AEP AMERICAN ELECTRIC POWER

Pole Inspection Spec 125 Exemption Form

Purpose

The purpose of this document is to provide approved exemption from Spec 125 guidelines, in the event a wood pole inspection cannot be performed. This will require signoff from Vice President level or higher to provide accountability for opting out of the inspection Spec 125 requirements. This spec must be renewed annually if the condition for exemption specified below persists.

This formal approval process has been developed to allow exemption of inspection when necessary, while still providing recordkeeping and transparency to regulatory committees.

Pole Location (Region or Line Description): _____

Conditions for Exemption (check one)

_____ O&M Budget Restrictions

_____Available workforce

_____Supply Issues

_____ Scheduling

_____Other (please explain) _____

Narrative Justification for Exemption:

Expectations

All operating companies shall make a good faith effort to complete inspections according to Spec 125 guidelines. In the event this cannot be completed, the approval process must be initiated to opt out of a given inspection.

Approval: Requested by _____ Date: _____

Signoff: Vice President _____ Date:_____

Appendix Table: 2023 Guidelines

Years in Service	Treatment Types	Inspection Expectation
10 (cycle)	Penta, Creosote, CCA, DCOI, and Copper Naphthenate	Required to be inspected
>15 (10 for coastal TX)	Penta, Creosote, DCOI, or Copper Napthalene	Full Inspection
>20	CCA	Full Inspection
<15 & (10 for coastal TX) - Designated Only	Penta, Creosote, DCOI, Copper Naphthenate, or CCA	Only visual Inspection

Attachment "E"

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-55:

Please provide your minimum required right-of-way (ROW) width for both 3-phase and single-phase distribution lines.

Response No. STAFF 1-55:

The minimum required right-of-way (ROW) width for both 3-phase and single-phase distribution lines is ten feet.

Prepared By: Mark Baker Title: Director Distribution Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-56:

Identify all feeders on your distribution system affected by Hurricane Beryl or the May 2024 Derecho and provide the following for each identified feeder in MS Excel format:

a. The quantity and percentage of each installed pole type (e.g., wood, composite, steel, concrete, other) on the feeder before Hurricane Beryl;
b. The quantity and percentage of pole failures, by pole type, due to Hurricane Beryl;
c. Identify the primary cause of failure for each pole type on the feeder (e.g., trees, branches, wind, or other);
d. Identify the primary point of failure of the poles (e.g., crossarm failure, pole leaning, pole break, or other);
e. NESC construction strength and overload factors the feeder is currently built to;
f. Identify which feeders are in your plans to rebuild to a higher wind loading standard; and
g. Provide an estimate for when identified rebuilds will commence.

Response No. STAFF 1-56:

The May 2024 Derecho did not impact AEP Texas.

Hurricane Beryl

a. Please refer to Staff 1-56 Attachment 1 for the requested information on quantity and percentage of pole type. Note the information supplied in Staff 1-56 Attachment 1 is for all distribution stations and circuits in the Northern Corpus Christi district. Also please see Staff 1-56 HIGHLY SENSITIVE Attachment 2 for a visual perspective of circuits that were locked out and locations of pole and vegetation issues.
b. Please see columns O and S in Staff 1-56 Attachment 1.
c. Please see Staff 1-56 Attachment 3 column G for the estimated primary cause of failure for each pole.
d. All of the poles listed were replaced, and therefore considered structural failures.
e. All structures installed prior to 2015 listed in Staff 1-56 Attachment 1 in column L were done under the NESC requirements at that time. All structures installed since 2015 were done with the structural loading criteria explained in response to Staff 1-61 which exceeds the NESC requirement.
f. Please see column P in Staff 1-56 Attachment 1 for feeders that have sections identified to be replaced in our upcoming Resiliency filing.
g. Please see column Q for the estimated timing of the sections identified to be strengthened in our upcoming Resiliency filing.

Staff 1-56 Attachments 1 and 3 are provided electronically on the PUC Interchange.

Staff 1-56 HIGHY SENSITIVE Attachment 2 responsive to this request is HIGHLY SENSITIVE PROTECTED MATERIAL. This information is being provided electronically and a secure login to access the information will be provided upon request to individuals who have signed a Protective Order Certification.

Prepared By: Mark Baker Title: Director Distribution Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-57:

If your distribution system includes feeders with poles taller than 60-feet above ground level, please provide the following:

a. Identify each feeder that has any number of poles meeting this criteria;

b. Explain the damage experienced on these lines due to either the May 2024 Derecho or Hurricane Beryl; and

c. Explain the design criteria for these types of lines.

Response No. STAFF 1-57:

The May 2024 Derecho did not impact AEP Texas.

Hurricane Beryl

a. For the impacted area of the North Corpus Christi District, the feeders with the respective number of poles meeting these criteria are in column N of Staff 1-56 Attachment 1.
b. None of the poles that meet the criteria of 60-feet above ground level failed during Beryl.
c. Structures that are taller than 60-feet above ground level would meet the NESC structural loading 250C in addition to 250B and 250D. Please refer to the AEP Texas response to Staff 1-61 for more detail.

Prepared By: Mark Baker Title: Director Distribution Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-58:

Please explain your standard for distribution pole embedment. In your response, please explain if this standard has changed in the last 10 years.

Response No. STAFF 1-58:

AMERICAN ELECTRIC POWER COMPANY
DISTRIBUTION STANDARDS

TABLE I
DEPTH OF SETTING (FEET)
NOTES 1 THRU 4

LENGTH OF POLE (FEET)	SOLID ROCK (CLASS 0)	CLAY HARD-PAN SHALE (CLASS 1, 2 & 3)	NORMAL (CLASS 4, 5 & 6)	SOFT AND FINE SANDS (CLASS 7)	SOFT PEAT, ORGANIC SILTS (CLASS 8)
30	3.5	4	5.5	6.5	7.5
35	4	4.5	6	7	8
40	4	5	6	7.5	8.5
45	4.5	5	6.5	8	9
50	5	5.5	7	8.5	9.5
55	5	6	7.5	9	10
60	5.5	6.5	8	9.5	10.5
65	6	7	8.5	10	11
70	6.5	7.5	9	10.5	11.5
75	7	8	10	11	12.5
80	8	8.5	10.5	11.5	13

The AEP Standard Construction standard also addresses backfill requirements based on soil conditions. In some cases, limestone aggregate or pole setting foam will be used to embed the pole. That standard was last updated in 2019.

Prepared By: Mark Baker Title: Director Distribution Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-59:

Please provide the standard distribution pole size and class for both single and three phase lines on your system within the Impacted Area.

Response No. STAFF 1-59:

AEP Texas does not have a standard distribution pole size and class for both single and three phase lines. AEP Texas uses Distribution Design Studio (DDS) for the structural, electrical, and clearance requirements of a distribution system designs. The pole size and class are dictated by the program analysis based on the AEP design standards, which exceed the NESC requirements as explained in Staff 1-61.

Prepared By: Mark Baker Title: Director Distribution Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-60:

Please explain the NESC construction strength and overload factors your distribution lines were built to in the past.

Response No. STAFF 1-60:

Prior to 2014, AEP Texas distribution lines were designed and built to NESC structural loading requirements 250B, 250C, and 250D. In 2014, AEP Texas moved to a resiliency-based more conservative set of requirements to strengthen AEP Texas' structures and reduce failures during weather events. The details of these more conservative standards are explained in Staff 1-61.

Prepared By: Mark Baker Title: Director Distribution Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-61:

Please explain any new NESC construction strength and overload factors you adopted for distribution lines in the last two years to improve system resiliency.

Response No. STAFF 1-61:

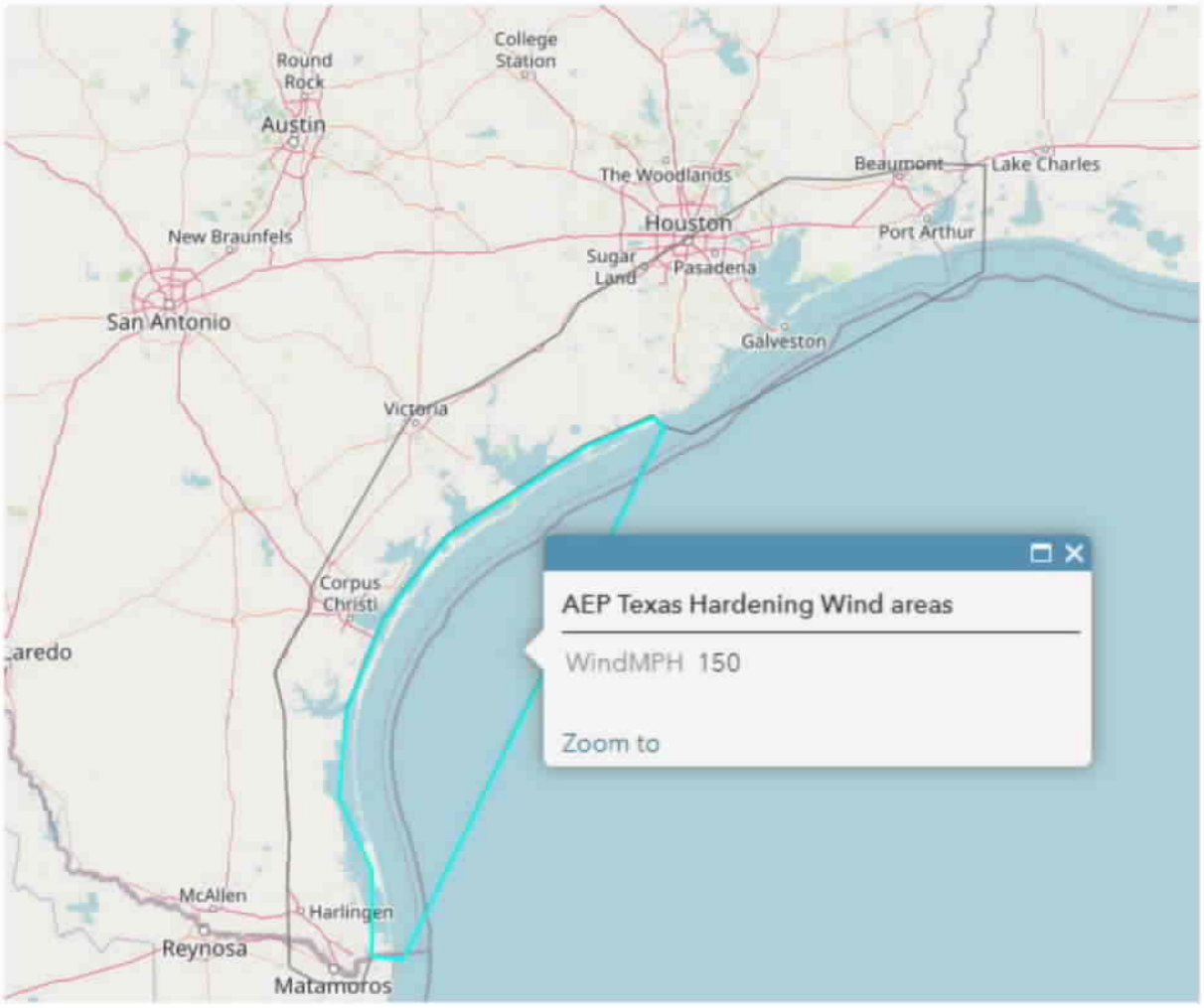
AEP Texas adopted new structural loading criteria in 2014 in an effort to make the distribution system more resilient. The details of these more resilient loading criteria are as follows:

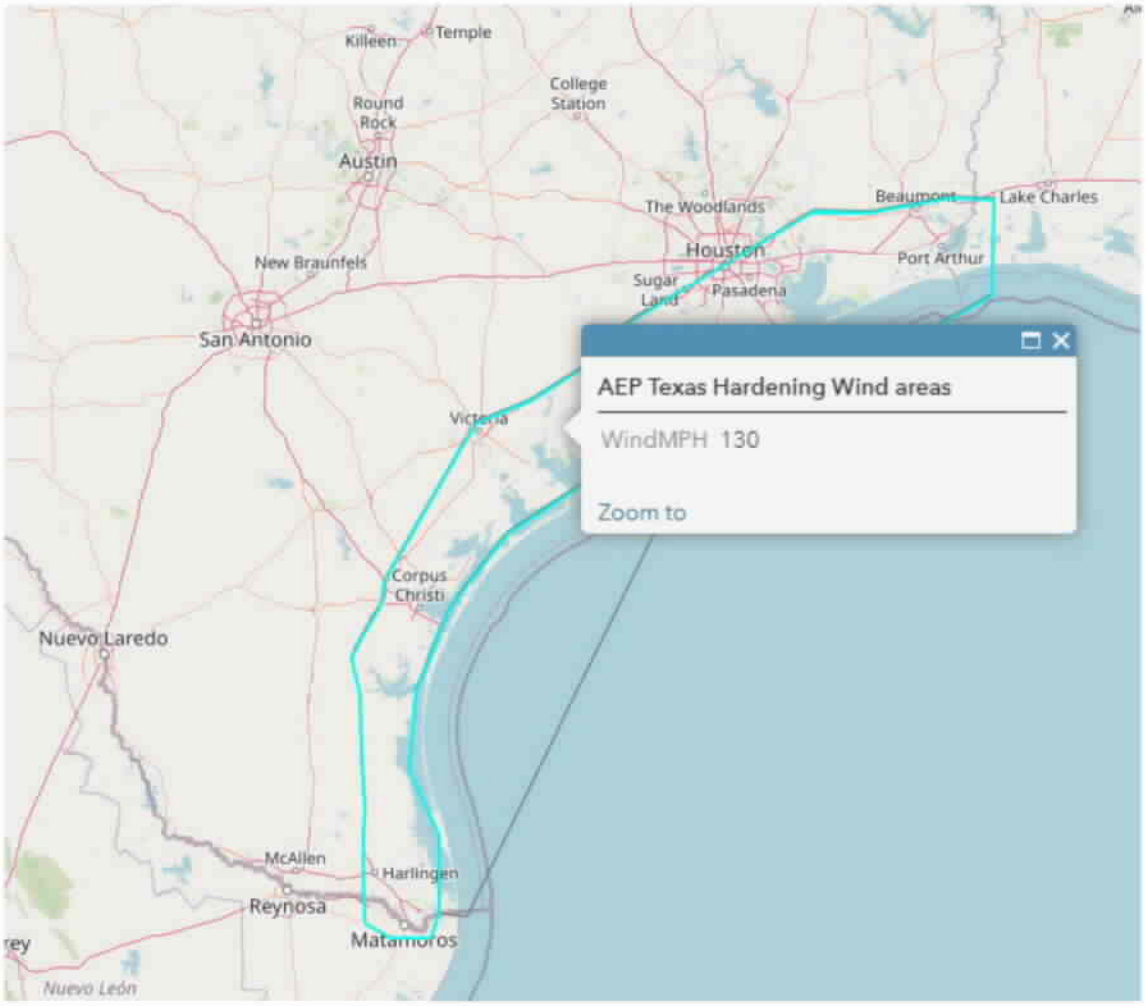
Since 2014, AEP no longer designs any Distribution using NESC Medium Zone loading criteria. AEP only uses Heavy and Light Zone. Medium Loading criteria for NESC rule 250B uses 0.25in ice, 4lb/ft^2 wind at 15deg F. Heavy Loading criteria for NESC rule 250B uses 0.5in ice, 4lb/ft^2 wind at 0deg F. The additional ice and colder temperature applied more vertical, transverse, and longitudinal load to the structure for the same given conductors and span lengths.

In the Heavy Zone, the resiliency load case of 1" ice, 4lbs/ft^2 wind, 0deg F using NESC Rule 250B associated strength and load factors is applied to poles, guys, and anchors. The other conductor supporting components are designed to NESC Heavy Zone requirements. This makes the pole the stronger component in the structure and ideally the last element to fail as it is the hardest element of the structure to replace.

In the Light Zone (non-coastal), the resiliency load case of 0 ice, 20lb/ft^2 wind, 30deg F using NESC Rule 250B associated strength and load factors is applied to poles, guys, and anchors. The other conductor supporting components are designed to NESC Light Zone requirements. This makes the pole the stronger component in the structure and ideally the last element to fail as it is the hardest element of the structure to replace. The NESC Light Loading Zone uses 0 ice, 9lb/ft^2 wind at 30deg F. The additional wind load for AEP Light Zone resiliency load case increases the longitudinal tension and significantly more transverse loading the poles.

Near the Texas Gulf coast, two high wind load cases are applied to all distribution structures, regardless of pole height or height of attached facilities. These load cases use the NESC Rule 250C associated strength and load factors. Very near the coast, the wind speed is 150mph and just inland from that a 130mph wind speed is used.


Round Rock
College Station
Austin
The Woodlands
Beaumont
Lake Charles
Houston
Port Arthur
New Braunfels
Sugar Land
Pasadena
San Antonio
Galveston
Victoria
Corpus Christi
AEP Texas Hardening Wind areas
WindMPH 150
Zoom to
McAllen
Harlingen
Reynosa
Matamoros



Prepared By: Matt Shellenberger Title: Engineer Staff

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-62:

Please provide the following information regarding distribution feeders in the Impacted Area that did not lose power during Hurricane Beryl and the May 2024 Derecho:

a. Provide the designed criteria for these lines;
b. The type of poles installed;
c. The ROW widths;
d. Explain if these lines are designed to the latest NESC construction strength and overload factors; and
e. Explain if any distribution line experienced damage but remained standing.

Response No. STAFF 1-62:

The May 2024 Derecho did not impact AEP Texas.
The distribution feeders that did not lockout during Beryl are denoted in column R of Staff 1-56 Attachment 1. They are also visually displayed in HIGHLY SENSITIVE Staff 1-56 Attachment 2.

a. The design criteria for these lines is the same as stated in response to Staff 1-56
b. The types of poles and percentages are in Staff 1-56 Attachment 1.
c. As stated in Staff 1-55, the minimum required right-of-way for distribution lines is ten feet.
d. The design criteria for these lines is the same as stated in response to Staff 1-56
e. Several of these circuits sustained some sort of damage, and much of that is described in Staff 1-56 Attachment 1. The circuit did not lockout because of the location of the problem and other protection devices that isolated the damage from the circuit.

Prepared By: Mark Baker Title: Director Distribution Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-63:

Please provide the number of distribution poles that were in service before the May 2024 Derecho. In your response, please provide quantities by pole type and NESC wind loading criteria of the pole.

Response No. STAFF 1-63:

The May 2024 Derecho did not impact AEP Texas.

Prepared By: Mark Baker Title: Director Distribution Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-64:

Please provide the total number of distribution poles that failed due to the May 2024 Derecho. In your response, please provide separate quantities for each pole type and NESC wind loading criteria for the poles that failed, and separately identify the number of pole failures caused by either high wind or structural loading from vegetation or debris.

Response No. STAFF 1-64:

The May 2024 Derecho did not impact AEP Texas.

Prepared By: Mark Baker Title: Director Distribution Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-65:

Please provide the total number of distribution poles that failed due to Hurricane Beryl. In your response, please provide separate quantities for each pole type and NESC wind loading criteria for the poles that failed, and separately identify the number of pole failures caused by either high wind or structural loading from vegetation or debris.

Response No. STAFF 1-65:

AEP Texas experienced 342 distribution pole failures due to Hurricane Beryl. All of the poles that failed were wood, and the NESC wind loading criteria for the pole would have been based on the year of installation as explained in response to STAFF 1-60 and STAFF 1-61. The detail on each pole failure, its type, and year installed are shown in Staff 1-65 Attachment 1. Of the 342 failures, 30 were due to trees and 312 were caused by high wind.

Staff 1-65 Attachment 1 is provided electronically on the PUC Interchange.

Prepared By: Patrick Rackley — Title: Continuous Improvement Manager
Prepared By: Mark Baker — Title: Director Distribution Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-66:

For each distribution pole that failed due to the May 2024 Derecho or Hurricane Beryl, please provide the date of the last inspection and explain the planned frequency of those inspections. Additionally, please provide the most recent inspection report for each pole that failed.

Response No. STAFF 1-66:

The May 2024 Derecho did not impact AEP Texas.

Hurricane Beryl: The information on the inspections of the 342 distribution poles that failed are found in Staff 1-66 Attachment 1.

Staff 1-66 Attachment 1 is provided electronically on the PUC Interchange.

Prepared By: Patrick Rackley Title: Continuous Improvement Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-67:

Should the PUCT require utilities to construct and maintain distribution feeder equipment located in a hurricane prone area to a certain NESC standard? If so, which ones? If no, why not?

Response No. STAFF 1-67:

As explained in response to Staff 1-60 and 1-61, AEP Texas adopted new structural loading criteria in 2014 in an effort to make the distribution system more resilient. Therefore, from AEP Texas' perspective, it is not necessary for the PUCT to require a certain NESC standard.

Prepared By: Mark Baker Title: Director Distribution Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-68:

Please explain your process for evaluating the hardening of transmission lines. If you file an annual storm hardening report under 16 TAC § 25.95, do not merely recite information provided in those filings. In your response, please include an explanation for the following:

a. How frequently this evaluation is conducted?
b. What criteria is utilized for this evaluation?
c. When do you decide to harden transmission lines?

Response No. STAFF 1-68i:

a. The AEP Asset Renewal Program (ARP) monitors the performance of the AEP Transmission system. This is an on-going effort to bring aging transmission lines up to today's design standards.
b. The ARP program starts with an evaluation of asset condition, operational performance, and risks associated with all transmission assets. Maintenance reports, inspection records, and operational data are collected and reviewed. Assets which show poor performance in these areas are targeted for a more in-depth evaluation.
   An engineering study is then conducted assuming the line is in the "as built" condition. The line's age, structural strength, clearances, and several other factors are evaluated for compliance with modern code requirements as found in the latest versions of the National Electrical Safety Code (NESC:ANSI C2) and the American Society of Civil Engineers Manual No. 74: Guideline for Electrical Transmission Line Structural Loading. The most current versions of these codes are used even though this is not required for code compliance. Using the current code versions recognizes the need to bring overall reliability and resilience of the transmission system up to the current standards. The line component ages are also compared to recent research on end-of-life predictions, depending on several environmental factors. Lines that are deficient in all or part of this evaluation are identified for further field evaluation confirmation. . The results of the engineering study are used to direct a targeted field inspection of the asset to confirm current conditions. The results of this inspection are then used to re-evaluate the asset's structural strength based on the field observed conditions.

c. Solutions are developed for lines that prove to be deficient (i.e. have identified needs) in the evaluation discussed above. Solution options may include targeted component repair/replacement (structures, insulators, cross-arms, shield wire, etc.) of varying

degrees or a complete rebuild depending on the severity of the identified needs and expectation of future performance and risk. For example, significant structure replacements on a line that does not meet current NESC structural requirements or AEP standards for shielding and grounding may not be the optimal solution as the expectation is that the line will continue to experience poor performance even after the solution is implemented. The development of solutions for the identified needs considers a holistic view of all the needs in which several options are developed and scoped. AEP applies the appropriate industry standards, engineering judgment, and Good Utility Practices to develop these solution options. Solution options consider many factors including, but not limited to, environmental conditions, community impacts, land availability, permitting requirements, customer needs, system needs, and asset conditions in ultimately identifying the best solution to address the identified need. Once the selected solution for a need or group of renewal needs is defined, it is reviewed using the current RTO provided power-flow, short circuit, and stability system models (as needed) to ensure that the proposed solution does not adversely impact or create baseline planning criteria violations on the transmission grid. Finally, AEP reviews its existing portfolio of baseline planning criteria driven reliability projects and evaluates opportunities to combine or complement these existing projects with the transmission owner identified needs driven solutions developed through this process. This step ultimately results in implementing more efficient, cost-effective, and holistic long-term solutions. Stand-alone projects are created to implement the proposed solution where transmission owner needs driven solutions cannot be integrated into existing projects.

Prepared By: Becky Overduyn Title: Transmission Line Engineer Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-69:

Please provide the number of transmission structures that were in service before the May 2024 Derecho In your response, please provide quantities by structure type and NESC wind loading criteria of the structure.

Response No. STAFF 1-69:

The May 2024 Derecho did not impact AEP Texas.

Prepared By: Matt Estrada Title: Protection & Control Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-70:

Please provide the total number of transmission structures that failed due to the May 2024 Derecho. In your response, please provide separate quantities for each structure type and NESC wind loading criteria of the structure, and separately identify the number of structure failures caused by either high wind or structural loading from vegetation or debris.

Response No. STAFF 1-70:

The May 2024 Derecho did not impact AEP Texas.

Prepared By: Matt Estrada Title: Protection & Control Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-71:

Please provide the total number of transmission structures that failed due to Hurricane Beryl. In your response, please provide separate quantities for each structure type and NESC wind loading criteria of the structure, and separately identify the number of structure failures caused by either high wind or structural loading from vegetation or debris.

Response No. STAFF 1-71:

23 transmission structures failed due to Hurricane Beryl.

This included 22 – Single Wooden Poles and 1 Wooden H- Frame (H-Frame has 2 Poles).

Structures were categorized in the light loading zone in the 1927 NESC which results in a 12 psf wind pressure and is equivalent to roughly 70 mph.

All transmission structures that failed were due to high winds from Hurricane Beryl.

Prepared By: Matt Estrada Title: Protection & Control Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-72:

For each transmission structure that failed due to the May 2024 Derecho or Hurricane Beryl, please provide the date of the last inspection and explain the planned frequency of those inspections. Additionally, please provide the most recent inspection report for each structure that failed.

Response No. STAFF 1-72:

The May 2024 Derecho did not impact AEP Texas.

Hurricane Beryl:
Please see below for the last inspection date and planned frequency of inspections
Please refer to Staff 1-72 Attachment 1 for the most recent inspection reports.

Staff 1-72 Attachment 1 is provided electronically on the PUC Interchange.

El Campo – Clemville 69kv

Last Comprehensive Inspection was conducted on 11/2020 and on a 5-year cycle.

Last Routine Aerial Patrol was completed February 7, 2024 and is on a 1-year cycle.

Clemville Tap – Clemville 69kv

Last Comprehensive Inspection was conducted in 2020 and is on a 5-year cycle.

Last Routine Aerial Patrol was completed March 23, 2024 and is on a 1-year cycle.

CST Tap – Midfield STEC 69kv

Last Comprehensive Inspection was conducted in 2022 and is on a 5-year cycle.

Last Aerial Patrol was completed on February 7, 2024 and is on a 1-year cycle.

CST Tap – Blessing 69kv

Last Comprehensive Inspection was conducted in 2020 and is on a 5-year cycle.

Last Routine Aerial Patrol was completed Feb 7, 2024 and is on a 1-year cycle.

El Campo – Ganado 138kv

Last Comprehensive Inspection was conducted in 2022 and is on a 5-year cycle.

Last Routine Aerial Patrol was completed Feb 7, 2024 and is on a 1-year cycle.

Prepared By: Matt Estrada Title: Protection & Control Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-73:

Provide the following information concerning your vegetation management staff:

a. Provide the current size of your vegetation management staff. Your response should include a separate figure for full-time staff and independent contractors.
b. Provide the average size of your vegetation management staff over the last 5 years. Your response should include a separate figure for full-time staff and independent contractors.
c. Please explain how you determined the appropriate level of full-time vegetation management staff for each of the last 5 years.
d. Provide the cost difference per circuit-mile between using contractors versus in-house vegetation management crews.
e. Whether you retain an arborist as part of your permanent vegetation management staff or have an arborist consult with your vegetation management crews.

Response No. STAFF 1-73:
TRANSMISSION

a. AEP Transmission Forestry Vegetation Management Staff
    - 4 AEP Transmission forestry full time staff
        - 1 forestry supervisor
        - 3 foresters
    - 62 Independent Contract Transmission forestry staff
        - 6 Contract Utility Foresters
        - 1 Safety Observer
        - 55 Tree contractors FTEs
b. Average size of your vegetation management staff over the last 5 years
    - 4 AEP Transmission forestry full time staff
        - 1 forestry supervisor
        - 3 foresters
    - 74 Independent Contract Transmission forestry staff
        - 6 Contract Utility Foresters
        - 1 Safety Observer
        - 67 Tree contractors FTEs
c. AEP Transmission determines the appropriate level of full-time vegetation management staff by considering FAC-003 compliance miles, territory size, and total line miles.

Additionally, Contractor staffing is budget and workplan dependent which has fluctuated over the last 5 years.

d. AEP Transmission Forestry does not utilize in-house vegetation management crews. Due to the specialized nature of the work, contract crews are utilized to complete all vegetation maintenance.
e. Yes - AEP Transmission foresters and the supervisor are International Society of Arboriculture (ISA) certified arborists.

DISTRIBUTION

a. AEP Texas Distribution Vegetation Management Staff
    - 6 forestry full time staff
        - 1 forestry supervisor
        - 5 foresters
    - 86 Independent Contract forestry staff
        - 1 Contract Utility Foresters
        - 10 Work Planners
        - 75 Tree contractors FTEs
b. Average size of your vegetation management staff over the last 5 years
    - 6 Distribution forestry full time staff
        - 1 forestry supervisor
        - 5 foresters
    - 86 Independent Contract Distribution forestry staff
        - 1 Contract Utility Foresters
        - 10 Work Planners
        - 75 Tree contractors FTEs
c. AEP Texas establishes an annual work plan that utilizes a combination of a performance-based and cycle-based approach that is an efficient and flexible process, allowing for improved reliability on a greater number of circuits. Based on the vegetation miles identified in the plan, the Company identifies the required number of resources needed to execute the plan. The annual plan consists of about 1,000-line miles on average. Additionally, AEP Texas staffs a Forester in each district to manage and oversee the execution of the plan.
d. AEP Texas Distribution Forestry does not utilize in-house vegetation management crews. Due to the specialized nature of the work, contract crews are utilized to complete all vegetation maintenance.
e. Yes, four of the five AEP Texas Foresters are ISA certified arborists.

Prepared By: Kevin Patton
Title: Dir Vegetation Mgmt TFS
Prepared By: Robert De Leon
Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-74:

Please describe the minimum clearance standard for vegetation along transmission and distribution power lines at various voltage levels and how these clearances were derived based on your service territory.

Response No. STAFF 1-74:

AEP Transmission Forestry minimum clearance standard for vegetation along transmission power lines.

ROW Clearance Guidelines

When performing maintenance, the objective for locations on spans with less than 100 feet vertical clearance at maximum sag from conductor to ground is removal of all woody-stemmed vegetation to the appropriate width (upon vegetation management completion), leaving the cleared area of the right-of-way (ROW) populated with grasses and herbaceous growth. Specific land use areas, such as orchards and road screens, may require special conditions or modifications to the standard clearances as shown in Table 2 from the TVMD-0001 Transmission Vegetation Management Program (TVMP) procedural document that is provided below. In locations where AEP has a restriction from the stated clearances, additional inspections and maintenance activities will be performed as needed. For these areas, when maintenance activities have been completed, it is important to evaluate the final clearance, taking into consideration the maximum sag and movement of the conductor. Some terrain in the AEP footprint contains long spans and/or valley spans. A long span is greater than 1,500 feet from structure to structure. A valley span goes from ridge/hilltop to ridge/hilltop where the vertical distance between conductor and ground is greater than 100 feet anywhere within the span. The risk profile for a long span could include an embedded knoll, ridge, or side slope. For these spans, vegetation is managed to meet the clearances of Table 2. If trees below the 100-feet clearance boundary at their mature height will violate clearance requirements, they are removed.

Table 2: Transmission Line Clearance Guidelines at Conductor Maximum Sag and Movement

Column A	Column B	Column C	Column D		Reference ANSI	Reference MVCD[7]
Nominal Voltage (kV phase to phase)	AEP Desired Clearance Between Conductor and Vegetation	AEP Trigger Distance Between Conductor and Vegetation for P1 Conditions	AEP Trigger Distance Between Conductor and Vegetation for A1 Conditions		ANSI Minimum Approach Distances for Qualified Line Clearance Personal	Over Sea Level up to 5,000 ft.
765kV	45′	30′	16′		27′04″	12′05″
500kV	45′	30′	15′		19′00″	7′07″
345kV	30′	15′	10′		13′02″	4′08″
230kV	30′	15′	10′		7′11″	4′05″
161kV[8]	25′	10′	5′		6′00″	3′00″
138kV[8]	25′	10′	5′		5′02″	2′06″
115kV[8]	25′	10′	5′		4′06″	2′01″
88kV[8]	25′	10′	5′		4′06″	1′08″
69kV[8]	25′	10′	5′		4′02″	1′02″

[6]Upon completion of vegetation maintenance.

[7]The distances in this Table are the minimums required by FAC-003-5 Industry Advisory Minimum Vegetation Clearance Distances (MVCD) updated August 12, 2015, to prevent Flash-over; however, prudent vegetation maintenance practices dictate that substantially greater distances will be achieved at the time of vegetation maintenance.

Distribution clearances are set to meet OSHA minimum clearance standards and species-specific regrowth rates. As an example, fast growing species such as Ash and Hackberry are trimmed for 15-foot minimum clearance from the primary. Medium and slow growing species like Live Oak and Ornamentals are trimmed for 12-foot minimum clearance from the primary. The clearance distances were derived from actual regrowth cut and measured from the various tree species that grow in the AEP Texas ROWs.

Prepared By: Kevin Patton
Title: Dir Vegetation Mgmt TFS
Prepared By: Robert De Leon
Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-75:

Does your company incorporate any inspection of high customer count circuit segments to proactively identify problematic vegetation for circuits that may be outside their normal cycle period?

Response No. STAFF 1-75:

No – AEP Transmission Forestry's prioritization of inspections considers compliance with NERC standards, frequency of maintenance, identified conditions, transmission outages, and customer minutes interrupted.

The AEP Texas Distribution Vegetation Management Plan utilizes a combination of a performance-based and cycle-based approach that is an efficient and flexible process allowing for improved reliability on a greater number of circuits. This multi-tiered approach functions in the following manner. The first two tiers (Tiers 1 & 2) focus on long-term reliability by establishing a four-year trim cycle, typically high customer counts circuits, on selected breaker zones and essential services circuits. The remaining two tiers (Tiers 3 & 4) continue with an established circuit performance approach focusing on problematic circuits not in the trim cycle.

Prepared By: Kevin Patton — Title: Dir Vegetation Mgmt TFS
Prepared By: Robert De Leon — Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-76:

Please provide inspection logs and field reports from workers who performed VM services in the Impacted Area for the past five years.

Response No. STAFF 1-76:

See Staff 1-76 Attachments 1 and 2, and HIGHLY SENSITIVE Attachments 3 and 4.

Staff 1-76 Attachments 1 and 2 are provided electronically on the PUC Interchange.

Staff 1-76 HIGHY SENSITIVE Attachments 3 and 4 responsive to this request is HIGHLY SENSITIVE PROTECTED MATERIAL. This information is being provided electronically and a secure login to access the information will be provided upon request to individuals who have signed a Protective Order Certification.

Prepared By: Kevin Patton	Title: Dir Vegetation Mgmt TFS
Prepared By: Robert De Leon	Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-77:

Does your company conduct proactive vegetation management on feeders located in hurricane prone areas? If so, how far in advance of hurricane season do you send out vegetation management crews?

Response No. STAFF 1-77:

Yes, as stated in Staff 1-75, AEP Texas has a multi-tier Vegetation Management Program which includes many circuits in hurricane prone areas. The work plan is executed throughout the year.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-78:

Please provide a list of the circuits that experienced a vegetation-related outage during the May 2024 Derecho and Hurricane Beryl, and provide the following information pertaining to the circuits identified:

a. The name of the circuit(s);
b. The date, time, and duration of the outage;
c. The voltage of the circuit(s);
d. A description of the cause of the outage; and
e. The NERC category (Grow-In, Fall-In, Blow-In) associated with the outage.

Response No. STAFF 1-78:

The May 2024 Derecho did not impact AEP Texas.

During Hurricane Beryl, AEP Texas' distribution circuits experienced multiple issues at different points in time and different locations along the circuit that could cause the outage. For assessment findings where vegetation management need was identified, refer to Staff 1-78 Attachment 1.

AEP Transmission experienced the following vegetation-related outages during Hurricane Beryl:

a. Blessing – Lolita
b. 7/8/2024 – 4:43:00 AM – 33H 52M
c. 138kV
d. Hurricane, Tree Fall-In (Outside ROW)
e. Fall-In (Outside ROW)

a. Blessing – Lane City
b. 7/8/2024 – 4:00:00 AM – 42H 41M
c. 138kV
d. Hurricane, Tree Fall-In (Outside ROW)
e. Fall-In (Outside ROW)

Staff 1-78 Attachment 1 is provided electronically on the PUC Interchange.

Prepared By: Alex Ramirez — Title: VP Customer Experience
Prepared by: Kevin Patton — Title: Dir Vegetation Mgmt TFS

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-79:

Please provide aerial maps of circuits and their easements that experienced a vegetation-related outage during the May 2024 Derecho and Hurricane Beryl. Overlay the map with the circuits that received vegetation management treatment for the past 5 years, using a distinct color code for each year. Provide any additional information or details to show clarity.

Response No. STAFF 1-79:

The May 2024 Derecho did not impact AEP Texas.

During Hurricane Beryl, distribution circuits experienced multiple issues at different points in time and different locations along the circuit that could cause the outage. For assessment findings where vegetation management need was identified, refer to Staff 1-78 Attachment 1. For aerial view illustrating assessment findings where vegetation management need was identified, refer to Staff 1-56 HIGHLY SENSITIVE Attachment 2.

See AEP Transmission attachments: Staff 1-79 HIGHLY SENSITIVE Attachment 1 for the Lolita – Blessing circuit and Staff 1-79 HIGHLY SENSITIVE Attachment 2 for the Blessing – Lane City circuit. These attachments provide a series of aerial maps for both transmission circuits that experienced a vegetation-related outage during Hurricane Beryl. The maps show the vegetation management treatment over the past 5 years using a distinct color code for each year.

Staff 1-79 HIGHY SENSITIVE Attachments 1 and 2 responsive to this request are HIGHLY SENSITIVE PROTECTED MATERIAL. This information is being provided electronically and a secure login to access the information will be provided upon request to individuals who have signed a Protective Order Certification.

Prepared By: Alex Ramirez	Title: VP Customer Experience
Prepared By: Kevin Patton	Title: Dir Vegetation Mgmt TFS

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-80:

For the May 2024 Derecho and Hurricane Beryl, please provide the percentage of forced interruptions that were related to vegetation issues.

Response No. STAFF 1-80:

The May 2024 Derecho did not impact AEP Texas.

Hurricane Beryl:
Vegetation-related damage or findings preventing the restoration of distribution service is generally addressed prior to the energization of distribution lines. AEP Texas' assessments indicated there were multiple damage issues at different locations along a circuit. The assessments did not indicate that vegetation issues were the main cause of a forced outage on any of the circuits on AEP Texas' distribution system.

There were 7% of forced interruptions due to transmission related vegetation issues during Hurricane Beryl. The transmission related vegetation issues were off right-of-way tree fall-ins.

Prepared By: Adrian Uresti	Title: Distribution Dispatch Manager
Prepared By: Kevin Patton	Title: Dir Vegetation Mgmt TFS

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-81:

What steps are being taken to address vegetation management and infrastructure issues that contributed to outages or were identified during restoration after the May 2024 Derecho and Hurricane Beryl?

Response No. STAFF 1-81:

The May 2024 Derecho did not impact AEP Texas.

Hurricane Beryl:
AEP Transmission forestry aerial inspections were conducted in the affected area by Hurricane Beryl to assess and identify any additional hazardous vegetation conditions created by the weather-related events. Once identified from the aerial inspection, ground-based inspections were conducted to confirm and set up a mitigation plan.

AEP Texas has supplemented its 2024 Distribution Vegetation Work Plan by adding additional crews to identify, trim, or remove any vegetation issues along the distribution right-of-way on circuits that have coastal exposure.

Prepared By: Kevin Patton	Title: Dir Vegetation Mgmt TFS
Prepared By: Robert De Leon	Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-82:

When did you last substantively review, augment, or modify your vegetation management plan before July 8, 2024?

Response No. STAFF 1-82:

The AEP Transmission vegetation management work plan was last updated in January 2024.

AEP Texas last substantively reviewed its Distribution vegetation management plan in August 2023. Additionally, in 2024, AEP Texas reviewed other aspects of its vegetation management plan when evaluating aspects of its Resiliency Plan that is being prepared. The AEP Transmission vegetation management work plan was last updated in January 2024.

Prepared By: Kevin Patton	Title: Dir Vegetation Mgmt TFS
Prepared By: Robert De Leon	Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-83:

What percentage of vegetation-related outages were caused by trees or branches outside of the easement or right of way? In responding to this question, please provide both an overall percentage and a breakdown for each county within your service territory that was affected by the May 2024 Derecho or within the Impacted Area for Hurricane Beryl.

Response No. STAFF 1-83:

The May 2024 Derecho did not impact AEP Texas.

During Hurricane Beryl, Distribution circuits experienced multiple issues at different points in time and different locations along the circuit that could cause the outage. For assessment findings where vegetation management need was identified, refer to Staff 1-78 Attachment 1. For aerial view illustrating assessment findings where vegetation management need was identified and the corresponding counties, refer to Staff 1-56 HIGHLY SENSITIVE Attachment 2.

There were two vegetation related transmission outages sustained within the Impacted Area for Hurricane Beryl. 100% of the outages were caused by off ROW tree fall-ins.

Matagorda County – 100%
Wharton County – 100%

Prepared By: Alex Ramirez — Title: VP Customer Experience
Prepared By: Kevin Patton — Title: Dir Vegetation Mgmt TFS

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-84:

Describe your programs or initiatives that are designed to work with property owners to address potentially hazardous vegetation management issues that are outside of the utility easement or right of way.

Response No. STAFF 1-84:

The AEP Texas Distribution Vegetation Management Program adheres to the belief that input from an informed public aid in enhancing the quality of the vegetation management work. As the work associated with the annual plan is performed, the Company identifies hazard trees that should be removed located inside or outside of the ROW. During the Vegetation Work Plan process, personal door-to-door contact efforts are made to communicate pending work to property owners/renters. As part of this process, AEP Texas seeks to negotiate the remove of hazard tress from inside and outside the ROW with the property owner.

AEP Transmission foresters or contract representatives attempt to contact landowners prior to starting work. Transmission forestry may not have the right to address some hazard trees that are located outside the easement. Where this is the case, transmission foresters or contract representatives work with the property owner to permit hazard tree remediation. In emergency situations, such contacts may be made following remediation actions.

Prepared By: Kevin Patton	Title: Dir Vegetation Mgmt TFS
Prepared By: Robert De Leon	Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-85:

Identify the number of staff that participate in any program or initiative designed to address vegetation management hazards outside of the utility easement or right of way.

Response No. STAFF 1-85:

Transmission:

- 4 AEP Transmission forestry full time staff
  - 1 forestry supervisor
  - 3 foresters
- 62 Independent Contract Transmission forestry staff
  - 6 Contract Utility Foresters
  - 1 Safety Observer
  - 55 Tree contractors

Distribution:

- 6 AEP Texas Distribution Vegetation Management Staff
  - 1 forestry supervisor
  - 5 foresters
- 86 Independent Contract forestry staff
  - 1 Contract Utility Foresters
  - 10 Work Planners
  - 75 Tree contractors FTEs

Prepared By: Kevin Patton — Title: Dir Vegetation Mgmt TFS

Prepared By Robert De Leon — Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-86:

Please state whether you participated in or were a member of any mutual assistance programs on or before July 8,2024. If yes:

a. Please identify all mutual assistance programs you participated in or were a member of on that date;
b. Please provide copies of any agreements entered as part of your membership or participation in those mutual assistance programs;
c. Please provide a list of members or participants for each mutual assistance program you are a member or participant in.

Response No. STAFF 1-86:

a. AEP Texas, as part of the AEP system, is a member of the Southeastern Electrical Exchange (SEE), Midwest Mutual Assistance Group (MMAG), and Texas Mutual Assistance Group (TMAG).

b. Please see Staff 1-86 HIGHLY SENSITIVE Attachment 1 for the agreement that governs memberships in all 3 RMAGs

c. Please see Staff 1-86 HIGHLY SENSITIVE Attachment 2 for a list of members within MMAG. The members of SEE and TMAG are publicly available at the following websites:
    a. Welcome to the Southeastern Electric Exchange (theexchange.org)
    b. Home (texasmutualassistancegroup.org)

Staff 1-56 HIGHY SENSITIVE Attachments 1 and 2 responsive to this request is HIGHLY SENSITIVE PROTECTED MATERIAL. This information is being provided electronically and a secure login to access the information will be provided upon request to individuals who have signed a Protective Order Certification.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-87:

Please describe, prior to, during, or in the aftermath of Hurricane Beryl how you integrated mutual assistance crews into your existing emergency preparedness and response processes, any coordination challenges you faced in doing so, and how you addressed any such challenges prior to, during, or in the aftermath of Hurricane Beryl.

Response No. STAFF 1-87:

As part of emergency preparedness, AEP Texas facilitates an annual Hurricane Drill before the start of hurricane season. As part of the drill, AEP Texas incorporates the use of external resources in the drill by simulating requesting, on-boarding, and assigning external resources in the impacted areas. AEP Texas uses external data from previous storms where we have requested assistance from mutual assistance.

Please see the response to Staff 1-15 for the description of how resources were onboarded and integrated into our restoration efforts.

AEP Texas did not experience any significant challenges.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-88:

Please describe the command structure and communication protocols used to manage and direct resources from mutual assistance program(s) you received assistance from prior to, during, and in the aftermath of Hurricane Beryl.

Response No. STAFF 1-88:

AEP Texas's mutual assistance program consists of a combination of sources to secure external resources/crews. During an event, external resources/crews are secured from three categories: (1) one of the six AEP sister companies, (2)pre-negotiated contracts with 125 mutual assistance business partners, or (3)the three Regional Mutual Assistance Groups. Generally, the resources/crews are secured from the closest source in proximity to the impacted areas. Once on-boarded, resources/crews from the Mutual Assistance Program follow the same procedures as internal resources/crews.

As previously stated, AEP Texas utilizes the Incident Command System (ICS) as its command structure. Within ICS, the Planning and Operation Sections are responsible for communicating with all resources/crews assigned to restore power, including external resources/crews. The Planning Section is responsible for on boarding the external resources/crews and assigning each resource/crew to an impacted area. The Operations Section is responsible for assigning resources/crew both internal and external to specific locations within the impacted areas to restore power.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-89:

Please describe the process and timeline for requesting or activating assistance as part of your membership or participation in any mutual assistance program(s) prior to, during, or in the aftermath of Hurricane Beryl.

Response No. STAFF 1-89:

AEP Texas' process for determining the possible needs for a tropical system response is to first use our storm modeling tools to predict the impact of the projected weather system. From that modeling, we determine the delta in resources that are needed as compared to our current on system resources. AEP Texas would then engage our Mutual Assistance Coordinator to secure the additional resources needed from our Mutual Assistance Program, which includes AEP Texas' sister companies and contracted mutual assistance partners (including RMAGs) as needed. Once these resources are secured, they are dispatched to pre-storm staging areas for on-boarding and initial assignments. Please refer to AEP Texas' responses to Staff 1-9 and Staff 1-15 for the timeline that is specific to Hurricane Beryl.

Prepared By: Robert De Leon — Title: Dir Distribution Region Operations
Prepared By: Mark Baker — Title: Dir Engineering

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-90:

Once you learned of the Hurricane Beryl's potential to affect your ability to provide service to your customers, what specific actions were taken to begin coordinating with and staging mutual assistance resources to respond to service issues resulting from the hurricane?

Response No. STAFF 1-90:

Please refer to Staff 1-15 for the specific actions taken once AEP Texas learned of the potential impact to our service territory.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-91:

Provide the following information concerning mutual assistance received in response to either the May 2024 Derecho or Hurricane Beryl:

a. Identify all mutual assistance programs from which you requested assistance;
b. Describe the specific assistance, including but not limited to the number of damage assessors, vegetation management crews, linesmen, generators, and materials, requested from the mutual assistance program(s); and
c. Provide all documentation of requests made to mutual assistance programs and their responses to your requests.
d. If it is not evident from the documentation provided in response to Staff 191(c), please provide the date the request was made, the date the specific assistance requested began arriving in the Impacted Area, and the date by when the specific assistance requested was fully received.

Response No. STAFF 1-91:

The May 2024 Derecho did not impact AEP Texas.

Hurricane Beryl:

a. During Beryl, AEP Texas received external resources from the first two sources described in the response to Staff 1-89. This included four of the AEP sister companies and 26 of the Business Partners with preexisting storm contracts.
b. Please see Staff 1-91 Attachment 1 for a list of the companies, type of resource provided, and when assistance began. AEP Texas did not require additional generators or materials during the duration of the storm.
c. All requests are made verbally via phone or by text.
d. See Staff 1-91 Attachment 1 for a list of the companies, type of resource provided, and when assistance began.

Staff 1-91 Attachment 1 is provided electronically on the PUC Interchange.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-92:

When you receive responses to requests for assistance from other mutual assistance program participants that confirm their ability to provide the requested assistance, are you able to accept or decline resources being offered as needed, or must you accept all assistance provided in response to a request?

Response No. STAFF 1-92:

AEP Texas is able to accept or decline resources from its Mutual Assistance Program. The decision to accept or decline is based on required resources and proximity to the impacted area.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-93:

What considerations did you give to reimbursement of costs and expenses incurred by participants of mutual assistance programs when making requests for assistance during the events of Hurricane Beryl?

Response No. STAFF 1-93:

The reimbursement of cost and expenses for external resources are pre-determined in existing storm contracts with business partners, AEP company policy, or Mutual Aid Agreements for resources/crews secured from other utilities through the RMAG process. The expenses are audited against the agreements before being reimbursed.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-94:

Please provide a list of any hurricane response staging area you established in the lead up to and in the aftermath of Hurricane Beryl. Please include the date the center(s) was established, the location of the center(s), the day-to-day staffing levels at the center, and types of equipment and personnel staged at the center(s).

Response No. STAFF 1-94:

Staging Site: Bay City – Matagorda County Fairgrounds
Location: 4511 FM 2668, Bay City, Texas
Start Date: Monday, July 8, 2024

Resource Type	8-Jul	9-Jul	10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul
Assessors	150	150	150	75	50	50	30	
Line	12	196	298	336	286	220	88	6
Others	16	50	119	142	137	102	89	1
Tree		81	123	270	252	127	38	24
Grand Total	**178**	**477**	**690**	**823**	**725**	**499**	**245**	**31**

Staging Site: El Campo Legacy Park
Location: 767 W. Loop, El Campo, Texas
Start Date: Monday, July 8, 2024

Resource Type	8-Jul	9-Jul	10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul
Assessors	150	100	100	75	50	50	30	0
Line	129	257	281	311	164	48	38	38
Others	37	41	68	79	64	33	29	28
Tree		11	148	70	51	7	5	5
Grand Total	**316**	**409**	**597**	**535**	**329**	**138**	**102**	**71**

These stage sites housed the equipment needed by the resources to safely perform their job function which included, but was not limited to, bucket and digger trucks, backyard equipment, track equipment, chippers, pickup trucks, and material Handling equipment. Additionally, these sites included command and communication trailers, on site fuel tankers, food tents, and the equipment to house the logistics personnel on site.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-95:

How did the rollout and deployment of mutual assistance during the events of Hurricane Beryl compare to previous hurricane events during which you requested assistance from mutual assistance programs? In your response, please specifically compare the types and quantities of resources requested, the percentage of request aid provided, the efficacy of coordination between your company and the mutual assistance provider, and the efficiency of staging, deployment, and release of those assistance resources.

Response No. STAFF 1-95:

The rollout of Hurricane Beryl was similar to the response to Hurricane Hanna in July 2020 which impacted parts of the Corpus Christi and Rio Grande Valley Districts. Both events, utilized mutual assistance personnel to assist in restoration. Once on-boarded, the coordination of mutual assistance personnel followed the same processes as internal resources. The logistics for Hurricane Hanna was similar to that of Beryl. Pre-defined staging sites were established and staffed to support both internal and external resources which included but were not limited to Food, Fuel, Material and Equipment. The overall total number of mutual assistance personnel utilized in Hurricane Hanna was 56% compared to 59% during in Beryl.

The table below by category, represents the number of distribution mutual assistance personnel requested and received in each of the two events:

	Beryl Qty	Hanna Qty
Line/Service	551	816
Tree	361	80
Assessors	445	420

Prepared By: Robert De Leon

Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-96:

Please describe what specific actions you took to begin staging internal staff and any responsive mutual assistance crews or resources.

Response No. STAFF 1-96:

In preparation for Hurricane Beryl, AEP Texas activated its ICS organization on July 3, 2024; five days before landfall and before a holiday weekend. Activation of the ICS organization triggered internal notifications to alert internal staff to actively work on any necessary tasks to prepare for a major weather event. From this point on, the ICS Command and General Staff met multiple times per day daily to review storm development, including potential impact zone and severity, to set corresponding objectives and tactics. As Hurricane Beryl's track shifted north from Brownsville towards Matagorda Bay, the Company reassessed its plan multiple times, forecasting impact and need of incremental resources for restoration efforts. Various staging sites, for example, were considered and a main resource processing site was activated in Robstown, Texas, before landfall to check in all incoming mutual assistance resources. Incoming resources that arrived prior to landfall were staged in Corpus Christi (out of the storm's path but close to impacted zones) and moved in to impacted areas soon after landfall.

Prepared By: Alex Ramirez — Title: VP Customer Experience
Prepared By: Marvin Elizondo — Title: Contract Coordination Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-97:

Did you have to train or on-board any personnel that was provided in response to your request(s) for mutual assistance during the events of Hurricane Beryl? If yes, please describe what kind of training or on-boarding you provided.

Response No. STAFF 1-97:

Yes, AEP Texas executes an on-boarding step for incoming resources which includes training. Rosters and contact information are verified to ensure active resources are properly characterized and visible to the organization. Equipment is physically checked to ensure it is in proper operating condition. A training session that is approximately one-hour is conducted to cover topics related to personal protective equipment (PPE), insulating protective equipment (IPE), characteristics of the system, hazard assessment, damage assessment, and process to receive work assignments, operating instructions, and other safety-related items.

Prepared By: Alex Ramirez, Title: VP Customer Experience
Prepared By: Marvin Elizondo Title: Contract Coordination Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-98:

Please provide details regarding the lease or procurement of each mobile generation facility in the TDU's control, including:

a. Details regarding the competitive bidding process used or the justification for not using a competitive bidding process;
b. The size of each mobile generation facility in megawatts (MW);
c. The initial lease or procurement date of each facility;
d. The lease term, in months, of each mobile generation facility;
e. The expiration date of each facility's lease;
f. The to-date costs associated with each mobile generation facility, including operating, leasing costs, or other capital expense;
g. The expected costs associated with each lease, including operation and leasing costs; and
h. The expected return on investment associated with each lease or procurement.

Response No. STAFF 1-98:

a. AEP Texas engaged in a competitive bidding process to secure the long-term lease agreement for mobile temporary emergency electric energy facilities. AEP Texas issued a request for proposals (RFP) on February 17, 2022, including all vendors that AEP Texas knew were capable of providing such services to submit proposals to lease, maintain, store, and operate 60 MW and associated equipment for a term of 5 years. AEP Texas initiated its RFP by providing safety, technical, and operations requirements needed to satisfy the proposal. The original RFP schedule was:
    - February 17, 2022 – RFP Issued
    - March 1, 2022 – Pre-bid Meeting
    - March 1 to March 10, 2022 – Question-and-Answer Period
    - March 17, 2022 – Proposal Due Date

    The original due date of proposals was extended to March 23, 2022, to allow vendors more time to review answers that had been provided during the question-and-answer period. On March 23, 2022, seven of the eleven vendors submitted proposals to the Company's RFP.

b. Through its long-term lease, AEP Texas has leased a total of 41 facilities and associated equipment with a total capacity of approximately 60 MW (3 blocks of 20 MW) of mobile temporary emergency electric energy facilities.
c. December 1, 2022
d. 60 Months

e. The expiration of the long-term lease is November 30, 2027; however, AEP Texas has the option to opt out with 60 days notice as of the end of 2024.
f. The cumulative expenses, including carrying charges and deployment costs, through July 2024 for the leased mobile TEEE facilities is $53,478,776.
n. In AEP Texas' first mobile TEEE filing, in Docket No. 55187, the revenue requirement for the period of February 2022 through February 2023, was $22,105,946. In Docket No. 56456, AEP Texas filed an agreement reflecting a revenue requirement of $24,574,271 for the period of March 2023 through February 2024. AEP Texas expects the level of revenue requirement associated with its mobile TEEE going forward to the end of the lease term to be similar, but it could fluctuate depending on factors such as the number of deployments.
o. A return is calculated on the regulatory asset balance (net of related accumulated deferred federal income tax), each month using the Company's pre-tax authorized rate of return of 7.54% from its last comprehensive rate case proceeding, Docket No. 49494.

Prepared By: Steven Beaty Title: Regulatory Analysis & Case Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-99:

Please provide details regarding mobile generation or temporary emergency electric energy facilities (TEEEF)

a. The control number of the TDU' s most recently approved mobile generation or TEEEF cost recovery;
b. Details regarding whether the mobile generation or TEEEF cost recovery was processed as part of a larger Distribution Cost Recovery Factor proceeding or in a separate contested case;
c. The revenue requirement associated with the TDU' s mobile generation or TEEEF expenses, broken out by rate class; and
d. The in-force tariffs associated with the TDU' s mobile generation or TEEEF rider, broken out by rate class.

Response No. STAFF 1-99:

a. AEP Texas's most recently approved Mobile Temporary Emergency Electric Energy (TEEE) Facilities request was filed as part of Docket No. 54824 (AEP Texas's request to update its Distribution Cost Recovery Factor), but was severed and eventually approved in Docket No. 55187. Subsequently, AEP Texas filed to update its mobile TEEE Facilities Rider in Docket No. 56456. The parties were able to reach a settlement agreement which includes approval of interim rates, effective September 1, 2024.
b. See the response to Staff 1-99(a) above.

TEEE Facilities Class	TEEE Facilities Revenue Requirement*
Residential	$13,259,576
Secondary <= 10 kW/Lighting	$801,930
Secondary > 10 kW	$8,059,720
Primary	$2,633,045
Transmission	$0
Total	$24,754,271

c. *Docket No. 56456
d. Please see Staff 1-99 Attachment 1 for a copy of the tariff that became effective on September 1, 2023. Please see Staff 1-99 Attachment 2 that has been approved on an interim basis effective September 1, 2024.

Prepared By: Steven Beaty	Title: Regulatory Analysis & Case Manager
Prepared By: Jennifer Jackson	Title: Regulatory Pricing & Analysis Manager

AEP TEXAS
TARIFF FOR ELECTRIC DELIVERY SERVICE
Applicable: Certified Service Area
Chapter: 6 Section: 6.1.1
Section Title: Delivery System Charges
Revision: Original Effective Date: September 1, 2023

6.1.1.4.14 Schedule Mobile Temporary Emergency Electric Energy (TEEE) Facilities

APPLICABILITY

Each Retail Customer connected to the Company's distribution system and served under the Mobile TEEE Facilities Rider Classes will be assessed a distribution service charge adjustment pursuant to this rider. The charges derived herein are pursuant to the requirements of PURA§ 39.918. Rider TEEE will be updated annually.

MONTHLY RATE

The REP, on behalf of the Retail Customer, will be assessed a Mobile Temporary Emergency Electric Energy (TEEE) Facilities charge based on the monthly per-unit cost (Mobile TEEE Facilities factor) multiplied times the Retail Customer's appropriate monthly billing Distribution Service billing determinant (kilowatt-hour [kWh] or kilowatt [kW]). For customer classes billed primarily on the basis of kilowatt-hour billing determinants, the factor will be calculated using kilowatt-hour billing determinants. For customer classes billed primarily on the basis of demand billing determinants, the factor will be calculated using demand billing determinants.

The Mobile TEEE Facilities annual revenue requirement is allocated to each applicable rate class using the Rate Class Allocation Factor approved in the last comprehensive base-rate proceeding, calculated as: total net distribution plant allocated to each Mobile TEEE Facilities rate class, divided by total net distribution plant of the Mobile TEEE Facilities rate classes. The rate class allocators are as follows:

Mobile TEEE Facilities Rate Class	Allocation Factor
Residential	55.03%
Secondary <= 10 kW*	7.60%
Secondary > 10 kW	31.38%
Primary	5.99%
Transmission	0.00%

*includes the Lighting classes

ANNUAL RE-DETERMINATION FILING

Rider TEEE Facilities will be updated annually as needed to recover necessary and reasonable costs, as approved, associated with the lease and operation of mobile TEEE facilities, including a true-up to account for the over or under collections from the prior annual amount approved. Rate Class Billing Determinants will be weather normalized and adjusted to reflect the number of customers during the 12 months ending date recognized for the annual Mobile TEEE Facilities filing period.

AEP TEXAS
TARIFF FOR ELECTRIC DELIVERY SERVICE
Applicable: Certified Service Area
Chapter: 6 Section: 6.1.1
Section Title: Delivery System Charges
Revision: Original Effective Date: September 1, 2023

6.1.1.4.14.1 Interim Rider Mobile TEEE Facilities

MOBILE TEEE FACILITIES PRICES EFFECTIVE FOR BILLINGS ON AND AFTER SEPTEMBER 1, 2023

Rate Schedule		Factor	Unit
Residential		$0.00096	per kWh
Secondary Service Less Than or Equal to 10 kW		$0.00181	per kWh
Secondary Service Greater Than 10 kW			
	4CP	$0.19490	per Distribution Billing kW
	NCP	$0.19490	per Distribution Billing kW
Primary Service			
	4CP	$0.11890	per Distribution Billing kW
	NCP	$0.11890	per Distribution Billing kW
Transmission Service		$0.00000	per Distribution Billing kW
Lighting Service		$0.00181	per kWh

NOTICE

This rate schedule is subject to the Company's Tariff and Applicable Legal Authorities

AEP TEXAS
TARIFF FOR ELECTRIC DELIVERY SERVICE
Applicable: Certified Service Area
Chapter: 6 Section: 6.1.1
Section Title: Delivery System Charges
Revision: First Effective Date: September 1, 2024

(INTERIM)
6.1.1.4.14 Schedule Mobile Temporary Emergency Electric Energy (TEEE) Facilities

APPLICABILITY

Each Retail Customer connected to the Company's distribution system and served under the Mobile TEEE Facilities Rider Classes will be assessed a distribution service charge adjustment pursuant to this rider. The charges derived herein are pursuant to the requirements of PURA§ 39.918. Rider TEEE will be updated annually.

MONTHLY RATE

The REP, on behalf of the Retail Customer, will be assessed a Mobile Temporary Emergency Electric Energy (TEEE) Facilities charge based on the monthly per-unit cost (Mobile TEEE Facilities factor) multiplied times the Retail Customer's appropriate monthly billing Distribution Service billing determinant (kilowatt-hour [kWh] or kilowatt [kW]). For customer classes billed primarily on the basis of kilowatt-hour billing determinants, the factor will be calculated using kilowatt-hour billing determinants. For customer classes billed primarily on the basis of demand billing determinants, the factor will be calculated using demand billing determinants.

The Mobile TEEE Facilities annual revenue requirement is allocated to all classes, excluding the Transmission Service Class, using the Maximum Diversified Demand Class Allocation Factor, also known as non-coincident peak demand allocation factor, from AEP Texas' last comprehensive base-rate proceeding, Docket No. 49494. The rate class allocators are as follows:

Mobile TEEE Facilities Rate Class	Allocation Factor
Residential	53.56%
Secondary <= 10 kW*	3.24%
Secondary > 10 kW	32.56%
Primary	10.64%
Transmission	0.00%

*includes the Lighting classes

ANNUAL RE-DETERMINATION FILING

Rider TEEE Facilities will be updated annually as needed to recover necessary and reasonable costs, as approved, associated with the lease and operation of mobile TEEE facilities, including a true-up to account for the over or under collections from the prior annual amount approved. Rate Class Billing Determinants will be weather normalized and adjusted to reflect the number of customers during the 12 months ending date recognized for the annual Mobile TEEE Facilities filing period.

AEP TEXAS
TARIFF FOR ELECTRIC DELIVERY SERVICE
Applicable: Certified Service Area
Chapter: 6 Section: 6.1.1
Section Title: Delivery System Charges
Revision: First Effective Date: September 1, 2024

(INTERIM)

6.1.1.4.14.1 Interim Rider Mobile TEEE Facilities

THE MOBILE TEEE FACILITIES PRICES EFFECTIVE FOR BILLINGS ON AND AFTER SEPTEMBER 1, 2024 ARE AS SHOWN BELOW. THESE PRICES WILL REMAIN EFFECTIVE UNTIL SUPERSEDED BY A SUBSEQUENT ORDER IN DOCKET NO. 56456.

Rate Schedule		Factor	Unit
Residential		$0.00104	per kWh
Secondary Service Less Than or Equal to 10 kW		$0.00088	per kWh
Secondary Service Greater Than 10 kW			
	4CP	$0.22171	per Distribution Billing kW
	NCP	$0.22171	per Distribution Billing kW
Primary Service			
	4CP	$0.23527	per Distribution Billing kW
	NCP	$0.23527	per Distribution Billing kW
Transmission Service		$0.00000	per Distribution Billing kW
Lighting Service		$0.00088	per kWh

NOTICE

This rate schedule is subject to the Company's Tariff and Applicable Legal Authorities

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-100:

Provide the following information concerning your customer base:

a. Total number of customers served by rate class:
b. Average demand by rate class;
c. Peak demand by rate class; and
d. Net peak demand by rate class.

Response No. STAFF 1-100:

QUESTION 1-100 (A - C) AEP TX DISTRIBUTION RATE CLASS	CUSTOMER COUNT (a)	AVERAGE DEMAND (b)	PEAK DEMAND (c)	NET PEAK DEMAND (d)
RESIDENTIAL SERVICE	935,238	2,885,522.38	4,028,563	4,028,563
SECONDARY < = 10 KW	99,366	109,506.59	110,750	110,750
SECONDARY > = 10 KW	72,409	1,541,853.31	1,913,416	1,913,416
PRIMARY	1,086	566,433.54	544,848	544,848
TRANSMISSION IDR	123	1,387,196.10	1,331,534	1,331,534
LIGHTING	2,627	56,107.34	56,107	56,107
BESS	19	4,279.54	747	747
TOTAL	1,110,868	6,550,898.80	7,985,966.10	7,985,966.10

Customer and Demand Data from Load Research Allocation Factor Schedules and Workpapers, Docket No. 56165
(b) average demand - AEP TX Peaks
(c) AEP Texas peaks for the month of January
(d) "net peak demand" is interpreted to mean delivered less received loads - LR data is net

Prepared By: Jennifer Jackson Title: Regulatory Pricing & Analysis Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-101:

Please provide information on the average customer density by circuit mile for the feeders in the Impacted Area.

Response No. STAFF 1-101:

The Average Customer Density by Circuit Mile is 35.1 customers/circuit mile for the impacted area.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-102:

Please provide an explanation of any alternatives to mobile generation facilities considered by the TDU before entering a lease for or procuring mobile generation facilities.

Response No. STAFF 1-102:

Mobile TEEE facilities were the only option made available to AEP Texas under PURA § 39.918 to address and potentially mitigate the impacts of ERCOT ordered load shed events and other significant outages.

Prepared By: Steven Beaty Title: Regulatory Analysis & Case Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-103:

Please describe the specific use cases contemplated by the TDU before executing a contract for the lease or procurement of mobile generation facilities.

Response No. STAFF 1-103:

AEP Texas began leasing and operating TEEE facilities to provide the Company with a tool to minimize the impact to customers arising from a widespread or significant power outage in which AEP Texas has been ordered to shed load or its distribution facilities are not being fully served by the bulk power system under normal operations, such as those that may occur during extreme weather events including hurricanes or storms like Winter Storm Uri. This would aid the Company's effort toward minimizing the duration of outage(s) or increasing the Company's ability to rotate outages.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-104:

Please provide the following information concerning mobile generation facilities in your possession:

a. The total capacity, in MWs, of mobile generation facilities leased or procured before July 8, 2024;
b. The rationale for leasing or procuring that capacity; and
c. And how mobility and capacity were prioritized when leasing or procuring mobile generation facilities.

Response No. STAFF 1-104:

a. 60 MWs.
b. In determining the amount of mobile TEEE facilities to secure through an RFP, AEP Texas analyzed the Company's distribution substations across its service territory and determined that an RFP should include a 20 MW mobile solution that could be dispatched to restore a single distribution station or individual distribution feeder to reduce the customer impact of a widespread outage where ERCOT has directed load shed or a situation in which the Company's distribution facilities are not being fully served by the bulk power system under normal operations. The team also concluded that a 20 MW solution must have the ability to be dispatched in blocks of at least 5 MW to maximize the use of the TEEE facilities. Additionally, when considering the use of TEEE facilities to reduce the customer impact of a widespread outage due to potential ERCOT load shed directives, the team focused on AEP Texas' load shed responsibility share. In 2021, AEP Texas represented approximately 8.41% of the total ERCOT Load. Using this percentage as a proxy, the team determined that three 20-MW TEEE facilities, for a total capacity of 60 MW, could considerably offset AEP Texas' potential allocated share of an ERCOT-directed Load Shed event. As an example, in a case where ERCOT needed to shed 1,000 MW of load throughout the ERCOT region, AEP Texas' allocation of the request represents 84.1 MW of load. By using 60 MW of TEEE facilities, over 71% of the request would be offset, thereby reducing the impacts to AEP Texas' customers.
c. The mobile generation included in the lease were selected because they can be used independently or in aggregate to achieve the desired capacity. The units are mobile and do not require the use of cranes or forklifts to be moved.

Prepared By: Steven Beaty Title: Regulatory Analysis & Case Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-105:

Provide the following information for mobile generation facilities already under lease or procured before July 8, 2024:

a. The size, in MWs, of each deployed mobile generation facility;
b. The length of time needed to move each deployed mobile generation facility from storage to its designated staging area;
c. the length of time needed to move each mobile generation facility from staging to its deployment location;
d. An explanation for how and where the mobile generation facility was used; and
e. If a mobile generation facility was not used, an explanation as to why.

Response No. STAFF 1-105:

a. Please see the response to Staff 1-105 subpart d.

b. A mobile generation facility can be dispatched to a staging site as soon as AEP Texas's third party can secure transportation for the mobile unit plus the travel time.

c. The travel time would be the only time needed to move a mobile facility form the staging site to the deployment location.

d. AEP Texas has deployed its TEEE facilities to be able to restore power and reduce the customer impact of widespread outages, such as ERCOT load shed events or situations where the Company's distribution facilities are not being fully served by the bulk power system under normal operations. In particular, the Company has responded to potential ERCOT load shed events and situations where abnormal system conditions could have resulted in widespread outages, including outages to critical infrastructure facilities. The deployments associated with potential ERCOT load shed events were a result of winter storms Landon in February 2022 and Elliott in December 2022. During this time, the AEP Texas territory, as well as most of the State of Texas, experienced extremely cold temperatures that affected most of the ERCOT Grid. The potential for ERCOT requested load sheds existed due to possible capacity issues. These conditions prompted the Company to deploy its TEEE facilities to distribution substations to offset any potential ERCOT directed load shed events. In both of these events, all of the available TEEE facilities were deployed. Below is a list of each deployment by location, interconnection point, and amount of capacity deployed.

- Feb. 01, 2022 – Rio Grande City, TX – La Grulla Substation, 20 MW.
- Dec. 21, 2022 – Rockport, TX – Feeder from Rockport Substation, 10 MW.
- Dec. 21, 2022 – San Benito, TX – Feeder from San Benito Substation, 10 MW.

Additionally, the following TEEE facilities were available during the Winter Storm Elliott event.

- Goliad, TX – Goliad Substation, 10 MW.
- Eagle Pass, TX – Escondido Substation, 20 MW.
- Corpus Christi, TX – Windward Feeder, 10 MW.

On December 25, 2022, the Corpus Christi Airport experienced an outage that impacted its critical infrastructure. The customer's generator failed, and the outage was going to exceed 8 hours. In order to restore power to the airport, the Company deployed 1 MW of TEEE facilities, which was sufficient to restore the power during the outage.

On March 7, 2023, the Company deployed 12 MW to the Kenedy distribution station in Kenedy, Texas to address potential significant outages caused by abnormal conditions related to abnormally high loading on the bulk power system that could lead to damage to critical infrastructure facilities in the absence of load shed.

On July 25, 2023, 6 MW were deployed to the Turkey distribution station in Turkey, Texas due to an abnormal system condition that persisted after a tornado on June 15, 2023, totally damaged the Matador station, creating abnormal system conditions over an extended period in the area.

On August 27, 2023, the Pharaoh station experienced an event due to equipment failure causing a sustained outage. Because the potential for sustained outages will continue to exist until station equipment can be replaced, 18 MW were deployed to an area outside of the Pharaoh substation in Corpus Christi, Texas.

On December 20, 2023, AEP Texas deployed 6 MW to an area outside of the North Padre Island Station in Corpus Christi, Texas to address potential abnormal conditions that could cause the bulk power system to not operate under normal operations. The abnormal condition created the possibility of a single contingency event situation that can result in the loss of load to distribution customers. As part of this abnormal condition, service to the Naval Base distribution station, which serves critical infrastructure at the Corpus Christi Army Depot, can be impacted. Additionally, if experiencing a loss of a single contingency event, repairs to the transmission line serving the area can be prolonged due to environmental and access issues because of its proximity to wetlands and Corpus Christi Bay. Further, the permitting requirements to work in and around wetlands or over bodies of water will also prolong the outage.

On March 12, 2024, the Company deployed 24 MW to the Santo Nino distribution station in Laredo, Texas to address potential significant outages that could be caused by abnormal conditions related to abnormally high loading on the bulk power system that could lead to damage to critical infrastructure facilities in the absence of load shed.

On May 9, 2024, the company deployed 24 MW to two stations in the Rio Grande Valley to address potential significant outages that could be caused by the loss of localized generation.

e. All 60 MWs of mobile generation has been deployed but not used/energized when needed during any potential sustained outage. No mobile generation has been in storage during an event where the mobile generation unit could have been used.

Prepared By: Steven Beaty Title: Regulatory Analysis & Case Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-106:

Please describe all situations in which the TDU's leased or procured mobile generation facilities were deployed before Hurricane Beryl. If applicable, please describe how those previous deployment situations differed from the use cases initially contemplated by the TDU.

Response No. STAFF 1-106:

AEP Texas did not have to deploy its mobile generation facilities during Hurricane Beryl. Please see the response to Staff 1-105(d).

AEP Texas notes that there is a distinction between deployment and energization of mobile generation facilities. For AEP Texas, deployment of TEEE facilities starts with making an initial deployment request to the vendor and then potentially transporting the TEEE facilities to the affected location, which can take up to 23 hours depending on the location within the Company's 97,000 square mile service territory. Thus, deployments may need to be made in advance of an anticipated significant power outage, particularly if severe weather is expected to be the cause. However, "energization" would be the last step in a deployment, and it is sometimes the case that TEEEF are deployed, but energization does not ultimately become necessary.

Prepared By: Steven Beaty Title: Regulatory Analysis & Case Manager

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-107:

Please provide the following information on power restoration plans or procedures regarding critical infrastructure facilities.

a. Did the TDU develop a list of critical infrastructure facilities within the TDU's service territory?
b. Did the TDU develop emergency preparedness plans in collaboration with critical infrastructure facilities in its service territory?
c. Did the TDU develop a list of routes for use in reaching critical infrastructure facilities during an emergency or significant power outage?
d. Did the TDU identify the specific steps it would take to energize critical infrastructure facilities in its service territory with mobile generation facilities?
e. Did the TDU pre-position mobile generation facilities at critical infrastructure facilities in its service territory to respond to significant power outages in a timely manner?

Response No. STAFF 1-107:

a. AEP Texas maintains a list of critical and priority customers.
b. AEP Texas has emergency preparedness plans that address restoration and priorities, but the plans were not developed with critical infrastructure facility customers.
c. No.
d. AEP Texas has identified specifics steps on how best to restore the impacted station or feeder that is serving a critical infrastructure facility.
e. Yes, AEP Texas has deployed mobile generation to respond to potential significant power outages in a timely manner.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-108:

Please provide the following information regarding drills, procedures, and plans to use mobile generation facilities.

a. Did the TDU develop operating plans or procedures for the deployment of mobile generation? If so, please describe the TDUs strategy for deploying its mobile generation.
b. Did the TDU assign specific personnel to manage, either directly or indirectly, the operation and deployment of its mobile generation facilities?
c. Did the TDU conduct personnel trainings or preparedness drills for the operation of its mobile generation facilities?
d. Please describe any plans or procedures developed in coordination with other TDUs or mutual assistance groups for the operation or deployment of mobile generation.

Response No. STAFF 1-108:

a. Yes, AEP Texas developed operating plans for the deployment of mobile generation. Mobile generation can be deployed to reduce or avoid an extended outage or to offset all or portions of an ERCOT directed Load Shed.
b. The deployment and operation of mobile generation is managed by a third party with coordination with company personnel.
c. In partnership with the third party, AEP Texas has conducted personnel training in areas where mobile generation has been deployed. Additionally, mobile generation preparedness is including as part of the annual Hurricane drill.
d. AEP Texas has not developed any plans or procedures with other TDU or mutual assistance groups for the operation or deployment of mobile generation. AEP Texas was able to provide assistance with the loan of smaller generators to CenterPoint during Hurricane Beryl restoration.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-109:

Please provide the following information regarding each mobile generation facility borrowed during Hurricane Beryl as part of a mutual assistance program or agreement.

a. How the original request for mobile generation facilities through mutual assistance was made;
b. The size, in MW, of each borrowed mobile generation facility;
c. The date the mutual assistance program or agreement was entered;
d. The date the borrowed mobile generation facility was deployed;
e. The duration, in hours, of the borrowing agreement. Describe whether this duration was for a fixed number of hours or a specific number of operating hours;
f. The identity of the original owner or lessor of the mobile generation facility subject to the mutual assistance program or agreement; and
g. Whether obtained mobile generation facilities were used during, or in power restoration efforts following, Hurricane Beryl.
    i. If the mobile generation facility was not deployed, provide an explanation as to why the mobile generation facility was not deployed; and
    ii. If the mobile generation facility was deployed, provide an explanation of how it was used.

Response No. STAFF 1-109:

AEP Texas did not have a need to borrow mobile generators during Hurricane Beryl.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-110:

When mobile generation facilities are offered to other TDUs during significant power outages, what information does the loaning TDU require from the borrowing TDU related to the probable operation of the mobile generation?

Response No. STAFF 1-110:

The loaning TDU would need to know the following information to ensure the mobile generation is capable of restoring power:

- Location for delivery
- Voltage Level
- Capacity
- Type of Generator (fuel type)
- Connection Type (Single or Three Phase)

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-111:

Please describe if any mobile generation facilities in the TDU' s control were deployed in the service territories of municipally owned utilities or electric cooperatives during Hurricane Beryl.

Response No. STAFF 1-111:

No.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-112:

Please describe how the determination was made regarding when and where to deploy or redeploy each mobile generation facility during, or in response to, Hurricane Beryl.

Response No. STAFF 1-112:

AEP did not energize mobile generators during Hurricane Beryl.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-113:

Please describe the number of distribution customers that had power restored by each mobile generation facility leased or procured by the TDU during, or in response to, Hurricane Beryl.

Response No. STAFF 1-113:

See response to Staff 1-112.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-114:

Please describe the number of distribution customers that had power restored by each mobile generation facility obtained through mutual assistance during, or in response to, Hurricane Beryl.

Response No. STAFF 1-114:

Please see the response to 1-112.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-115:

Please describe the number of transmission customers that had power restored by a mobile generation facility leased or procured by the TDU during, or in response to, Hurricane Beryl.

Response No. STAFF 1-115:

Please see the response to Staff 1-112. Furthermore, it is not possible to connect or serve Transmission customers from AEP Texas' mobile generation facilities.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-116:

Please describe the number of transmission customers that had power restored by a mobile generation facility obtained through mutual assistance during, or in response to, Hurricane Beryl.

Response No. STAFF 1-116:

Please see the response to Staff 1-115.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-117:

If applicable, please note if any fueling problems arose with deployed mobile generation facilities during, or in response to, Hurricane Beryl. If so, please describe the fueling problems in detail and any action that the TDU took in response.

Response No. STAFF 1-117:

Not Applicable.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-118:

Please describe all costs incurred by the TDU that were associated with the deployment of mobile generation facilities during, or in response to, Hurricane Beryl.

Response No. STAFF 1-118:

Please see the response to Staff 1-112.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-119:

Please describe any obstacles that limited the deployment of mobile generation facilities during, or in response to, Hurricane Beryl.

Response No. STAFF 1-119:

Although AEP Texas had customers that were without power, the conditions of the outages and the progress of our restoration activity did not require the use of mobile generation.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

PUC PROJECT NO. 56822

AEP TEXAS INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Question No. STAFF 1-120:

Please describe any procedural improvements that the TDU intends to make prior to the next deployment of mobile generation facilities. If available, please reference specific sections of any after action report or lessons learned document the TDU has created.

Response No. STAFF 1-120:

AEP Texas continually evaluates opportunities to improve restoration efforts.

Prepared By: Robert De Leon Title: Dir Distribution Region Operations

The following files are not convertible:

Staff 1-31 Attachment 1.wav
Staff 1-56 Attachment 1.xlsx
Staff 1-56 Attachment 3.xlsx
Staff 1-65 Attachment 1.xlsx
Staff 1-66 Attachment 1.xlsx
Staff 1-72 Attachment 1.xlsx
STAFF 1-76 Attachment 1.xlsx
STAFF 1-76 Attachment 2.xlsx
STAFF 1-78 Attachment 1.xlsx
Staff 1-91 Attachment 1.xlsx

Please see the ZIP file for this Filing on the PUC Interchange in order to access these files.

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