Plan

EPE Bulk Electric System completed projects or planned project changes are noted between EPE’s 2023 Plan and this EPE 2024 Plan. See Tables 3A and 3B for the details of these project completions and changes, respectively.

### 5.1.1 Completed Projects & Projects Nearing Completion

Summarized in Table 3A are EPE’s System Expansion Projects scheduled for completion before peak of year 2025 (in-service date expected prior to or on June 1, 2025, subject to engineering judgement on exceptions).

**Table 3A. System Expansion Projects Scheduled for Completion Before Peak of 2025**  
All Projects below are modeled in the 2025 Plan Case

System Upgrade Needed	Location of Upgrade	Improvement Identification	Planned/Actual In-Service Date
Rebuild, Reconductor	Austin-Marlow 115 kV Line	Improve System Reliability by addressing and mitigating N-1 overloads.	March-24
Rebuild, Reconductor	Clint-Valley 69 kV Line	Improve System Reliability by addressing and mitigating N-1 overloads.	May-24
115 kV Switching Station and Related 115 kV Line Reconfiguration	Verde Substation	New Switching Station to connect planned EPE Generation addition	April-24
Reconductor	Lane-Americas 69 kV Line	Improve System Reliability by addressing and mitigating N-1 overloads.	May-25
Rebuild, Reconductor	Lane-Wrangler 115 kV Line	Improve System Reliability by addressing and mitigating N-1 overloads.	May-25

### 5.1.2 Revised Plan Years for Projects

EPE System Expansion Projects driven by transmission needs that were revised are summarized in Table 3B that follows.

**Table 3B. Summary of Previous Plan’s Project Schedule**

<b>Project Description</b>	<b>2023 Plan Recommended Completion Date Month-Year</b>	<b>2024 Plan Recommended Completion Date Month-Year</b>
Lane-Americas 69 kV Line (Reconductor)	May-24	May-25
Lane-Wrangler 115 kV Line (Rebuild, Reconductor)	May-24	May-25
San Felipe Substation 115/69 kV (New) & 1 X 115/69 kV Autotransformer	May-26	May-26
Sparks-San Felipe Line (Voltage Conversion, Rebuild, Reconductor) 69 kV to 115 kV	March-27	May-26
Rio Grande-Sunset 69 kV Lines (5500/5600) (Rebuild, Reconductor)	May-24	May-26
Pellicano-Montwood 115 kV Line (Reconductor)	May-25	May-26
Seabeck Switching Station 115 kV (New) and Related 115 kV Line Reconfiguration	May-29	May-27
Marvin (FE6) Switching Station 115 kV (New)	May-28	May-27
Marvin-Seabeck 115 kV Line (New)	May-28	May-27
Americas-Passmore 69 kV Line (Reconductor)	May-26	May-27
Ascarate-Trowbridge 115 kV Line (Reconductor)	May-25	May-27
Rio Bosque-Ascarate 69 kV Line (Reconductor)	May-24	May-27
Wrangler-Eastlake 115 kV Line (Rebuild, Reconductor)	May-27	May-27
Afton North 345 kV Substation (New)	May-28	May-34
Airport 345/115/24 kV Substation (New)	May-28	May-28
Afton North-Airport 345 kV Line (New)	May-28	May-34
Afton-Afton North 345 kV Double Bundled Line (New)	May-28	May-34
Afton-Newman 345 kV Line Reconfiguration	May-28	May-28
Airport 345/115 kV Autotransformer (New)	May-28	May-28
Vado Substation 345/115 kV (New) and Related 345 kV and 115 kV Line Reconfiguration	May-28	May-28
Vado 345/115 kV Autotransformers T1 & T2 (New)	May-28	May-28
Jornada-Arroyo 115 kV Line (Rebuild, Reconductor)	May-27	May-28
Anthony-Vado 115 kV Line (Rebuild, Reconductor)	May-28	May-29
Vado-Salopek 115 kV (Rebuild, Reconductor)	May-28	May-29

<b>Project Description</b>	<b>2023 Plan Recommended Completion Date Month-Year</b>	<b>2024 Plan Recommended Completion Date Month-Year</b>
Mirage 345 kV Substation, Airport to Mirage 345 kV Line and Related 345 kV Line Reconfiguration	May-28	May-30
HVDC Tie Replacement (New)	May-28	May-31
Newman - Roberts 115 kV Line Circuit 1 (Reconductor)	May-32	May-32
Newman - McCombs 115 kV Line Circuit 1 (Reconductor)	May-30	May-32
Newman - McCombs 115 kV Line Circuit 2 (Reconductor)	May-30	May-32
Marlow - Trowbridge 115 kV Line (Rebuild, Reconductor)	May-30	May-32
Caliente 345/115 kV Autotransformer T3 (New)	May-30	May-33
Pine Switching Station 115 kV (New) and Related 115 kV Line Reconfiguration	May-27	May-34
Caliente - MPS 115 kV Circuit 1 (Partial Reconductor)	May-26	May-34
Caliente - MPS 115 kV Circuits 2 & 3 Common Structure Separation	May-26	May-34
Rio Grande-Sunset North 115 kV Double Bundled Line (Rebuild, Reconductor)	May-27	May-34

### 5.1.3 Planned EPE Bulk Electric System Transmission Projects:

Planned EPE Bulk Electric System Projects driven by transmission system needs with projected in-service dates between 2025-2034 as needed to support the local EPE transmission system are summarized in Tables 4A & 4B that follow. Transmission Projects in-service dates shown in Section 7 may differ from the completion dates identified in Tables 4A and 4B due to budgetary constraints.

**Table 4A. Project Schedule (2025-2029)**

Year	Project Description	Recommended Completion Date Month-Year
2025	Lane-Americas 69 kV Line (Reconductor)	May-25
	Lane-Wrangler 115 kV Line (Rebuild, Reconductor)	May-25
	Rio Bosque - Ascarate 69 kV Line In-Line Tap 2x15.9 MVAR Capacitor Bank (New)	May-25
	Wicked 115 kV Switching Station (New)	May-25
2026	San Felipe Substation 115/69 kV (New) & 1 X 115/69 kV Autotransformer	May-26
	Wicked-San Felipe 115 kV Line (New)	May-26
	Sparks-San Felipe Line (Voltage Conversion, Rebuild, Reconductor) 69 kV to 115 kV	May-26
	Horizon-Wicked 115 kV Line (New)	May-26
	Chaparral-Escondido 115 kV Line (Reconductor)	May-26
	Pellicano-Montwood 115 kV Line (Reconductor)	May-26
	Rio Grande-Sunset 69 kV Lines (5500/5600) (Rebuild, Reconductor)	May-26
	Rio Bosque Substation 69 kV additional 2x15.9 MVAR Capacitor Bank (New)	May-26
	Passmore Substation 69 kV 2x15.9 MVAR Capacitor Bank (New)	May-26
	Eastlake Substation 115 kV 2x15.9 MVAR Capacitor Bank (New)	May-26
San Felipe Substation 115 kV 2x15.9 MVAR Capacitor Bank (New)	May-26	
2027	Seabeck Switching Station 115 kV (New) and Related 115 kV Line Reconfiguration	May-27
	Marvin (FE6) Switching Station 115 kV (New)	May-27
	Marvin-Seabeck 115 kV Line (New)	May-27
	Americas-Passmore 69 kV Line (Reconductor)	May-27

Year	Project Description	Recommended Completion Date Month-Year
	Ascarate-Trowbridge 115 kV Line (Reconductor)	May-27
	Rio Bosque-Ascarate 69 kV Line (Reconductor)	May-27
	Thorn-Ripley 115 kV Line (Rebuild, Reconductor)	May-27
	Wrangler-Eastlake 115 kV Line (Rebuild, Reconductor)	May-27
	Ascarate Substation 69 kV additional 2x15.9 MVAR Capacitor Bank (New)	May-27
	McCombs Substation 115 kV 2x15.9 MVAR Capacitor Bank (New)	May-27
2028	Airport 345/115/24 kV Substation (New)	May-28
	Vado Substation 345/115 kV (New)	May-28
	Afton-Newman 345 kV In and Out into Vado 345 kV Substation Line Reconfiguration	May-28
	Afton-Airport 345 kV Line (New)	May-28
	Airport 345/115 kV Autotransformer (New)	May-28
	Jornada-Arroyo 115 kV Line (Rebuild, Reconductor)	May-28
	West Mesa - Arroyo 345 kV Line Shunt Reactor (50-100 MVAR) (New)	Dec-28
	Marvin Substation 115 kV 2x15.9 MVAR Capacitor Bank (New)	May-28
2029	Airport-Vado 345 kV (New)	May-29
	Vado 345/115 kV Autotransformers T1 & T2 (New)	May-29
	Anthony-Vado 115 kV Line (Rebuild, Reconductor)	May-29
	Vado-Salopek 115 kV (Rebuild, Reconductor)	May-29
	Thorn Substation 115 kV 2x15.9 MVAR Capacitor Bank (New)	May-29

Notes:

1. Table does not include maintenance projects except for transmission line rebuilds and or conductor upgrades.
2. System Planning & Interconnections recommends completion prior to May for the given to aid with the summer peak period.

**Table 4B. Project Schedule (2030-2034)**

<b>Year</b>	<b>Project Description</b>	<b>Recommended Completion Date Month-Year</b>
2030	Mirage 345 kV Substation, Airport to Mirage 345 kV Line and Related 345 kV Line Reconfiguration	May-30
	Wicked - Alamo 115 kV Line (New)	May-30
	Luna-Diablo 345 kV Line In and Out to Afton 345kV	May-30
	Alamo 115/69 kV Autotransformer (New)	May-30
	Rio Grande 6 Unit conversion to Synchronous Condenser	May-30
	2x15.9 MVAR Capacitor Bank (New)	May-30
2031	Escondido - Oro Grande 115 kV Line (Reconductor)	May-31
	Oro Grande - Amrad 115 kV Line (Reconductor)	May-31
	HVDC Tie Replacement (New)	May-31
	Amrad 345/115 kV Autotransformer (New)	May-31
	2x15.9 MVAR Capacitor Bank (New)	May-31
	Marlow - Trowbridge 115 kV Line (Rebuild, Reconductor)	May-32
	Newman - McCombs 115 kV Line Circuit 1 (Reconductor)	May-32
	Newman - McCombs 115 kV Line Circuit 2 (Reconductor)	May-32
	Newman - Roberts 115 kV Line Circuit 1 (Reconductor)	May-32
	Amrad Substation ±100 MVAR SVC (New)	May-32
2033	Caliente 345/115 kV Autotransformer (New)	May-33
	2x15.9 MVAR Capacitor Bank (New)	May-33
2034	Pine Switching Station 115 kV (New) and related 115 kV Line Reconfiguration	May-34
	Rio Grande-Sunset North 115 kV Double Bundled Line (Rebuild, Reconductor)	May-34
	Caliente - MPS 115 kV Circuits 2 & 3 Common Structure Separation	May-34
	Caliente - MPS 115 kV Circuit 1 (Partial Reconductor)	May-34
	Afton North 345 kV Substation (New)	May-34
	Afton-Afton North 345 kV Double Bundled Line (New)	May-34
	2x15.9 MVAR Capacitor Bank (New)	May-34

Notes:

1. Table above does not include maintenance projects except for transmission line rebuilds and or conductor upgrades.
2. System Planning & Interconnections recommends completion prior to May for the given to aid with the summer peak period.



## 5.2 Planned EPE Reactive Device Projects:

Planned EPE reactive device projects with projected in-service dates between 2025-2034 needed to support the local EPE transmission system are summarized in Table 5 below. The in-service dates shown in Section 7 may differ from the completion dates identified in Table 5 due to budgetary or procurement constraints.

**Table 5. Reactive Project Schedule**

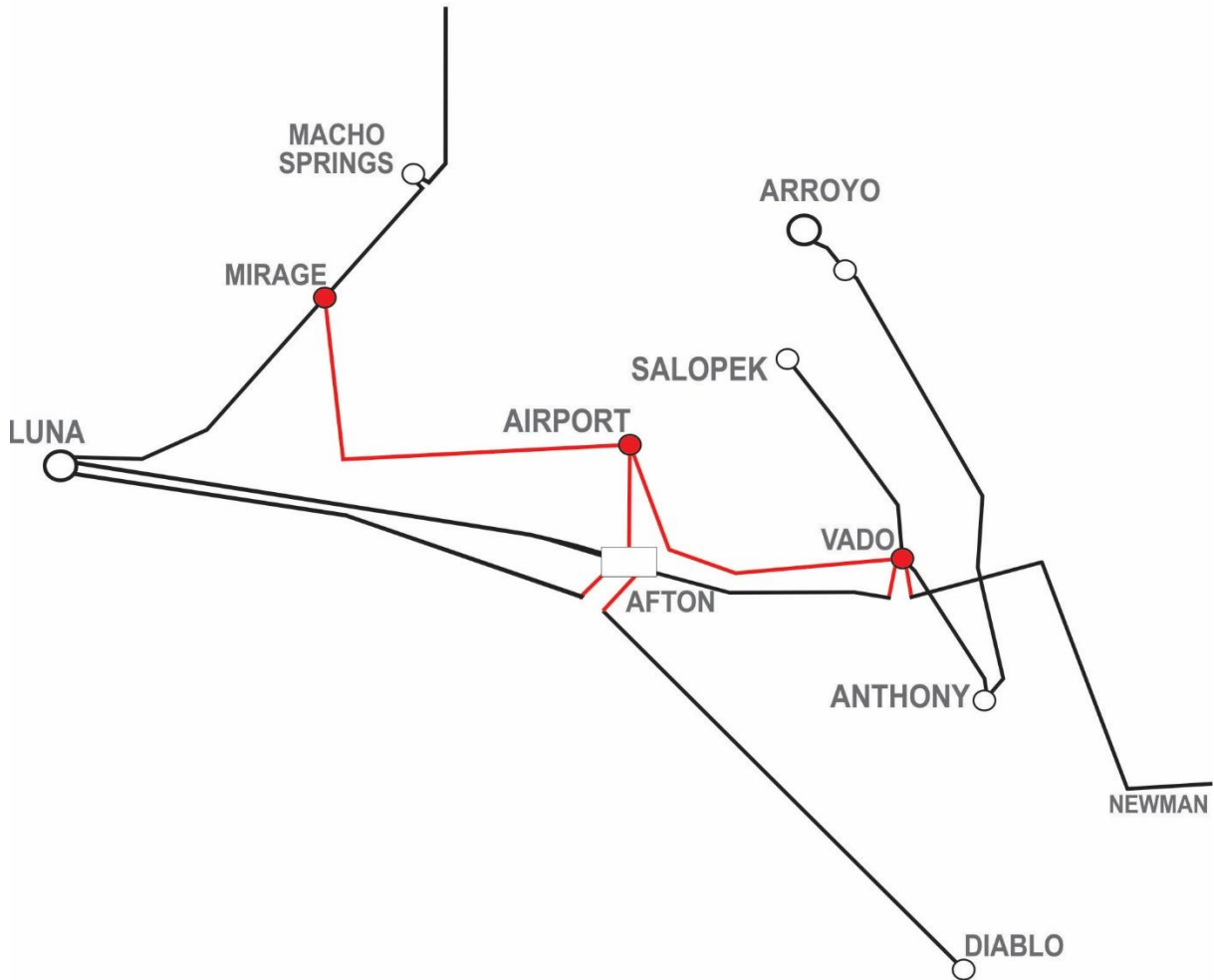
Year	Project Description	System Upgrade Needed	Recommended Completion Date
2025	Tapped into the Ascarate - Rio Bosque 69 kV Line	New 69 kV Capacitors (2 x 15.9 MVAR)	May-25
2026	Rio Bosque	New 69 kV Capacitors (2 x 15.9 MVAR)	May-26
	Passmore	New 69 kV Capacitors (2 x 15.9 MVAR)	May-26
	Eastlake	New 115 kV Capacitors (2 x 15.9 MVAR)	May-26
	San Felipe Substation	New 115 kV Capacitors (2 x 15.9 MVAR)	May-26
2027	Ascarate	New 69 kV Capacitors (2 x 15.9 MVAR)	May-27
	McCombs Substation	New 115 kV Capacitors (2 x 15.9 MVAR)	May-27
2028	Marvin	New 115 kV Capacitors (2 x 15.9 MVAR)	May-28
	West Mesa - Arroyo 345 kV Line	New Line Shunt Reactor (50-100 MVAR)	Dec-28
2029	Thorn	New 115 kV Capacitors (2 x 15.9 MVAR)	May-29
2030	Rio Grande Unit 6	Conversion to Sync Condenser	May-30
	TBD	New 115 kV Capacitors (2 x 15.9 MVAR)	May-30
2031	TBD	New 115 kV Capacitors (2 x 15.9 MVAR)	May-31

<b>Year</b>	<b>Project Description</b>	<b>System Upgrade Needed</b>	<b>Recommended Completion Date</b>
2032	Amrad Substation	New SVC (± 100 MVAR)	May-32
2033	TBD	New 115 kV Capacitors (2 x 15.9 MVAR)	May-33
2034	TBD	New 115 kV Capacitors (2 x 15.9 MVAR)	May-34

## **6.0 EPE TRANSMISSION PLANNED PROJECTS MAPS**

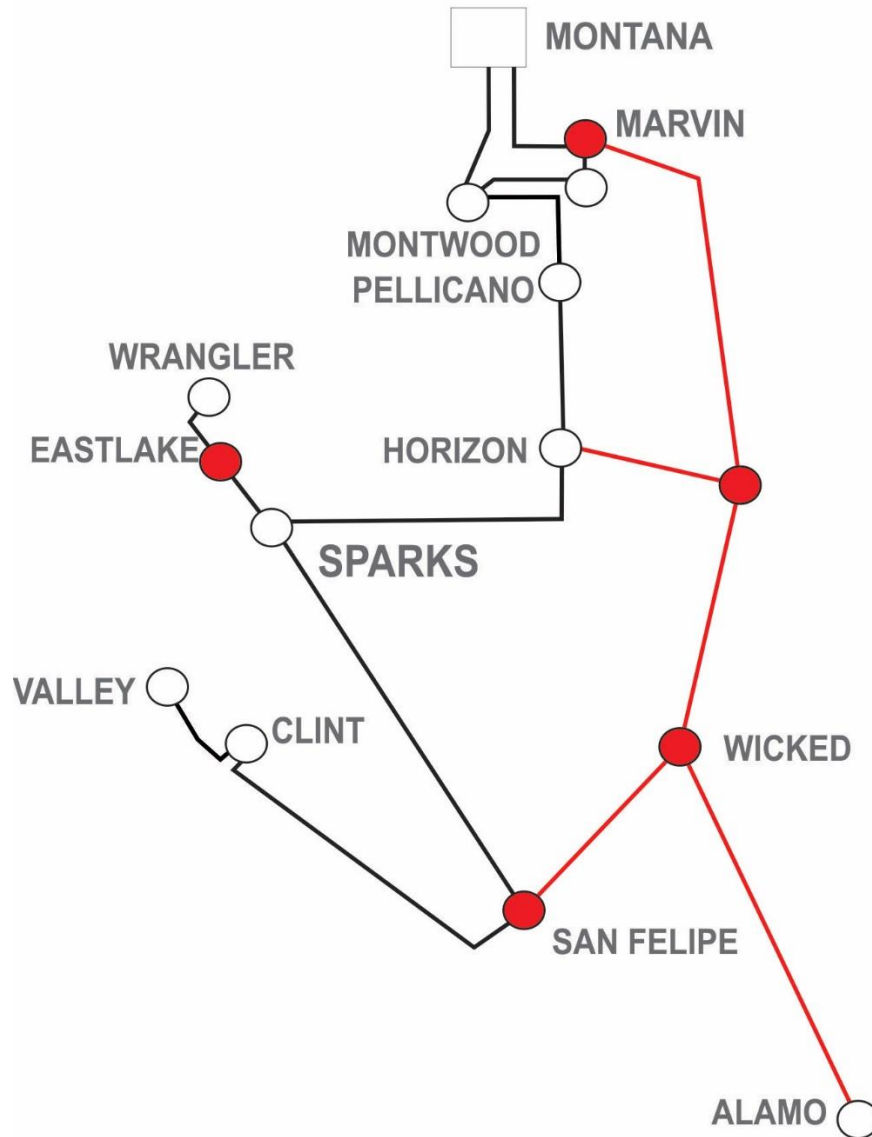
## NEW TRANSMISSION PROJECTS MAP

### WEST REGION



# NEW TRANSMISSION PROJECTS MAP

## EAST REGION



## **7.0 TRANSMISSION PROJECT SUMMARY**

## TRANSMISSION PROJECT SUMMARY

Transmission Projects will be identified with the following format.

### **PLANNED PROJECTS** **YEAR XXXX**

**Project Name:** Commonly used name by El Paso Electric Company for a transmission or substation system expansion capital project. Projects of a normal maintenance nature and those located external to the EPE's transmission network are normally not included here.

**Operating Voltage:** The operational voltage level(s) of the system element(s).

**In-Service Date:** This is recommended project completion date. In general, it is recommended that projects be completed by May of the installation year, so that anticipated system peak load demand is met.

**Project Description:** A general description of the project.

**Project Justification:** Project need is identified.

## **Transmission Projects in 2025**



**PLANNED PROJECTS  
YEAR 2025**

**Project Name:** Lane-Americas 69 kV Line (Reconductor)

**Operating Voltage:** 69 kV

**In-Service Date:** May 2025

**Project Description:** The project consists of reconductoring the Lane to Americas 69 kV transmission line with conductor that provides a minimum normal and emergency capacity rating of 230 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate existing overload conditions under certain planning contingencies.

**PLANNED PROJECTS  
YEAR 2025**

**Project Name:** Lane-Wrangler 115 kV Line (Rebuild, Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2025

**Project Description:** The project consists of reconductoring the Lane to Wrangler 115 kV transmission line with conductor that provides a minimum normal and emergency capacity rating of 380 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate potential overload conditions under certain planning event contingencies.

**PLANNED PROJECTS  
YEAR 2025**

**Project Name:** Capacitor Banks tapped into the Ascarate – Rio Bosque 69 kV Line

**Operating Voltage:** 69 kV

**In-Service Date:** May 2025

**Project Description:** The project consists of the addition of two 15.9 MVAR bus shunt capacitor banks tapped to the Ascarate – Rio Bosque line.

**Project Justification:** This project has been identified to provide reactive and voltage support in the Far East El Paso area.

**PLANNED PROJECTS  
YEAR 2025**

**Project Name:** Wicked 115 kV Switching Station (New)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2025

**Project Description:** This project involves the construction of a new Wicked 115 kV Switching Station that will be part of the East Side Loop Expansion Project.

**Project Justification:** This project is part of the East Side Loop Expansion Project and is needed to address and mitigate potential overload conditions under certain contingencies. Additionally, the project will allow EPE to address expected development and load growth in east El Paso County.

## **Transmission Projects in 2026**

**PLANNED PROJECTS  
YEAR 2026**

**Project Name:** San Felipe Substation 115/69 kV (New) & 1 X 115/69 kV Autotransformer

**Operating Voltage:** 115/69 kV

**In-Service Date:** May 2026

**Project Description:** The project consists of constructing a new San Felipe Substation 115/69 kV that will be part of the East Side Loop Expansion Project.

**Project Justification:** This project is part of the East Side expansion Project and is needed to address projected overload conditions on the EPE system under certain contingencies. Additionally, the project will enable EPE to address expected development and load growth in eastern El Paso County.

**PLANNED PROJECTS  
YEAR 2026**

**Project Name:** Wicked-San Felipe 115 kV Line (New)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2026

**Project Description:** This project consists of constructing a new 115 kV transmission line from Wicked to San Felipe with a minimum normal and emergency capacity rating of 380 MVA.

**Project Justification:** This project is part of the East Side Loop Expansion Project and is needed to address potential overload conditions under certain N-1 contingencies. Additionally, the project will enable EPE to address expected development and load growth in east El Paso County.

**PLANNED PROJECTS  
YEAR 2026**

**Project Name:** Sparks-San Felipe Line (Voltage Conversion, Rebuild, Reconductor) 69 kV to 115 kV

**Operating Voltage:** 115 kV

**In-Service Date:** May 2026

**Project Description:** This project will involve the conversion and reconductoring of the Sparks to San Felipe transmission line from 69 kV to 115 kV with a minimum normal and emergency capacity rating of 380 MVA.

**Project Justification:** This project is part of the East Side Loop Expansion Project and is needed to address potential overload conditions on the EPE system under certain contingencies. Additionally, the project will enable EPE to address expected development and load growth in east El Paso County.



**PLANNED PROJECTS  
YEAR 2026**

**Project Name:** Horizon – Wicked 115 kV Line (New)

**Operating Voltage:** 115 kV

**In-Service Date:** Jan 2026

**Project Description:** This project consists of construction a new 115 kV transmission line from Horizon to Wicked with a minimum normal and emergency capacity rating of 380 MVA.

**Project Justification:** This project is part of the East Side Loop Expansion Project and is needed to address potential overload conditions under certain N-1 contingencies. Additionally, the project will enable EPE to address expected development and load growth in east El Paso County.

**PLANNED PROJECTS  
YEAR 2026**

**Project Name:** Chaparral-Escondido 115 kV Line (Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2026

**Project Description:** This project will involve the reconductoring of a 115 kV transmission line from Chaparral to Escondido with a minimum normal and emergency capacity rating of 380 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate potential overload conditions under certain planning event contingencies.

**PLANNED PROJECTS  
YEAR 2026**

**Project Name:** Pellicano-Montwood 115 kV Line (Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2026

**Project Description:** The project consists of reconductoring the Pellicano to Montwood 115 kV transmission line with conductor that provides a minimum normal and emergency capacity rating of 380 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate potential overload conditions under certain planning event contingencies.

**PLANNED PROJECTS  
YEAR 2026**

**Project Name:** Rio Grande-Sunset 69 kV Ckt1 (5500) (Rebuild, Reconductor)

**Operating Voltage:** 69 kV

**In-Service Date:** May 2026

**Project Description:** This project involves the reconductoring of a 69 kV line. The 69 kV line (5500) connects Rio Grande Substation and Sunset Substation. The rebuilt and reconductoring capacity of the 69 kV (5500) line requires an upgrade with a minimum normal and emergency capacity rating of 230 MVA each.

**Project Justification:** This line experiences increased loading during the summer peak months, a condition that is difficult to mitigate. The increase in line capacity will relieve operational mitigation measures and mitigate potential overload conditions under certain planning event contingencies. Due to the complexity of the terrain, the upgrade of this line, may run into year 2027.

**PLANNED PROJECTS  
YEAR 2026**

<b><u>Project Name:</u></b>	Rio Grande-Sunset 69 kV Ckt2 (5600) (Rebuild, Reconductor)
<b><u>Operating Voltage:</u></b>	69 kV
<b><u>In-Service Date:</u></b>	May 2026
<b><u>Project Description:</u></b>	This project involves the reconductoring of a 69 kV line. The 69 kV line (5600) connects Rio Grande Substation and Sunset Substation. The rebuilt and reconductoring capacity of the 69 kV (5600) line requires an upgrade with a minimum normal and emergency capacity rating of 230 MVA each.
<b><u>Project Justification:</u></b>	This line experiences increased loading during the summer peak months, a condition that is difficult to mitigate. The increase in line capacity will relieve operational mitigation measures and mitigate potential overload conditions under certain planning event contingencies. Due to the complexity of the terrain, the upgrade of this line, may run into year 2027.

**PLANNED PROJECTS  
YEAR 2026**

**Project Name:** Rio Bosque Capacitor Bank Additions

**Operating Voltage:** 69 kV

**In-Service Date:** May 2026

**Project Description:** The project consists of the addition of two 15.9 MVAR bus shunt capacitor banks connected to the 69 kV Bus.

**Project Justification:** Improve reactive capability and voltages profile in the Far East El Paso area under N-1.

**PLANNED PROJECTS  
YEAR 2026**

**Project Name:** Passmore Capacitor Bank Additions

**Operating Voltage:** 69 kV

**In-Service Date:** May 2026

**Project Description:** The project consists of the addition of two 15.9 MVAR bus shunt capacitor banks connected to the 69 kV Bus.

**Project Justification:** Improve reactive capability and voltages profile in the Far East El Paso area under N-1.

**PLANNED PROJECTS  
YEAR 2026**

**Project Name:** Eastlake Capacitor Bank Addition

**Operating Voltage:** 115 kV

**In-Service Date:** May 2026

**Project Description:** The project consists of the addition of two 15.9 MVAR bus shunt capacitor banks connected to the 115 kV bus.

**Project Justification:** This project has been identified to provide reactive and voltage support in the far East El Paso area.



**PLANNED PROJECTS  
YEAR 2026**

**Project Name:** San Felipe Capacitor Banks Addition

**Operating Voltage:** 115 kV

**In-Service Date:** May 2026

**Project Description:** The project consists of the addition of two 15.9 MVAR bus shunt capacitor banks connected to the 115 kV bus.

**Project Justification:** This project has been identified to provide reactive and voltage support in the far east El Paso area.

## **Transmission Projects in 2027**

**PLANNED PROJECTS  
YEAR 2027**

**Project Name:** Seabeck Switching Station 115 kV (New) and Related 115 kV Line Reconfiguration.

**Operating Voltage:** 115 kV

**In-Service Date:** May 2027

**Project Description:** This project involves the construction of a new Seabeck 115 kV Switching Station that will be part of the East Side Loop Expansion Project. The 115 kV Line Reconfiguration will consist of splitting the Horizon to Wicked 115 kV Line to introduce Seabeck Substation. The new Path will consist of Horizon to Seabeck to Wicked 115 kV Circuits.

**Project Justification:** This project is part of the East Side Loop Expansion Project and is needed to address and mitigate potential overload conditions under certain contingencies. Additionally, the project will allow EPE to address expected development and load growth in east El Paso County.

**PLANNED PROJECTS  
YEAR 2027**

**Project Name:** Marvin (FE6) 115 kV New Full Substation

**Operating Voltage:** 115 kV

**In-Service Date:** May 2027

**Project Description:** This project involves the construction of a new full Marvin (FE6) 115 kV Substation, which will be replacing Coyote & Coyote Temp Substations, that will be part of the East Side Loop Expansion Project.

**Project Justification:** This project is a part of the East Side Loop Expansion Project and is needed to address and mitigate potential overload conditions under certain N-1 contingencies. Additionally, the project will enable EPE to address expected development and load growth in east El Paso County.

**PLANNED PROJECTS  
YEAR 2027**

**Project Name:** Marvin-Seabeck 115 kV Line (New)

**Operating Voltage:** 115 kV

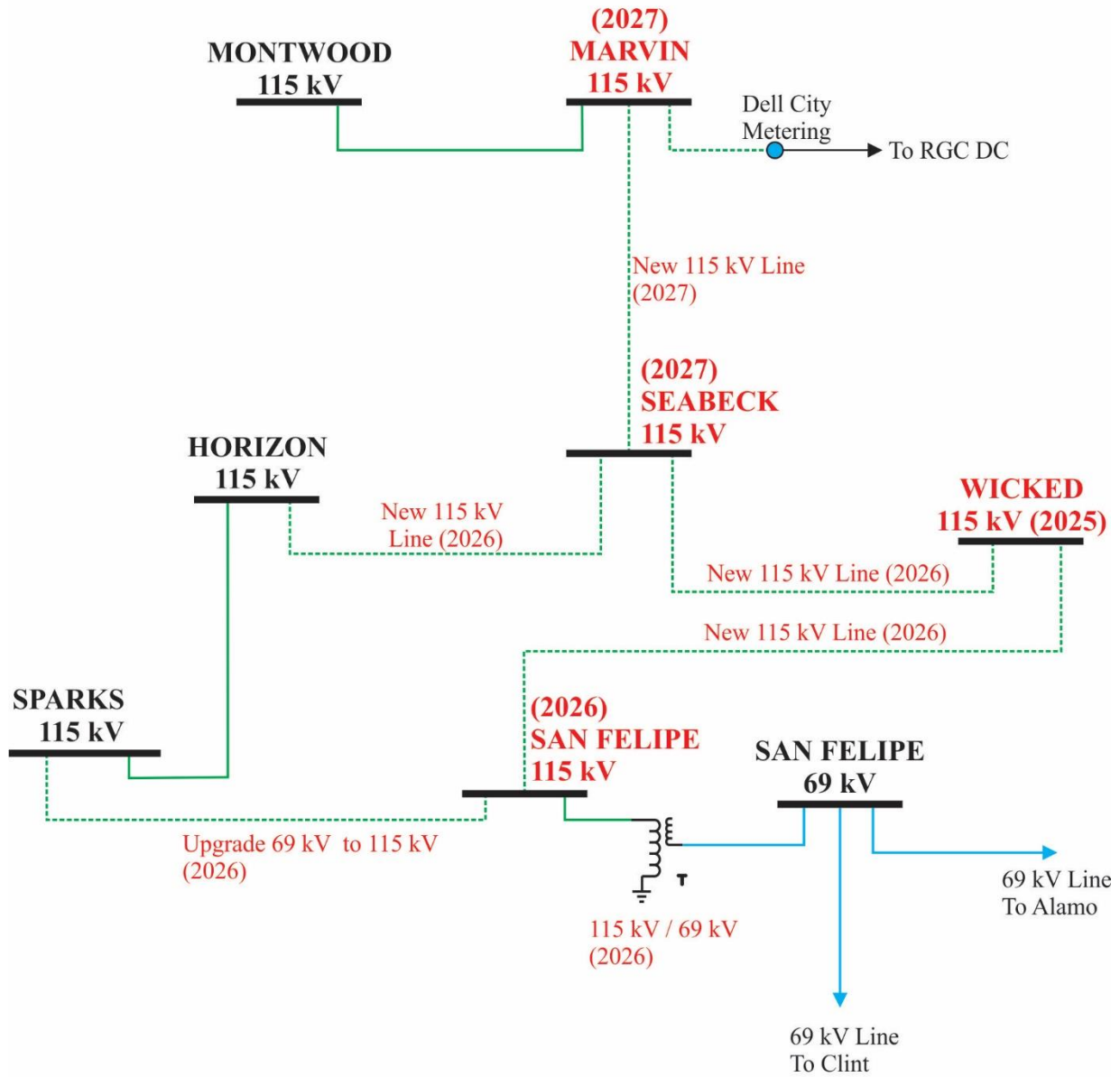
**In-Service Date:** May 2027

**Project Description:** This project consists of constructing a new 115 kV transmission line from Marvin to Seabeck with a minimum normal and emergency capacity rating of 380 MVA.

**Project Justification:** This project is part of the East Side Loop Expansion Project and is needed to address potential overload conditions under certain N-1 contingencies. Additionally, the project will enable EPE to address expected development and load growth in east El Paso County.

**EASTSIDE LOOP  
YEAR 2025-2029**

**EASTSIDE LOOP PROJECTS**



**NOTE:** FOR ILLUSTRATION PURPOSES ONLY.

**PLANNED PROJECTS  
YEAR 2027**

**Project Name:** Americas-Passmore 69 kV Line (Reconductor)

**Operating Voltage:** 69 kV

**In-Service Date:** May 2027

**Project Description:** The project consists of reconductoring the future Americas to Passmore 69 kV transmission line with conductor that provides a minimum normal and emergency capacity rating of 230 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate potential overload conditions under certain planning event contingencies.

**PLANNED PROJECTS  
YEAR 2027**

**Project Name:** Ascarate-Trowbridge 115 kV Line (Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2027

**Project Description:** The project consists of reconductoring the Ascarate to Trowbridge 115 kV transmission line with conductor that provides a minimum normal and emergency capacity rating of 380 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate potential overload conditions under certain planning event contingencies.



**PLANNED PROJECTS  
YEAR 2027**

**Project Name:** Rio Bosque-Ascarate 69 kV Line (Reconductor)

**Operating Voltage:** 69 kV

**In-Service Date:** May 2027

**Project Description:** The project consists of reconductoring the Rio Bosque to Ascarate 69 kV transmission line with conductor that provides a minimum normal and emergency capacity rating of 230 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate potential overload conditions under certain planning event contingencies.

**PLANNED PROJECTS  
YEAR 2027**

**Project Name:** Thorn-Ripley 115 kV Line (Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2027

**Project Description:** This project consists of reconductoring the Thorn to Ripley 115 kV transmission line with conductor that provides a minimum normal and emergency capacity rating of 380 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate potential overload conditions under certain N-1 contingencies.

**PLANNED PROJECTS  
YEAR 2027**

**Project Name:** Wrangler-Eastlake 115 kV Line (Rebuild, Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2027

**Project Description:** The project consists of reconductoring the Wrangler to Eastlake 115 kV transmission line with conductor that provides a minimum normal and emergency capacity rating of 380 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate potential overload conditions under certain N-1 contingencies.

**PLANNED PROJECTS  
YEAR 2027**

**Project Name:** Ascarate Capacitor Bank Addition

**Operating Voltage:** 69 kV

**In-Service Date:** May 2027

**Project Description:** The project consists of the addition of two 15.9 MVAR bus shunt capacitor banks connected to the 69 kV Bus.

**Project Justification:** This project has been identified to provide reactive and voltage support in the Far East El Paso area.

**PLANNED PROJECTS  
YEAR 2027**

**Project Name:** McCombs Capacitor Bank Addition

**Operating Voltage:** 115 kV

**In-Service Date:** May 2027

**Project Description:** The project consists of the addition of two 15.9 MVAR bus shunt capacitor banks connected to the 115 kV Bus.

**Project Justification:** This project has been identified to provide reactive and voltage support in the Northeast and Central areas of El Paso.

## **Transmission Projects in 2028**

**PLANNED PROJECTS  
YEAR 2028**

**Project Name:** Airport 345/115/24 kV Substation

**Operating Voltage:** 345/115/24 kV

**In-Service Date:** May 2028

**Project Description:** A new Airport 345/115/24 kV Substation that will replace the existing Airport Substation. Initial 345 kV radial line from Airport to Afton will be planned for in 2028. Additionally, the 345 kV and 115 kV portion of the Substation allows for future 345 kV and 115 kV transmission lines to connect to enhance system reliability.

**Project Justification:** This project has been identified to enhance system reliability and improve capacity at the Airport location.

## PLANNED PROJECTS YEAR 2028

**Project Name:** Vado Substation 345/115 kV (New)

**Operating Voltage:** 345/115 kV

**In-Service Date:** May 2028

**Project Description:** The addition of Vado 345/115 kV Substation involves several elements. The project involves an in-and-out connection on the Afton to Newman 345 kV transmission line with terminations into Vado 345 kV resulting in the Afton to Vado 345 kV Line and the Vado to Newman 345 kV Line. It is also planned to add an additional Airport to Vado 345 kV Line and two new Vado 345/115 kV Autotransformers to connect the Vado 115 kV/345 kV system. With the addition of Vado Substation in 2028, there will also be an in-and-out connection on the Anthony to Salopek 115 kV Line resulting in the Anthony to Vado 115 kV and Vado to Salopek 115 kV Lines thereafter.

**Project Justification:** This project is part of the Afton, Airport, and Vado projects, that will increase El Paso Import Capability (EPIC). The substation will also increase reliability in the Vado/Anthony area.



**PLANNED PROJECTS  
YEAR 2028**

**Project Name:** Afton-Newman 345 kV In and Out into Vado 345 kV Substation Line Reconfiguration

**Operating Voltage:** 345 kV

**In-Service Date:** May 2028

**Project Description:** The Afton to Newman 345 kV Line Reconfiguration consists of several elements. The reconfiguration will consist of cutting into the Afton to Newman 345 kV Line to connect to Vado 345 kV Bus. This reconfiguration will improve system reliability.

**Project Justification:** This project will increase El Paso Import Capability (EPIC) and improve the reliability of the transmission system.

## **PLANNED PROJECTS YEAR 2028**

**Project Name:** Afton-Airport 345 kV Line (New)

**Operating Voltage:** 345 kV

**In-Service Date:** May 2028

**Project Description:** A new 345 kV transmission line is planned to be built from Afton Substation to Airport Substation with at least a normal capacity rating of 1030 MVA and emergency capacity rating of 1390 MVA. The Afton to Airport connection will become the main source serving point for Airport.

**Project Justification:** This transmission line in conjunction with a projected project consisting of a 345/115 kV Autotransformer at Airport Substation which will serve the load at Airport. This transmission line will enhance the system reliability and strengthen the 345 kV transmission system.

**PLANNED PROJECTS  
YEAR 2028**

**Project Name:** Airport 345/115 kV Autotransformer (New)

**Operating Voltage:** 345/115 kV

**In-Service Date:** May 2028

**Project Description:** A new Airport 345/115 kV autotransformer will enhance system reliability. This autotransformer will serve as the connection point from the load at Airport to its serving point through the 345 kV Line from Airport to Afton.

**Project Justification:** This 345/115 kV Autotransformer in conjunction with the 345 kV Transmission line from Afton to Airport will serve the load at Airport. This project has been identified to connect the 115 kV system to the 345 kV system to enhance system reliability and improve capacity at the Airport location.

**PLANNED PROJECTS  
YEAR 2028**

**Project Name:** Jornada-Arroyo 115 kV Line (Rebuild, Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2028

**Project Description:** This project consists of rebuilding/reconductoring the Jornada to Arroyo 115 kV Line to increase the capacity of the line with a minimum normal and emergency capacity rating of 380 MVA.

**Project Justification:** The line experiences an increase in loading under heavy summer conditions. The increase in line rating with a minimum normal and emergency capacity rating of 380 MVA will relieve identified overloads under N-1 contingency conditions.

**PLANNED PROJECTS  
YEAR 2028**

**Project Name:** West Mesa - Arroyo 345 kV Line Shunt Reactor 50-100 MVAR (New)

**Operating Voltage:** 345 kV

**In-Service Date:** December 2028

**Project Description:** The project consists of the addition of a new 50 to 100 MVAR in-line reactor on the West Mesa to Arroyo 345 kV line.

**Project Justification:** This project has been identified to improve reactive capability and voltage profiles in the Southern New Mexico area of EPE's System under N-1 contingencies.

**PLANNED PROJECTS  
YEAR 2028**

<b><u>Project Name:</u></b>	Marvin Substation 115 kV Capacitor Bank Addition (New)
<b><u>Operating Voltage:</u></b>	115 kV
<b><u>In-Service Date:</u></b>	May 2028
<b><u>Project Description:</u></b>	The project consists of the addition of two 15.9 MVAR bus shunt capacitor banks connected to the 115 kV Bus.
<b><u>Project Justification:</u></b>	This project has been identified to provide reactive and voltage support in the El Paso Area.

## **Transmission Projects in 2029**

**PLANNED PROJECTS  
YEAR 2029**

**Project Name:** Airport-Vado 345 kV Line (New)

**Operating Voltage:** 345 kV

**In-Service Date:** May 2029

**Project Description:** This project is calling for a new Airport – Vado 345 kV transmission line to improve system reliability by strengthening the 345 kV System specifically. The transmission line should be at a normal capacity rating of at least 1109 MVA and an emergency capacity rating of at least 1390 MVA.

**Project Justification:** This transmission line will help increase the El Paso Import Capability (EPIC). This project has been identified to address and mitigate potential overload conditions under certain N-1 contingencies.



**PLANNED PROJECTS  
YEAR 2029**

**Project Name:** Two Vado 345/115 kV Autotransformers (New)

**Operating Voltage:** 345 kV and 115 kV

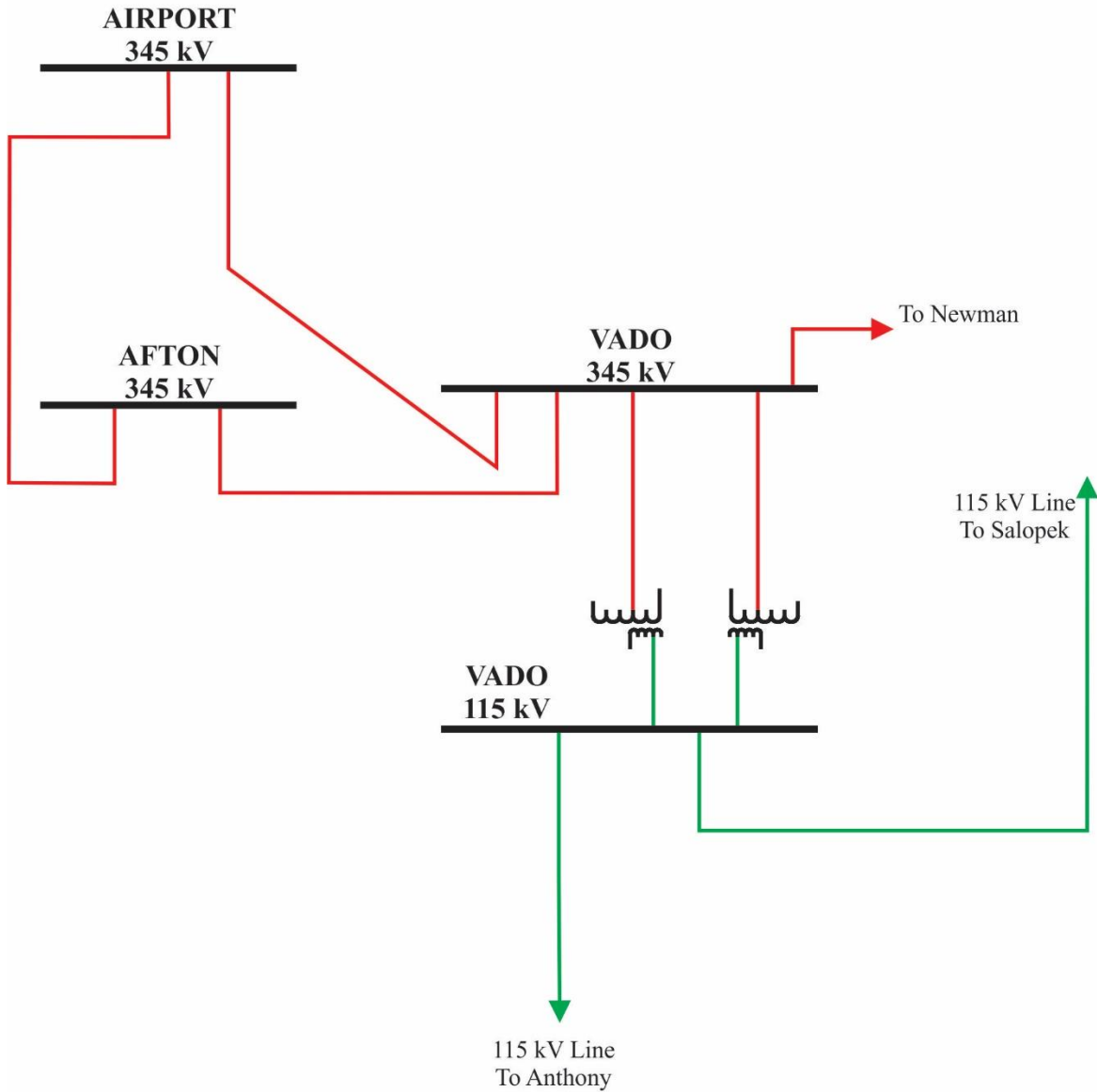
**In-Service Date:** May 2029

**Project Description:** It is planned to add two new Vado 345/115 kV Autotransformers to connect the Vado 115 kV/345 kV system.

**Project Justification:** This project has been identified as part of a facilities addition required to address and mitigate potential overload conditions under certain planning event contingencies and to enhance system reliability. The two autotransformers are approximately matched capacity-wise with the rating of the two 115 kV lines. In addition, each of these autotransformers will be a backup for each other under planned or unplanned out-of-service conditions of one of them.

NEW LINE FROM AFTON 345 kV TO VADO 345 kV (YEAR 2029)

AIRPORT/AFTON/VADO PROJECTS



**NOTE:** FOR ILLUSTRATION PURPOSES ONLY.

**PLANNED PROJECTS  
YEAR 2029**

**Project Name:** Anthony-Vado 115 kV Line (Rebuild, Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2029

**Project Description:** With the addition of Vado Substation in 2028, there will be an in-and-out connection on the Anthony to Salopek 115 kV Line resulting in the Anthony to Vado 115 kV and Vado to Salopek 115 kV Lines thereafter. By this year with the addition of Vado Substation and these connections additional capacity will be needed on the 115 kV lines out of Vado Substation. The new capacity of the Anthony to Vado 115 kV Line must have a minimum of 380 MVA under normal and emergency conditions.

**Project Justification:** The increased capacity of this line will allow EPE to serve west El Paso load from the Afton and Vado area increasing reliability and adding system flexibility under contingency and maintenance situations.

**PLANNED PROJECTS  
YEAR 2029**

**Project Name:** Vado-Salopek 115 kV Line (Rebuild, Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2029

**Project Description:** With the addition of Vado Substation in 2028, there will be an in-and-out connection on the Anthony to Salopek 115 kV Line resulting in the Anthony to Vado 115 kV and Vado to Salopek 115 kV Lines thereafter. By this year with the addition of Vado Substation and these connections, additional capacity will be needed on the 115 kV lines out of Vado Substation. The new capacity of the Vado to Salopek 115 kV Line must have a minimum of 380 MVA under normal and emergency conditions.

**Project Justification:** The increased capacity of this line will allow EPE to serve the Las Cruces load from the Afton and Vado area which will increase reliability, system flexibility, and will mitigate potential overload conditions under certain planning event contingencies.



**PLANNED PROJECTS  
YEAR 2029**

**Project Name:** Thorn Substation 115 kV Capacitor Bank Addition (New)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2029

**Project Description:** The project consists of the addition of two 15.9 MVAR bus shunt capacitor banks connected to the 115 kV Bus.

**Project Justification:** This project has been identified to provide reactive and voltage support in the El Paso Area.

## **Transmission Projects in 2030**

**PLANNED PROJECTS  
YEAR 2030**

**Project Name:** Mirage 345 kV Substation, Airport to Mirage 345 kV line.

**Operating Voltage:** 345 kV

**In-Service Date:** May 2030

**Project Description:** This project involves the construction of Mirage 345 kV Substation with an in-and-out connection on the Macho Springs to Luna 345 kV transmission line with terminations into the Mirage 345 kV Substation. The Macho Springs to Luna 345 kV Line will then become the Macho Springs to Mirage 345 kV Line and the Mirage to Luna 345 kV Line.

**Project Justification:** Mirage Substation will be located in Luna County, New Mexico and will intercept the Macho Springs to Luna 345 kV Line, as mentioned above.

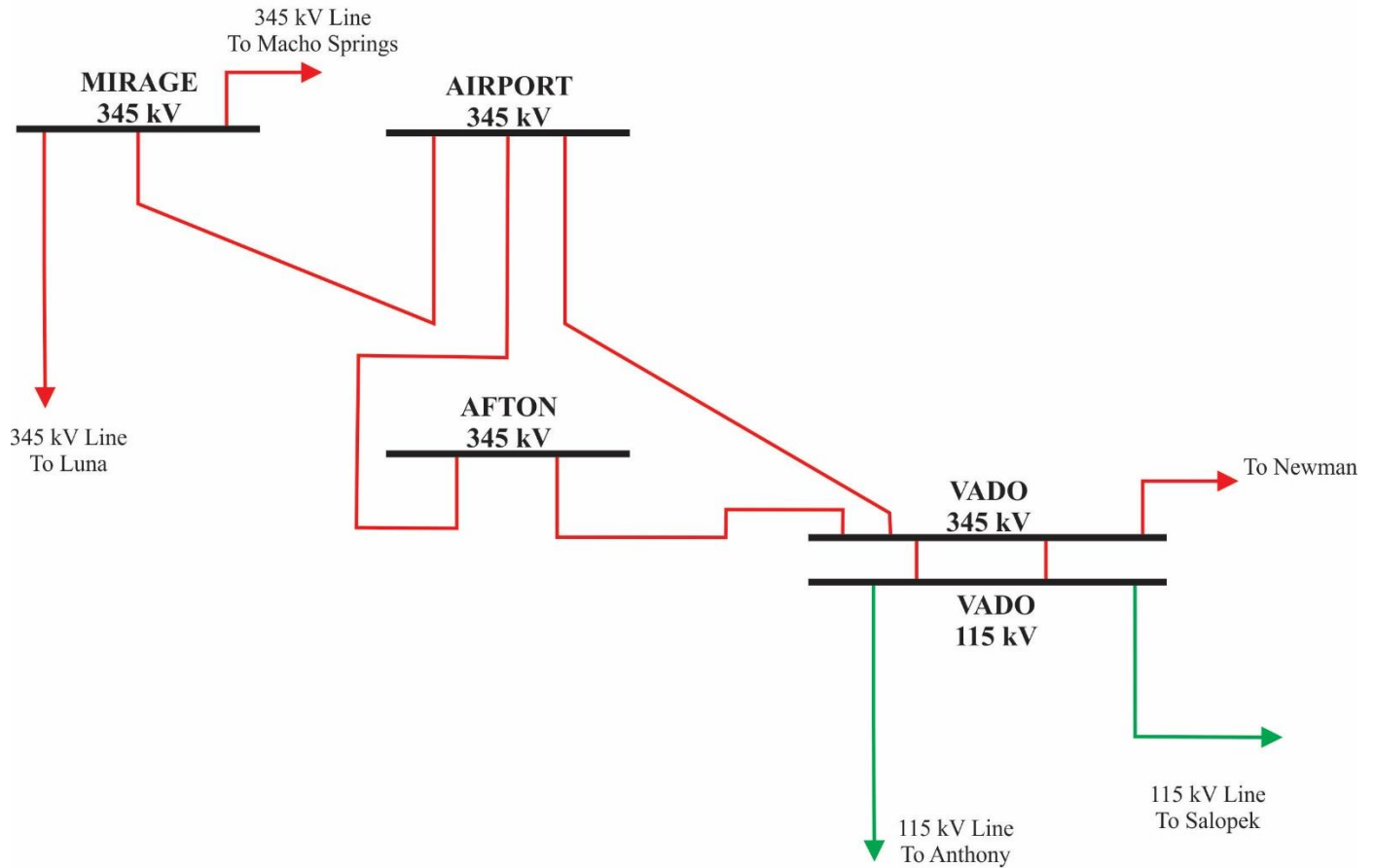
The addition of the planned line, Mirage to Airport 345 kV Line, is planned to exist between Mirage 345 kV Substation and Airport 345 kV Substation located in Dona Ana County, New Mexico.

The addition of Mirage Substation and the new Mirage to Airport 345 kV transmission line will provide supported reliability, system flexibility, and will reduce potential overload conditions under certain planning event contingencies.



**MIRAGE 345 KV SUBSTATION, AIRPORT TO MIRAGE 345 KV LINE AND RELATED 345 KV LINE RECONFIGURATION YEAR 2030**

**MIRAGE PROJECT**



**NOTE:** FOR ILLUSTRATION PURPOSES ONLY.

**PLANNED PROJECTS  
YEAR 2030**

**Project Name:** Wicked-Alamo 115 kV Line (New)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2030

**Project Description:** This project will involve the construction of a 115 kV transmission line from Wicked to Alamo with at least a normal capacity rating of 380 MVA and emergency capacity rating of 380 MVA.

**Project Justification:** This project is needed to address potential overload conditions under certain contingencies. Additionally, the project will enable EPE to address expected development and load growth in east El Paso County.

**PLANNED PROJECTS  
YEAR 2030**

**Project Name:** Luna-Diablo 345 kV Line In and Out to Afton 345kV Substation Reconfiguration

**Operating Voltage:** 345 kV

**In-Service Date:** May 2030

**Project Description:** The Luna to Diablo 345 kV Line Reconfiguration consists of cutting into this line to connect to the Afton 345 kV Substation (see Diagram). This transmission line reconfiguration will improve system reliability and increase the El Paso Import Capability (EPIC).

**Project Justification:** This project has been identified as a need to address and mitigate potential overload conditions under certain N-1 Contingencies. This project will strengthen the 345 kV transmission system and help increase EPIC.

**PLANNED PROJECTS  
YEAR 2030**

**Project Name:** Alamo 115/69 kV Autotransformer (New)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2030

**Project Description:** A new Alamo 115/69 kV autotransformer will enhance system reliability.

**Project Justification:** This project has been identified to enhance system reliability and improve capacity at the Alamo location.

## PLANNED PROJECTS YEAR 2030

**Project Name:** Synchronous Condenser Conversion

**Operating Voltage:** 69 kV

**In-Service Date:** May 2030

**Project Description:** Conversion of the future retirement of the thermal Rio Grande 6 Unit to a synchronous condenser.

**Project Justification:** This project has been identified to improve dynamic reactive capability and voltage profiles in the Central and Lower Valley areas of EPE's System.

**PLANNED PROJECTS  
YEAR 2030**

**Project Name:** New Capacitor Bank Addition (New)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2030

**Project Description:** The project consists of the addition of a two 15.9 MVAR bus shunt capacitor banks connected to the 115 kV bus. Location to be determined.

**Project Justification:** This project has been identified to improve reactive capability and voltage profile in the El Paso areas under N-1 contingencies.

## **Transmission Projects in 2031**

**PLANNED PROJECTS  
YEAR 2031**

**Project Name:** Escondido-Oro Grande 115 kV Line (Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2031

**Project Description:** This project will involve the reconductoring of a 115 kV transmission line from Escondido to Oro Grande with at least a normal capacity rating of 380 MVA and emergency capacity rating of 380 MVA.

**Project Justification:** The line experiences an increase in loading under heavy summer conditions. The increase in line rating with at least a normal capacity rating of 380 MVA and emergency capacity rating of 380 MVA will relieve identified overloads under N-1 contingency conditions.



**PLANNED PROJECTS  
YEAR 2031**

**Project Name:** Oro Grande-Amrad 115 kV Line (Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2031

**Project Description:** This project will involve the reconductoring of a 115 kV transmission line from Escondido to Oro Grande with at least a normal capacity rating of 380 MVA and emergency capacity rating of 380 MVA.

**Project Justification:** The line experiences an increase in loading under heavy summer conditions. The increase in line rating with at least a normal capacity rating of 380 MVA and emergency capacity rating of 380 MVA will relieve identified overloads under N-1 contingency conditions.

**PLANNED PROJECTS  
YEAR 2031**

**Project Name:** HVDC Tie Replacement (New)

**Operating Voltage:** 345 kV

**In-Service Date:** May 2031

**Project Description:** This project involves options for the replacement of the existing Eddy HVDC Tie.

**Project Justification:** The existing Eddy HVDC Tie may at times require legacy parts for maintenance. This existing HVDC Tie is at the end of its lifespan with limited to no availability of replacement of components and equipment. Because of this, options for a new Eddy HVDC Tie replacement are being considered. Actual replacement schedule will be dictated by lead times for equipment and facilities, including engineering integration efforts.

**PLANNED PROJECTS  
YEAR 2031**

**Project Name:** Amrad 345/115 kV Autotransformer (New)

**Operating Voltage:** 345 kV and 115 kV

**In-Service Date:** May 2031

**Project Description:** A new additional Amrad 345/115 kV autotransformer will enhance system reliability.

**Project Justification:** This project has been identified as part of a facilities addition required to address and mitigate potential overload conditions under certain planning event contingencies and to enhance system reliability.

**PLANNED PROJECTS  
YEAR 2031**

**Project Name:** New Capacitor Bank Addition (New)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2031

**Project Description:** The project consists of the addition of a two 15.9 MVAR bus shunt capacitor banks connected to the 115 kV bus. Location to be determined.

**Project Justification:** This project has been identified to improve reactive capability and voltage profile in the El Paso areas under N-1 contingencies.

## **Transmission Projects in 2032**

## PLANNED PROJECTS YEAR 2032

**Project Name:** Marlow-Trowbridge 115 kV Line (Rebuild, Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2032

**Project Description:** The project consists of reconductoring the Marlow to Trowbridge 115 kV transmission line with conductor that provides a minimum normal capacity rating of 380 MVA and a minimum emergency capacity rating of 380 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate potential overload conditions under certain planning event contingencies.

**PLANNED PROJECTS  
YEAR 2032**

**Project Name:** Newman-McCombs 115 kV Line Circuit 1 (Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2032

**Project Description:** This project consists of reconductoring the Newman to McCombs 115 kV Lines to increase the capacity of the lines with at least a normal capacity rating of 380 MVA and emergency capacity rating of 380 MVA.

**Project Justification:** The line experiences an increase in loading under heavy summer conditions. The increase in line ratings with at least a normal capacity rating of 380 MVA and emergency capacity rating of 380 MVA will mitigate potential overload conditions under certain planning event contingencies.

**PLANNED PROJECTS  
YEAR 2032**

**Project Name:** Newman-McCombs 115 kV Line Circuit 2 (Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2032

**Project Description:** This project consists of reconductoring the Newman to McCombs 115 kV Lines to increase the capacity of the lines with at least a normal capacity rating of 380 MVA and emergency capacity rating of 380 MVA.

**Project Justification:** The line experiences an increase in loading under heavy summer conditions. The increase in line ratings with at least a normal capacity rating of 380 MVA and emergency capacity rating of 380 MVA will mitigate potential overload conditions under certain planning event contingencies.



**PLANNED PROJECTS  
YEAR 2032**

**Project Name:** Newman-Roberts 115 kV Line Circuit 1 (Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2032

**Project Description:** The project consists of reconductoring the Newman to Roberts 115 kV Line Circuit 1 with conductor that provides a minimum normal capacity rating of 380 MVA and a minimum emergency capacity rating of 380 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate potential overload conditions under certain planning event contingencies.

**PLANNED PROJECTS  
YEAR 2032**

**Project Name:** New Amrad SVC device connecting on high-voltage side to Amrad 345 kV side using its own dedicated step-up transformer to a dedicated bay, size assumed +/- 100 MVAR (symmetrical range)

**Operating Voltage:** 345 kV

**In-Service Date:** May 2032

**Project Description:** The existing Static Var Compensator (SVC) is reaching the end of its expected service life. This device provides dynamic MVAR reactive support throughout the Amrad area and supports stabilization of voltage fluctuations in the area. Traditionally, this device has helped with changes in system voltage in the area as the Artesia HVDC terminal operates with a MW schedule on it. However, this device also supports voltage fluctuations under reactive and voltage varying operating conditions such as under contingencies of transmission elements in the general area.

**Project Justification:** Studies have indicated that the type of dynamic reactive and voltage support will continue to be needed at or near the Amrad area. Engineering studies through 2023 have indicated that a replacement SVC or STATCOM type of device sized +/- 100 MVAR suffices to stabilize the anticipated operating changes in the system in the Amrad area and provide the reliability needs for the area based on study criteria.

## **Transmission Projects in 2033**

**PLANNED PROJECTS  
YEAR 2033**

**Project Name:** Caliente 345/115 kV Autotransformer (New)

**Operating Voltage:** 345 kV and 115 kV

**In-Service Date:** May 2033

**Project Description:** A new additional third Caliente 345/115 kV autotransformer will enhance system reliability.

**Project Justification:** This project has been identified as part of a facilities addition required to address and mitigate potential overload conditions under certain planning event contingencies and to enhance system reliability.

**PLANNED PROJECTS  
YEAR 2033**

**Project Name:** New Capacitor Bank Addition (New)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2033

**Project Description:** The project consists of the addition of a two 15.9 MVAR bus shunt capacitor banks connected to the 115 kV bus. Location to be determined.

**Project Justification:** This project has been identified to improve reactive capability and voltage profile in the El Paso areas under N-1 contingencies.

## **Transmission Projects in 2034**

**PLANNED PROJECTS  
YEAR 2034**

**Project Name:** Pine Switching Station 115 kV (New)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2034

**Project Description:** This project involves the construction of a new Pine 115 kV Switching Station that will be part of the East Side Loop Expansion Project.

**Project Justification:** This project is a part of the East Side Loop Expansion Project and is needed to address and mitigate potential overload conditions under certain N-1 contingencies. Additionally, the project will enable EPE to address expected development and load growth in east El Paso County.

**PLANNED PROJECTS  
YEAR 2034**

<b><u>Project Name:</u></b>	Rio Grande-Sunset North 115 kV Double Bundled Line (Rebuild, Reconductor)
<b><u>Operating Voltage:</u></b>	115 kV
<b><u>In-Service Date:</u></b>	May 2034
<b><u>Project Description:</u></b>	This project involves the reconductoring of one 115 kV line for a portion of each of this line, traverse mountainous terrain and extend through the UTEP campus area. The rebuilt and reconductoring capacity of the 115 kV Rio Grande to Sunset North line requires an upgrade with at least a normal capacity rating of 760 MVA and emergency capacity rating of 760 MVA.
<b><u>Project Justification:</u></b>	This line experiences increased loading during the summer peak months, a condition that is difficult to mitigate. The increase in line capacity will relieve operational mitigation measures and mitigate potential overload conditions under certain planning event contingencies.



**PLANNED PROJECTS  
YEAR 2034**

**Project Name:** Caliente-MPS 115 kV Lines Circuits 2 & 3 (Rebuild)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2034

**Project Description:** The project consists of separating the Caliente to MPS 115 kV transmission lines, Circuits 2 & 3, from their existing common structure.

**Project Justification:** This project will enhance the system reliability and mitigate potential overload conditions under certain N-1 contingencies.

**PLANNED PROJECTS  
YEAR 2034**

**Project Name:** Caliente-MPS 115 kV Line Circuits 1 (Reconductor)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2034

**Project Description:** The project consists of partially reconductoring the Caliente to MPS 115 kV Line Circuit 1 with conductor that provides a minimum normal capacity rating of 380 MVA and a minimum emergency capacity rating of 380 MVA.

**Project Justification:** This project has been identified as part of a facilities upgrade required to address and mitigate potential overload conditions under certain planning event contingencies.

**PLANNED PROJECTS  
YEAR 2034**

**Project Name:** Afton North 345 kV Substation (New)

**Operating Voltage:** 345 kV

**In-Service Date:** May 2034

**Project Description:** A planned 345 kV substation in southern New Mexico will enhance system reliability. The Afton North 345 kV bus will be used to connect two (2) 345 kV lines from Afton North Substation into the proposed Vado Substation.

**Project Justification:** This project is part of the Afton to Afton North to Vado project that will increase El Paso Import Capability (EPIC) as well as the reliability of the 345 kV System.

**PLANNED PROJECTS  
YEAR 2034**

**Project Name:** Afton-Afton North 345 kV Double Bundled Line (New)

**Operating Voltage:** 345 kV

**In-Service Date:** May 2034

**Project Description:** A new half a mile, 345 kV double bundled transmission line with at least a normal capacity rating of 1100 MVA and emergency capacity rating of 1480 MVA is planned to connect the Afton Substation to the new Afton North Substation in southern New Mexico. This project will enhance system reliability and will help EPE meet load growth needs.

**Project Justification:** This project is part of the Afton to Afton North to Vado projects, , that will increase El Paso Import Capability (EPIC), improve reliability within the area, and will mitigate potential overload conditions under certain planning event contingencies.

**PLANNED PROJECTS  
YEAR 2034**

**Project Name:** New Capacitor Bank Addition (New)

**Operating Voltage:** 115 kV

**In-Service Date:** May 2034

**Project Description:** The project consists of the addition of a two 15.9 MVAR bus shunt capacitor banks connected to the 115 kV bus. Location to be determined.

**Project Justification:** This project has been identified to improve reactive capability and voltage profile in the El Paso areas under N-1 contingencies.

# Appendix

## A. Projects Driven by Distribution Needs

Planned EPE Bulk Electric System Projects driven by Distribution needs with projected in-service dates between 2025-2034 as needed to support load growth are summarized in Table A1. & A2.

**Table A1. Project Schedule (2025-2029) EPE Distribution Plan**

Year	Project Description	Recommended Completion Date Month-Year
2025	Hawkins Substation 69 kV (New) and Line Reconfiguration	May-25
	WS2 Substation (New) and Related 115 kV Line Reconfiguration	May-25
2026	Eastlake (FE5) Substation (New) and Related 115 kV Line Reconductor and Reconfiguration	May-26
	Bovee (FE4) Substation (New) and Related 69 kV Line Reconductor and Reconfiguration	May-26
	FE8 Substation (New) and Related Line Reconductor and Reconfiguration	May-26
2027	CE2 Substation (New) and Related 115 kV West Loop Line Reconductor and Reconfiguration	May-27
	EA1 Substation (New) and Related 115 kV Line Reconductor and Reconfiguration	May-27
	EA2 Substation (New) and Related Line Reconductor and Reconfiguration	May-27
	FE7 Substation (New) and Related 115 kV Line Reconductor and Reconfiguration	May-27
	McCombs Substation (New) and Related 115 kV Line Reconfiguration	May-27
	WS3 Substation (New) and Related 115 kV Line Reconductor and Reconfiguration	May-27
2028	Marvin (FE6) 115 kV Substation (Load Serving Portion Added)	May-28
	McNutt Substation (New) and Related 115 kV Line Reconfiguration	June-28

<b>Year</b>	<b>Project Description</b>	<b>Recommended Completion Date Month-Year</b>
	NE2 Substation (New) and Related 115 kV Line Reconductor and Reconfiguration	May-28
	WS1 Substation (New) and Related 115 kV Line Reconductor and Reconfiguration	May-28
<hr/>		
2029	CE3 Substation (New) and Related 115 kV West Loop Line Reconfiguration	May-29
	FE9 Substation (New) and Related Reconductor and Reconfiguration	May-29
	Leasburg Substation (New) and Related 115 kV Line Reconductor and Reconfiguration	May-29
	Seabeck 115 kV Substation (Load Serving Portion Added)	May-29

**Table A2. Project Schedule (2030-2034) EPE Distribution Plan**

<b>Year</b>	<b>Project Description</b>	<b>Recommended Completion Date Month-Year</b>
2030	EA3 Substation (New) and Related 115 kV Line Reconductor and Reconfiguration	May-30
	Verde 115 kV Substation (Load Serving Station Portion Added)	May-30
	WS4 Substation (New) and Related 115 kV Line Reconductor and Reconfiguration	May-30
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2031	NE3 Substation (New) and Related 115 kV Line Reconductor and Reconfiguration	May-31