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DOCKET NO. 56822

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

KARNES ELECTRIC COOPERATIVE'S RESPONSES TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION TO KARNES ELECTRIC COOPERATIVE QUESTION NOS. STAFF 1-1 THROUGH 1-120

 TO: Public Utility Commission of Texas c/o John B. Lajzer, Division Director, P.O. Box 13326, Austin, Texas 78711-3326

Karnes Electric Cooperative, Inc. ("Karnes") submits these responses to Commission Staff's First Request for Information ("RFI") to Karnes, Question Nos. Staff 1-1 through 1-120 ("Staff's First RFIs to Karnes"). Commission Staff requested that responses to Staff's First RFIs to Karnes be filed by August 30, 2024, thus these responses are timely filed. Karnes stipulates that all parties may treat these answers as if they were filed under oath. Karnes reserves the right to object at the time of any hearing to the admissibility of the information produced. Pursuant to Staff's instructions, and the Commission's "Second Order Suspending Rules" in Docket No. 50664, these responses are being filed on the PUC Interchange. However, notice of these responses are not being emailed to any party, as there are no known "parties" to Docket No. 56822 and no known service list or email addresses to which notice should be sent. Respectfully submitted,

Eric Halfmann, General Manager

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 feedback whether internally or externally from a third-party vendor or party invited to participate in the 2024 hurricane drill.

RESPONSE:

- a. Karnes conducted an emergency operations plan (EOP) training and hurricane drill on June 13, 2024.
- b. A Category 4 Hurricane hitting 20 miles north of Corpus Christi that heads to San Antonio with hurricane force winds sustained 75 miles inland was used for hurricane conditions. The scenario also assumed flooding from the storm, and heavy evacuation traffic ahead of the storm.
- c. There was no material difference in the 2024 drill versus the 2023 drill. There were minor differences in the storm scenarios covered.
- d. SENERGY by Schnieder Engineering
- e. No other electric, water, sewer, or telecommunication utilities were invited to participate in the 2024 hurricane drill.
- f. The Regional TDEM Coordinator, Juliano "Jay" De Leon, was invited to participate. No TDEM personnel attended the drill.

- g. There are no specific metrics used to determine drill performance. The team's interaction, engagement in the discussions, and knowledge of individual responsibilities within the EOP are indicators of preparedness and drill performance.
- h. Yes. The third-party vendor facilitating the drill stated, "I was really impressed with your team members and the amount of interaction they displayed during the EOP training. As a trainer of many sessions over the years, that seldom occurs."

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, Karnes has not sought open participation by the membership. Local responders and TDEM coordinators have been invited to participate, and some of those personnel could be members.

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

- a. There is no timeframe for how long an actual storm would be used to set the conditions for future drills. The events and conditions from storm experiences will continue to be discussed as potential impacts of future storm conditions. These experiences include but are not limited to areas affected the most, storm path, and duration of storm conditions. For example, service territory impacts from Hurricane Harvey (2017) and Hurricane Claudette (2003) were discussed in the training. Additionally, storm experiences from providing mutual aid to other electric providers and other storm experiences from participants were discussed.
- b. No specific storm was used but a combination of major storm characteristics were used.

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

RESPONSE:

South Texas Electric Cooperative (STEC) invited Karnes to attend STEC's May 7, 2024 hurricane drill, and multiple Karnes employees attended that drill.

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

RESPONSE:

National Weather Service, StormGeo, TDEM SOC Bulletins, NOAA, National Hurricane Center, local media outlets, and other miscellaneous weather services that are publicly available.

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

RESPONSE:

There is no defined number of days. Storm tracking begins as soon as a storm is identified or the potential for a storm is identified by the National Hurricane Center and in accordance with Karnes' EOP. The number of days can vary depending on the projected path and speed of the storm. TDEM SOC Bulletins and StormGeo notices assist in identifying tropical cyclones and disturbances, and send out communications for storm tracking.

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

RESPONSE:

Tracking started on June 24, 2024, 14 days before Texas Coast landfall on July 8, 2024.

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

RESPONSE:

Yes. Checking the functionality or performance of Karnes' outage tracker occurs continually as part of regular daily operations.

How far in advance of landfall did you initiate requests for mutual assistance?

RESPONSE:

Per Karnes' EOP that was filed with the PUCT, when a storm or low-pressure system begins to form or enters in the Caribbean or Gulf of Mexico, Karnes' dedicated line contractors and storm restoration contractors are contacted to confirm the availability of crews. Additionally, the availability of tree-trimming contractors are confirmed. For Hurricane Beryl, this was initiated on July 2, 2024, 6 days in advance of landfall. No requests for mutual assistance were initiated as the hurricane track eventually moved away from Karnes service territory. Karnes bids out and awards storm restoration contracts to multiple contractors annually in the springtime ahead of hurricane season. These storm contractor agreements provide access to enough crews to satisfy pre-landfall preparation needs. Additional mutual aid requests would occur after the storm hits and damage assessments identify the need for additional aid.

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:

The restoration prioritization and allocation of restoration efforts and resources is a dynamic process dependent on the extent and type of damage. A guideline is established in Annex (E), Hurricane Annex, to Karnes's EOP under the 'Restoration' section. These guidelines were not put in practice during Hurricane Beryl, as the hurricane did not impact Karnes' territory. Karnes's EOP is filed annually with the PUCT.

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:

These procedures are provided in Section 2 of Karnes' EOP that was filed with the PUCT.

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.

Karnes' EOP includes escalating levels of preparation based on the probability of system impact to the Karnes service territory. These stages escalate from Preparation Stage 1 to Stage 4. The actions taken at each level are provided in Annex (E), Hurricane Annex, to Karnes' EOP, which was filed with the PUCT.

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:

The system and tools used to manage all emergency response assignments are provided in Karnes' EOP, which was filed with the PUCT.

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:

In the springtime, routine spring thunderstorm preparations are made as storm conditions are predicted in weather forecasts. No specific advance preparations were made for the May 2024 Derecho event, which did not impact the Karnes service territory.

For Hurricane Beryl, Karnes initiated EOP preparations on July 2, 2024., 6 days ahead of landfall.

- 7/2/2024: Hurricane Beryl was entering the southeastern Caribbean Sea. The EOP was initiated with Stage 1 and Stage 2 preparations for a 'named' storm in the Caribbean. See EOP Annex (E), Hurricane Annex.
 - A staff meeting was held to review assignments and storm preparations. Daily staff meetings were planned through landfall to monitor storm progress and preparations.
 - Management also attended daily planning meetings with the Karnes's Generation and Transmission (G&T) supplier, STEC.
- 7/3/2024: Moved to Stage 3 preparations with a 'named' storm having a probability to affect Karnes service territory. See EOP Annex (E), Hurricane Annex.
 - A daily staff meeting was held and management attended the daily G&T meeting.
 - 7/4/2024: Still in Stage 3 Preparation and monitoring the storm track.
 - A daily planning meeting was held and management attended the daily G&T meeting.
- 7/5/2024: ~72 hours from landfall. Preparation efforts remain in Stage 3 Preparation and monitoring the storm track.
 - A daily planning meeting was held. The storm track is shifting east. Management attended the daily G&T meeting.
- 7/6/2024: ~48 hours from landfall. The storm track has shifted east, away from Karnes territory. Preparation efforts remain in Stage 3 Preparation.
 - Storm track monitoring and a daily planning meeting continued. Management attended the daily G&T meeting.
- 7/7/2024: ~24 hours from landfall. The storm track has shifted east and little to no impact is expected for the Karnes territory. Preparation efforts have reduced back to Stage 2 Preparation.
 - Storm monitoring and a daily meeting continued. Management attended a daily G&T meeting.
- 7/8/2024: Landfall. No impact to the Karnes territory.

- Management attended bi-daily G&T meetings to discuss damage assessments, restoration efforts, resources needs, and mutual aid needs.
- 7/9/2024 7/11/2024: Management continued to attend bi-daily G&T meetings as needed throughout the storm restoration to discuss restoration progress and mutual aid needs.

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

RESPONSE:

Karnes did not have any response to the May 2024 Derecho as it did not impact Karnes service territory.

Karnes service territory was not impacted by Hurricane Beryl so there was no response associated with Karnes service territory. Karnes did provide mutual aid as described below.

- 7/8/2024: Landfall. No impact to the Karnes service territory. Management attended bidaily G&T meetings to discuss damage assessments, restoration efforts, resources needs, and mutual aid needs.
 - Karnes released two contract line crews to provide aid to an impacted distribution cooperative and another contract line crew to provide storm restoration services to other impacted areas.
- 7/9/2024: Management attended bi-daily G&T meetings.
- 7/10/2024: Karnes sent two, two-man service crews to provide mutual aid to an impacted distribution cooperative in need of additional service crews. Management attended bidaily G&T meetings.
- 7/11/2024: Management attended daily G&T meeting..
- 7/10/2024 7/17/2024: Two Karnes service crews provided storm restoration mutual aid to an impacted distribution cooperative.

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:

Karnes did not experience any outages as a result of the May 2024 Derecho or Hurricane Beryl.

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. Karnes did not experience any outages as a result of the May 2024 Derecho.
- b. Karnes did not experience any outages as a result of Hurricane Beryl.
- c. N/A

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

RESPONSE:

No challenges. Karnes did not experience any impacts or outages due to the May 2024 Derecho or Hurricane Beryl.

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:

Karnes service territory did not experience any impacts due to the May 2024 Derecho or Hurricane Beryl so no after-action reports have been or will be completed.

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

RESPONSE:

Karnes does not have any additional information or concerns to provide at this time.

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:

- a. Per Karnes's EOP Section 2.3.9, the General Manager (or Designee) will work closely and coordinate with local, regional, and State agencies and entities to ensure effective communications regarding outage and restoration conditions, status and plans. As appropriate, coordinated communications will be developed and distributed in conjunction with these entities. As directed by the General Manager, Operations Manager or designees and the regional emergency coordinators, Karnes will participate in regular calls, meetings (in-person and/or virtual), and communications.
- b. Additional staff is allocated to the call center as available and based on call center needs.
- c. N/A. Karnes is not a TDU.

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:

Karnes's communication to members is provided in several ways, based on the severity of the issue. Tools commonly used are social media posts and website alerts with press releases. Karnes has capacity to send courtesy calls out to members and have emergency notification available for members to subscribe to using Karnes's online member portal. Annually, when spring storm season starts and when hurricane season starts in June, Karnes adds additional storm and hurricane preparation information to the KEC website and in the membership magazine, Texas Co-op Power.

For Hurricane Beryl, the following additional communications were utilized:

- July 3, 2024, Social media posts regarding generator safety, downed power lines and storm preparation started.
- July 6, 2024, Karnes shared US National Weather Service Austin-San Antonio information (this includes KEC service territory) regarding the direction and predicted impact of Hurricane Beryl. Karnes also shared information on how to report outages, always stay away from downed power lines, and Karnes's live outage map.

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:

N/A. Karnes service territory was not impacted by Hurricane Beryl.

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:

Karnes continually works to improve coordination and to open lines of communication with all area agencies and stakeholders. This is primarily done by developing relationships with local and regional organizations. These communications can vary depending on events and needs that arise.

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

RESPONSE:

Karnes continually works to improve coordination and communication with other utilities by continuously building relationships with other electric, water, sewer and telecommunication utilities.

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:

- a. 8 full time employees (FTE) of Karnes are available Monday Friday 8am to 5pm, and outside of those hours as needed.
 - i. Cooperative Response Center (CRC) handles after hours calls.
- b. All 8 (100%) are full time employees (FTE) of Karnes.
 - i. Cooperative Response Center (CRC) is a third-party call center (contracted labor).
- c. Karnes 40 seconds
 - i. CRC 60 seconds
- d. Karnes 3:40 minutes
 - i. CRC 3:59 minutes
- e. Scripts are provided regarding these types of events, and meetings are held to discuss these topics as needed.
- f. 8 full-time employees (FTE) were available. Karnes service territory was not impacted by Hurricane Beryl.

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:

Karnes service territory was not impacted by Hurricane Beryl. On July 8, 2024, 99% of Karnes's members had no interruption of power.

On July 8, 2024, the total number of calls to Karnes call centers was 115, with peak call volume of 3 calls at one time.

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:

Karnes provides support to local, and state leaders as requested. Karnes publishes updates on its website and social media. Karnes has a live outage map on its website for anyone to view.

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:

Karnes's Member Service Queue can record up to 750 hours. Once the hourly limit has reached capacity, the oldest are deleted. Karnes keeps approximately 60 days of call recordings.

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:

N/A. Calls are recorded.

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:

Karnes conducted business as normal with no pre-recorded storm messages due to not being impacted by the May 2024 Derecho or Hurricane Beryl.

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:

- a. The outage tracker was rolled out to Karnes members on April 16, 2020.
- b. The last software patch was July 2, 2024.
- c. The outage map was functioning as intended.
- d. Yes
- e. English
- f. The outage tracker uses meter information to track the number of meters out and approximate location of outages.
- g. On-premise server.
- h. 12,500 concurrent connections
- i. Yes. Redundancies/contingencies were not utilized as all systems were online.
- j. The Web Proxy server is monitored for any issues or slowness. If any issues are found, the issues are addressed at that time.

Preparer: Clifton Henke

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Sponsor: Clifton Henke

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:

N/A. Karnes does not have service territory in the greater Houston area.

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:

Karnes service territory was not impacted by Hurricane Beryl, and thus had 100% of service available ('restored') on July 8, 2024. On July 8, 2024, Karnes had a total of zero users access the outage tracker with a peak number of zero.

Preparer: Clifton Henke Sponsor: Clifton Henke

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:

Contingencies include utilizing the Karnes website, social media, and direct emails to members.

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,

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:

The table below provides the breakdown of smart meters currently in service for each county.

County	Smart Meters	Total	% Smart Meter
Atascosa	12,869	12890	99
Bee	162	162	100
Bexar	25	25	100
Dewitt	7	7	100
Frio	128	128	100
Goliad	351	351	100
Karnes	4277	4293	99
La Salle	12	12	100
Live Oak	912	926	98
McMullen	2,058	2073	99
Medina	55	55	100
Wilson	1,779	1794	99

Preparer: Shane Knight Sponsor: Shane Knight

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

RESPONSE:

N/A. Karnes did not formally contact local governments during the May 2024 Derecho and Hurricane Beryl because Karnes' system was not impacted by these storms.

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:

Karnes processes are described in EOP Section 2.3.11 Critical Load Customers under Section 2 Communication Plan. Karnes' EOP was filed with the PUCT.

Timelines of communication are dependent upon event circumstances.

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:

Karnes did not formally contact critical care facilities in advance of Hurricane Beryl, due to the forecast of limited impact to Karnes' service area.

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:

Karnes' processes are described in EOP Section 2.3.11 Critical Load Customers under Section 2 Communication Plan. Karnes' EOP was filed with the PUCT.

Frequency of communication is dependent on the event and situation.

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

RESPONSE:

Karnes' G&T supplier is STEC. Daily preparation meetings were held with STEC before landfall of Hurricane Beryl starting on July 2, 2024. The meetings were then held twice daily once Hurricane Beryl made landfall and through the completion of restoration of STEC transmission service. STEC also provides storm tracking and preparation updates via email communications. Other operational communications occur between Karnes and STEC personnel as the need arises.

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:

Karnes' restoration plan for outages caused by extreme or emergency weather events is provided in the Karnes EOP. Restoration plans are provided in the Mutual Aid section on page 5, Section 5, and EOP Annexes (E) Hurricane Annex, (B) Load Shed Annex, (C) Pandemic and Epidemic Annex. Karnes's EOP was filed with the PUCT.

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:

Karnes' restoration plan for outages caused by extreme or emergency weather events is provided in the Karnes EOP as stated in questions 1-10 and 1-43. These policies may lead to quicker restoration of service for an area relative to others as the factors identified in Karnes' EOP, such as critical loads, main feeders, hazardous situations, magnitudes of outages, etc., are balanced to safely return service to critical loads and to the most members, as quickly as possible.

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:

None

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:

N/A. Karnes service territory was not impacted by Hurricane Beryl.

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:

N/A. Karnes service territory was not impacted by Hurricane Beryl.

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

RESPONSE:

All calls are answered and handled as they come in. Outages are entered into our customer information system, triggering alerts to our dispatchers (after hours dispatch utilized through Cooperative Response Center (CRC)) to send crews to troubleshoot any outages. Utilizing an outage management system, Karnes' outage map is always live on its website. Karnes also utilizes both an automated phone system and mobile app for outage reporting in addition to staff receiving phone calls. All outage tickets follow the same process of sending alerts to our dispatch who sends crews to troubleshoot the outage. Through the automated phone system and mobile app, members can also see if they are part of a larger outage on the Karnes system. Members also have the option to receive a call back once an outage has been restored.

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:

Karnes coordinated with STEC, the Karnes G&T cooperative, and STEC's other member cooperatives. Karnes has a wholesale power contract with STEC. Karnes has signed a mutual aid agreement for providing assistance to other electric cooperatives in Texas. Karnes also coordinated with line contractors and maintains contracts with those organizations.

Additionally, Karnes personnel attended TDEM coordination calls.

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:

N/A. Karnes service territory was not impacted by Hurricane Beryl.

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:

N/A. Karnes service territory was not impacted by Hurricane Beryl.

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:

Yes. The National Incident Management System is incorporated into the Incident Command framework of Karnes's EOP which was updated in 2022 to comply with the updated 25.53 rule.

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:

Yes. Karnes has emergency response personnel trained in the Incident Command System. Additionally, personnel are trained annually by local paramedics in CPR and first aid, and personnel routinely interact with local responders and other utilities to assist with miscellaneous activities such as traffic incidents, spring storms, and economic development.

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:

- a. Karnes has an annual distribution pole inspection and replacement program. Karnes contracts with a 3rd party contractor to inspect approximately 6,000 poles annually and replaces the poles based on the inspection findings. Additionally, Karnes personnel evaluate poles during outage restoration and line patrols.
- b. Visual inspection, and above and below groundline inspections (such as sounding and boring) criteria are utilized.
- c. The replacement of poles is determined from the inspection results and the remedial treatment options available.

Preparer: Eric Halfmann Sponsor: Patrick Janysek

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

RESPONSE:

30', as described in RUS Spec M1.30G.

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:

N/A. Karnes did not have any feeders affected by Hurricane Beryl.

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:

- a. 1 pole on feeder to Kinder Morgan from Helena substation, 15303.
- b. N/A. Karnes did not experience any damage from either the May 2024 Derecho or Hurricane Beryl.
- c. Three phase, 477, built to load grade C medium.

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

RESPONSE:

In accordance with RUS specifications and any specific non-standard pole requirements, with the most common standard being 10% of the pole height plus 2 feet. This standard has not changed in the last 10 years.

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

RESPONSE:

The standard distribution pole size and class for both single and three phase lines on the Karnes system within the Impacted Area are in accordance with RUS specifications for the design loading of the circuit.

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

RESPONSE:

Grade C - Medium

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:

None

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:

None of Karnes's distribution feeders lost power due to Hurricane Beryl and the May 2024 Derecho.

- a. Grade C Medium
- b. Primarily wooden poles with some concrete and galvanized poles.
- c. 30 feet
- d. Yes
- e. N/A.

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:

Approximately 129,155 poles were in service before the May 2024 Derecho as provided in the table below. The poles are Grade C – Medium.

Pole Types and Quantities				
	0 - 35'	77,284		
	40-			
	45'	49,640		
	50'	1,762		
Wood	55'	192		
	60'	128		
	65'	19		
	80'	1		
Galvanized	35'	17		
	30'	13		
	45'	3		
	50'	29		
Concrete	55'	42		
	60'	20		
	65'	1		
	70'	4		
	129,155			

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:

None. Karnes was not impacted by the May 2024 Derecho.

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:

None. Karnes was not impacted by Hurricane Beryl.

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:

N/A. Karnes had no poles fail due to the May 2024 Derecho or Hurricane Beryl.

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. Electric cooperatives are not defined as utilities under state law and Commission rules.¹ While electric cooperatives already follow and implement NESC standards, the Boards of Directors of electric cooperatives maintain exclusive authority over all matters pertaining to electric cooperative systems.²

Moreover, a universal mandate would not take into account the specific characteristics of the local electric system which may vary depending on its location in what may be a broad swath of "hurricane prone areas".

¹ Public Utility Regulatory Act (PURA) § 31.002 (6). 16 Texas Administrative Code (TAC) §25.5 (137).

² PURA §41.055, PURA §41.004.

Preparer: Melissa Sykes, McGinnis Lochridge, LLP (KEC Outside General Counsel) Sponsor: Melissa Sykes, McGinnis Lochridge, LLP (KEC Outside General Counsel)

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:

N/A. Karnes does not own transmission.

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:

N/A. Karnes does not own transmission.

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:

N/A. Karnes does not own transmission.

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:

N/A. Karnes does not own transmission.

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:

N/A. Karnes does not own transmission.

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:

- a. Karnes has approximately 34 full-time staff that perform vegetation management as needed based on service orders, outage findings, hazard findings, and patrol inspections. Karnes also has 10 to 15 independent contract personnel dedicated to vegetation management.
- b. Approximately 34 full-time staff and 10 to 15 contract personnel.
- c. The level of vegetation management staff actively working on vegetation management activities is dependent on the vegetation management work that needs to be completed. The staffing is then allocated as needed to complete the work.
- d. Karnes does not have a detailed analysis of this cost difference as it is dependent on the type of vegetation management work being completed, such as tree-trimming, clearing rights-of-way, and spraying rights-of-way. Karnes has identified that it is cost effective to contract certain vegetation management services, with contractor daily cost being approximately two-thirds of the cost of in-house personnel.
- e. Yes. Karnes' independent contractor has an arborist.

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:

Karnes uses RUS Right of Way Clearing Specifications, M1.30G.

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:

Karnes does utilize hazard recognition reporting and line patrols of circuit segments to proactively identify problematic conditions outside of planned vegetation management cycle periods. These conditions include but are not limited to problematic vegetation.

Preparer: Jesse Benavides Sponsor: Jesse Benavides

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

RESPONSE:

All twelve of the counties in Karnes territory are included in the Impacted Area, defined as the 121 counties identified in the amended disaster declaration. Karnes' service territory was not impacted by the May 2024 Derecho or by Hurricane Beryl.

Karnes has vegetation management logs and field reports available for the past five years. These logs and field reports contains specific member (customer) information, including customer names, which constitutes customer-specific information protected by Tex. Util. Code \$32.101(c) and 16 Tex. Admin. Code \$25.272(c)(5) & (g)(1). This customer-specific information has been redacted from the logs and reports. In addition, these vegetation management logs and field reports are voluminous and pursuant to 16 TAC \$22.144(h)(2), electronic copies of the vegetation management logs and field reports are available for inspection at the following location:

McGinnis Lochridge, LLP 1111 W. 6th St. – Building B, Ste. 400 Austin, TX 78703.

Below is a detailed index of the electronic file:

Main File Name: Karnes Vegetation Management 2019-2024

- Subfolder 1 Karnes Tree Trimming Reports
 - o Subfolder KEC 2019
 - 1-2019
 - 2-2019
 - 3-2019
 - 4-2019
 - 5-2019
 - 6-2019
 - 7-2019
 - 8-2019
 - 9-2019
 - 10-2019
 - 11-2019
 - 12-2019
 - Subfolder KEC 2020
 - 1-2020
 - **2-2020**
 - **3**-2020
 - **4**-2020

- 5-2020
- 6-2020
- 7-2020
- 8-2020
- 9-2020
- 10-2020
- 11-2020
- 12-2020
- Subfolder KEC 2021 0
 - 1-2021
 - 2-2021
 - 3-2021
 - 4-2021
 - 5-2021
 - **6**-2021
 - 7-2021
 - 8-2021
 - 9-2021
 - 10-2021
 - 11-2021
 - 12-2021
- Subfolder KEC 2022 0
 - **1**-2022
 - 2-2022
 - 3-2022
 - 4-2022
 - 5-2022
 - 6-2022
 - 7-2022
 - 8-2022
 - 9-2022 •
 - 10-2022
 - **11-2022**
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 - 12-2022
- Subfolder KEC 2023 0
 - 1-2023
 - 2-2023
 - 3-2023
 - 4-2023
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 - 7-2023
 - 8-2023
 - 9-2023
 - 10-2023

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- 11-2023
- **12-2023**
- Subfolder KEC 2024
 - 1-2024
 - 1-2024 Update
 - **2-2024**
 - **3-2024**
 - 4-2024
 - **5**-2024
 - **6-2024**
 - 7-2024
- Subfolder 2 Karnes Dozer Mulcher Reports
 - KEC Dozer Mulcher Report 2021
 - KEC Dozer Mulcher Report 2022
 - KEC Dozer Mulcher Report 2023
 - KEC Dozer Mulcher Report 2024
- Subfolder 3 Third Party Logs IVM
 - KEC Spray Data 2021 2023
 - KEC 2021 Mulching
 - o KEC 2021 Trimming
 - KEC 2022 Mulching
 - KEC 2022 Trimming
 - o KEC 2023 Mulching
 - KEC 2023 Trimming

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:

N/A. The Karnes service territory is not located in Hurricane prone areas.

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:

N/A. Karnes had no outages as a result of the May 2024 Derecho and Hurricane Beryl.

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:

N/A. Karnes had no outages as a result of the May 2024 Derecho and Hurricane Beryl.

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

RESPONSE:

N/A. Karnes had no outages as a result of the May 2024 Derecho and Hurricane Beryl.

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:

N/A. Karnes had no outages as a result of the May 2024 Derecho and Hurricane Beryl.

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

RESPONSE:

2019

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:

N/A. Karnes had no outages as a result of the May 2024 Derecho and Hurricane Beryl.

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:

Karnes has an internal Hazardous Reporting process to address potentially hazardous vegetation management issues. When Karnes personnel identify hazards in the field, the hazards are resolved and reported. If the hazard requires more attention than field personnel is able to address and resolve, or property owner involvement is needed to resolve the issue, Karnes field personnel turn in a hazard form to Karnes' safety personnel. If property owner involvement is required, Karnes's safety personnel will send a letter to the property owner describing the hazard and the timeline for corrective action. Karnes operations personnel will then make contact with the property owner to discuss scheduling work to correct the hazard or resolve the issue.

Preparer: Jesse Benavides Sponsor: Jesse Benavides

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:

Approximately 34 in-house personnel and 10 to 15 contractor personnel.

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:

Yes.

- a. Karnes participated in the Texas Electric Cooperative (TEC) mutual assistance program.
- b. Karnes has signed the TEC mutual assistance agreement. The KEC agreement is included with this response as **KEC-Staff 1-86**, **Attachment 1**.
- c. All TEC members are participants in the mutual aid program and a list of these members is included in this response as **KEC-Staff 1-86**, **Attachment 2**.

KEC-STAFF 1-86 ATTACHMENT 1

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. <u>Request for aid</u>. 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. <u>Discretionary rendering of aid</u>. 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. <u>Invoice to the Requesting Signatory</u>. 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. <u>Charges to the Requesting Signatory</u>. Charges to the Requesting Signatory from the Aiding Signatory shall be as follows:
 - a) <u>Labor force</u>. Charges for labor force shall be in accordance with the Aiding Signatory's standard practices.
 - b) <u>Equipment</u>. 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) <u>Transportation</u>. 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) <u>Meals, lodging and other related expenses</u>. 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. <u>Counterparts</u>. 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. <u>Execution</u>. Each party hereto has read, agreed to and executed this Mutual Aid Agreement on the date indicated.

Date 05/07/2024	Entity Karnes Elec	Entity Karnes Electric Cooperative		
	By Eric Halfmann	Eric Halfmann	Digitally signed by Eric	
	_{Title} General Man	Title General Manager		

KEC-STAFF 1-86 ATTACHMENT 2

Cooperative Participants

cooperative Farticipan	13
Bailey County ECA	Medina EC
Bandera EC	MidSouth EC
	Navarro County EC
Bartlett EC	
Big Country EC	Navasota Valley EC
Bluebonnet EC	North Plains EC
Bowie-Cass EC	
Brazos EPC	Nueces EC
Bryan Texas Utilities	Panola-Harrison EC
Central Texas EC	
Cherokee County ECA	Pedernales EC
Coleman County EC	PenTex Energy
Comanche EC	Rayburn Country EC
Concho Valley EC	Rio Grande EC
CoServ Electric	Rita Blanca EC
Deaf Smith EC	Rusk County EC
Deep East Texas EC	Sam Houston EC
East Texas EC	San Bernard EC
Fannin County EC	San Miguel EC
Farmers EC, NM	
Farmers EC, TX	San Patricio EC
Fayette EC	
Fort Belknap EC	South Plains EC
Golden Spread EC	South Texas EC
Grayson-Collin EC	SW Arkansas EC
Greenbelt EC	SW Rural EA
Guadalupe Valley EC	SW Texas EC
Hamilton County ECA	
Harmon EA	Swisher EC
Heart of Texas EC	Taylor EC
HILCO EC	Tri-County EC, TX
	Tri-County EC, OK
Houston County EC	Trinity Valley EC
J-A-C EC	United Co-op Services
Jackson EC	Upshur Rural ECC
Jasper-Newton EC	Victoria EC
Karnes EC	Western Farmers EC
Lamar EC	Wharton County EC
Lamb County EC	Wise EC
Lea County EC	Wood County EC
Lighthouse EC	-
LCRA	

Lyntegar EC Magic Valley EC

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:

N/A. Karnes had no outages and thus no mutual assistance needs as a result of Hurricane Beryl.

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:

N/A. Karnes had no outages and thus no mutual assistance needs as a result of Hurricane Beryl.

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:

See responses to questions 1-14 and 1-15.