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PROJECT NO. 56822

INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE BY UTILITIES IN HOUSTON AND SURROUNDING COMMUNITIES	§ § § §	**PUBLIC UTILITY COMMISSION OF TEXAS**

PANOLA-HARRISON ELECTRIC COOPERITIVE, INC.'S RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION TO TARGETED ELECTRIC CO-OPS
QUESTION NOS. STAFF 1-1 THROUGH 1-120

TO: John Lajzer, Public Utility Commission of Texas, 1701 N. Congress Ave., Austin, Texas 78711

RESPONSES

Panola-Harrison Electric Cooperative, Inc. ("*PHEC*" or "*the Cooperative*")[1] files these responses to Commission Staff's First Request for Information to Targeted Electric Co-ops, Question Nos. Staff 1-1 through 1-120 ("*Staff's First RFIs to Co-ops*" or "*RFIs*"). Commission Staff directed that responses to Staff's First RFIs to Co-ops be filed by August 30, 2024, thus these responses are timely filed. The Cooperative stipulates that its responses may be treated by Commission Staff or any person that may become a party in this matter as if they were filed under oath. The Cooperative reserves the right to object to the use of the information produced in any contested proceedings or at the time of any hearing as to the admissibility of the information produced.

BACKGROUND / CONTEXT

The Cooperative notes for the historical record that it is responding in good faith to the RFIs, even though it is the Cooperative's understanding that the Cooperative is not the primary subject of the investigation in the docket. Furthermore, the Cooperative would respectfully request that Commission Staff recognize that policy makers and legislators in recent legislative hearings

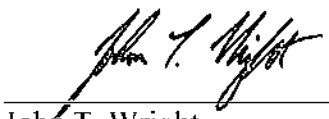
[1] Note, as a member-owned, nonprofit electric cooperative, where its members are the customers and owners, the Cooperative will refer to its "members" in its responses to Staff's RFIs regarding "customers" going forward in these responses.

have praised the response of electric cooperatives to the applicable weather events that prompted this investigation.

The Cooperative would also respectfully note that the original deadline for responding to these RFIs only provided eighteen (18) days for the Cooperative to prepare its responses.[2] Responding to this extensive set of RFIs under such a timeline, despite the positive feedback concerning the response of electric cooperatives to these weather events, has placed a significant burden on the Cooperative and its members when one considers the size of its staff and resources at its disposal. However, the Cooperative has still made a good faith effort in responding to these RFIs to assist Commission Staff with its investigation and to provide information that may aid the Commission in identifying best practices that will serve the public during future major outage events.

Dated: August 30, 2024

Respectfully submitted,



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COOPERATIVE, INC.

[2] *See* 16 Texas Administrative Code (TAC) § 22.144(c)(1), providing 20 days to respond to a request.

STAFF 1-1

Provide the following information concerning the last hurricane or major storm drill conducted in 2024:

a. The date the drill was conducted;

b. The category of hurricane drilled and any conditions (e.g., where the hurricane made landfall, date hurricane made landfall, status of infrastructure and vegetation management activities in affected area, aid received vs aid requested from mutual assistance programs, total number of customers in anticipated affected area) used in the drill;

c. A description as to how the drill conducted in 2024 differed materially from the previous annual drill;

d. The identity of all third-party vendors that assisted in either conducting or preparations for the 2024 hurricane drill;

e. The identity of all other electric, water, sewer, or telecommunication utilities that were invited to participate in your 2024 hurricane drill and a description of their participation;

f. The identity of all local government, trade associations, medical and eldercare facilities, community organizations, PGCs, and REPs that were invited to participate in your 2024 hurricane drill and a description of their participation;

g. How performance during the 2024 hurricane drill was measured; and

h. Any feed-back whether internally or externally from a third-party vendor or party invited to participate in the 2024 hurricane drill.

RESPONSE:

The last emergency response plan review was held on Friday, March 1, 2024, with internal key personnel only and was based on the damage and challenges faced in the June 2023 storm. This storm affected 100% of our members across our entire service territory and numerous issues with transmission power supply from AEP SWEPCO. There are not critical facilities in our service area that tend to be asked to participate. The June 2023 storm created more damage than any hurricane in the past including Laura, Delta, and Beryl and tends to be our standard of measurement.

SPONSOR:

Michael Haynes

STAFF 1-2 Do you ever seek participation of your customers during a hurricane drill? If yes, please provide a description of their level of involvement.

RESPONSE:

No.

SPONSOR:

Michael Haynes

STAFF 1-3 Are actual events and conditions experienced during a previous hurricane or storm used in the next year's hurricane or major storm drill? If yes:

a. How long would an actual storm be used to set the conditions for future hurricane drills?

b. What hurricanes and major storms were used to set the conditions for the 2024 hurricane drill?

RESPONSE:

Yes. The storm of June 2023 is used as PHEC's worst case scenario now.

SPONSOR:

Michael Haynes

STAFF 1-4 Please identify any electric, water, sewer, or telecommunication utilities that invited you to participate in their 2024 hurricane or major storm drill.

RESPONSE:

To the best of my knowledge, no utility or government entity has invited PHEC to participate in a storm drill.

SPONSOR:

Michael Haynes

STAFF 1-5 Please identify all resources, internal or external, used for weather or storm tracking purposes before July 8, 2024.

RESPONSE:

Weather and tracking resources include: TDEM SOC Bulletins, National Weather Service Weather Briefings, National Weather Service.gov, and other various local weather services on various media outlets.

SPONSOR:

Michael Haynes

STAFF 1-6 How many days before projected landfall do you start tracking storms that could affect or disrupt operations within your service area?

RESPONSE:

PHEC staff closely monitors the weather locally daily and the Atlantic Tropical Cyclone Area as reported by the National Hurricane Center daily, and listens to updates from TDEM often at least a week ahead of storms.

SPONSOR:

Michael Haynes

STAFF 1-7 How many days before projected landfall did you start tracking the storm eventually named Hurricane Beryl?

RESPONSE:

PHEC staff closely monitors the weather locally daily and the Atlantic Tropical Cyclone Area as reported by the National Hurricane Center daily.

SPONSOR:

Michael Haynes

STAFF 1-8 Do you check the functionality or performance of your outage tracker as part of your regular storm preparation procedures?

RESPONSE:

PHEC's outage management system is utilized on a daily basis.

SPONSOR:

Michael Haynes

STAFF 1-9 How far in advance of landfall did you initiate requests for mutual assistance?

RESPONSE:

Beryl was not forecasted to be an issue for our geographic area. Mutual Aid is not requested until damage has been made to the system that is not repairable with current staff within a reasonable time period.

SPONSOR:

Michael Haynes

STAFF 1-10 Provide information as to how restoration efforts are prioritized, and resources are allocated following a hurricane or major storm. For purposes of this question, please provide how these prioritizations and allocation guidelines were used in practice during your response to Hurricane Beryl.

RESPONSE:

Restoration of service is prioritized in order of: 1) Transmission service to Substations; 2) Distribution circuits with Transmission service restored; 3) Registered critical care; 4) Broken poles that are required to restore the largest affected number of meters; and 5) Multiple small two-man crews are assigned to Public Safety (lines down blocking roads) and isolated outages that do not require replacement of damaged poles throughout the entire outage.

SPONSOR:

Michael Haynes

STAFF 1-11 Describe the procedures during an emergency for handling complaints and for communicating with the public; the media; customers; the commission; the Office of Public Utility Counsel (OPUC); local and state governmental entities, officials, and emergency operations centers, the reliability coordinator for your Company's power region; and critical load customers directly served by the entity.

RESPONSE:

The designated Information Officer is selected to coordinate public communication. The website www.phec.us is updated daily or up to hourly with new information coming from the field on restoration estimates along with an outage map illustrating the extent of the outage. The state county judges coordinate directly to the CEO in a wide-spread outage.

SPONSOR:

Michael Haynes

STAFF 1-12 Does your company use an operating condition system? If yes, define each level of the operating condition system and actions taken at each level. Please include citations to the relevant section(s) of your EOP filed with the PUCT when answering this question.

RESPONSE:

Yes. Page 8 of 44 EOP.

Level 1

A routine outage where cooperative crews are able to restore service in less than 2-hours without the assistance of outside crews. On-call personnel assemble as needed.

- EXPECTED OUTAGE TIME: 0 TO 4 HOURS
- CUSTOMERS OUT OF SERVICE: LESS THAN 100 METERS. INITIATED BY: SYSTEM OPERATOR

Level 2

An emergency/outage where cooperative crews are able to restore service in less than 4-hours without the assistance of outside crews. Personnel assemble as needed.

- EXPECTED OUTAGE TIME: 2 TO 6 HOURS
- CUSTOMERS OUT OF SERVICE: LESS THAN 2000 METERS

Level 3

An emergency/outage where cooperative crews are able to restore service in less than 12-hours without the assistance of outside crews. All construction, operations, and service personnel report as needed.

- EXPECTED OUTAGE TIME: 6-12 HOURS
- CUSTOMERS OUT OF SERVICE: SUBSTATION (non-power supply issues) OR MULTIPLE MAJOR CIRCUITS

Level 4

An emergency where cooperative crews are going to need outside help to restore service. Cooperative employees must report.

- EXPECTED OUTAGE TIME: MORE THAN 12 HOURS
- CUSTOMERS OUT OF SERVICE: MULTIPLE MAJOR CIRCUITS ON MULTIPLE SUBSTATIONS/ WIDESPREAD DAMAGE
- CUSTOMERS OUT OF SERVICE: MORE THAN 80% OF METERS
- Communications with external organizations initiated by Office Manager/General Manager/ Director of Outside Operations.
- Outside contractors help with restoration.

SPONSOR:

Michael Haynes

STAFF 1-13 Explain the system and tools used to manage all emergency response assignments. Your response should include management of mutual assistance and contract personnel and consider needed food and lodging facilities.

RESPONSE:

No systems or tools are used to manage mutual assistance and contract personnel or consideration needed food and lodging facilities.

SPONSOR:

Michael Haynes

STAFF 1-14 How far in advance of the May 2024 Derecho and Hurricane Beryl did you initiate emergency preparations? Describe the timeframes for the preparation work in anticipation of emergency operations plan activation. Please include citations to the relevant section(s) of your EOP filed with the PUCT when answering this question.

RESPONSE:

Pre-storm activities were conducted 48 hours before weather impacts to our service area for Beryl.

Pre-Storm Watch

This situation is prior to the arrival of an anticipated storm. This is a precautionary situation that would follow a weather broadcast of severe nature. The System Operator will monitor the situation and advise the on-call Supervisor. The System Operator and/or Supervisor may request the assistance of Customer Service/Call Center Representatives to answer calls.

- EXPECTED TIME OF ARRIVAL OF SEVERE WEATHER
- CREW AVAILABILITY INCLUDING SECOND SHIFTS
- RESTOCK (EVENT SPECIFIC MATERIAL) AND REFUEL
- EQUIPMENT ASSESSMENT
- EXPECTED AREA OF IMPACT
- INITIATED BY: SYSTEM OPERATOR/ON-CALL SUPERVISOR

SPONSOR:

Michael Haynes

STAFF 1-15 Please provide a timeline of your Company's response to the May 2024 Derecho and Hurricane Beryl.

RESPONSE:

PHEC was affected by just the remnants of Beryl that caused multiple tornados in our service area on July 8, 2024. Out of an abundance of caution, mutual assistance was requested from the Association of Louisiana Electric Cooperatives on July 8, 2024. PHEC normal contractor crews were recalled from Corpus Christi, Texas on July 8, 2024. PHEC continued to restore service and communicate with its membership through July 10, 2024.

SPONSOR:

Michael Haynes

STAFF 1-16 Please detail the extent and duration of outages experienced by your customers during and in the aftermath of the May 2024 Derecho and Hurricane Beryl. Include the total number of customers affected; minimum, maximum, and average hours of service interruptions; and maximum and average time to service restoration in your response.

RESPONSE:

No outages for May 2024 Derecho storm.

Hurricane Beryl: One transmission structure affected all Texas members on the 8th of July, affecting 6741 meters in Harrison County and 2475 meters in Panola County with an average outage duration time of one hour and five minutes for all substations other than one. The one substation that was affected by the transmission structure had 962 meters out of service for a maximum of ten hours and six minutes.

Maximum service interruption was 44 hours affecting one meter from a broken distribution pole.

SPONSOR:

Michael Haynes

STAFF 1-17 Provide the following information concerning your service territory:

a. Identify the geographic areas that experienced the highest number of outages and longest duration of outage due to the May 2024 Derecho. Your response should identify the neighborhood, city, zip code, and county if possible.

b. Identify the geographic areas that experienced the highest number of outages and longest duration of outage due to the Hurricane Beryl. Your response should identify the neighborhood, city, zip code, and county if possible.

c. Identify or describe the factors that contributed to the areas identified in response to subparts (a) and (b) as being particularly vulnerable.

RESPONSE:

a. None.

b. Panola County near State line Rd. and Bethany Texas. Harrison County near Highway 9, and Waskom Elysian Fields Rd.

c. The area described above were affected by spin off tornados from Beryl.

SPONSOR:

Michael Haynes

STAFF 1-18 Describe any challenges in restoring operations your Company encountered due to the May 2024 Derecho or Hurricane Beryl.

RESPONSE:

PHEC had some relatively minor issues with trees falling on lines from outside of our 30 foot right of ways. Trees blocking the small county roads during Beryl.

SPONSOR:

Michael Haynes

STAFF 1-19 Please provide a copy of the after-action reports or provide a date by when the action reports will be completed for the May 2024 Derecho and Hurricane Beryl.

RESPONSE:

PHEC is not conducting an after action study internally for Beryl, as it was not deemed a significant event due to our geographic location. AEP SWEPCO just hosted a Beryl postmortem meeting on August 13, 2024 to go over the transmission issues encountered.

SPONSOR:

Michael Haynes

STAFF 1-20 Please provide any additional information and describe any concerns that may be helpful to this investigation.

RESPONSE:

No opinion at this time.

SPONSOR:

Michael Haynes

Electric Utilities Communication and Coordination

STAFF 1-21 Provide the following information concerning the communication strategy and policy in place before July 8, 2024:

a. What consideration is given to local governments, community organizations, and other electric, water, sewer, and telecommunication utilities concerning your communication strategy after a hurricane or major storm in your service territory?

b. Describe any augmentation to staffing at call centers or help desks that would occur in advance of or after a hurricane or major storm entered your service territory.

c. For transmission and distribution utilities, please describe how your company coordinates communication to end-use customers with retail electric providers.

RESPONSE:

All communications regarding outages and restoration updates are posted to the News & Events page on our website. Outside of the utilizing the website for outage information, local governments and others receive outage information via phone which is initiated by the organization seeking information.

PHEC did not make changes to staffing within internal personnel. Our 24 hour answering service, Cooperative Response Center (CRC), requested volunteers to help with increase in call volume. PHEC has the capability to forward all calls to CRC at any time.

All communications regarding outages and restoration updates are posted to the News & Events page on our website.

SPONSOR:

Michael Haynes

STAFF 1-22 Describe your communication strategy with the public before, during, and after the May 2024 Derecho and Hurricane Beryl and by what means these communications were conducted.

RESPONSE:

PHEC did not communicate with the public prior to Hurricane Beryl as it was not predicted to cause significant damage to our service territory, due to our geographic location. PHEC was not affected by the May 2024 Derecho.

SPONSOR:

Michael Haynes

STAFF 1-23 Please provide any available data regarding customer feedback you received in response to your service restoration efforts during and in the aftermath of Hurricane Beryl.

RESPONSE:

No data available.

SPONSOR:

Michael Haynes

STAFF 1-24 What steps are being taken to improve coordination and communication with local governments, medical and eldercare facilities, community organizations, trade associations, and other similar organizations for future significant weather events?

RESPONSE:

No new steps are being taken to improve coordination or communication.

SPONSOR:

Michael Haynes

STAFF 1-25 What steps are being taken to improve coordination and communication with other electric, water, sewer, and telecommunication utilities for future significant weather events?

RESPONSE:

No new steps are being taken to improve coordination or communication.

SPONSOR:

Michael Haynes

STAFF 1-26 Provide the following information concerning call centers and help desks used by your company before July 8, 2024:

a. How many people work in call centers or help desks?

b. Of these people, please provide the percentage of these employees that are full-time employees (FTE), contracted labor, or temporary/seasonal workers.

c. What is the target wait time or response time for calls?

d. What is the target resolution time for calls?

e. Provide a detailed description of company-specific training provided to call center and help desk operators concerning major outages and major weather events including, but not limited to, hurricanes and high wind events.

f. What is the maximum call volume for the call centers of help desks that were available and in operation during or in the aftermath of Hurricane Beryl?

RESPONSE:

PHEC employees 12 full-time staff in the office. During a large outage, all personnel help with call handling as in the Beryl storm. If circumstances change and the in-house staff is unable to handle the incoming call volume, PHEC will redirect calls to Cooperative Response Center (CRC). CRC has the ability to handle 99 calls at a time for our Cooperative.

SPONSOR:

Michael Haynes

STAFF 1-27 Provide the daily average and peak call volume to your call centers or help desks during or in the aftermath of Hurricane Beryl. For purposes of this question, please provide responses for each day from July 8, 2024, through the date power was restored to at least 99% of the customers in the service territory in the Impacted Area.

RESPONSE:

Data not available.

SPONSOR:

Michael Haynes

STAFF 1-28 Describe how you communicated and shared information on recovery resources and updates with local and state leaders as well as your customers during leading up to, during, and in the aftermath of Hurricane Beryl.

RESPONSE:

PHEC utilizes our website for news and updates to keep members and our local leaders updated on our current situation. Local and State leaders contact the CEO directly for specific questions.

SPONSOR:

Michael Haynes

STAFF 1-29 Please indicate whether calls incoming to your call centers, help desks, or priority call desks are recorded, and if so, provide your retention schedule for the captured calls.

RESPONSE:

PHEC does record all incoming call to the office and are retained for approximately one year.

SPONSOR:

Michael Haynes

STAFF 1-30 If calls incoming to your priority call desks are not recorded, please indicate if incoming calls are logged or otherwise tracked. If tracked or logged, please provide a copy of all logged or otherwise tracked calls to the priority call desk during or in the aftermath of Hurricane Beryl.

RESPONSE:

Not applicable. The Cooperative does not have a "priority call desk" nor does it track "priority calls." Calls that concern service which are critical to the recovery and restoration efforts after an event are generally escalated to appropriate management and dealt with on a case-by-case basis to resolve.

SPONSOR:

Michael Haynes

STAFF 1-31 Please provide an audio copy and transcript of any pre-recorded messages related to either the May 2024 Derecho or Hurricane Beryl used by your call centers or help desks and the date these messages were utilized.

RESPONSE:

We are experiencing high call volume at this time.

SPONSOR:

Michael Haynes

STAFF 1-32 Provide the following information concerning the outage tracker in use on July 8, 2024:

a. The date the outage tracker was rolled out to customers.

b. The last date the software underpinning the outage tracker was updated.

c. whether the outage tracker was functioning during the May 2024 Derecho and Hurricane Beryl as intended or provide an explanation as to why not.

d. Whether the outage tracker was mobile-friendly;

e. the languages supported by the outage tracker;

f. Whether the outage tracker captured circuit-specific or meter-specific information or both.

g. Whether the outage tracker was cloud-based or operated through an on-premise server?

h. The maximum number of simultaneous users the outage tracker was designed to accommodate.

i. Whether you had internal facing redundancies/contingencies for outage tracking, and if so if these redundancies/contingencies were utilized during your response to Hurricane Beryl.

j. The date of the last stress or load test of the outage tracker.

RESPONSE:

PHEC's customer facing outage map was deployed for customer use on July 16, 2024 as a cloud-based system. The consumer facing outage map was still being tested and changed before Beryl. The on-premises outage management system was purchased in October of 2021 and deployed in mid-year 2022.

SPONSOR:

Michael Haynes

STAFF 1-33 Provide daily total and peak numbers of users accessing your outage tracker in the greater Houston area during each day of the May 2024 Derecho event.

RESPONSE:

Not applicable. The Cooperative is not in the greater Houston area.

SPONSOR:

Michael Haynes

STAFF 1-34 Provide the daily total and peak number of users accessing your outage tracker in the Impacted Area starting from July 8, 2024 through the date service was restored to 100% of your service territory.

RESPONSE:

Data not available.

SPONSOR:

Michael Haynes

STAFF 1-35 Describe any processes or policies adopted by your company as contingencies to inform customers about service outages and estimated restoration times in the event the outage tracker is offline.

RESPONSE:

PHEC utilizes our website for news and updates to keep members and our local leaders updated on our current situation.

SPONSOR:

Michael Haynes

STAFF 1-36 Please indicate if the processes or policies described in your response to Staff 1-35 were utilized during either the May 2024 Derecho event or in the aftermath of Hurricane Beryl. If they were, please identify the dates the identified processes and policies were activated.

RESPONSE:

N/A

SPONSOR:

Michael Haynes

STAFF 1-37 Please provide a breakdown of smart meters currently in service for each county in your service territory that was included within the Impacted Area. In providing a response to this question, please provide both raw numbers and answers as a percentage of total customers in each county.

RESPONSE:

PHEC does not operate any meters that have two-way communication at this time.

SPONSOR:

Michael Haynes

STAFF 1-38 Provide the date and method (e.g., email, phone call, text message) you initially contacted local governments in the Impacted Area.

RESPONSE:

N/A

SPONSOR:

Michael Haynes

STAFF 1-39 Describe what processes, if any, you had in place on or before July 8, 2024, to contact medical and eldercare facilities or critical infrastructure (e.g., police stations, firehouses, TV stations) in advance of a hurricane or major storm. Please include citations to the relevant section(s) of your EOP filed with the PUCT when answering this question.

RESPONSE:

N/A

SPONSOR:

Michael Haynes

STAFF 1-40 If your company has a process to contact critical care facilities, provide the date and method (e.g., email, phone call, text message) you initially contacted medical facilities, eldercare facilities, or critical infrastructure (e.g., police stations, firehouses, TV stations) in advance of Hurricane Beryl.

RESPONSE:

N/A

SPONSOR:

Michael Haynes

STAFF 1-41 Please describe how you communicate and with what frequency you communicate with critical care and at-risk customers about service outages and restoration efforts.

RESPONSE:

N/A

SPONSOR:

Michael Haynes

STAFF 1-42 For ERCOT-located utilities, please describe any communication with interconnected power generation companies regarding their operational status during Hurricane Beryl.

RESPONSE:

N/A

SPONSOR:

Michael Haynes

Electric Utilities – Customer Restoration Workflow

STAFF 1-43 Please state whether you have a service restoration plan regarding service outages caused by extreme or emergency weather events. If you do, please provide a copy of that plan(s). Please include citations to the relevant section(s) of your EOP filed with the PUCT when answering this question.

RESPONSE:

Restoration of service is prioritized in order of: 1) Transmission service to Substations; 2) distribution circuits with transmission service restored; 3) Registered critical care; 4) Broken poles that are required to restore the largest affected number of meters; and 5) Multiple small two-man crews are assigned to Public Safety (lines down blocking roads) and isolated outages that do not require replacement of damaged poles throughout the entire outage. *See* page nine of the Cooperative's EOP.

SPONSOR:

Michael Haynes

STAFF 1-44 Please describe the procedures followed for customer restoration of service, including prioritization criteria and timelines for restoration or service. Please note if these policies may lead to quicker restoration of service for an area of your service territory relative to the others and why.

RESPONSE:

Restoration of service is prioritized in order of: 1) Transmission service to Substations; 2) distribution circuits with transmission service restored; 3) Registered critical care; 4) Broken poles that are required to restore the largest affected number of meters; and 5) Multiple small two-man crews are assigned to Public Safety (lines down blocking roads) and isolated outages that do not require replacement of damaged poles throughout the entire outage.

SPONSOR:

Michael Haynes

STAFF 1-45 Please describe and explain any changes or modifications made to your service restoration plan(s) during and in the aftermath of the May 2024 Derecho or Hurricane Beryl.

RESPONSE:

No changes were made for Beryl.

SPONSOR:

Michael Haynes

STAFF 1-46 Please provide a county-by-county summary of date on which and number of damage assessment, vegetation, and linemen crews that you deployed to assess and begin service restoration efforts after Hurricane Beryl made landfall in the Impacted Area.

RESPONSE:

PHEC had two contractor line crews and four cooperative line crews from two Louisiana cooperatives along with all PHEC personnel.

SPONSOR:

Michael Haynes

STAFF 1-47 Please provide a county-by-county summary of the percentage of your customers that did not have service due to outages caused by Hurricane Beryl for each day from the day Hurricane Beryl made landfall in the Impacted Area to when service was fully restored to your customers.

RESPONSE:

Date	County	Percentage affected by outage
7/8/2024	Harrison	25%
7/8/2024	Panola	10%
7/9/2024	Harrison	8%
7/9/2024	Panola	10%
7/10/2024	Harrison	4%
7/10/2024	Panola	7%
7/11/2024	Harrison	1%
7/11/2024	Panola	0%

SPONSOR:

Michael Haynes

STAFF 1-48 Please describe how calls received by your call centers during and after Hurricane Beryl were incorporated in your service restoration workflow and processes.

RESPONSE:

Call information was entered into the outage management system for restoration management personnel to review and determine outage priority.

SPONSOR:

Michael Haynes

STAFF 1-49 Please describe your coordination efforts with local, state, and federal agencies, as well as any other stakeholders regarding service restoration before, during, and after Hurricane Beryl. Please provide details of any formal agreements or understandings with these parties.

RESPONSE:

PHEC utilizes our website for news and updates to keep members and our local leaders updated on our current situation. Local and state leaders contact the CEO directly for specific questions.

SPONSOR:

Michael Haynes

STAFF 1-50 Excluding the need to clear significant volumes of vegetation, please identify and described any major challenges you experienced during the process of restoring service to your customers before, during, and after Hurricane Beryl and any solutions implemented to address those challenges.

RESPONSE:

PHEC had issues with trees falling on lines from outside of our 30 foot right of ways. Trees blocking the small county roads during Beryl.

SPONSOR:

Michael Haynes

STAFF 1-51 Please describe any lessons learned about restoring service to customers during Hurricane Beryl and how what you learned will inform restoration efforts in the future.

RESPONSE:

PHEC is not conducting an after-action study internally for Beryl.

SPONSOR:

Michael Haynes

STAFF 1-52 Does your utility employ the National Incident Management System? If yes, please provide the date on which your utility starting using NIMS as its framework for managing emergency event response.

RESPONSE:

N/A

SPONSOR:

Michael Haynes

STAFF 1-53 Are your emergency response personnel trained in Incident Command System processes? If not, please describe any training your emergency event management personnel have received and how they interact with local and state officials and other utilities.

RESPONSE:

No. PHEC utilizes our website for news and updates to keep members and our local leaders updated on our current situation. Local and state leaders contact the CEO directly for specific questions.

SPONSOR:

Michael Haynes

Distribution Infrastructure

STAFF 1-54 Please explain your process for evaluating and replacing distribution poles. Please include an explanation for the following in your response:

a. How frequently this evaluation is conducted;

b. What criteria you utilize for this evaluation; and

c. When you decide to replace the distribution pole.

RESPONSE:

PHEC endeavors to maintain a ten-year rotation for the inspection and supplemental treatment of wood poles. Poles less than ten years old will only be visually inspected and reported if the visual inspection warrants no further action. All other poles are to be inspected both above and below the ground line area. Danger poles are marked and given a high priority for replacement and all other poles marked as bad are changed as the cooperative construction schedule permits.

SPONSOR:

Michael Haynes

STAFF 1-55 Please provide your minimum required right-of-way (ROW) width for both 3-phase and single-phase distribution lines.

RESPONSE:

PHEC maintains a 100 -foot ROW for transmission service of 69 kV or higher and a 30-foot ROW of all overhead lines of 7.2 kV.

SPONSOR:

Michael Haynes

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:

All poles affected by Beryl were wood poles and broke due to trees impacting the lines or pole from outside of the ROW.

All lines are designed to be built to meet NESC and state law requirements. These guidelines were followed at the time of construction and there will be no necessity of rebuilding.

SPONSOR:

Michael Haynes

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:

N/A

SPONSOR:

Michael Haynes

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:

PHEC follows National Electric Safety Code (NESC) for the embedment of wood poles. No changes in the PHEC practice have been made in the last ten years.

SPONSOR:

Michael Haynes

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:

PHEC uses a 40-foot class 5 wood pole and a 45-foot class 4 pole on its system.

SPONSOR:

Michael Haynes

STAFF 1-60 Please explain the NESC construction strength and overload factors your distribution lines were built to in the past.

RESPONSE:

To the best of the Cooperative's current knowledge, all lines are designed to be built to meet NESC and state law requirements. These guidelines were followed at the time of construction.

SPONSOR:

Michael Haynes

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:

PHEC has made no changes in the last two years.

SPONSOR:

Michael Haynes

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:

PHEC lines are designed the same in all parts of our system. Wood poles are used with a 30-foot ROW. Beryl caused tornados in the areas that blew over trees outside of the 30-foot ROW causing the damage to PHEC lines.

SPONSOR:

Michael Haynes

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:

PHEC has approximately 30,030 wood structures which are typically built to meet NESC and state law requirements. These guidelines were followed at the time of construction.

SPONSOR:

Michael Haynes

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:

There were no poles or outages from the May 2024 Derecho storm.

SPONSOR:

Michael Haynes

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:

Harrison County had 17 wood poles broken from trees falling on the line and Panola County had 6 wood poles broken from trees falling on the line.

SPONSOR:

Michael Haynes

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:

That data is not available, and PHEC's current pole inspection rotation target is ten years.

SPONSOR:

Michael Haynes

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:

Not applicable; no opinion at this time.

SPONSOR:

Michael Haynes

Transmission Infrastructure

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:

Not applicable; electric cooperatives are not defined as utilities under state law and Commission rules, and the Cooperative does not file an annual storm hardening report under 16 TAC § 25.95. PHEC does perform regular transmission line inspections and maintenance.

SPONSOR:

Michael Haynes

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:

PHEC has approximately 800 wood structures which are typically built to meet NESC and state law requirements. These guidelines were followed at the time of construction.

SPONSOR:

Michael Haynes

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 transmission structures failed in the May 2024 storm.

SPONSOR:

Michael Haynes

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:

One wood transmission pole broke due to a large tree falling on it from outside the 100-foot ROW.

SPONSOR:

Michael Haynes

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 transmission structures failed in the May 2024 storm. One wood transmission pole broke during Beryl due to a large tree falling on it from outside the 100-foot ROW, which was last inspected near April 29, 2019.

SPONSOR:

Michael Haynes

Vegetation Management

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:

PHEC has one full-time employee that is a registered arborist in the State of Louisiana for vegetation management out of 39 full-time employees. No changes in the staffing in the past five years. Over the past five years, contractors have been used for vegetation management with crew counts ranging from two to six depending on time of year and funds available.

SPONSOR:

Michael Haynes

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:

PHEC maintains a minimum clearance vertically at time of clearing of six feet below line and preferably to ground level and horizontally 15 feet off the centerline for distribution. PHEC's minimum clearance vertically at time of clearing is six feet above the ground level and horizontally 50 feet off the centerline for transmission.

SPONSOR:

Michael Haynes

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.

SPONSOR:

Michael Haynes

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 logs are readily available; however, PHEC does maintain robust vegetation management rotations.

SPONSOR:

Michael Haynes

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. PHEC does not consider its service territory located in a hurricane prone area and we endeavor to maintain a robust vegetation management rotation.

SPONSOR:

Michael Haynes

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:

See Attachment A - Reliability Index Report for Beryl.

SPONSOR:

Michael Haynes

Reliability Index Report
From: 07/08/2024 To: 07/10/2024
Service Type: 1 Electric
District: 0 Complaints Model
Ordered By: Substation and Feeder
Substation: INDIVIDUAL ; Feeder: INDIVIDUAL
Unadjusted Indices: IEEE 1366 Major Event Days
are included in the calculations

Unadjusted Indices Major Event Days included

Name*	Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
Substation: 1 (Crossroads) - Feeder: 1 (Crossroads 1)	1	683.1	1.094632	0.998397	1.096389	98.48%

Substation 1 Feeder 1 Recap (Unadjusted)
Total Incidents: 1
Total Customer Minutes: 40983.02
Total Customers on Substation 1 Feeder 1: 624
SAIDI – Customer Hours / Total Customers: (40983.02 / 60) / 624 = 1.094632 hours per customer
SAIFI – Customers Interrupted / Total Customers: 623 / 624 = 0.998397 interruptions per customer
CAIDI – Customer Hours / Customers Interrupted: (40983.02 / 60) / 623 = 1.096389 hours per interruption
ASAI = 100 * Customer Service Availability / Customer Service Demands: 100 * [624 customers * 72 hours] - 683.05 customer hours] / [624 customers * 72 hours] = 98.478678 %
Longest duration: 65 minutes
Largest number of affected customers: #NAME? occurred on 07/08/2024

Name*	Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
Substation: 1 (Crossroads) - Feeder: 2 (Crossroads 2)	0	0	0	0	0	100.00%

Substation 1 Feeder 2 Recap (Unadjusted)
Total Incidents: 0
Total Customer Minutes: 0
Total Customers on Substation 1 Feeder 2: 166

Name*	Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
Substation: 1 (Crossroads) - Feeder: 3 (Crossroads 3)	1	26.8	0.041622	0.071318	0.583611	99.94%

Substation 1 Feeder 3 Recap (Unadjusted)
Total Incidents: 1
Total Customer Minutes: 1610.77
Total Customers on Substation 1 Feeder 3: 645
SAIDI – Customer Hours / Total Customers: [1610.77 / 60] / 645 = 0.041622 hours per customer
SAIFI – Customers Interrupted / Total Customers: 46 / 645 = 0.071318 interruptions per customer
CAIDI – Customer Hours / Customers Interrupted: [1610.77 / 60] / 46 = 0.583611 hours per interruption
ASAI = 100 * Customer Service Availability / Customer Service Demands: 100 * [645 customers * 72 hours] - 26.85 customer hours] / [645 customers * 72 hours] = 99.942192 %
Longest duration: 35 minutes
Largest number of affected customers: #NAME? occurred on 07/08/2024

Name*	Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
Substation: 1 (Crossroads) - Feeder: 4 (Crossroads 4)	2	320.6	0.533406	0.991681	0.537881	99.26%

Substation 1 Feeder 4 Recap (Unadjusted)
Total Incidents: 2
Total Customer Minutes: 19234.63
Total Customers on Substation 1 Feeder 4: 601
SAIDI – Customer Hours / Total Customers: [19234.63 / 60] / 601 = 0.533406 hours per customer
SAIFI – Customers Interrupted / Total Customers: 596 / 601 = 0.991681 interruptions per customer
CAIDI – Customer Hours / Customers Interrupted: [19234.63 / 60] / 596 = 0.537881 hours per interruption
ASAI = 100 * Customer Service Availability / Customer Service Demands: 100 * [601 customers * 72 hours] - 320.58 customer hours] / [601 customers * 72 hours] = 99.259158 %
Longest duration: 145 minutes
Largest number of affected customers: #NAME? occurred on 07/08/2024

Name*	Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
Substation: 2 (De Berry) - Feeder: 1 (De Berry 1)	6	4015.6	15.74738	0.929412	16.94338	78.13%

Substation 2 Feeder 1 Recap (Unadjusted)
Total Incidents: 6
Total Customer Minutes: 240934.88
Total Customers on Substation 2 Feeder 1: 255
SAIDI – Customer Hours / Total Customers: [240934.88 / 60] / 255 = 15.747378 hours per customer
SAIFI – Customers Interrupted / Total Customers: 237 / 255 = 0.929412 interruptions per customer
CAIDI – Customer Hours / Customers Interrupted: [240934.88 / 60] / 237 = 16.943381 hours per interruption
ASAI = 100 * Customer Service Availability / Customer Service Demands: 100 * [255 customers * 72 hours] - 4015.58 customer hours] / [255 customers * 72 hours] = 78.128642 %
Longest duration: 1306 minutes
Largest number of affected customers: #NAME? occurred on 07/08/2024

Name*
Substation: 2 (De Berry) - Feeder: 2 (De Berry 2)

Substation 2 Feeder 2 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 2 Feeder 2:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 2 (De Berry) - Feeder: 3 (De Berry 3)

Substation 2 Feeder 3 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 2 Feeder 3:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 2 (De Berry) - Feeder: 4 (De Berry 4)

Substation 2 Feeder 4 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 2 Feeder 4:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 3 (Leigh) - Feeder: 1 (Leigh 1)

Substation 3 Feeder 1 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 3 Feeder 1:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 3 (Leigh) - Feeder: 2 (Leigh 2)

Substation 3 Feeder 2 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 3 Feeder 2:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

#NAME?
occurred on 07/08/2024
Total Incidents | Customer Hours | SAIDI | SAIFI | CAIDI | ASAI
5 | 12.53 | 0.993767 | 0.151351 | 15.15525 | 96.81%

5
76382.43
555
(76382.43 / 60) / 555 = 2.293767 hours per customer
84 / 555 = 0.151351 interruptions per customer
(76382.43 / 60) / 84 = 15.155245 hours per interruption
100 * (555 customers * 72 hours) - 1253.04 customer hours) / (555 customers * 72 hours) = 96.814213 %
1009 minutes

#NAME?
- occurred on 07/08/2024
30

#NAME?
occurred on 07/08/2024
Total Incidents | Customer Hours | SAIDI | SAIFI | CAIDI | ASAI
3 | 318.3 | 1.086367 | 0.102389 | 10.61019 | 98.49%

3
19098.33
293
(19098.33 / 60) / 293 = 1.086367 hours per customer
30 / 293 = 0.102389 interruptions per customer
(19098.33 / 60) / 30 = 10.610185 hours per interruption
100 * (293 customers * 72 hours) - 318.31 customer hours) / (293 customers * 72 hours) = 98.491157 %
846 minutes

#NAME?
- occurred on 07/08/2024
16

#NAME?
- occurred on 07/08/2024
Total Incidents | Customer Hours | SAIDI | SAIFI | CAIDI | ASAI
3 | 61.8 | 0.184986 | 0.020958 | 8.826468 | 99.74%

3
3707.12
334
(3707.12 / 60) / 334 = 0.184986 hours per customer
7 / 334 = 0.020958 interruptions per customer
(3707.12 / 60) / 7 = 8.826468 hours per interruption
100 * (334 customers * 72 hours) - 61.79 customer hours) / (334 customers * 72 hours) = 99.743075 %
3632 minutes

#NAME?
occurred on 07/08/2024
5

#NAME?
- occurred on 07/10/2024
Total Incidents | Customer Hours | SAIDI | SAIFI | CAIDI | ASAI
1 | 806.5 | 0.890128 | 0.998896 | 0.891111 | 98.76%

1
48387.33
906
(48387.33 / 60) / 906 = 0.890128 hours per customer
905 / 906 = 0.998896 interruptions per customer
(48387.33 / 60) / 905 = 0.891111 hours per interruption
100 * (906 customers * 72 hours) - 806.46 customer hours) / (906 customers * 72 hours) = 98.763712 %
53 minutes

#NAME?
occurred on 07/08/2024
905

#NAME?
- occurred on 07/08/2024
Total Incidents | Customer Hours | SAIDI | SAIFI | CAIDI | ASAI
1 | 113.2 | 0.433689 | 1 | 0.433689 | 99.40%

1
6794.2
261
(6794.20 / 60) / 261 = 0.433689 hours per customer
261 / 261 = 1.000000 interruptions per customer
(6794.20 / 60) / 261 = 0.433689 hours per interruption
100 * (261 customers * 72 hours) - 113.25 customer hours) / (261 customers * 72 hours) = 99.397377 %
26 minutes

#NAME?

Largest number of affected customers:

Name*
Substation: 3 (Leigh) - Feeder: 3 (Leigh 3)

Substation 3 Feeder 3 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 3 Feeder 3:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 3 (Leigh) - Feeder: 4 (Leigh 4)

Substation 3 Feeder 4 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 3 Feeder 4:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 3 (Leigh) - Feeder: 5 (Leigh 5)

Substation 3 Feeder 5 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 3 Feeder 5:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Substation: 8 (Deadwood) - Feeder: 1 (Deadwood 1)

Substation 8 Feeder 1 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 8 Feeder 1:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 8 (Deadwood) - Feeder: 2 (Deadwood 2)

Substation 8 Feeder 2 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 8 Feeder 2:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

- occurred on 07/08/2024
261
#NAME?
occurred on 07/08/2024

Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
16	1426.5	3.121423	0.568938	5.486501	95.66%

16
85589.42
457
(85589.42 / 60) / 457 = 3.121423 hours per customer
260 / 457 = 0.568938 interruptions per customer
(85589.42 / 60) / 260 = 5.486501 hours per interruption
100 *]457 customers * 72 hours] - 1426.49 customer hours] / [457 customers * 72 hours] = 95.66490%
2603 minutes
#NAME?
- occurred on 07/08/2024
211
#NAME?
occurred on 07/08/2024

Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
5	1254.5	13.58522	0.996255	13.63629	81.13%

5
435270.42
534
(435270.42 / 60) / 534 = 13.585219 hours per customer
531 / 534 = 0.996255 interruptions per customer
(435270.42 / 60) / 532 = 13.636291 hours per interruption
100 *]534 customers * 72 hours] - 1254.51 customer hours] / [534 customers * 72 hours] = 81.13164%
1355 minutes
#NAME?
- occurred on 07/08/2024
267
#NAME?
- occurred on 07/08/2024

Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
2	681.5	5.874818	1.491379	3.939184	91.84%

2
40888.73
116
(40888.73 / 60) / 116 = 5.874818 hours per customer
173 / 116 = 1.491379 interruptions per customer
(40888.73 / 60) / 173 = 3.939184 hours per interruption
100 *]116 customers * 72 hours] - 681.48 customer hours] / [116 customers * 72 hours] = 91.84053135%
699 minutes
#NAME?
occurred on 07/09/2024
116
#NAME?
- occurred on 07/08/2024

Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
5	1071.1	4.597018	0.261803	17.5591	93.62%

5
64266.32
233
(64266.32 / 60) / 233 = 4.597018 hours per customer
61 / 233 = 0.261803 interruptions per customer
(64266.32 / 60) / 61 = 17.559103 hours per interruption
100 *]233 customers * 72 hours] - 1071.11 customer hours] / [233 customers * 72 hours] = 93.61525296%
1116 minutes
#NAME?
- occurred on 07/08/2024
57
#NAME?
occurred on 07/08/2024

Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
2	367.2	0.718598	0.412916	1.7403	99.00%

2
22032.2
511
(22032.20 / 60) / 511 = 0.718598 hours per customer
211 / 511 = 0.412916 interruptions per customer
(22032.20 / 60) / 211 = 1.740300 hours per interruption
100 *]511 customers * 72 hours] - 367.20 customer hours] / [511 customers * 72 hours] = 99.00194836%
256 minutes

Largest number of affected customers:

Name*
Substation: 8 (Deadwood) - Feeder: 3 (Deadwood 3)

Substation 8 Feeder 3 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 8 Feeder 3:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 8 (Deadwood) - Feeder: 4 (Deadwood 4)

Substation 8 Feeder 4 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 8 Feeder 4:
Name*
Substation: 9 (Springridge) - Feeder: 1 (Springridge 1)

Substation 9 Feeder 1 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 9 Feeder 1:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

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Largest number of affected customers:

Name*
Substation: 10 (Baldwin) - Feeder: 1 (Baldwin 1)

Substation 10 Feeder 1 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 10 Feeder 1:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 10 (Baldwin) - Feeder: 2 (Baldwin 2)

Substation 10 Feeder 2 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 10 Feeder 2:
Name*
Substation: 10 (Baldwin) - Feeder: 3 (Baldwin 3)

Substation 10 Feeder 3 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 10 Feeder 3:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

#NAME?
occurred on 07/10/2024
204
#NAME?
- occurred on 07/09/2024

Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
5	3500.4	11.04227	1.11041	9.944319	84.66%

5
210024.02
317
(210024.02 / 60) / 317 = 11.042277 hours per customer
352 / 317 = 1.110410 interruptions per customer
(210024.02 / 60) / 352 = 9.944319 hours per interruption
100 * (317 customers * 72 hours) - 3500.40 customer hours / (317 customers * 72 hours) = 84.663511 %
820 minutes
#NAME?
occurred on 07/08/2024
245
#NAME?
- occurred on 07/08/2024

Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
0	0	0	0	0	100.00%

0
0
79

Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
10	1701.7	4.740002	1.777159	2.66718	93.42%

10
102099.65
359
(102099.65 / 60) / 359 = 4.740002 hours per customer
638 / 359 = 1.777159 interruptions per customer
(102099.65 / 60) / 638 = 2.667180 hours per interruption
100 * (359 customers * 72 hours) - 1701.66 customer hours / (359 customers * 72 hours) = 93.416663 %
1431 minutes
#NAME?
occurred on 07/08/2024
360
#NAME?
- occurred on 07/08/2024

Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
1	490.9	1.888141	0.165385	11.41867	97.38%

1
29455
260
(29455.00 / 60) / 260 = 1.888141 hours per customer
43 / 260 = 0.165385 interruptions per customer
(29455.00 / 60) / 43 = 11.418667 hours per interruption
100 * (260 customers * 72 hours) - 490.92 customer hours) / (260 customers * 72 hours) = 97.377582 %
685 minutes
#NAME?
- occurred on 07/09/2024
43
#NAME?
occurred on 07/09/2024

Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
0	0	0	0	0	100.00%

0
0
12

Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
1	869.4	1.671923	0.176923	9.45	97.58%

1
52164
520
(52164.00 / 60) / 520 = 1.671923 hours per customer
92 / 520 = 0.176923 interruptions per customer
(52164.00 / 60) / 92 = 9.450000 hours per interruption
100 * (520 customers * 72 hours) - 869.40 customer hours) / (520 customers * 72 hours) = 97.677885 %
561 minutes
#NAME?

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Largest number of affected customers:

Name*
Substation: 10 (Baldwin) Feeder: 4 (Baldwin 4)

Substation 10 Feeder 4 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 10 Feeder 4:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 12 (Gill) Feeder: 1 (Gill 1)

Substation 12 Feeder 1 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 12 Feeder 1:
Name*
Substation: 12 (Gill) Feeder: 2 (Gill 2)

Substation 12 Feeder 2 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 12 Feeder 2:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 12 (Gill) Feeder: 3 (Gill 3)

Substation 12 Feeder 3 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 12 Feeder 3:
Name*
Substation: 12 (Gill) Feeder: 4 (Gill 4)

Substation 12 Feeder 4 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 12 Feeder 4:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

Largest number of affected customers:

Name*
Substation: 14 (Elysian Fields) Feeder: 1 (Elysian Fields 1)

Substation 14 Feeder 1 Recap (Unadjusted)
Total Incidents:
Total Customer Minutes:
Total Customers on Substation 14 Feeder 1:
SAIDI – Customer Hours / Total Customers:
SAIFI – Customers Interrupted / Total Customers:
CAIDI – Customer Hours / Customers Interrupted:
ASAI – 100 * Customer Service Availability / Customer Service Demands:
Longest duration:

- occurred on 07/09/2024
90
#NAME?
occurred on 07/09/2024
Total Incidents | Customer Hours | SAIDI | SAIFI | CAIDI | ASAI
1 | 230.4 | 1.301737 | 0.175141 | 7.4325 | 98.19%

1
13824.45
177
(13824.45 / 60) / 177 = 1.301737 hours per customer
31 / 177 = 0.175141 interruptions per customer
(13824.45 / 60) / 31 = 7.432500 hours per interruption
100 * ((177 customers * 72 hours) - 230.41 customer hours) / (177 customers * 72 hours) = 98.19703 %
445 minutes
#NAME?
- occurred on 07/09/2024
31
#NAME?
occurred on 07/09/2024
Total Incidents | Customer Hours | SAIDI | SAIFI | CAIDI | ASAI
0 | 0 | 0 | 0 | 0 | 100.00%

0
0
411
Total Incidents | Customer Hours | SAIDI | SAIFI | CAIDI | ASAI
5 | 473.2 | 1.678101 | 1.191489 | 1.408406 | 97.67%

5
28393.47
282
(28393.47 / 60) / 282 = 1.678101 hours per customer
336 / 282 = 1.191489 interruptions per customer
(28393.47 / 60) / 336 = 1.408406 hours per interruption
100 * ((282 customers * 72 hours) - 473.22 customer hours) / (4032 customers * 72 hours) = 97.66931 %
792 minutes
#NAME?
- occurred on 07/08/2024
281
#NAME?
occurred on 07/08/2024
Total Incidents | Customer Hours | SAIDI | SAIFI | CAIDI | ASAI
0 | 0 | 0 | 0 | 0 | 100.00%

0
0
419
Total Incidents | Customer Hours | SAIDI | SAIFI | CAIDI | ASAI
1 | 1.72 | 0.026415 | 0.015385 | 1.716944 | 99.96%

1
103.02
65
(103.02 / 60) / 65 = 0.026415 hours per customer
1 / 65 = 0.015385 interruptions per customer
(103.02 / 60) / 1 = 1.716944 hours per interruption
100 * ((65 customers * 72 hours) - 1.72 customer hours) / (65 customers * 72 hours) = 99.96333 %
103 minutes
#NAME?
- occurred on 07/08/2024
1
#NAME?
occurred on 07/08/2024
Total Incidents | Customer Hours | SAIDI | SAIFI | CAIDI | ASAI
3 | 16.2 | 0.057452 | 0.021277 | 2.700231 | 99.99%

3
972.08
282
(972.08 / 60) / 282 = 0.057452 hours per customer
6 / 282 = 0.021277 interruptions per customer
(972.08 / 60) / 6 = 2.700231 hours per interruption
100 * ((282 customers * 72 hours) - 16.20 customer hours) / (282 customers * 72 hours) = 99.99006 %
181 minutes
#NAME?
- occurred on 07/09/2024

Largest number of affected customers: 4

#NAME?
- occurred on 07/09/2024

Name*	Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
Substation: 14 (Elysian Fields) - Feeder: 2 (Elysian Fields 2)	17	12113.8	14.18477	1.552693	9.135589	80.30%

Substation 14 Feeder 2 Recap (Unadjusted)
Total Incidents: 17
Total Customer Minutes: 726827.45
Total Customers on Substation 14 Feeder 2: 854
SAIDI - Customer Hours / Total Customers: (726827.45 / 60) / 854 = 14.184767 hours per customer
SAIFI - Customers Interrupted / Total Customers: 1326 / 854 = 1.552693 interruptions per customer
CAIDI - Customer Hours / Customers Interrupted: (726827.45 / 60) / 1326 = 9.135589 hours per interruption
ASAI = 100 * Customer Service Availability / Customer Service Demands: 100 * (854 customers * 72 hours) - 12113.79 customer hours / (854 customers * 72 hours) = 80.298035 %
Longest duration: 1568 minutes

#NAME?
occurred on 07/09/2024

Largest number of affected customers: 868

#NAME?
- occurred on 07/08/2024

Name*	Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
Substation: 14 (Elysian Fields) - Feeder: 3 (Elysian Fields 3)	2	723.3	1.300832	1.021583	1.27335	98.19%

Substation 14 Feeder 3 Recap (Unadjusted)
Total Incidents: 2
Total Customer Minutes: 43395.??
Total Customers on Substation 14 Feeder 3: 556
SAIDI - Customer Hours / Total Customers: (43395.?? / 60) / 556 = 1.300832 hours per customer
SAIFI - Customers Interrupted / Total Customers: 568 / 556 = 1.021583 interruptions per customer
CAIDI - Customer Hours / Customers Interrupted: (43395.?? / 60) / 568 = 1.??3350 hours per interruption
ASAI = 100 * Customer Service Availability / Customer Service Demands: 100 * (556 customers * 72 hours) - 723.26 customer hours / (556 customers * 72 hours) = 98.193288 %
Longest duration: ??4 minutes

#NAME?
occurred on 07/09/2024

Largest number of affected customers: 559

#NAME?
occurred on 07/08/2024

Name*	Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
Substation: 14 (Elysian Fields) - Feeder: 4 (Elysian Fields 4)	0	0	0	0	0	100.00%

Substation 14 Feeder 4 Recap (Unadjusted)
Total Incidents: 0
Total Customer Minutes: 0
Total Customers on Substation 14 Feeder 4: 14

Name*	Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
Substation: 99 (SUB_INVALID) - Feeder: 1 (INVALID)	0	0	0	0	0	100.00%

Substation 99 Feeder 1 Recap (Unadjusted)
Total Incidents: 0
Total Customer Minutes: 0
Total Customers on Substation 99 Feeder 1: 16

Name*	Total Incidents	Customer Hours	SAIDI	SAIFI	CAIDI	ASAI
Substation: 99 (SUB_INVALID) - Feeder: 2 (BLANK)	0	0	0	0	0	100.00%

Incident Details

Date	IncidentID	Sub	Fdr	Duration M	Customers	Customers	Customer M	Customer I	Cause	Outage Typ	Equipment	Weather	Follow Up
?/8/24	D573197	1	0	30.40	2029	2029	61515.42		07 Transmission Line				
7/8/24	C573404	1	4	145.05	1	1	145.05	A No Power	04 Weather				
7/8/24	D574184	1	1	65.78	623	623	40983.02		07 Transmission Line				
?/8/24	D574194	1	4	32.08	595	595	19089.58		07 Transmission Line				
7/8/24	D574198	1	3	35.02	46	46	1610.77		07 Transmission Line				
?/8/24	D573209	1	0	32.07	1433	1431	45951.53		07 Transmission Line				
7/8/24	D574203	2	0	237.32	1433	1433	340074.8		07 Transmission Line				
?/8/24	D574203	1	1	1306.45	155	155	202499.8		03 Tree/Limb on Line				
7/8/24	D574964	2	1	1254.52	21	21	26344.85		02 Tree/Limb on Line	05 OH	Equipment-Fuse/Switch		
?/8/24	D574857	1	3	846.58	16	16	13545.33		05 Trees/Overgrowth	05 OH	Equipment Fuse/Switch		
7/8/24	C574237	2	4	2632.73	1	1	2632.73		13 Broken Pole/Down	OH Primary			
?/8/24	D574923	1	2	1009.57	50	50	50478.33		03 Tree/Limb on Line	05 OH	Equipment Recloser		
7/8/24	D574944	2	2	933.85	2	2	1867.7		04 Weather	05 OH	Equipment-Fuse/Switch		
?/8/24	D574798	1	4	600.72	1	1	600.72		04 Weather				
?/8/24	C574483	1	1	56.52	1	1	56.52		18 Customer Responsibility				
7/9/24	D574941	2	2	841.4	1	1	841.4		02 Tree/Limb on Line	05 OH	Equipment-Fuse/Switch		
?/9/24	D574959	1	2	882	2	2	1764		04 Weather				
7/9/24	D574893	2	2	739	29	29	21431		02 Tree/Limb on Line	05 OH	Equipment-Recloser		
?/9/24	D574887	1	3	501	11	11	5511		03 Tree/Limb on Line	05 OH	Equipment Fuse/Switch		
7/9/24	D575082	2	1	456.37	1	1	456.37		02 Tree/Limb on Line	05 OH	Equipment-Fuse/Switch		
?/9/24	D574855	1	3	14	3	3	42		04 Weather	05 OH	Equipment Fuse/Switch		
7/9/24	D575020	2	1	176.2	57	57	10043.4		02 Tree/Limb on Line	05 OH	Equipment-Fuse/Switch		
?/9/24	D575020	1	1	767	2	2	1534		05 Trees/Overgrowth	05 OH	Equipment Fuse/Switch		
7/10/24	D575228	2	4	94.73	5	5	473.67		04 Weather	10 Distribu	05 OH Equi	11 Tropical Storm	
?/8/24	D574215	3	3	309.47	217	217	67154.27		07 Transmission Line				
7/8/24	D573229	3	0	324.78	2045	2045	664181.9		07 Transmission Line				

7/8/24	D574410	3	3	2434.55	0	0*	0	13 Broken Pole/Down OH Primary			
7/8/24	C574490	3	3	2603.58	1	1	2603.58	A No Power	04 Weather	110 Substation Equipment (see comments)	
7/8/24	D574245	3	5	8.92	116	116	1034.33		04 Weather		
7/8/24	D574344	3	2	26.03	261	261	6794.7		02 Tree/Limb on Line	65 OH Equipment-Recloser	
7/8/24	D574243	3	1	53.47	905	905	48387.33		02 Tree/Limb on Line		
7/8/24	D574333	3	4	59.78	181	181	10820.78		13 Broken Pole/Down OH Primary		
7/8/24	D574416	3	4	108.67	38	38	4129.33		13 Broken Pole/Down OH Primary		
7/8/24	D574346	3	4	1268.25	46	46	58319.5		13 Broken Pole/Down OH Primary		
7/8/24	D575104	3	4	1355.73	267	267	361980.8		13 Broken Pole/Down OH Primary		
7/8/24	D575024	3	3	1187	8	8	9496		02 Tree/Limb on Distribu	65 OH Equipment-Recloser	
7/9/24	C574737	3	3	1744	1	1	1744	G Tree on L	13 Broken Pole/Down OH Primary		
7/9/24	D575161	3	5	699.2	57	57	39854.4		04 Weather		
7/9/24	C574838	3	3	1571.18	1	1	1571.18	A No Power	04 Weather		
7/9/24	D575113	3	3	148	1	1	148		02 Tree/Limb on Distribu	05 OH Equipment-Fuse/Switch	
7/9/24	C574977	3	3	1191.87	1	1	1191.87	A No Power	04 Weather	110 Substation Equipment (see comments)	
7/9/24	D575103	3	4	83.57	0	0*	0		13 Broken Pole/Down OH Primary		
7/10/24	C575036	3	3	63.67	1	1	63.67	A No Power	04 Weather	110 Substation Equipment (see comments)	
7/10/24	D575254	3	3	56.73	23	23	1304.87		09 Substation Equipment		
7/10/24	C575044	3	3	60.18	1	1	60.18	A No Power	04 Weather	110 Substation Equipment (see comments)	
7/10/24	C575240	3	3	62.08	1	1	62.08	A No Power	04 Weather	110 Substation Equipment (see comments)	
7/10/24	C575046	3	3	52.92	1	1	52.92	A No Power	04 Weather	110 Substation Equipment (see comments)	
7/10/24	C575249	3	3	49.23	1	1	49.23	A No Power	04 Weather	110 Substation Equipment (see comments)	
7/10/24	C575048	3	3	48.77	1	1	48.77	A No Power	04 Weather	110 Substation Equipment (see comments)	
7/10/24	C575051	3	3	38.8	1	1	38.8	A No Power	04 Weather	110 Substation Equipment (see comments)	
7/8/24	D573220	8	0	103.6	1134	1134	117482.4		07 Transmission Line		
7/8/24	D574307	8	0	223.45	1134	1134	253392.3		07 Transmission Line		
7/8/24	D573731	8	3	102.07	31	31	3164.07		04 Weather		
7/8/24	D573730	8	3	102.07	30	30	3062		04 Weather		
7/8/24	D574947	8	1	1116.6	57	57	63646.2		02 Tree/Limb on Line	65 OH Equipment-Recloser	
7/8/24	D574899	8	3	820	245	245	200900		04 Weather		
7/9/24	D574918	8	3	54	43	43	2322		02 Tree/Limb on Line	01 OH Equipment Primary Conductor	
7/8/24	D575155	8	1	271.29	1	1	271.29		06 Bad Equipment	65 OH Equipment-Recloser	
7/9/24	D575157	8	1	143.45	1	1	143.45		06 Bad Equipment	65 OH Equipment-Recloser	
7/8/24	D575156	8	1	123.75	1	1	123.75		06 Bad Equipment	65 OH Equipment-Recloser	
7/9/24	D575188	8	3	191.98	3	3	575.95		02 Tree/Limb on Line	05 OH Equipment-Fuse/Switch	
7/9/24	D575158	8	1	81.7	1	1	81.7		06 Bad Equipment	65 OH Equipment-Recloser	
7/8/24	D575185	8	2	99.29	204	204	20240.2		02 Tree/Limb on Line	65 OH Equipment-Recloser	
7/10/24	D575235	8	2	256	7	7	1792		02 Tree/Lin 10 Distribu	05 OH Equipment-Fuse/Switch	
7/8/24	D573733	10	0	640.63	962	962	616289.3		07 Transmission Line		
7/9/24	D574888	10	3	567	92	92	52164		04 Weathe	10 Distribu	05 OH Equi 11 Tropical Storm
7/8/24	D574823	10	4	443.95	31	31	13824.45		02 Tree/Limb on Distribu	65 OH Equipment-Recloser	
7/9/24	D574945	10	1	685	43	43	29455		02 Tree/Lin 10 Distribu	65 OH Equipment-Recloser	
7/8/24	D573701	12	0	31.42	1176	1176	36946		07 Transmission Line		
7/8/24	C573567	12	4	103.02	1	1	103.02		04 Weather		
7/8/24	D573684	12	2	55.18	281	281	15508.52		04 Weather		
7/8/24	D574034	12	2	74.52	33	33	2459.05		02 Tree/Limb on Line		
7/8/24	D574033	12	2	56.15	2	2	112.3		02 Tree/Limb on Line		
7/8/24	D574181	12	0	77.13	1176	1176	81908.8		07 Transmission Line		
7/8/24	D574859	12	2	792.8	2	2	1585.6		02 Tree/Limb on Line		
7/8/24	D574858	12	2	485	18	18	8730		02 Tree/Limb on Line		
7/8/24	D572216	14	2	83.6	133	133	11118.8		02 Tree/Limb on Line		
7/8/24	C572208	14	2	43.45	1	1	43.45		02 Tree/Limb on Line		
7/8/24	C572207	14	2	43.63	1	1	43.63		02 Tree/Limb on Line		
7/8/24	C572210	14	2	31	1	1	31		02 Tree/Limb on Line		
7/8/24	D572217	14	2	121.07	14	14	1694.98		02 Tree/Limb on Line	05 OH Equipment-Fuse/Switch	
7/8/24	C572061	14	1	79.83	1	1	79.83	A No Power	02 Tree/Limb on Line		
7/8/24	D573203	14	0	98.73	1723	1723	170117.5		07 Transmission Line		
7/8/24	C573033	14	1	168.25	1	1	168.25	A No Power	04 Weather		
7/8/24	D574039	14	2	414.1	868	868	359438.8		13 Broken Pole/Down OH Primary		
7/8/24	D574187	14	3	73.22	559	559	40928.12		07 Transmission Line		
7/8/24	D574480	14	2	1377.58	210	210	289292.5		13 Broken Pole/Down OH Primary		
7/9/24	D574756	14	1	181	4	4	724		02 Tree/Limb on Line	05 OH Equipment-Fuse/Switch	
7/8/24	D574971	14	2	600	9	9	5400		02 Tree/Limb on Line		
7/9/24	D574896	14	3	274.18	9	9	2467.65		02 Tree/Limb on Line		
7/8/24	D575196	14	2	792.48	16	16	12679.73		02 Tree/Limb on Line	15 OH Equipment-Pole	
7/9/24	D575144	14	2	1568	9	9	14112		02 Tree/Limb on Line	15 OH Equipment-Pole	
7/8/24	D574926	14	2	13.67	26	26	354.03		13 Broken Pole/Down OH Primary		
7/9/24	D575025	14	2	1157.12	2	2	2314.23		13 Broken Pole/Down OH Primary		
7/8/24	D575220	14	2	630	2	2	1260		04 Weather		
7/9/24	D575029	14	2	1154.32	18	18	20777.7		13 Broken Pole/Down OH Primary		
7/10/24	D575256	14	2	151.48	7	7	1060.38		02 Tree/Lin 10 Distribu	05 OH Equipment-Fuse/Switch	
7/10/24	D575237	14	2	138	4	4	552		02 Tree/Limb on Line	15 OH Equipment-Pole	
7/10/24	D575262	14	2	1330.85	5	5	6654.25		13 Broken Pole/Down OH Primary		

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:

Aerial mapping with requested data not available.

SPONSOR:

Michael Haynes

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:

PHEC did not force any interruptions, but the vast majority of any issues faced were from vegetation outside the ROW.

SPONSOR:

Michael Haynes

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:

PHEC already maintains robust vegetation management rotations, but the Cooperative now has budget considerations ongoing by its Board for increased ROW clearing and vegetation management. However, the vast majority of fallen trees during Hurricane Beryl were outside of the ROW.

SPONSOR:

Michael Haynes

STAFF 1-82 When did you last substantively review, augment, or modify your vegetation management plan before July 8, 2024?

RESPONSE:

In the summer of 2022, PHEC changed bidding process to a per mile cleared award system from an hourly bid rating to increase production per dollar spent.

SPONSOR:

Michael Haynes

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:

All outages from Beryl were caused by trees outside of the ROW or tornadic wind.

SPONSOR:

Michael Haynes

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:

PHEC spends a significant amount of money of the ROW budget on clearing dead trees that are outside of the ROW and responding to member requests related thereto.

SPONSOR:

Michael Haynes

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:

PHEC spends a significant amount of money of the ROW budget on clearing dead trees that are outside of the ROW and has one full-time employee that monitors and works with the membership to address what should be cut by the contractor crew assigned to cut dead trees.

SPONSOR:

Michael Haynes

Staffing and Mutual Assistance

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; and

c. Please provide a list of members or participants for each mutual assistance program you are a member or participant in.

RESPONSE:

a. PHEC participates in mutual assistance through Texas Electric Cooperative (TEC) and Association of Louisiana Electric Cooperatives (ALEC).
b. *See* Attachment B – Mutual Aid Agreements.
c. Bailey Co. EC, Bandera EC, Bartlett EC, Big Country EC, Bluebonnet EC, Bowie-Cass EC, Brazos EC, Bryan Texas Utilities, Central Texas EC, Cherokee Co. ECA, Coleman Co. EC, Comanche EC, Concho Valley EC, CoServ Electric, Deaf Smith EC, Deep East Texas EC, East Texas EC, Fannin EC, Farmers EC, Fayette EC, Gort Belknap EC, Golden Spread EC, Grayson-Collin EC, Greenbelt EC, GVEC, Hamilton EC, Harmon EA, Heart of Texas EC, HILCO EC, J-A-C EC, Jackson EC, Jasper-Newton EC, Karnes EC, Lamar EC, Lamb C. EC, LCRA, Lea Co. EC, Lighthouse EC, Lyntegar EC, Magic Valley EC, Medina EC, MidSouth EC, Nararro Co. EC, Navasota Valley EC, North Plains EC, Northeast Texas EC, Nueces EC, Panola-Harrison EC, Pedernales EC, PenTex Energy, Rayburn Country EC, Rio Grande EC, Rita Blanca EC, Rusk Co. EC, Sam Houston EC, San Bernard EC, San Miguel EC, San Patricio EC, South Plains EC, Southwest Arkansas EC, Southwest Rural EA, Southwest Texas EC, Swisher EC, Taylor EC, Tri-County EC, Tri-County EC OK, Trinity Valley EC, United Cooperative Services, Upshur Rural EC, Victoria EC, Western Farmers EC, Wharton Co. EC, Wise EC, Wood Co. EC, Beauregard EC, Claiborne EC, Jeff Davis EC, South Louisiana EC, Washington-St. Tammany EC, Dixie Electric Membership Corporation DEMCO.

SPONSOR:

Michael Haynes

MUTUAL AID AGREEMENT

In consideration of the mutual commitments given herein, each of the Signatories to this Mutual Aid Agreement agrees to render aid to any of the Signatories as follows:

1. Request for aid. The Requesting Signatory agrees to make its request in writing to the Aiding Signatory within a reasonable time after aid is needed and with reasonable specificity. The Requesting Signatory agrees to compensate the Aiding Signatory as specified in this Agreement and in other agreements that may be in effect between the Requesting and Aiding Signatories.

2. Discretionary rendering of aid. Rendering of aid is entirely at the discretion of the Aiding signatory. The agreement to render aid is expressly not contingent upon a declaration of a major disaster or emergency by the federal government or upon receiving federal funds.

3. Invoice to the Requesting Signatory. Within 90 days of the return to the home work station of all labor and equipment of the Aiding Signatory, the Aiding Signatory shall submit to the Requesting Signatory an invoice of all charges related to the aid provided pursuant to this Agreement. The invoice shall contain only charges related to the aid provided pursuant to this Agreement.

4. Charges to the Requesting Signatory. Charges to the Requesting Signatory from the Aiding Signatory shall be as follows:

   a) Labor force. Charges for labor force shall be in accordance with the Aiding Signatory's standard practices.

   b) Equipment. Charges for equipment, such as bucket trucks, digger derricks, and other special equipment used by the aiding Signatory, shall be at the reasonable and customary rates for such equipment in the Aiding Signatory's locations.

   c) Transportation. The Aiding Signatory shall transport needed personnel and equipment by reasonable and customary means and shall charge reasonable and customary rates for such transportation.

   d) Meals, lodging and other related expenses. Charges for meals, lodging and other expenses related to the provision of aid pursuant to this Agreement shall be the reasonable and actual costs incurred by the Aiding Signatory.

5. Counterparts. The Signatories may execute this Mutual Aid Agreement in one or more counterparts, with each counterpart being deemed an original Agreement, but with all counterparts being considered one Agreement.

6. Execution. Each party hereto has read, agreed to and executed this Mutual Aid Agreement on the date indicated.

Date 5/17/19 Entity Pecos-Harrison Electric Coop.

By Kathy Reed

Title General Manager

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 changes were made and no coordination challenges met.

SPONSOR:

Michael Haynes

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:

PHEC's CEO called ALEC and requested aid. ALEC coordinated with other Louisiana cooperatives to send aid.

SPONSOR:

Michael Haynes

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:

PHEC's CEO called ALEC and requested aid. ALEC coordinated with other Louisiana cooperatives to send aid. Aid crews were in route the same day or the next morning.

SPONSOR:

Michael Haynes