

- g. Should secondary numbers for certain organizations be prepared in the ERP? **Action item – each person responsible to update phone numbers in the ERP update should evaluate the need for secondary contact numbers on their list.**
 - h. Need to continue to follow established processes and guidelines
 - i. Need to ensure at minimum from foreman – a daily overview of progress with ERP coordinator and communications group
4. Initiating the disaster restoration plan
- a. Discuss the initiation of the disaster restoration plan
 - b. Co-ops being utilized for restoration – a good move – try to do this in future events if possible, use contractors that we already have on-board where they are most useful
 - c. Depending on inventory needs – maybe cooperatives could bring some material with them? Minor materials vs. CPR's This will be dealt with on a scenario basis
 - d. Expect a scenario where some cooperatives are not available – need to be prepared to request out-of-state cooperative support – **Action Item – Kevin to ensure the statewide cooperative numbers are in ERP.**
 - e. FEMA/mutual aid – in the future – we need to try to document requests for mutual aid to other cooperatives – develop a form letter? **Action Item – Quentin/Cameron to develop form letter for assistance request to other cooperatives.**
 - f. Food/preparation needs to continue to be discussed throughout the event – action item – how do we handle feeding large groups of folks across our territory – **Action Item - Landy/Marty to work on an idea of local representation on this item – maybe office managers**
 - g. Delivering food also allowed us to know where all the crews were and their status
 - h. Having the local foreman in charge is the way to go – communications, engineering, crews, dispatch, local emergency services. **Action item – the foremen should come up with a list of things to consider from initiation of the plan locally to operations and then clean up.**
 - i. Data access to the network is an issue – **Brad – Action Item - need to consider this IT – review MiFi and other options including use of tethering on iPhone.**
 - j. As the disaster becomes larger – UCS employees shift towards disaster management – **Action Item - David/Mark/Foremen/Kirk need to discuss shifting from construction to project/disaster management**
 - k. Discussion of an RV or construction trailer setup – **Action Item – Kevin - need to address this in the plan – identify locations of rentals across territory.**
 - l. Need to continue to recognize terrain – dozer work was greatly helpful in restoration
 - m. Press conference to be considered and worked through communications on the ERP response
5. Operation of the disaster restoration plan
- a. Discuss the operation of the of the disaster restoration plan

- b. Again, the foreman at the local point was imperative – larger events spanning across the territory require a point person for the foremen
 - c. Need to ensure that we have some tie to EMT/etc. in preparation for safety issues/accidents – Safety department needs to be prepared to be involved in preparedness for accidents
 - d. Operations folks – time was tracked well, work orders good, but we need to figure out how to better track operations vehicle/equipment use
 - e. Non-operations/salaried folks – time was not tracked well, this needs to be figured out for FEMA reimbursement purposes
 - f. **Action item – Quentin to review time sheets and process of tracking time and equipment use –for all personnel working on restoration**
 - g. **Action Item - Billing – Lisa/LaFonda/Robert/Cory to document process that was followed – work out this process to where it could/can work system wide with different types of issues with members**
 - h. Need to understand that liability can be a concern – especially in this case, all comments/information from a liability standpoint to flow through safety/HR.
 - i. Command center can be utilized to assist – especially as the system becomes fully deployed this year
 - j. **Action Item - Roger – work with foremen to come up with a written plan on how to take care of an incident such as this at a local level – setup, daily crew work, safety, etc.**
6. Completion of the plan
- a. Discuss the wrap-up of the disaster restoration plan
 - b. Clean up – need to consider clean up as a part of the restoration plan, need to work with crews to return retired/damaged equipment as much as possible – ensure the construction sites are clear/clean after the fact – try not to allow a clean up to delay restoration – focus on central clean up piles
 - c. As long as we follow our processes, we should be good.
7. After review of the event, was the ERP an effective document in aiding to success/preparation for the event?
- a. Overall, the plan helped UCS be prepared for the event and successfully navigate through the issues of dealing with an event.
8. We need to update the current plan with any recommendations and updates
- a. Kevin Keesee will be coordinating the update of the plan for 2012 preparedness
 - b. Review with Board of Directors will occur January 30, 2012. We should attempt to get as much accomplished on the update as close to January 30 as possible. **Action Item – Kevin will get with each employee to update the plan. Try to get updates to Kevin in a reasonable amount of time after the request**

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Background

It is October and cold fronts are starting to move through the area. The area weather services issue severe weather warnings as they see the potential for severe thunderstorms and tornados across the North Texas area. As the front moves through United's service territory, it appears to be pretty much a rain event until the front crosses central Johnson County. A very severe storm builds and spawns an F5 tornado that centers on the EDO office heading east. The office is severely damaged, and it is determined that the dispatch room is not fit for continuing use and the backup dispatch room must be used in Cleburne. Along with other damage, the tower at EDO is on the ground and materials/trash from the office is spread for miles around. Further, while localized, there is severe damage to United's distribution system from the EDO office to the eastern edge of United's territory.

Pre and Post Storm Actions

Upon learning that a severe thunderstorm is heading into United's eastern territory, the Dispatcher monitors the weather situation and advises on-call Operations Foremen. At approximately 6:15 pm the thunderstorm develops into an F5 tornado headed directly for United's Eastern District Office. Once the storm has passed, dispatch immediately makes contact with Cameron Smallwood, Emergency Response Coordinator, via the designated dispatch cell phone, and relays the incident. The EDO is severely damaged leaving dispatch inoperable, as well as putting the communications tower on the ground.

Cameron Smallwood quickly informs all staff and supervisors of the situation. System Operator Jerry Scott immediately notifies all dispatch personnel of the situation, and begins the process of relocating to the backup control center in Cleburne. Critical loads are notified and a news announcement is developed by Communication representatives and delivered to the media as well as posted on United's Website and Facebook page. This announcement informs the membership and community of possible widespread interruptions, safety hazards concerning electrical service and conveys emergency contact numbers.

Cameron calls a mandatory emergency meeting at the Cleburne Cooperative headquarters for all necessary supervisors and staff, utilizing phone conferencing and Web-ex to reach the other offices. After reviewing the ERP document in the meeting, the following assignments and responsibilities were clarified:

- Emergency Coordinator - Cameron Smallwood
- Secondary Emergency Coordinator - Quentin Howard
- Operations Manager - Ed Nunez
- Engineering Services Manager - Cory Menzel
- System Operators - Jerry Scott
- Engineering (Area) Representatives - Jason Dillard and Denny Adams
- Billing Representative - Lisa Bench
- Finance and Accounting Representatives – Russell Young and Paula Cupps
- IT Department (Eric Cagle, Brad Mead and Alen Rogic) and MIS (Robert Bernhoft)
- Member Service Group - Landy Bennett and Office Managers
- Construction Contractor Group - Mark Buckner

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- Line Foreman- Tim Timmons, Travis Ashworth, Gary Sims, Ted Gebhardt, Roger Wolfe, Jerry Scott, and other Journeyman linemen as needed.
- Communications Representatives - Marty Haught and Mauri Montgomery
- Key Accounts Representatives – Jeff Pannell and Seth Rosser
- Human Resources - Patty Holleman, Debra Ciccarelli, and Kevin Keesee

The following issues were raised from this emergency and had to be tested. The results are as follows:

- **Does United have proper guidelines and procedures in preparation for the situation?**

From a procedural standpoint, United has guidelines in place for responding to disaster situations. Several deficiencies were discovered as a result of this disaster and will be addressed in this document. Key points of this scenario include:

- To date, Safety Personnel has verbally communicated the evacuation and take cover plan to all employees of the Eastern District Office. A written document, including evacuation route diagrams, is in the process of being finalized. The evacuation route diagrams will be placed in key locations throughout the building.
 - Securing the property is part of the short-term recovery effort as described in the Purchasing and Materials Management section (Tab 00 of the Main ERP Document). Items to cover include perimeter fencing, material and equipment security, and building safety.
 - With the communications tower on the ground, United has lost functionality from its SCADA system, AMR, radio, Brazos direct line, and the DA system. United would work with Brazos to re-route communications to the Cleburne tower as quickly as possible following procedures located in (Tab 4 of the ERP Document). In the meantime, manual processes would be implemented. For example, meter readings could be downloaded from substations, and hot line tags could be controlled from the substation or the downline devices.
- **Does United have proper guidelines and procedures for successfully shifting dispatch to the backup dispatch center and operating at that location without undue issues or delays?**
 - A crucial benefit of the renovation to the Eastern District Office was the creation of a functional backup control center. In this scenario, dispatch cannot function out of the EDO and will need to be relocated back to Cleburne. All hardware and software are in place, and key personnel are aware of the course of action to facilitate this transition. However, the process and procedures have not been fully documented to date. There is an existing departmental objective to document the successful and timely transition of the dispatch control system back to Cleburne. This objective is expected to be completed in 2013. The finalized document will be located in the Outage Management Guidelines located in (Tab 4 of the ERP Document).

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- **Does United have proper guidelines and procedures for successfully shifting EDO employees to other offices?**
 - Yes, the Quick Reference Guide for Employees (Tab 12 of the ERP Document) provides instructions for Burleson employees to report to the Cleburne office. United Staff will make decisions for both short and long-term office solutions.
- **Does United have proper guidelines and procedures to successfully perform the damage assessment function?**
 - Yes, these guidelines do exist and are located in (Tab 00 of the ERP Document) and guidelines for FEMA documentation are located in (Tab 11 of the ERP Document).
- **Is United prepared to implement an electronic damage assessment function utilizing the Partner damage assessment tool? If not, what will it take to be prepared to use this tool going forward and when can this be implemented?**
 - United has the software purchased and configured to implement the Partner electronic damage assessment function. Personnel training needs to be conducted to familiarize necessary employees with the benefits of this valuable tool. Test scenarios will be a part of the training to ensure personnel, hardware, and connectivity are working properly. After completion of training in 2013, United will be prepared to implement the damage assessment function.
- **What, if anything, should be done to secure the EDO facility after the incident? What should United do with the trash/debris spread for miles around from the office? Should security of documents, data, etc. be of concern?**
 - Until the perimeter fence can be rebuilt (assuming it has been destroyed), United should enlist the services of local law enforcement or a 24 hour security company to protect United's assets on the property. This is prescribed in (Tab 00 of the ERP Document) in the Office/Office Equipment/Inventory section. Staff will make a decision regarding what to do with all undamaged equipment left at the EDO. Safety personnel, along with emergency crews from outside entities, should determine whether or not any existing portion of the building is safe to enter. This assessment will decide if any functionality is left at the site, and/or if all employees must report to Cleburne until further notice.
 - United should focus its efforts and resources on power restoration for the membership rather than cleanup of debris and trash. Systems are in place to identify missing assets, which will be useful for the insurance adjuster in determining losses. The need for reconciling inventory is addressed in the Accounting Issues section of (Tab 00 of the ERP Document).
 - To assess inventory losses, United has the ability to use the iXp as well as Special Equipment reports to identify missing assets. This will be important for insurance purposes. While United has an initiative to digitize all information, there still exists the threat that working files, which may contain sensitive member information, will remain vulnerable. Sensitive employee documents are located in file cabinets in the second floor storage closet. These cabinets carry a security rating that provides adequate confidence in their ability to secure employee information in most scenarios. The severity of this storm has compromised United's ability to safeguard all confidential member and employee information. Therefore, sensitive documents

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are no longer secure and contained within the building. Communications personnel will draft and mail a letter to report the damage and the risk of compromised personal information to the membership. United views this as an internal member issue, therefore local and regional media will not be notified of the lost member data in an attempt to minimize the risk of fraudulent activity.

- **What updates are needed to be made to the Emergency Operations Plan as a result of this test?**
 - Create a Server Room Contingency Plan in case of a total loss, even though not mentioned in this scenario
 - Include documentation assigning personnel to secure emergency fencing companies in Tab 15 "Other References" in the ERP
 - Finalize emergency evacuation and take cover plans for all offices, including the posting of maps for each office
 - Create a "boiler plate" document to address potential breach of both member and employee privacy concerns in the event that storm damage has exposed sensitive member and employee information
 - Continue United's initiative to go paperless with member information and research available options for the efficient digital storage of sensitive HR documents
 - Make annual update to the ERP document to ensure accurate data
 - Currently the damage assessment process is located in two parts of the ERP – Tab 00 and Tab 11
 - Consolidate this information into a single process to be located in one part of the ERP

Emergency Levels and Outage Levels

It is determined by using United's Outage Level Guidelines chart, located in (Tab 4 of the ERP) that the storm has left United with a level 4 outage.

Duties for All Groups

According to Outage Level Guidelines in Tab 4 of the ERP manual, Cameron Smallwood, as Emergency Response Coordinator, is responsible for overall coordination of the emergency response, and reports operational status to outside agencies and to the Communications Group for dissemination to the public.

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The following employees assume their assigned responsibilities and duties as determined by the UCS Emergency Response Plan:

Emergency Response Coordinator – Cameron Smallwood

- Declare Level Four (4) emergency and conduct supervisory team meeting using Business Continuity (Tab 1 of ERP) as an outline of priorities during the emergency. Have responsible parties consult other tabs for specific duties and procedures.
- Review responsibilities of each department and ensure appropriate procedures and documentation are started. Follow up on these duties in subsequent daily meetings with supervisory team.
- Assist supervisory team with interpreting policy and procedural requirements of the ERP as questions arise
- Document execution of plan for future report to CEO, CFO and Staff
- Stay in regular contact with Communications Group for updates (to and from)
- Ensure TEC is contacted by appropriate personnel to prepare for and request additional material and contract labor needs
- Stay in contact with local Law Enforcement and Emergency Management offices as necessary
- Communicate with PUC and ERCOT using web update process
- Communicate with FEMA as necessary
- Verify with Operations and Safety departments that safe work hour guidelines are being followed

Operations Group – Ed Nunez

- Utilize qualified personnel to perform a “Fast Survey” of damages per ERP.

Tab 00 - Main ERP Document, Section - Engineering and Operations # 7

- Survey personnel will submit damage reports with location and material needed to restore power
- Inventory of needed material will be reported to purchasing as soon as possible
- Indicate damaged areas on Cleburne Back-up dispatch wall map to identify outages and/or work orders and to prioritize outages.
- Evaluate need of additional repair/restoration crews.
- Update Emergency Coordinator on extent of storm damage.
- Organize construction effort with available construction personnel, contract coordinator and contractors.
 - Assign work areas and the hours work is to be performed.
 - Train in completion of FEMA documents, i.e. pictures before and after repairs etc...

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- Train and/or provide RDUP specs for construction.
- Reinforce following safe work practices.
- Repair efforts will begin with larger volume of members and priority accounts as recommended per ERP.
- Make arrangements for excavating equipment for ROW clearing.

Construction Group – Mark Buckner

- Issue construction bids in a timely manner for FEMA compliance
- Oversee & inspect the reconstruction effort as necessary
- Reinforce following safe work practices.

Technical Services/ Planning - Jared Wennermark

- Contact environmental spill contractor to prepare for cleanup of large oil spills
- Consider impact and resolution of extended AMR outage due to re-feeds
- Have Technical Services employees prepared for loss of special equipment
- Have Planning employees prepared for assisting with studies for engineering, operations, and dispatch

Engineering (Area) Representatives - Jason Dillard & Denny Adams

- Dispatch/Operations contacts Engineering Supervisor (east and west) and makes them aware of the immediate emergency and need for assistance
- Reps are contacted by Supervisor and dispatched to begin surveying line and turning in appropriated material lists needed to restore power.
- Each Representative will have disposable cameras (or phone cameras) and laptops to assist with the documentation of facility damages.
- Photos will be kept with associated work orders
- Convey work orders to the appropriate Operations personnel to maintain the integrity of the work order system
- Report system damage assessment to Emergency Coordinator, Communications, and other groups as necessary

Communications - Marty Haught and Mauri Montgomery

- Communicate with media/ law enforcement/ city and county officials and keep them up-to-date.
- Communicate with members in areas with specific needs.
- Communicate safety to public during the event (wires down, etc.)

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- Utilize website and social media to keep public up-to-date
- Remind employees of guidelines for dealing with media and membership
- Update ERP coordinator with key information
- Assist in update of ERCOT-PUC outage data
- Document damage with photos/video for use in FEMA reporting and communications

Key Accounts – Jeff Pannell and Seth Rosser

- Update critical/key members with progress of restoration as soon as possible
- Recommend priority restoration of critical/key accounts as appropriate
- When possible, assist any other department as needed.

Human Resources – Patty Holleman, Debra Ciccarelli, and Kevin Keesee

- Update insurance agent/carrier concerning disaster and maintain updates with agent.
- Work with operations and Safety departments to ensure safe work hours are maintained
- Ensure adequate work force is available to handle all necessary tasks throughout the emergency, including using outside sources if necessary
- Ensure employee message/communication lines are updated and working
- Coordinate with community groups such as Red Cross and United Way should United need these services
- Assist with arrangements for employees that have been displaced from their homes

Engineering Services – Cory Menzel

- Ensure all aspects of OMS are functioning properly (DiSPatch, IVR, SCADA).
- Notify vendors of current status of emergency.
- Utilize Partner Damage Assessment module for preparing damage assessments as necessary.
- Create necessary reports for use by other departments.
- Ensure employees with vehicles are available to assist as needed

Billing Representative – Lisa Bench

- Accounts that have readings will be billed, accounts without readings will be held until readings are available (UCS goal is to bill all meters as close to a 30 day billing period as possible)
- If a large number of meters are not billed, the members will be notified via the media of the delay
- Remain in constant communications with other departments and be ready to assist if necessary

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IT and MIS – Eric Cagle, Brad Mead, Alen Rogic, and Robert Bernhoft

- Use PC-based Emergency Outage Program (can be used in the field if necessary) that contains current member information if necessary
- Revert to paper outage process as detailed in OMS guidelines if necessary
- Monitor communications, network, and computer systems for proper operation, failure, or potential overload
- Utilize satellite phones as necessary
- Contact any vendors necessary to ensure proper operations

Fleet Management – Trent Halford & Sam Heathington

- Manage fuel availability
- Maintain repair facility-arrange for outside repairs if needed due to power loss
- Arrange for overflow parking due to additional vehicles if needed
- Make arrangements with suppliers for tire repair
- Contact towing company to assure availability

Finance and Accounting – Russell Young and Paula Cupps

- Review and be familiar with FEMA requirements
- Remind all employees of proper methods for FEMA funding assistance
- Remind employees that before and after pictures need to be taken with detailed description of location
- Ensure FEMA forms (Internal Created Spreadsheets) are updated and distributed to personnel

Purchasing and Materials Management – Robert Sherman

- Place supply chain on stand-by and post tentative orders. Supply chain includes TEC, Irby, KBS, Thomasson, Techline, and Hughes.
- If needed, complete the “Requesting Assistance from TEC” Form as noted in our ERP and fax TEC a copy as directed by Acting Emergency Response Coordinator.
- Instruct Storekeepers to immediately begin issuing and tracking material in accordance with the guidelines delineated in the ERP and our ‘FEMA Storm Damage Charges’ instructions. Minor material would also be tracked to specific jobs.
- Evaluate damage sustained to the warehouse and relocate personnel and supplies as necessary

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Member Service Group -Landy Bennett

- Since the outages may last several days, MSRs will have to work on a schedule to allow them to work 24/7 on a rotation that will allow them rest periods as necessary.
- Member services will work with dispatchers returning phone calls to members to see if power has been restored
- If the phone calls become too heavy, they may have to be routed through the Milsoft OMS. MSRs will focus on unresolved calls as the office managers assign them.
- Dispatch and Member Services will coordinate handling the phone calls.

Facilities – Mike Huston

- Ensure offices are supplied with janitorial products and paper goods.
- Make arrangements with restaurants for meal preparations.
- Make arrangements for lodging of crews. If necessary, provide:
 - Tents to house contracted personnel.
 - Portable restroom and shower facilities.
 - Portable heating or cooling for the tents.
 - Sleeping cots and bags.
 - Generators to operate electrical needs of the housing areas.

Safety Department – Mark Dixon, David Stone

- Back-feed safety must be considered and communicated
- Generator safety (member-owned) must be considered and communicated
- Public safety with downed lines must be emphasized via communications efforts
- Preparation of crews for dealing with disaster- should be discussed prior to work
- Access-dealing with law enforcement, stay in contact
- Must maintain the safety culture with internal and external workers
- Ensure that a UCS employee is available for energizing lines-safety is a priority over time to restore
- Security for materials and visiting people/ equipment must be addressed
- Security for employees/members at office locations must be addressed

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12/2/2013

Background

It is early afternoon in late August and ERCOT has issued an Energy Emergency Alert (EEA) Level 2, with forecasts of EEA 3 conditions for later in the day due to extreme heat. The Executive Staff is having a meeting at the Eastern District Office (EDO), while the Supervisor Task Force is having a meeting in the Cleburne office. At approximately 2pm in the afternoon, a heavily armed group of domestic terrorists (members of the Earth Liberation Front – ELF) storms the EDO, inflicting heavy casualties among the employees and Executive Staff and taking over the dispatch area. It becomes apparent that the intentions are to inflict terror, gain control of United's distribution facilities and communication networks, and to gain access to the Cooperative's Financial and CIS systems.

Actions Immediately Following the Attack

Safety personnel will work with local law enforcement to secure the EDO and evacuate all employees.

The ability of United to respond to the attack depends on the level of damage and the goals of the terrorist group. The assumption is that they disabled the network between the other offices but left the internet up and running in order to share the information they have stolen with others in their terrorist group. Given this scenario, the IS&T department will quickly log in via VPN and begin shutting down the systems so that no further damage can be done.

The Operations Representative immediately notifies all dispatch personnel of the situation, and begins the process of relocating to the backup control center in Cleburne. In the event that ERCOT declares the statewide grid has reached EEA Level 3, The System Operator will work with Brazos and United's District Foremen to facilitate the required load shed. Engineering Services will contact Brazos to begin re-routing SCADA control to the backup control center in Cleburne. Key Accounts personnel will notify Critical loads/Key Accounts and a news announcement will be developed by the Communications Representative stating that the EDO is closed and to expect interruptions to electrical service as well as United's payment systems. This announcement will be posted on United's Website and Facebook page.

The Emergency Coordinator (Quentin Howard) and the Secondary Coordinator (Jared Wennermark) are among the casualties to the Executive Staff, so the acting Emergency Coordinator is Ed Nunez with Robert Bernhoft serving as the acting Secondary Emergency Coordinator. The acting Emergency Coordinator will call a mandatory emergency meeting at the Cleburne Cooperative headquarters for the Task Force and all necessary supervisors, utilizing phone conferencing and Web-ex to reach the other offices. After reviewing the ERP document in the meeting, the following assignments and responsibilities are clarified:

- Acting Emergency Coordinator – Ed Nunez
- Acting Secondary Emergency Coordinator – Robert Bernhoft
- IS&T Department Representative – Robert Bernhoft
- Engineering/Tech Services Representative – Cory Menzel
- Operations Representative – Jerry Scott
- Safety Department Representative – David Stone
- Finance and Accounting Representative – Russell Young
- Communications Representative – Jeff Pannell

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- Key Accounts Representative – Seth Rosser
- Member Services and Billing Representative – Lisa Bench
- Facilities and Warehouse Representative – Robert Sherman
- Field Engineering Representative – Jason Dillard
- Construction Contractor Representative – Mark Buckner
- Human Resources Representatives – Patty Holleman, Kevin Keese

The following issues were raised from this emergency and had to be tested. The results are as follows:

- **Does United have proper guidelines and procedures in place for the terrorist action itself (initial response, casualties, leadership transition, etc.)?**

From a procedural standpoint, United has guidelines in place for responding to emergency/disaster situations. Several deficiencies were discovered as a result of this emergency and will be addressed in this document. Key points of this scenario include:

- Securing the property is part of the short-term recovery effort as described in the Purchasing and Materials Management section (Tab 00 of the Main ERP Document) and should be implemented after the property has been turned back over to United from law enforcement. Items to cover include perimeter fencing, material and equipment security, and building safety.
- With the communications being taken over by ELF, United has lost functionality from its SCADA system, AMR, radio, Brazos direct line, and the DA system. United would work with Brazos to re-route communications to the Cleburne tower as quickly as possible following procedures located in Tab 4 of the ERP Document. In the meantime, manual processes would be implemented. For example, meter readings could be downloaded from substations, and hot line tags could be controlled from the substation or the downline devices.
- Emergency shutdown procedures for Daffron and other systems will need to be developed and placed in Tab 5 of the ERP Document.
- The Safety Department will need to develop a Safety Guideline for hostile intruder events and place it in Tab 12 of the ERP Document.
- Accounting will need to develop a document for freezing all cooperative bank accounts and place this document in Tab 1 of the ERP Document.
- In addition to following the ERP, Policy # 4120 (Privacy and Confidentiality of Member Personal Information) will need to be followed.

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- **Does United have proper guidelines and procedures for successfully shifting dispatch to the backup dispatch center and operating at that location without undue issues or delays?**
 - A crucial benefit of the renovation to the Eastern District Office was the creation of a functional backup control center. In this scenario, dispatch cannot function out of the EDO and will need to be relocated back to Cleburne. All hardware and software are in place, and key personnel are aware of the course of action to facilitate this transition. The process and procedures have been documented and the finalized document will be placed in the Outage Management Guidelines located in Tab 4 of the ERP Document.
 - Engineering Services will need to develop, with Brazos, a document describing the process to disable the communications at the EDO while transferring those capabilities to Cleburne. This document will be placed in Tab 4 of the ERP Document.
- **Does United have proper guidelines and procedures for addressing the breach of security involved with unauthorized access to the communications and CIS systems?**
 - The Security Committee has developed the UCS Security Guidelines document, which is updated annually and addresses differing levels of security breaches, including a terrorist attack. This document will need to be placed in Tab 5 of the ERP Document. The IS&T department will develop additional guidelines for securing computer and communications systems.
- **What, if anything, should be done to secure the EDO facility after the incident?**
 - Once law enforcement allows United to re-occupy the facility, the guidelines located in Tab 00 of the ERP Document should be followed.
- **Should security of documents, data, etc. be of concern?**
 - Yes, IS&T and Engineering Services, along with outside vendors and law enforcement, will need to determine the level of security breach and what data/documents were accessed by ELF. Based on these findings, United will refer to the UCS Security Guidelines document and policies for the proper response. United will need to document damages to assets for the sake of insurance claims.
 - While United has an initiative to digitize all information, there still exists the threat that working files, which may contain sensitive member information, will remain vulnerable. Policy # 4120 will be followed regarding the compromise of confidential member information. Sensitive employee documents are located in file cabinets in the second floor storage closet. If the ELF attack has compromised employee confidential information, Communications personnel will notify employees of the risk of compromised personal information.

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- **What updates are needed to be made to the Emergency Response Plan as a result of this test?**
 - IS&T will develop emergency shutdown procedures for Daffron and other systems.
 - The Safety Department will need to develop a Safety Guideline for hostile intruder events and provide necessary employee training.
 - Accounting will need to develop a document for freezing all cooperative bank accounts.
 - The process and procedures to shift dispatch from the EDO to Cleburne have been documented and the finalized document needs to be placed in the Outage Management Guidelines located in Tab 4 of the ERP Document.
 - Engineering Services will need to develop, with Brazos, a document describing the process to disable the communications at the EDO while transferring those capabilities to Cleburne.
 - Develop the Emergency Manual System Operation Plan (EMSOP) to identify key areas in the distribution system to position personnel for the manual override of SCADA equipment.
 - The UCS Security Guidelines document will need to be placed in Tab 5 of the ERP Document.
 - Make annual update to the ERP document to ensure accurate data

Duties for All Groups

To best respond to the terrorist attack, communication between all departments will be imperative and all employees should assist with any duties needed for the safe resolution of the scenario. The following employees assume their assigned responsibilities and duties as determined by the UCS Emergency Response Plan:

Emergency Response Coordinator – Ed Nunez

- Review responsibilities of each department and ensure appropriate procedures and documentation are started. Follow up on these duties in subsequent daily meetings with supervisory team
- Assist supervisory team with interpreting policy and procedural requirements of the ERP as questions arise
- Document execution of plan for report to future CEO, CFO and Staff
- Stay in regular contact with Communications Group for updates (to and from)
- Stay in contact with local Law Enforcement and Emergency Management offices as necessary
- Communicate with PUC and ERCOT using web update process, if necessary
- Assess the need to obtain security personnel at each of the remaining offices

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IS&T Representative – Robert Bernhoft

- All available IS&T staff will VPN into the EDO and do the following:
- Initiate the LOCKDOWN Procedure on the Power720 that locks out all users from the system and initiates a system shutdown
- Contact the local phone company to initiate emergency routing of the Burleson # to one of the other offices (Cleburne)
- Contact BlackBox to establish the ACD group on the secondary phone server
- Disable all key fobs of employees in the Burleson Office and Executive staff
- Disable Active Directory Profiles of all users in the EDO and Executive staff
- Change Administrator password on BURSVR
- Initiate Remote PC Shutdown utilizing the utility on the BURSVR to all PCs in the EDO
- Manually shutdown servers
- Reconfigure front-end mail server to push all emails to SVLMAIL (for those that were on the mail server in the EDO)
- Follow IS&T Disaster Recovery procedures in Tab 05 of the ERP Document to restore damaged/inaccessible systems

Engineering/Technical Services Representative – Cory Menzel

- Ensure all aspects of the backup Control Center are functioning properly (OMS, IVR, SCADA)
- Consider impact and resolution of extended AMR outage due to terrorist attack
- Have Technical Services employees prepared for loss of special equipment
- Have Planning employees prepared for assisting with studies for engineering, operations, and dispatch
- Notify vendors of current status of emergency
- Create necessary reports for use by other departments

Operations Representative – Jerry Scott

- Tab 00 - Main ERP Document, Section - Engineering and Operations # 7
 - Deploy personnel into standby mode to key areas of the distribution system in accordance with the Emergency Manual System Operation Plan
 - Update Emergency Coordinator on EMSOP progress

2013 Emergency Response Plan Exercise

12/2/2013

Safety Department Representative – David Stone

- Work with law enforcement to coordinate the safety of employees and the facility
- Back-feed safety in the execution of EMSOP must be considered and communicated
- Preparation of crews for dealing with a terrorist attack – should be discussed as part of formal training
- Must maintain the safety culture with internal and external workers

Finance and Accounting Representative – Russell Young

- Implement the process of freezing all cooperative bank accounts
- Work with the Communications Representative to notify employees of the risk that their personal information (bank accounts, SSN, etc) has been compromised

Communications Representative – Jeff Pannell

- Communicate with media, city and county officials and keep them up-to-date
- Communicate with members in areas with specific needs
- Communicate safety to the public during the event (office closure, etc.)
- Utilize website and social media to keep public up-to-date
- Remind employees of guidelines for dealing with media and membership
- Update acting Emergency Response Coordinator with key information

Key Accounts – Seth Rosser

- Update critical/key members on the terrorist attack and the potential for disruption of service
- Once United has regained control of the distribution system, make follow-up phone calls

Member Services and Billing Representative – Lisa Bench

- Reinforce to all MSRs that they are not to provide any details of the terrorist attack and should route all inquiries from the media to the Communications Representative
- Prepare the MSRs to expect a heavy call volume due to the inability to transfer calls to other offices, especially to the EDO
- Accounts that have readings will be billed, accounts without readings will be held until readings are available (UCS goal is to bill all meters as close to a 30 day billing period as possible)
- If a large number of meters are not billed, the members will be notified of the delay

2013 Emergency Response Plan Exercise

12/2/2013

Facilities/Warehouse Representative – Robert Sherman

- Secure and prepare the facility to be re-occupied after law enforcement clears United to return to work at the site
- Redirect material/equipment orders to be delivered to Cleburne instead of the EDO
- Facilitate the relocation of warehouse from the EDO to Cleburne until a decision is made about the future use of the EDO

Field Engineering Representative - Jason Dillard

- The Field Engineering Representative directs his employees to provide any assistance as needed

Construction Contractor Representative – Mark Buckner

- Communicate the situation with contractors and secure commitments for crews to be available as needed

Human Resources – Patty Holleman and Kevin Keesee

- Work in a concerted effort with local law enforcement to help identify and provide emergency contact information for deceased and injured employees
- Update insurance agent and carriers concerning the terrorist attack. Provide assistance as requested to insurance carriers in order to begin processing of potential General Liability and Workers' Compensation claims
- Ensure employee message/communication lines are updated and working
- Coordinate with community groups such as Red Cross and United Way should United employees and/or their families need these services
- Assist with arrangements for counseling services for employees and/or their families
- Implement an employee restoration process in order to fill positions that have been left vacant following the attack
- Notify NRECA of events and complete deceased employee processes
- Assist employees, families and beneficiaries to ensure a successful navigation through NRECA benefits (medical, dental, life insurance, LTD, retirement and 401(k)) and workers compensation issues

2014 Emergency Response Plan Exercise

11/18/2014

Background

A major ice storm effects the southern half of United Cooperative's Service territory during mid-December. Complicating the situation is the fact that several employees are away on vacation, and a few additional employees are unable to work as a result of case of influenza that has spread through the Cooperative's service territory. The area effected by the ice storm is generally located south of Highway 67, and the storm has effected other neighboring Cooperative's as far south as Georgetown. Approximately one inch of ice has accumulated on the distribution lines, and many of the roadways are heavily coated with ice as well.

Operations has a fleet of four wheel drive vehicles and tire chains for most bucket trucks and digger trucks. These trucks have proven useful in maneuvering ice bound roads and some off road trails. United also maintains a list of emergency wrecker and dozer services that can be used in the event that our vehicles get stuck or need assistance in maneuvering through hazardous terrain.

United utilizes lap top computers for line personnel and many office personnel. Employees are encouraged to take home their company laptops in preparation for major weather events. Using a VPN, these laptops can be utilized to conduct and coordinate cooperative business from home if necessary. Laptops allow some of United's office employees to provide support from home in cases of severe weather and/or influenza outbreak.

Issues to be Tested:

1) Does United have proper guidelines and procedures in place to handle the situation described? From a procedural standpoint, United has guidelines in place for responding to emergency/disaster situations. Key points of this scenario include:

- a. Widespread outages south of US Hwy 67
- b. Limited assistance from neighboring cooperatives to the South
- c. Limited mobility
- d. Employee absenteeism

2) Does the Cooperatives Emergency Response Plan address the listed situation in terms of:

- a. Preliminary/advanced identification of imminent weather events
 - i. Tab 4- Guidelines for UCS Outage Management United has equipped the dispatch center with monitors and the capability to view weather radar from internet site or weather broadcast from television via CATV. However, there is not a written guideline as to when monitoring radar is to begin, but is a normal, undocumented, practice. Generally, due to the frequency of thunderstorms and the procedure for enabling and disabling Alt Trip settings in our down line electronic reclosers, radars are monitored continually once local media has announced in forecast. A radar is required to be displayed and monitored at all times in dispatch. An additional item will be added to Dispatch checklist to ensure that a radar is displayed at all times.

2014 Emergency Response Plan Exercise

11/18/2014

- b. Damage assessment
 - i. Tab 11- FEMA provides the damage assessment guidelines along with copies of damage assessment logs for documentation purposes with oversight being assigned to Field Engineering Manager.
 - ii. Tab 4- Outage Management Guidelines provides direction as when to switch from repair to damage assessment mode.
 - c. Acquisition and distribution of materials
 - i. Tab 6- Warehouse Purchasing Recovery lays out the guidelines and plan to maintain the ability to receive and distribute materials and equipment for system restoration. Due to consistency in operational procedures of warehousing and purchasing throughout the system, districts affected by such an event should be able to relocate and/or function within a timely manner.
 - d. Oversight, tracking, and coordination of contractors, and mutual aid assistance
 - i. The following Tabs provide documentation for oversight, tracking and coordination of contractors and mutual aid assistance.
 - 1. Tab 00- Main ERP
 - 2. Tab 10- Emergency Key Contact info
 - 3. Tab 7- Emergency RUS Contract
 - 4. Tab 15- Other References
 - e. Logistics such as housing, feeding, and equipping mutual aid personnel
 - i. The following Tabs provide documentation for oversight of logistics such as housing, feeding, and equipping mutual aid personnel
 - 1. Tab 00- Main ERP
 - 2. Tab 10- Emergency key contact info
 - 3. Tab 15- Other References
 - f. Coordination, tracking, and documentation of work
 - i. United does have the capability to coordinate, track and document work through the current work order process and the Partner Damage Assessment tool.
- 3) Since the situation described has the potential of qualifying as a FEMA event, are United's processes and procedures appropriately designed to ensure that proper FEMA documentation and reporting will be maintained?
- a. The following Tabs provide documentation for proper FEMA reporting. Since disasters are not declared to be a FEMA event until after the fact, United follows FEMA reporting requirements throughout all disaster events.
 - 1. Tab 00- Main ERP
 - 2. Tab 11- FEMA

2014 Emergency Response Plan Exercise

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- 4) Does United have the proper guidelines and procedures in place to handle an influenza pandemic relative to its effect on employees and member contact?
 - Tab 1 – Business Continuity covers office employees and the need to keep three offices open (Burleson, Cleburne, and Stephenville) in the event of a catastrophe.
 - Tab 12 Disaster Planning Quick Reference covers personal preparation to limit the spread of germs.

- 5) What updates are needed to be made to the Emergency Response Plan as a result of this test?
 - a. NIMS training has been obtained and will be documented in the ERP
 - b. Will update immanent weather watch procedures and add to Dispatch checklist
 - c. Will add specific language to address pandemic outbreak in the Business Continuity document as well as the Employee Disaster Quick Reference Guide

2015 Emergency Response Plan Exercise

11/30/2015

Date/Time/Location

The preparedness review and test was held at the Cleburne office, on September 30, 2015 beginning at 10:00am.

Invited/Notified

The Emergency Response Plan preparedness test information was filed with the Public Utility Commission. In addition, Mr. Rafael Reyes, the Texas District Coordinator for District 4A of Texas Department of Emergency Management was notified and invited to attend the test.

Attendees

Quentin Howard, Jared Wennermark, Robert Sherman, Jason Dillard, Cory Menzel, Mark Buckner, Jerry Scott, and David Stone.

Background

A major line of super-cell thunderstorms travels across United's entire service territory causing approximately 9,000 outages system wide. Two areas are hit by major tornadoes during the storms. The first tornado effects an area along Hwy 174 between Joshua and Burleson, while the second tornado destroys several poles along Hwy 281 between Stephenville and Morgan Mill and damages Brazos' Wright substation transformer. Preliminary estimates suggest that over 70 three phase poles have been destroyed, along with approximately 2.5 miles of large conductor (#4/0 ACSR and #477 ACSR) throughout the system.

Invited/Notified

The Emergency Response Plan preparedness test information was filed with the Public Utility Commission. In addition, Mr. Rafael Reyes, the Texas District Coordinator for District 4A of Texas Department of Emergency Management was notified and invited to attend the test.

Issues to be Tested:

- 1) Does United have proper guidelines and procedures in place to handle the situation described?

Key points of this scenario include:

- a. Key Points

- i. Two major areas affected – North of Stephenville and North Cleburne.
- ii. Over 70 three phase poles were destroyed.
- iii. Tornadoes have a distinctive, destructive quality which renders transformers and materials unavailable for reuse. In addition, tornadoes typically require major clean-up activities prior to re-building infrastructure.
- iv. There is a high probability that environmental clean-up and reporting will be required.
- v. Communications with Brazos will need to be immediate so that they can begin mobilizing their work at Wright.
- vi. Mobility and access will most likely be very limited due to debris.

2015 Emergency Response Plan Exercise

11/30/2015

- vii. Coordination with Emergency Management teams and other first responders will be critical.
 - viii. While the disaster may not be a FEMA event, it will need to be handled as a FEMA event until additional information is available.
 - ix. Damage assessment and restoration efforts will need to be coordinated.
- b. Does United have proper guidelines and procedures in place to handle the situation described?
- i. *Two major areas affected* – Yes, United has historically handled multiple damage areas at the same time. Dispatch can be divided as needed, and materials and personnel can be mobilized as required.
 - ii. *Over 70 three phase poles were destroyed* – Yes, United has historically handled similar damage at PK Lake during the August 2011 fires.
 - iii. *Tornadoes have a distinctive, destructive quality* – Yes, materials and personnel are available to change out the poles and transformers as required.
 - iv. *Environmental clean-up and reporting* – Yes, processes are in place to address the reporting and clean-up procedures, as well as the insurance reporting requirements that may be needed. Relationships have been established with environmental contractors with an immediate response availability.
 - v. *Communications with Brazos* – Yes, regular communications with Brazos occur regularly and their SCADA system will provide them with immediate notification. Protocols are in place to facilitate mobile substation utilization.
 - vi. *Limited mobility and access* – Yes, the Emergency Response Plan addresses the use of bulldozers and other clearing equipment to assist with access, as well as contact lists for additional contractors to assist as needed. Communications with local and State authorities will also be key to facilitate access to the highways (Highway 281 and Highway 174).
 - vii. *Coordination with Emergency Management teams* – The Emergency Response Plan details coordination procedures with the emergency management personnel. In addition, the National Incident Management System (NIMS) is specifically designed to facilitate coordination with emergency management and United's Emergency Response Coordinator has participated in NIMS training.
 - viii. *FEMA Protocols* – Yes, The Emergency Response Plan details FEMA protocols which will be utilized at the beginning of a major disaster. In addition, NIMS training addresses FEMA protocols as well.
 - ix. *Damage assessment and restoration effort* coordination – Yes, damage assessment and restoration efforts are well established in Tab 11 of the Emergency Response Plan.

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2) Does the Cooperative's Emergency Response Plan address the listed situation in terms of:

a. Preliminary/advanced identification of imminent weather events

Yes – the process for imminent weather identification is listed in Tab 4 of the Emergency Response Plan.

b. Damage assessment

Yes – damage assessment is covered under Tab 11 of the ERP.

c. Acquisition and distribution of materials

Yes – material acquisition and distribution is covered under Tab 6 of the ERP.

d. Oversight, tracking, and coordination of contractors, and mutual aid assistance

Yes – these items are covered under Tab 7 and Tab 11 of the ERP.

e. Logistics such as housing, feeding, and equipping mutual aid personnel

Yes – these items are covered under Tab 15 of the ERP.

f. Coordination, tracking, and documentation of work

Yes – the FEMA documentation is covered under Tab 11 of the ERP.

3) Since the situation described has the potential of qualifying as a FEMA event, are United's processes and procedures appropriately designed to ensure that proper FEMA documentation and reporting will be maintained?

Yes – The FEMA documentation and tracking procedures are covered under Tab 11 of United's Emergency Response Plan, and these procedures are implemented in coordination with United's work order procedures when a major disaster occurs.

4) What updates are needed to be made to the Emergency Response Plan as a result of this test?

a. Annual updates will be required for each of the affected Tabs of the Emergency Response Plan.

b. A copy of the Oil Spill Prevention and Clean Up process shall be included on Tab 15 to replace the procedure from previous Emergency Response Plans.

2016 Emergency Response Plan Exercise

11/30/2016

Date/Time/Location

The preparedness review and test was held at the Cleburne office, on October 6, 2016 beginning at 10:00am.

Invited/Notified

The Emergency Response Plan preparedness test information was filed with the Public Utility Commission. In addition, Mr. Rafael Reyes, the Texas District Coordinator for District 4A of Texas Department of Emergency Management was notified and invited to attend the test.

Attendees

Quentin Howard, Jared Wennermark, Ed Nunez, Jerry Scott, Cory Menzel, Robert Bernhoft, Jeff Pannell and Landy Bennett.

Background

On a clear, hot day in June United's G&T experiences an equipment failure in a substation that triggers the de-energizing of a large section of transmission line, affecting seven substations serving United and resulting in over 16,000 meters being without power. Due to sectionalizing constraints and the high level of load because of the high temperature, it takes Brazos approximately 20 minutes to restore the first substation and an additional 10 minutes each to pick up the subsequent substations.

As a result of the initial outage, one of United's automated switching schemes operates incorrectly, leaving breakers open on both feeds into a major commercial district. Exacerbating the problem further, the failure is not recognized or reported for approximately two hours after power is restored to the transmission line and substations.

Throughout the three hour event, the maximum capacity of United's phone system, IVR system, web page, and outage viewer is exceeded from the increased traffic. A relatively smaller number of texts and emails are also received from members pertaining to the situation.

Issues to be Tested:

- 1) Does United have proper resources, guidelines and procedures in place to handle the situation described?
 - a. Key points of this scenario include:
 - i. Communications avenues were stretched beyond capacity causing a decrease in performance.
 1. Phone Systems (Incoming Phone Lines, Interactive Voice Response)
 2. Internet and Website (traffic overload)
 3. Interoffice Communications (Phone Switches reached capacity, and communications between offices overloaded)
 - ii. SCADA does not recognize transmission outages properly (feeder outages versus substation outages).
 - iii. Brazos breaker configuration left a high quantity of meters exposed to one transmission outage.

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- iv. Internal human resource challenges
 - 1. Dispatch
 - 2. Member Service Representatives
 - 3. Key Accounts
 - 4. Operations
 - 5. Technical Services
 - 6. Engineering Services
- v. Procedure to confirm breaker status after the restoration of the transmission outage was critical.
- vi. "Cold load pick-up" was a concern.
- vii. Reliability on and unfamiliarity with Brazos staffing and procedures for a large transmission outage.
- viii. Post outage communications with the Membership issues?
- ix. Limited information and capabilities related to the unknown in regard to a transmission outage.
 - 1. Length of the outages?
 - 2. Relying on Brazos for restoration.
- x. Communications between Brazos and United
- b. Does United have proper guidelines and procedures in place to handle the situation described?
 - i. Communications avenues were stretched beyond capacity causing a decrease in performance.
 - 1. Phone Systems (Incoming Phone Lines, Interactive Voice Response)
 - a. 138 phone lines and 48 ports on the IVR exist currently. While it is impossible to ever have enough resources to handle an outage this large, there is a concern that United did not have sufficient resources to handle the outage described.
 - 2. Internet and Website (traffic overload)
 - a. Internet traffic was extremely heavy which effected the website, outage viewer and email traffic. There is a concern that United did not have the resource to handle an outage of this size.
 - 3. Interoffice Communications (Phone Switches reached capacity, and communications between offices overloaded)
 - a. Telephone traffic between offices was extremely heavy which effected the website, outage viewer and email traffic. There is a concern that United did not have the resource to handle an outage of this size.
 - ii. SCADA does not recognize transmission outages properly (feeder outages versus substation outages).
 - 1. A solution needs to be developed to address the SCADA recognition of a transmission outage.

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- iii. Brazos breaker configuration left a high quantity of meters exposed to one transmission outage.
 - 1. United's procedures are up to date in regard to transmission outages and the ERP; however, a clearer understanding of Brazos' system and standards is needed going forward.
- iv. Internal human resource challenges
 - 1. Dispatch
 - a. Yes, United's resources and staffing procedures are adequate for this event.
 - 2. Member Service Representatives
 - a. Yes, United's resources and staffing procedures are adequate for this event.
 - 3. Key Accounts
 - a. Yes, United's resources and staffing procedures are adequate for this event.
 - 4. Operations
 - a. Yes, United's resources and staffing procedures are adequate for this event.
 - 5. Technical Services
 - a. Yes, United's resources and staffing procedures are adequate for this event.
 - 6. Engineering Services
 - a. Yes, United's resources and staffing procedures are adequate for this event.
- v. Procedure to confirm breaker status after the restoration of the transmission outage was critical.
 - 1. Yes, United's procedures are adequate for this event.
- vi. "Cold load pick-up" was a concern.
 - 1. Yes, "Cold load pick-up" is addressed by United's Planning Staff and Brazos.
- vii. Reliability on and unfamiliarity with Brazos staffing and procedures for a large transmission outage.
 - 1. While there is a desire for a better understanding of Brazos staffing and procedures for this type of event, United's ERP is up to date in regard to a large transmission outage.
- viii. Post outage communications with the Membership issues?
 - 1. Yes, United's procedures are in place to handle post outage communications.

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- ix. Limited information and capabilities related to the unknown in regard to a transmission outage.
 - 1. Length of the outages?
 - a. While there is a desire for a better understanding of Brazos staffing and procedures for this type of event, United's ERP is up to date in regard to a large transmission outage.
 - 2. Relying on Brazos for restoration.
 - a. While there is a desire for a better understanding of Brazos staffing and procedures for this type of event, United's ERP is up to date in regard to a large transmission outage.

- x. Communications between Brazos and United
 - 1. Yes, communications procedures are in place and up to date.

2) Does the Cooperatives Emergency Response Plan address the listed situation?

- i. Communications avenues were stretched beyond capacity causing a decrease in performance.
 - 1. Phone Systems (Incoming Phone Lines, Interactive Voice Response)
 - 2. Internet and Website (traffic overload)
 - 3. Interoffice Communications (Phone Switches reached capacity, and communications between offices overloaded)
 - a. Yes – Tab 5 of the ERP covers communications for this situation.
- ii. SCADA does not recognize transmission outages properly (feeder outages versus substation outages).
 - 1. Yes – Tab 4 of the ERP covers SCADA operations.
- iii. Brazos breaker configuration left a high quantity of meters exposed to one transmission outage.
 - 1. This item does not apply to United's ERP, but is addressed by Brazos and United's Planning personnel.
- iv. Internal human resource challenges
 - 1. Dispatch
 - 2. Member Service Representatives
 - 3. Key Accounts
 - 4. Operations
 - 5. Technical Services
 - 6. Engineering Services
 - a. Yes – Tab 2 of the ERP covers key personnel and staffing.
- v. Procedure to confirm breaker status after the restoration of the transmission outage was critical.
 - 1. Yes – Tab 4 of the ERP covers outage restoration procedures.
- vi. "Cold load pick-up" was a concern.
 - 1. This item does not apply to United's ERP, but is addressed by Brazos and United's Planning personnel.

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- vii. Reliability on and unfamiliarity with Brazos staffing and procedures for a large transmission outage.
 - 1. This item does not apply to United's ERP, but is addressed by Brazos and United's Planning personnel.
 - viii. Post outage communications with the Membership issues?
 - 1. Yes – Tab 4 and Tab 12 covers post outage communications.
 - ix. Limited information and capabilities related to the unknown in regard to a transmission outage.
 - 1. Length of the outages?
 - 2. Relying on Brazos for restoration.
 - a. This item does not apply to United's ERP, but is addressed by Brazos and United's Planning personnel.
 - x. Communications between Brazos and United
 - 1. Yes – Tab 4 covers Brazos and United communications during an outage event.
- 3) What updates are needed to be made to the Emergency Response Plan as a result of this test?
- a. Update the SCADA procedures in Tab 4 to reflect item 2-ii above.
 - b. Update Tab 5 to address current communications procedures and hardware configurations.
 - c. Update Tab 2 to reflect current personnel.
 - d. Tab 9 needs to be updated to reflect current employee contact information.
 - e. Tab 10 needs to be updated to reflect the current emergency key contact information
 - f. Tab 12 needs to be updated to reflect the changes to the ERP.
 - g. Remove camera inventory and update Tab 15 due to the implementation of phones with cameras throughout the Cooperative, and changes related to disaster planning for employees (annual update).
 - h. Update Tab 11 to reflect use of phones with cameras during the damage assessment process.
- 4) What updates/modifications to United's resources, processes and procedures are needed as a result of this test?
- a. Implement SCADA recognition of transmission outages referenced in item 2ii above.
 - b. Form a committee to review and address communications limitations.
 - c. Address additional training on breaker status recognition.

2017 Emergency Response Plan Exercise

11/30/2017

Date/Time/Location

The preparedness review and test was held at the Cleburne office of United Cooperative Services in the Board Room, on October 3, 2017 beginning at 10:00am.

Invited/Notified

The Emergency Response Plan preparedness test information was filed with the Public Utility Commission. In addition, Mr. Brian Brumfield, the Texas District Coordinator for District 4A of Texas Department of Emergency Management was notified and invited to attend the test.

Attendees

Quentin Howard, Ed Nunez, Marty Haught, Robert Bernhoft, Mauri Montgomery, Kevin Keesee, Kade Kincannon, Landy Bennett, and Gynger Gossett.

Background

West Nile Virus outbreak effects 20% of United's employees (either by being sick personally or by having dependents that are infected) in early August as a result of heavy rains in July which caused an extreme spike in the mosquito population in North Texas. Since the outbreak occurs during the summer, the absence of the employees as a result of the West Nile Virus is exacerbated by employees being on scheduled vacations; resulting in major employee shortages in all Departments throughout the Cooperative. Additionally, the outbreak occurs during an unusually hot period across the entire State that ultimately results in multiple ERCOT EEA Level 3 events that occur while the employee group is depleted.

Key Issues:

- West Nile effecting all departments – severe shortage of employees
- Rotating outages resulting in open doors/windows to escape the heat, allowing infected mosquitos greater access to individuals resulting in additional infections
- EEA Level 3 events
- August is the beginning of the budget and evaluation cycle

Issues to be Tested:

- 1) Does United have proper resources, guidelines and procedures in place to handle the situation described?
 - a. Key points of this scenario include:
 - i. Vendors/Suppliers potentially effected by West Nile also which could effected United.
 1. Yes – we have relationships with multiple suppliers and are not limited by being a sole source Cooperative.
 - ii. Critical and key accounts affected by West Nile and potential loss of Key Accounts Reps.
 1. Yes – we have personnel in other Departments that can fill in as needed to address the effect on Key Accounts.
 - iii. Extra sensitive to medical critical accounts during rolling outages.
 1. Yes – these accounts are designated within the iXP System, and these are reviewed semi-annually.
 - iv. Extra sensitive to key accounts during rolling outages.
 1. Yes – these accounts are designated within the iXP System, and these are reviewed on an ongoing basis.

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- v. Extra sensitive to safety/critical infrastructure accounts during rolling outages.
 - 1. Yes – these accounts are designated within the iXP System, and these are reviewed annually.
- vi. Increased contacts related to EEA Level 3 events.
 - 1. Yes – the systems have been upgraded and the new looped connection is in place. In addition, there is a potential for utilization of CRC to help address this issue – Add language/plan to Tab 1 - Landy.
- vii. Handling an EEA Level 3 with potential loss of key personnel that are responsible for planning and implementing rotating outages.
 - 1. Yes – There are back up personnel in place, and the rotating outage list is regularly updated as part of the Operations and Planning Standards.
- viii. Human Resources and potential effects on benefits and budget timing.
 - 1. Yes – Human Resources will notify NRECA and maintain current status of benefits until the emergency is over.
 - 2. Yes – The budget process can be delayed and expedited once the emergency is over. Add language/plan to Tab 1 – Kevin K.
- ix. Preparedness for the medical effects of West Nile on employees.
 - 1. Yes – The appropriate resources would be referenced (i.e. CDC, Red Cross, TeleDoc, etc.)
 - 2. Appropriate recommended steps would be initiated at the Cooperative to limit effects of the virus (dispensing hand sanitizer, use of gloves, masks, etc.)
- x. Communications with Membership and Public regarding EEA Level 3 events.
 - 1. Yes – notices to the news media, on social media, website, radio, etc.
- xi. Communications with Membership and Public regarding effects of West Nile on United and the Public.
 - 1. Yes – notices to the news media, on social media, website, radio, etc.
- xii. Effect on PrePower Accounts.
 - 1. Yes – PrePower auto disconnects will be suspended for the duration of the EEA event.
- xiii. Rotating outages potential effects in regard to “cold load” pick up.
 - 1. Yes – United’s personnel are trained to handle “cold load” pick up situations.
 - 2. Communications will also be implemented to communicate to the Membership on appropriate procedures to take during an EEA event.
- xiv. Potential software and phone system issues.
 - 1. Yes – upgrades have been completed over the past few years for the phone system and network communications to address this issue.

2) Does the Cooperative’s Emergency Response Plan address the listed situation?

- i. Vendors/Suppliers potentially effected by West Nile also which could effected United.
 - 1. Yes – This is covered under Tab 6 of the Emergency Response Plan.
- ii. Critical and key accounts affected by West Nile and potential loss of Key Accounts Reps.
 - 1. No – A plan to address this should be added to Tab 1.
- iii. Extra sensitive to medical critical accounts during rolling outages.
 - 1. Yes – This is covered under Tab 10 of the Emergency Response Plan.
- iv. Extra sensitive to key accounts during rolling outages.
 - 1. Yes – This is covered under Tab 10 of the Emergency Response Plan.
- v. Extra sensitive to safety/critical infrastructure accounts during rolling outages.
 - 1. Yes – This is covered under Tab 10 of the Emergency Response Plan.

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- vi. Increased contacts related to EEA Level 3 events.
 - 1. Yes – This is covered under Tab 5 of the Emergency Response Plan.
 - vii. Handling an EEA Level 3 with potential loss of key personnel that are responsible for planning and implementing rotating outages.
 - 1. ??? – Add a section to Tab 13 that covers United's Processes for EEA events?
 - viii. Human Resources and potential effects on benefits and budget timing.
 - 1. No – will add language/plan to Tab 1
 - ix. Preparedness for the medical effects of West Nile on employees.
 - 1. Yes – This is covered under Tab 12 of the Emergency Response Plan.
 - x. Communications with Membership and Public regarding EEA Level 3 events.
 - 1. ??? – Add a section to Tab 13 that covers United's Processes for EEA events?
 - xi. Communications with Membership and Public regarding effects of West Nile on United and the Public.
 - 1. ??? – Add a section to Tab 13 that covers United's Processes for EEA events?
 - xii. Effect on PrePower Accounts.
 - 1. ??? – Add a section to Tab 13 that covers United's Processes for EEA events?
 - xiii. Rotating outages potential effects in regard to "cold load" pick up.
 - 1. ??? – Add a section to Tab 13 that covers United's Processes for EEA events?
 - xiv. Potential software and phone system issues.
 - 1. Yes – This is covered under Tab 5 of the Emergency Response Plan.
- 3) What updates are needed to be made to the Emergency Response Plan as a result of this test?
- a. Update Tab 1 to include:
 - 1. The potential for utilization of CRC - Landy.
 - 2. Language/plan for handling potential effects on benefits and budget timing Kevin K.
 - b. Update Tab 13 – Add a section that covers United's Processes for EEA events (operations, communications, etc.)
- 4) What updates/modifications to United's resources, processes and procedures are needed as a result of this test?
- a. Work from home process needs to be developed – Robert Bernhoft
 - b. Research utilization of CRC or similar vendors as a resource for call center solutions - Landy.
- 5) Is this situation addressed in the VRA?
- a. Yes – Pandemics and ERCOT EEA Events are identified in the VRA
- 6) What updates/modification should be made to United's VRA as a result of this test?
- a. The VRA is up-to-date since it was updated in June 2017. The VRA shall be incorporated into the ERP and reviewed/updated annually as a part of the annual ERP table top exercise.

Other Suggested Changes/Modifications Needed for the 2017 ERP Update:

- Update the Mutual Aid Request Form Letter in the ERP – Tab 0 and Tab 15
- Add Caterer from Valley Mills to list – Tab 10 (from Solar Ground Breaking)
- Emergency Fuel Plan – Agreements/Retainers – Tab 15
- Add the VRA to the ERP and review/update annually – Tab 15
- Review and update the list of those responsible for updating the various Addendum items within the Emergency Response Plan

2017 Emergency Response Plan Exercise

11/30/2017

- Research methods to automate the update to various lists within the Emergency Response plan on a regular basis (monthly) and implement these updates where they are viable. In addition, research ways to store these lists electronically in a manner that they can still be accessed if United's computer systems are compromised.

2018 Emergency Response Plan Exercise

3/9/2018

Date/Time/Location

The preparedness review and test was held at the Stephenville office of United Cooperative Services in the Board Room, on March 9, 2018 beginning at 10:00am.

Invited/Notified

N/A

Attendees

Cameron Smallwood, Marty Haught, Quentin Howard, Ed Nunez, Jerry Scott, Robert Bernhoft, Landy Bennett, Cory Menzel, Blake Beavers, Robert Sherman, Russell Young, Jared Wennermark, Mauri Montgomery, Mark Buckner, and Jason Dillard.

Background

United Cooperative Services experience an ice storm that began on February 21, 2018 with restoration completed on February 26, 2018. The ice storm effected over 9,000 of United's meters at its peak with the majority of the effected meters being located in the northern and western portions of Erath County. This exercise was a review of the ice storm and a discussion on how to improve preparations for similar events in the future.

Key Issues:

- The storm had multiple waves that appeared to be under control within the first 12 hours, but then worsened on day two.
- Damage assessments were not implemented due to the characteristics of the storm.
- Access to the damage was hampered due to weather conditions.
- Fallen trees created access issues.
- Copper and outdated conductors created additional challenges.
- Call volume overwhelmed the ability to get an accurate accounting of the outage extent.
- Logistics (lodging, meals, etc.) and orientation of outside crews was not as stream-lined as it could have been.
- The storm characteristics made determining estimated restoration times difficult/impossible to predict, and errant external communications also occurred as a result.

Issues to be Tested:

- 1) Does United have proper resources, guidelines and procedures in place to handle the situation described?
 - a. Key points of this scenario include:
 - i. The storm had multiple waves that appeared to be under control within the first 12 hours, but then worsened on day two.
 - ii. Damage assessments were not implemented due to the characteristics of the storm.
 - iii. Access to the damage was hampered due to weather conditions.
 - iv. Fallen trees created access issues.
 - v. Copper and outdated conductors created additional challenges.
 - vi. Call volume was large enough and long enough so as to hinder the system's ability to get an accurate accounting of the outage.

2018 Emergency Response Plan Exercise

3/9/2018

- vii. Logistics (lodging, meals, etc.) and orientation of outside crews was challenging due to the extent of the outage, the staged arrival of outside crews, and the availability of lodging.
 - viii. The storm characteristics made determining estimated restoration times difficult/impossible to predict, and errant external communications also occurred as a result.
 - b. The Cooperative's resources, guidelines, and procedures are properly established/resourced to handle the situation described; however, improvements and additions can be made to make the Cooperative's response capability more efficient and effective. A list of the improvements/additions is included below in The Actionable Items list.
- 2) Does the Cooperative's Emergency Response Plan address the listed situation?
 - a. The Cooperative's Emergency Response Plan does address the situation described.
- 3) What updates are needed to be made to the Emergency Response Plan as a result of this test?
 - a. Updates to the Emergency Response Plan are included in The Actionable Items List below, and the ERP Tab is included where applicable.
- 4) What updates/modifications to United's resources, processes and procedures are needed as a result of this test?
 - a. See Actionable Items List.
- 5) Is this situation addressed in the VRA?
 - a. Yes – ice storms are addressed in the Cooperative's VRA.
- 6) What updates/modification should be made to United's VRA as a result of this test?
 - a. None required.

Actionable Items List:

- 1. Add a Section to the Emergency Response Plan dedicated to ERP Implementation procedures and Operational/Power Restoration processes and procedures. (Quentin Howard and Jared Wennermark) – Include in New Tab of the ERP.
- 2. Develop a list of triggers to initiate the ERP. (Quentin Howard, Jared Wennermark, Ed Nunez – all departments) – Include in New Tab of the ERP
- 3. Develop a list of triggers/benchmarks to initiate damage assessment. (Quentin Howard, Ed Nunez, Cory Menzel – all departments) – Include in New Tab of the ERP
- 4. Develop a process for identifying specifically what is needed from contractors and/or other Coops when asking for assistance: (Quentin Howard and Ed Nunez – Operations and System Engineering) – Include in New Tab of the ERP
 - a. Crew size
 - b. Equipment type
 - c. Special needs (hand held programmable radios, tablets/iPhones, specialty tools?, etc.)
- 5. Review damage assessment tools to ensure that the information that is to be gathered is what is needed. (Cory Menzel and Jason Dillard) – Tab 11 of the ERP

2018 Emergency Response Plan Exercise

3/9/2018

6. Develop "sample information packets" for assisting Cooperatives that includes: (Blake Beavers and Russell Young – all departments) – Include in Tab 15 of the ERP
 - a. Accounting – Billing information, how to keep track of work
 - b. Warehouse – Instructions on how to get materials, where to direct questions, etc.
 - c. Safety
 - d. Housing and food information
 - e. Credentialing requirements, identification in the field, etc.
7. Create a Process for addressing credit card limits (Russell Young)
8. Develop a credentialing process (Quentin Howard, Robert Bernhoft, and Mauri Montgomery) – Include in New Tab of the ERP
 - a. Include tracking credentials
 - b. Sample access letter/letter of invitation
 - c. Placards
9. Outage Viewer/Dashboard - Educate the MSRs on what the legend and hard hats mean. Crews assigned versus crews actually working in that area. Research development of better ways to visually represent outages on a map. (Jared Wennermark, Cory Menzel, and Landy Bennett).
10. Review restoration scripts. (Cory Menzel and Marty Haught)
11. Develop a process of when to use extended hours for MSRs to help alleviate high call volume issues and handling unresolved calls. (Landy Bennett)
12. Formulate a better way to handle internal communications and management of "lines down", "broken poles", etc. calls (Cory Menzel and Jared Wennermark)
13. Develop a process for better management of contractors and contractor assignments to optimize utilization. Also develop a contract specifically for smaller contract teams that are better suited for outage restoration. (Quentin Howard and Ed Nunez)
14. Improve process for PrePower - determination of disabling PrePower versus running normal operations, and determine how to consistently handle pre-power accounts and its effect on dispatch. (Robert Bernhoft and Gynger Gossett)
15. Perform an equipment and training assessment – make needed improvements in future budgets and training schedules: (Ed Nunez, Robert Sherman, and Jason Dillard)
 - a. 4 wheel drive buckets, diggers
 - b. UTV could be utilized effectively to do assessment – Rental?
 - c. Track machine(s)
 - d. Training for Reps on Sectionalizing
 - e. Training for Operations on trimming practices
 - f. ¾ ton vehicle(s) for warehouse
 - g. CDLs for warehouse?
16. Develop a process for handling logistics and tracking needs better – i.e. tracking housing and meals needs as the help is offered and communicate that from the Operations Center to the Logistical Team earlier. (Russell Young, Landy Bennett, and Blake Beavers) – Include in Tab 15 of the ERP
 - a. Work on organizing the room assignments better.
 - b. Lodging for UCS employees

2018 Emergency Response Plan Exercise

3/9/2018

17. Develop a “grocery list” for items to buy (Robert Bernhoft, Robert Sherman, and Paula Cupps) – Include in Tab 15 of the ERP
18. Develop a process for house-keeping and clean up functions (Robert Sherman). - Include in Tab 15 of the ERP

2018 Emergency Response Plan Exercise

11/30/18

Date/Time/Location

The preparedness review and test was held at the Cleburne office of United Cooperative Services in the Community Room, on October 10, 2018 beginning at 10:00am.

Invited/Notified

The Emergency Response Plan preparedness test information was filed with the Public Utility Commission. In addition, Mr. Brian Brumfield, the Texas District Coordinator for District 4A of Texas Department of Emergency Management was notified and invited to attend the test.

Attendees

Kevin Keesee, David Stone, Heather Wigington, Gynger Gossett, Quentin Howard, Jared Wennermark, Marty Haught, Mark Dixon, Seth Rosser, Robert Sherman, Robert Bernhoft, Russell Young, Blake Beavers, Ed Nunez, and Jason Dillard

Background

United Cooperative Services' Annual Meeting is being held at the Glen Rose High School Auditorium. As the actual meeting portion of the meeting begins (approximately 1:00PM), two heavily armed gunmen enter the front of the auditorium (near the area where the registration is held) and begin shooting.

Issues to be Tested:

- 1) Does United have proper resources, guidelines and procedures in place to handle the situation described?
 - a. Key points of this scenario include:
 - i. Security planned prior to the event
 1. We need to add additional hired security and coordinate their assignments with the Safety Department
 2. Reinforce the need for additional awareness by the employees and make sure they understand to bring in those with expertise if a threat is identified
 - ii. Employees trained on awareness, but Members not
 1. Reinforce active shooter awareness training with the employees
 - iii. Identifying the threat – what do we look for
 1. Reinforce active shooter awareness training with the employees, and remind the employee group to notify security of any suspicious activity
 - iv. Early detection of the threat – how do we handle the crowd inside?
 1. Focus on communication as the primary response. Develop a communication plan for the event to include in the ERP update.
 2. Review a plan for securing the lesser used doors once the meeting begins?
 3. Supply flashlights for employees at each doorway.
 - v. Evacuation?
 1. Notify the Membership of the exits prior to the beginning of the meeting.
 - vi. Crowd control/Order control
 1. Supply flashlights for employees at each doorway.
 2. Reinforce the active shooter training with the employees and refresh them on the Run, Hide, Defend practices.
 - vii. Assisting wounded

2018 Emergency Response Plan Exercise

11/30/18

1. Reinforce proper procedures for active shooter training with the employee group.
 2. Refer any triage to the properly trained employees and assist where possible once the active shooter threat is removed.
- 2) Does the Cooperative's Emergency Response Plan address the listed situation?
 - a. No - Active Shooter information will be added to the ERP during the update.
- 3) What updates are needed to be made to the Emergency Response Plan as a result of this test?
 - a. Add active shooter information
- 4) What updates/modifications to United's resources, processes and procedures are needed as a result of this test?
 - a. Key points of this scenario include:
 - i. Security planned prior to the event
 1. We need to add additional hired security and coordinate their assignments with the Safety Department
 2. Reinforce the need for additional awareness by the employees and make sure they understand to bring in those with expertise if a threat is identified
 - ii. Employees trained on awareness, but Members not
 1. Reinforce active shooter awareness training with the employees
 - iii. Identifying the threat – what do we look for
 1. Reinforce active shooter awareness training with the employees, and remind the employee group to notify security of any suspicious activity
 - iv. Early detection of the threat – how do we handle the crowd inside?
 1. Focus on communication as the primary response. Develop a communication plan for the event to include in the ERP update.
 2. Review a plan for securing the lesser used doors once the meeting begins?
 3. Supply flashlights for employees at each doorway.
 - v. Evacuation?
 1. Notify the Membership of the exits prior to the beginning of the meeting.
 - vi. Crowd control/Order control
 1. Supply flashlights for employees at each doorway.
 2. Reinforce the active shooter training with the employees and refresh them on the Run, Hide, Defend practices.
 - vii. Assisting wounded
 1. Reinforce proper procedures for active shooter training with the employee group.
 2. Refer any triage to the properly trained employees and assist where possible once the active shooter threat is removed.
- 5) Is this situation addressed in the VRA?
 - a. Yes
- 6) What updates/modification should be made to United's VRA as a result of this test?
 - a. N/A

2019 Emergency Response Plan Exercise

12/2/2019

Date/Time/Location

The preparedness review and test was held at the Stephenville office of United Cooperative Services in the Board Room, on October 16, 2019 beginning at 10:00am.

Invited/Notified

The Emergency Response Plan preparedness test information was filed with the Public Utility Commission. In addition, Mr. Brian Brumfield, the Texas District Coordinator for District 4A of Texas Department of Emergency Management was notified and invited to attend the test.

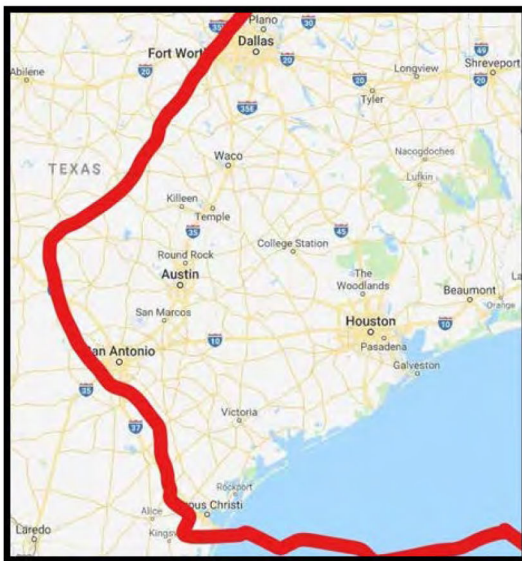
Attendees

Quentin Howard, Jared Wennermark, Kevin Keesee, Jason Dillard, Mark Buckner, Cory Menzel, Jerry Scott, Mark Dixon, Brody Weems, Jeremy Yarber, and Robert Sherman

Background

The 2019 Atlantic Hurricane Season was extremely active, especially in the western Gulf of Mexico Region. On August 13, 2019 a Category 2 Hurricane (Gabrielle) made landfall due south of Lafayette, Louisiana. Gabrielle was followed by a Category 3 Hurricane (Humberto) which made landfall southeast of Beaumont, Texas on September 6, 2019. Additionally, a massive Category 5 Hurricane (Karen) made landfall southwest of Corpus Christi, Texas on October 1, 2019. While United Cooperative Services was not directly affected by Gabrielle or Humberto, the Cooperative did send a crew to assist with the damage caused by each storm. The crew that was sent to southeast Texas to assist with the damage caused by Humberto was still assisting with the damage when Karen made landfall.

Hurricane Karen formed on September 28, 2019 in western Gulf of Mexico and rapidly increased in intensity before making landfall and maintained intensity throughout its trek through Texas. Karen entered United's territory as a Category 3 Hurricane (sustained winds of 123 mph) on the morning of October 3rd north of Hamilton; and exited the Cooperative's territory early on the morning of October 4th on the west side of Mansfield as a Category 2 Hurricane (sustained winds of 101 mph). Due to her intensity and the path taken, Karen caused extensive damage to the Cooperative's infrastructure. The Cooperative lost power to 20,000 meters at the apex of the storm, with extensive losses of poles and wire (exact damages unknown at the time of the test).



2019 Emergency Response Plan Exercise

12/2/2019

Issues to be Tested:

- 1) Does United have proper resources, guidelines and procedures in place to handle the situation described?
 - a. Key points of this scenario include:
 - i. Resources will be very limited (both contractor and in-house).
 - ii. Mutual aid would be limited, and possibly unavailable.
 - iii. Tornadoes are likely on the east side of the storm.
 - iv. There is a high probability that environmental clean-up and reporting will be required.
 - v. Communications with Brazos will need to be immediate so that they can begin mobilizing their work.
 - vi. Mobility and access will most likely be very limited due to debris.
 - vii. Coordination with Emergency Management teams and other first responders will be critical.
 - viii. It will need to be handled as a FEMA event.
 - ix. Damage assessment and restoration efforts will need to be coordinated.
 - x. Internal and external communications may be effected or could be non-existent for several days.
 - xi. Material routing may be cut-off from various regions of the country.
 - xii. Temporary housing, food, and supplies would be very limited and possibly not available.
 - xiii. Local commercial and industrial resources may be greatly affected or destroyed.
 - xiv. Curfews may be invoked.
 - xv. Fuel availability will be limited or non-existent.
 - b. Does United have proper guidelines and procedures in place to handle the situation described?
 - i. Resources will be very limited (both contractor and in-house). – Yes, we have multiple contractors, Mutual Aid agreements with other Cooperatives, and the right to recall current contractors.
 - ii. Mutual aid would be limited, and possibly unavailable. – Yes, United has working relationships with Cooperatives in Oklahoma and Arkansas that could be called on for assistance.

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- iii. Tornadoes are likely on the east side of the storm. – Yes, the ERP addresses restoration efforts for tornadoes.
- iv. There is a high probability that environmental clean-up and reporting will be required. – Yes, processes are in place to address the reporting and clean-up procedures, as well as the insurance reporting requirements that may be needed. Relationships have been established with environmental contractors with an immediate response availability.
- v. Communications with Brazos will need to be immediate so that they can begin mobilizing their work. – Yes, regular communications with Brazos occur regularly and their SCADA system will provide them with immediate notification. Protocols are in place to facilitate mobile substation utilization.
- vi. Mobility and access will most likely be very limited due to debris. – Yes, the Emergency Response Plan addresses the use of bulldozers and other clearing equipment to assist with access, as well as contact lists for additional contractors to assist as needed. Communications with local and State authorities will also be key to facilitate access to areas where access is limited.
- vii. Coordination with Emergency Management teams and other first responders will be critical. – The Emergency Response Plan details coordination procedures with the emergency management personnel. In addition, the National Incident Management System (NIMS) is specifically designed to facilitate coordination with emergency management and United's Emergency Response Coordinator has participated in NIMS training.
- viii. It will need to be handled as a FEMA event. – Yes, the Emergency Response Plan details FEMA protocols which will be utilized at the beginning of a major disaster. In addition, NIMS training addresses FEMA protocols as well.
- ix. Damage assessment and restoration efforts will need to be coordinated. – Yes, damage assessment and restoration efforts are well established in Tab 11 of the Emergency Response Plan.
- x. Internal and external communications may be effected or could be non-existent for several days. – Yes, internal and external communications are covered extensively in the ERP.
- xi. Material routing may be cut-off from various regions of the country. – Yes, United has relationships with vendors throughout the United States, so materials could be re-routed through non-effected regions.
- xii. Temporary housing, food, and supplies would be very limited and possibly not available. – Yes, the ERP covers a number of various methods to supply temporary housing and other logistical needs.
- xiii. Local commercial and industrial resources may be greatly affected or destroyed. – Yes, the ERP covers a number of various methods to supply temporary housing and other logistical needs.

2019 Emergency Response Plan Exercise

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- xiv. Curfews may be invoked. – Yes, credentialing is covered in the Emergency Response Plan.
- xv. Fuel availability will be limited or non-existent. – Yes, the Emergency Response Plan covers accessing fuel resources in an emergency.

2) Does the Cooperative's Emergency Response Plan address the listed situation?

- i. Resources will be very limited (both contractor and in-house). – Yes, ERP Tab 2, and Tab 3 cover this topic.
- ii. Mutual aid would be limited, and possibly unavailable. – Yes, Tab 2 addresses this issue.
- iii. Tornadoes are likely on the east side of the storm. – Yes, Tab 1 covers this issue.
- iv. There is a high probability that environmental clean-up and reporting will be required. – Yes, Tab 3 addresses environmental clean-up.
- v. Communications with Brazos will need to be immediate so that they can begin mobilizing their work. – Yes, Tab 2 has references and contact information for Brazos.
- vi. Mobility and access will most likely be very limited due to debris. – Yes, Tab 2 includes information related to acquiring bulldozers and other debris removal contractors.
- vii. Coordination with Emergency Management teams and other first responders will be critical. – Yes, the Emergency Response Plan Tab 2, 4 and 5 cover FEMA related issues.
- viii. It will need to be handled as a FEMA event. – Yes, Tab 4 includes all the data and information required for a FEMA event.
- ix. Damage assessment and restoration efforts will need to be coordinated. – Yes, damage assessment is covered under Tab 1 of the ERP.
- x. Internal and external communications may be effected or could be non-existent for several days. – Yes, Tabs 1, 2, and 3 cover communications in the ERP.
- xi. Material routing may be cut-off from various regions of the country. – Yes, purchasing and warehouse recovery are covered under Tab 3 or the ERP.
- xii. Temporary housing, food, and supplies would be very limited and possibly not available. – Yes, Tab 1 and Tab 2 cover the business continuity and logistics for the Cooperative.
- xiii. Local commercial and industrial resources may be greatly affected or destroyed. – Yes, Tab 1, 2, and 3 cover this issue in the ERP.
- xiv. Curfews may be invoked. – Yes, credentialing is covered under Tab 1 of the ERP.

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xv. Fuel availability will be limited or non-existent. – Yes, Tab 3 covers fleet leasing and fuel in the ERP.

- 3) What updates are needed to be made to the Emergency Response Plan as a result of this test?
 - a. Other than the annual updates (i.e. contractor lists, employee contact information, etc.) no additional updates are required as a result of this test.
- 4) What updates/modifications to United's resources, processes and procedures are needed as a result of this test?
 - a. Other than the annual updates (i.e. contractor lists, employee contact information, etc.) no additional updates are required as a result of this test.
- 5) Is this situation addressed in the VRA?
 - a. Yes
- 6) What updates/modification should be made to United's VRA as a result of this test?
 - a. No updates are needed.

2020 Emergency Response Plan Exercise

11/30/2020

Date/Time/Location

The preparedness review in preparation for COVID-19 preliminary meeting was held at the Burleson office of United Cooperative Services in the Community Room, on March 16, 2020 beginning at 1:30pm. A follow up meeting was held in the Burleson Community Room on June 8, 2020.

Invited/Notified

Since this was an actual event, the preparedness information was not filed with the Public Utility Commission or with Mr. Brian Brumfield, the Texas District Coordinator for District 4A of Texas Department of Emergency Management prior to the meeting. However, both parties have been notified of the preparedness meeting and supplied with a copy of these notes.

Attendees

Quentin Howard, Cameron Smallwood, Marty Haught, Heather Wigington, Melissa Seabourn, Russell Young, Blake Beavers, Mark Buckner, Gynger Gossett, Mauri Montgomery, Mark Dixon, Lindsey Mobley, Jared Wennermark, Ed Nunez, Jerry Scott, Kevin Keese, Jason Dillard, Robert Sherman, Landy Bennett, Marcellus Nixon, Zane Hackler, and Robert Bernhoft

Background

In late February/early March 2020, the United States began to feel the real effects of the COVID-19 virus. While responding to a pandemic was addressed in United's Emergency Response Plan, there was not a specific Pandemic Response Plan included in the ERP. Due to this fact, the Cooperative's Staff called a meeting to begin preparing for the effects of the spread of COVID-19, and to develop a plan for pandemics going forward.

Emergency Response Plan Issues Tested:

- 1) Does United have proper resources, guidelines and procedures in place to handle the situation described?
 - a. Key points of this scenario include:
 - i. See meeting notes from March 16, 2020 attached below.
 - b. Does United have proper guidelines and procedures in place to handle the situation described?
 - i. Yes
- 2) Does the Cooperative's Emergency Response Plan address the listed situation?
 - a. While a pandemic had been the subject that was tested in the past, the Emergency Response Plan does not include a Pandemic Response Plan; however, one is being developed and will be included with the updated ERP that will be submitted to the PUC and reviewed with all of United Cooperative Services' employees in early 2021.
- 3) What updates are needed to be made to the Emergency Response Plan as a result of this test?
 - a. The addition of a specific Pandemic Response Plan is needed.
- 4) What updates/modifications to United's resources, processes and procedures are needed as a result of this test?
 - a. Those updates/modifications specified in the Pandemic Response Plan.

2020 Emergency Response Plan Exercise

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- 5) Is this situation addressed in the VRA?
 - a. Yes
- 6) What updates/modification should be made to United's VRA as a result of this test?
 - a. No updates are needed.

Emergency Response Plan – COVID -19 Planning Meeting Notes for March 16, 2020:

Items to Consider/Discuss

Notes in **Red** are from the March 16 meeting (1:30pm – 3:30pm in Burleson Community Room)

Notes in **Blue** are from IS&T (Robert Bernhoft)

- COVID-19 – Latest Developments – Current Statistics
- Employees
 - Communications
 - **Emails from the CEO**
 - **Weekly or as needed if news warrants**
 - **Employee Meetings in March as scheduled – Quentin to make a presentation on COVID-19 and Pandemic Preparedness**
 - **Computer messaging on start up about proper hygiene practices**
 - Assistance if the employee or immediate family is confirmed to have COVID-19?
 - **If showing symptoms we will encourage them to work from home (if your jobs permit)**
 - **If an employee is experiencing the symptoms, the Cooperative would require the employee to either work from home or use vacation/sick leave if you are not an employee eligible to work from home**
 - **Affected Leadership Team Members should survey their employees as to availability of internet and the service speeds at their home – survey results shall be turned into Quentin via email by the end of day on Friday, March 20th**
 - Job Modifications:
 - **Suspend Energy Audits; in person DG verifications**
 - **HR – Online Interviews where possible**
 - **Field Personnel – Utilize social distancing, suspend hand shakes, proper sanitation/hygiene**
 - Directions in terms of:
 - **Hygiene/Safety Practices**
 - **Postpone onsite health screenings – to the Fall**
 - **Interaction with Members/Public**
 - **In the office**
 - **Gloves? – Will wait to see if/when a need arises. Mark Dixon will check to see if gloves are available for those who want them.**
 - **In the field (hand shaking on appointments, etc.)**

2020 Emergency Response Plan Exercise

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- Staying home when sick
 - If employees have family members who they are in regular contact with have symptoms or are confirmed, then they should work from home or use sick leave/vacation
- Effects of school closings and day care centers
 - If employee has no other options, work from home can be available if it is feasible. If work from home is not available then vacation/sick leave can be used.
 - Internal baby-sitting service?
- Business Travel
 - Most conferences are already being canceled into May
 - Make sure travel is absolutely necessary before going to States that have higher infections rates (ie California, Washington, etc.)
 - Travel in general should be done only as necessary through April
 - To be evaluated as things progress
- Meetings – utilizing WebEx, Conference Calls, etc. when possible
 - Evaluate larger meetings as the dates get nearer.
 - When possible use WebEx and Conference Calls
 - We have one log in for WebEx username is webex@united-cs.com
 - Blake, Cameron, Quentin have the password.
 - If you need to setup a meeting, let IS&T know so they can add you to the webex@united-cs.com email group.
- Allaying their fears/dispelling rumors
 - Rumors in general are on the rise...communications are key
- Supplies (continuity)
 - Materials
 - We are in good shape right now...we are mitigating risk by stocking up on key items
 - Will communicate with Material/Warehousing to suspend visits with vendor reps when possible
 - Office Supplies
 - Office supplies are well supplied
 - Cleaning Supplies
 - Cleaning supplies are well supplied. Hand sanitizers shall be utilized as labeled.
 - Cleaning services are being ramped up to 5 days a week (from the current 3 days per week)
- Business Continuity
 - Office closures
 - Stay open for now – will review the need for lobby closings going forward
 - Drive through to remain open – will review if the need arises going forward
 - Working from home options
 - See employee survey information above
 - VPN Client software was pushed to all employee computers week of March 1st.

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- IS&T will have to setup users in Duo (two factor authentication) for users when needed. (\$3 per month per user)
- I'm having Brad verify on Monday that everyone has the Soft Phone option in their MiTel software (Noticed it was missing on Russell's the other day)
- If the offices close (not just for members) IS&T will need to setup print sessions on the MSRs computers to allow them to print service orders to PDFs and email to the FERs/Operations.
- Quetta worked from home last Thursday and we had everything but the credit check working for her. This can be addressed after we know the employees home IP address and we can add that as an allowed IP address at Online Utility Exchange.
- We tested remotely connecting to a computer that was VPNed into our network at it worked as long as the computer IS&T was using was on our network. I couldn't remotely connect to between two VPNed computers No issue here, we just have to remote to a local computer or server in Burleson and then remotely connect to the employee's computer from the local computer.
- Employees will need to limit the use of non work related websites/streaming video/audio while VPNed into the network.
- Calls manager should be limited to a AS NEEDED ONLY due to the amount of data that it pushes back and forth while running.
- We currently have 50 concurrent connection that can be VPNed at a time. We ordered another 50 the week of March 1st, but Cisco is having issues generating software licenses for the past two months and are not sure if we will get the licenses for the additional 50 any time soon.
- IS&T can do a brief explanation of the Duo Multifactor Authentication and the Soft Phone at the employee meetings
- Not all employees have internet access at their home, so working from home isn't an option for everyone. Options here would be for them to tether their computer to their cell phone and connect in (if they have that option). This could require us to pay for any data overages on their cell phone plan. Or get some additional MiFi "pucks" from AT&T and let them borrow them. (\$4.84 - \$8.34 per month for the device with 30 month contract) plus the data plan or buy the device out right and purchase prepaid 30 day data plans:
 - 3 GB for \$25 additional 1GB for \$10
 - 10 GB for \$50 additional 1.5 GB for \$10
 - 18 GB for \$75 additional 2.00 GB for \$10
- When do we activate above options (or others)?
- Cyber Security
 - We will set the employees (other than IS&T, Staff, and Key Personal) to only be allowed VPN access during working hours to help reduce the exposure of our network. We will continue to monitor all systems as we have and will continue to alert the employees if we see any suspicious emails.
- Contractors
 - Discuss their preparations and readiness

2020 Emergency Response Plan Exercise

11/30/2020

- Notify them of United's plans and any deviations from SOP in regard to contractors
- NRTC, ACRT, Construction Contractors, Vendors, and others as needed
- Members
 - Member Assistance if they are directly affected by COVID-19?
 - Landy to check with Texas Neighborhood Services
 - Operation Roundup is also a potential source
 - Member Communications
 - Signage to be placed at entrances asking Members to not enter the Lobby if they are feeling ill, or have been in contact with COVID-19 – Marty/Mauri to develop
 - Developed 3/16/20 – See attached example
 - Weekly updates to our website and social media
 - More if need arises
 - Disconnects – suspension of disconnects
 - Currently being reviewed by the Texas PUC
 - Expanded use of extensions by the MSRs as needed
 - Community Room Access
 - Suspension of outside use of Community Rooms effective immediately until May 1st – will be reviewed again in the future
- Other
 - Employee Meetings will continue this month; however, we will review how future meetings will be determined at a later date (having meetings with smaller groups, etc)

In attendance: Quentin Howard, Cameron Smallwood, Marty Haught, Heather Wigington, Melissa Seabourn, Russell Young, Blake Beavers, Mark Buckner, Gynger Gossett, Mauri Montgomery, Mark Dixon, Lindsey Mobley, Jared Wennermark, Ed Nunez, Jerry Scott, Kevin Keesee, Jason Dillard, Robert Sherman, Landy Bennett, Marcellus Nixon, Zane Hackler, Robert Bernhoft

HOLD UP A MINUTE, FOLKS!



IT'S A SIGN OF THE TIMES!

**FOR THE SAFETY OF UNITED EMPLOYEES
AND THE GENERAL PUBLIC, IF YOU ARE ILL
OR HAVE EXPERIENCED THE FOLLOWING:**

Fever, cough or other respiratory symptoms; and/or traveled within the past 14 days to an area with confirmed COVID-19 cases; and/or have known exposure to someone diagnosed with COVID-19 (coronavirus); then **PLEASE** utilize our night drop facilities, drive-thru facilities (where available) or contact us via:

www.united-cs.com

www.united-cs.com

United Offices:

Cleburne	817-556-4000
Stephenville	254-965-3153
Granbury	817-326-5232
Meridian	254-435-2832
Burleson	817-447-9292
PK Lake	940-779-2985

Thanks, with perseverance and God's blessings we will be able to put all this behind us...soon!

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Date/Time/Location

The preparedness review and test was held via TEAMS at the following address:

https://teams.microsoft.com/l/meetup-join/19%3ameeting_MWRmY2FiNGEtNjgwZi00NGU0LTkyMGltZDI3OWYxMTM2ZDlm%40thread.v2/0?context=%7b%22Tid%22%3a%22ce91fdf1-1d35-455c-a720-10044d2c846b%22%2c%22Oid%22%3a%226a65b679-d84e-4579-85bc-df6998d81edf%22%7d

The meeting was held at 2:00pm (CDT) on Tuesday, October 12, 2021.

Invited/Notified

The Emergency Response Plan preparedness test information was filed with the Public Utility Commission. In addition, Mr. Brian Brumfield, the Texas District Coordinator for District 4A of Texas Department of Emergency Management was notified and invited to attend the test.

Attendees

Quentin Howard, Mark Buckner, Marty Haught, Landy Bennett, Jared Wennermark, Robert Bernhoft, Russell Young, Kevin Keesee, Marcellus Nixon, Blake Beavers, Mauri Montgomery, Jason Dillard, Ed Nunez, Jerry Scott, Danny Cornia, Steven Ferguson, Brody Weems, John Davis, Gynger Gossett, Cory Menzel, and Bruce Goss

Background

Starting in the early morning of Sunday, January 10, 2021, United Cooperative Services' territory began receiving extraordinarily heavy amounts of wet snow. The snow continued throughout the day and a large portion of the service territory received 8 plus inches of snow by about 10pm.

Around 10am the snow began to weigh down trees and services across the system, and several smaller (1 to 10 meter) outages began to pop up. While the highest amount of these outages were focused in the Stephenville and Meridian service areas, outages were occurring across the system. At the peak, approximately 4,000 of United's Members experienced approximately 400 individual outages. What made this storm unique was the exceptionally high quantity of smaller outages, with no sustained substation or feeder outages.

Adding to the complexity of this storm was that it occurred on a Sunday. This fact had very minimal effect on United's resources because they had prepared in advance prior to the start of the snow event; however, it did make it more difficult to find potential mutual aid participants due to it being a weekend.

Issues to be Tested:

- 1) Does United have proper guidelines and procedures in place to handle the situation described?
 - a. Key points of this scenario include:
 - i. OMS had resource overload issues.
 - ii. The telephone system was overloaded.
 - iii. Resources were limited at the beginning of the event (both contractor and in-house).
 - iv. Mutual aid was required due to the number of outages and the event occurring on a weekend.

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- v. Mobility and access was hindered due to 8 to 10 inches of snow.
- vi. The event was handled like a FEMA event as a practice run, even though it was extremely doubtful that the event would qualify.
- vii. MSR's worked from home as a result of being prepared to do so because of preparations that were put in place due to COVID-19.
- viii. Materials were not an issue during this event.
- ix. Communications were limited due to a phone line outage in the Stephenville area.
- x. Temporary housing was supplied to the crews coming from other Cooperatives.
- xi. Trees were weighted down by heavy snow.
- xii. Internal communications were difficult due to the lack of a standardized meeting platform and our inability to use ShoreTel due to the overcrowded phone lines.
- xiii. There were issues getting internal resources during the first several hours of the storm due to the weather being milder in the eastern part of the territory, and the fact that the snowstorm that occurred 10 days earlier had not caused significant damage/outages.
- xiv. One of the Cooperative's Email filters worked "too well" during the event as it was filtering out outages that were reported via email. By doing so they were moving them to a junk folder and not allowing them to pass to System Operations.
- xv. Due to the progression of the storm, System Operations did not recognize a need for high call volume during the early stages of the event.
- xvi. With the utilization of multiple contract crews, as well as mutual aid crews, safety crew safety had to be an even greater focus throughout the event.
- xvii. Several mutual aid crew coordinators were needed during the event.
- xviii. Communications between the Cooperative's Staff and Leadership were hindered at times and did not occur on a regular basis throughout the event.
- b. Does United have proper guidelines and procedures in place to handle the situation described?
 - i. OMS had resource overload issues.
Yes, but updates are needed - In the future, System Operations and Engineering Services will add a verification that all updates are completed or postponed to the OMS pre-storm check list. Additionally, they will work together to fine tune the use of the crew manager functionality, set up the "trucks" in advance of future storms, and provide additional training as needed.

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- ii. The telephone system was overloaded.
Yes – To potentially improve in this area a committee to research CRC and evaluate the potential usage of CRC in the future will be formed. Additionally, System Operations will review the high call volume criteria and provide additional training as needed.
- iii. Resources were limited at the beginning of the event (both contractor and in-house).
Yes – additional contractors were called in within two hours of the beginning of the event and mutual aid was requested approximately six hours after the event began
- iv. Mutual aid was required due to the number of outages and the event occurring on a weekend.
Yes – mutual aid was requested within approximately six hours of the beginning of the event.
- v. Mobility and access was hindered due to 8 to 10 inches of snow.
Yes
- vi. The event was handled like a FEMA event as a practice run, even though it was extremely doubtful that the event would qualify.
Yes
- vii. MSR's worked from home as a result of being prepared to do so because of preparations that were put in place due to COVID-19.
Not at the time of the event – procedures for working at home and preparing for an ERP event have been established since the January 10-11, 2021 event.
- viii. Materials were not an issue during this event.
N/A
- ix. Communications were limited due to a phone line outage in the Stephenville area.
Yes – these procedures will be aided through the use of the Cooperative's fiber system during future events
- x. Temporary housing was supplied to the crews coming from other Cooperatives.
Yes
- xi. Trees were weighted down by heavy snow.
N/A – while trees were weighed down due to the extraordinary accumulation of heavy/wet snow, additional vegetation management would not have prevented this issue
- xii. Internal communications were difficult due to the lack of a standardized meeting platform and our inability to use ShoreTel due to the overcrowded phone lines.
No – The "Emergency Response Plan Considerations" chart that currently resides on page 160 of the ERP needs to be updated to include the outage level (or forecast weather/disaster level) that TEAMS meetings between the Leadership Team and the Staff should be initiated; and when the Staff should begin discussing mutual aid.

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- xiii. There were issues getting internal resources during the first several hours of the storm due to the weather being milder in the eastern part of the territory, and the fact that the snowstorm that occurred 10 days earlier had not caused significant damage/outages.
Yes – contractors were utilized at the earliest stages of the event
- xiv. One of the Cooperative's Email filters worked "too well" during the event as it was filtering out outages that were reported via email. By doing so they were moving them to a junk folder and not allowing them to pass to System Operations.
Yes – IS&T has updated the processes and procedures to address the problem that was experienced going forward
- xv. Due to the progression of the storm, System Operations did not recognize a need for high call volume during the early stages of the event.
Yes – additional review and training on these procedures will be undertaken by the System Operations Department
- xvi. With the utilization of multiple contract crews, as well as mutual aid crews, safety crew safety had to be an even greater focus throughout the event.
Yes – Safety was involved at the early stages of the event and they worked very efficiently and effectively with Operations during the storm, and were instrumental in helping to coordinate the mutual crews.
- xvii. Several mutual aid crew coordinators were needed during the event.
Yes, but updates are needed – a list of available mutual aid crew coordinators should be developed for future events, and the personnel on the list should be provided proper training to allow them to safely and effectively coordinate with the mutual aid crews during a major outage.
- xviii. Communications between the Cooperative's Staff and Leadership were hindered at times and did not occur on a regular basis throughout the event.
No – The "Emergency Response Plan Considerations" chart that currently resides on page 160 of the ERP needs to be updated to include the outage level (or forecast weather/disaster level) that TEAMS meetings between the Leadership Team and the Staff should be initiated; and when the Staff should begin discussing mutual aid.

2) Does the Cooperative's Emergency Response Plan address the listed situation in terms of:

- a. Preliminary/advanced identification of imminent weather events
Yes – Even though the Cooperative had not experienced snow related outages (or snow accumulations) to the extent experienced during the event in recent years, the potential for the event was recognized.
- b. Damage assessment
Yes – Due to the nature of the outages experienced during this event, damage assessment was not required.

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c. Acquisition and distribution of materials

Yes – Due to the nature of this event, little to no damage occurred to the Cooperative's distribution facilities, therefore only those materials related to secondary outage restoration (fuses, small quantities of service wire, etc.) were needed.

d. Oversight, tracking, and coordination of contractors, and mutual aid assistance

Yes, but updates needed – See Item 4 below

e. Logistics such as housing, feeding, and equipping mutual aid personnel

Yes – mutual aid personnel were properly housed, fed, and equipped during the event.

f. Coordination, tracking, and documentation of work

Yes

3) Since the situation described has the potential of qualifying as a FEMA event, are United's processes and procedures appropriately designed to ensure that proper FEMA documentation and reporting will be maintained?

- a. The event was reviewed after the fact and had the event been a FEMA qualifying event the ERP was determined to be well designed to handle a similar FEMA event in the future.

4) What updates are needed to be made to the Emergency Response Plan as a result of this test?

- a. Outage Management System Guidelines need to be updated – System Operations and Engineering Services will add a verification that all updates are completed or postponed to the OMS pre-storm check list. Additionally, they will work together to fine tune the use of the crew manager functionality, set up the "trucks" in advance of future storms, and provide additional training as needed.
- b. The ERP should be updated to promote preparedness for inside personnel to work from home when feasible prior to a storm/event. One example of this is that in preparation of future storms, MSRs will be requested to take their laptops home so as to allow them to work unresolved calls from home.
- c. A list of available mutual aid crew coordinators will be developed for future events, and the personnel on the list shall be provided proper training to allow them to safely and effectively coordinate with the mutual aid crews during a major outage.
- d. The "Emergency Response Plan Considerations" chart that currently resides on page 160 of the ERP needs to be updated to cover how to determine at which outage level (or forecast weather/disaster level) should a TEAMS meeting be initiated and whether a row should be added to the chart to designate when the Staff should begin discussing mutual aid.

January 10-11, 2021 Snow Related Outage Review Notes

January 18, 2021 Post Event Meeting held at 1:30PM in the Burleson Community Room

Attendees – Quentin Howard, Cameron Smallwood, Marty Haught, Landy Bennett, Jared Wennermark, Robert Bernhoft, Russell Young, Kevin Keesee, Marcellus Nixon, Blake Beavers, Mauri Montgomery, Jason

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Dillard, Ed Nunez, Jerry Scott, Danny Cornia, Steven Ferguson, Brody Weems, John Davis, Gynger Gossett, Cory Menzel, Bruce Goss

Situation

Starting in the early morning of Sunday, January 10, 2021, United Cooperative Services' territory began receiving extraordinarily heavy amounts of wet snow. The snow continued throughout the day and a large portion of the service territory received 8 plus inches of snow by about 10pm.

Around 10am the snow began to weigh down trees and services across the system, and several smaller (1 to 10 meter) outages began to pop up. While the highest amount of these outages were focused in the Stephenville and Meridian service areas, outages were occurring across the system. At the peak, approximately 4,000 of United's Members experienced approximately 400 individual outages. What made this storm unique was the exceptionally high quantity of smaller outages, with no sustained substation or feeder outages.

Adding to the complexity of this storm was that it occurred on a Sunday. This fact had very minimal effect on United's resources because they had prepared in advance prior to the start of the snow event; however, it did make it more difficult to find potential mutual aid participants due to it being a weekend.

Discussion

Outage Management System – around mid-afternoon System Operations began to experience issues with the OMS running unusually slow. The OMS system was reset to help alleviate the issues with the system, but resetting the OMS involves taking down and then bringing back up a number of interrelated systems which is time consuming. Also, during the afternoon of the outage the crew manager system within the OMS was disabled because in order for it to work correctly individual crew identifiers (trucks) have to be set up and they were not.

A review of the OMS after the outages were restored uncovered that the slow-down of the OMS was a result of a Windows update that was initiated on the Friday before the storm but not finished when the snow event occurred, and additionally a mapping model update that began earlier during the weekend did not finish correctly.

In the future, System Operations and Engineering Services will add a verification that all updates are completed or postponed to the OMS pre-storm check list. Additionally, they will work together to fine tune the use of the crew manager functionality, set up the "trucks" in advance of future storms, and provide additional training as needed.

Interactive Voice Response – During the meeting we discussed the IVR system. In summary, the IVR system performed well during the storm event.

Member Service Representatives – It was brought up during the meeting that due to COVID-19 a number of the MSRs were prepared to work from home. As a result, several MSRs were able to access the system from home and handle unresolved calls without travelling to and from the office, and without being on the icy roads.

In preparation of future storms, MSRs will be requested to take their laptops home so as to allow them to work unresolved calls from home in the future.

Email Filter – Upon review on the Monday after the storm event it was discovered that one of the email filters had worked "too well" as it was filtering out outages that were reported via email. By doing so they were moving them to a junk folder and not allowing them to pass to System Operations.

IS&T has made changes that will correct this issue going forward.

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Cooperative Response Center – Several individuals in the meeting commented that they had never experienced the high number of smaller outages (singles) that occurred during this event, and it was again mentioned that being on a Sunday only exacerbated the situation. During the discussion it was suggested that it may be time to look into potentially using CRC for future events.

Landy will be chairing/forming a committee to research CRC and evaluate the potential usage of CRC in the future.

System Operations – Along with the other items listed above, it was discussed that System Operations will review the high call volume criteria and provide additional training as needed.

Operations and Contractors – Overall the Cooperative's Operations personnel were well prepared for the storm event, and they responded quickly when called. Additionally, United's overhead contractors were brought in to help restore the outages around mid-morning on January 10th. Twenty five of Scott Pole-line's personnel, ten of Great South-West's personnel, five of Bobcat's personnel, and multiple Arbor Experts and Horton personnel assisted with the outage event.

Safety – Brody Weems worked very efficiently and effectively with Operations during the storm helping coordinate the mutual crews. Brody was instrumental in getting the crews to their lodging, coordinating them with their assigned crew coordinator (FER, Engineering Tech, etc.), and providing them with their safety briefing prior to heading to their assigned outage.

As a result of the discussion it was recognized that a list of available mutual aid crew coordinators should be developed for future events. Once the list is created, the personnel on the list shall be provided proper training to allow them to safely and effectively coordinate with the mutual aid crews during a major outage. Brody Weems will work with Jason Dillard and others members of the Leadership Team to create the list of mutual aid crew coordinators; and Brody will work with Mark Dixon to create an implement safety/training program for the crew coordinators.

COVID-19 – The effects of COVID-19 on the outage restoration were discussed. The only negative impact of COVID-19 on the restoration was that it slightly limited the number of Operations personnel that were available due to quarantine. Conversely, earlier preparations related to the virus had a positive impact in that the MSRs were equipped and prepared to work from home which was a more efficient process than driving into an office, and more importantly it was a safer process.

Mutual Aid and TEAMS Leadership Meeting Trigger Points – The point at which the Staff and Leadership should begin having regularly scheduled meetings/discussions concerning the outage events was discussed at the meeting. Additionally, it was discussed when to begin working on acquiring mutual aid and beginning to address the logistical concerns related to mutual aid.

At the February 2021 meeting of the Cooperative's Reliability Committee discussions will take place to determine the best ways to update the "Emergency Response Plan Considerations" chart that currently resides on page 160 of the ERP. This discussion will include determining at what outage level (or forecast weather/disaster level) should a TEAMS meeting be initiated and whether a row should be added to the chart to designate when the Staff should begin discussing mutual aid.

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Date/Time/Location

The preparedness review and test was held via TEAMS at the following address:

https://teams.microsoft.com/join/19%3ameeting_YTcyMDEwODYtZWJiYy00Mzg1LTgyNmUtN2Q1NjU1Njk4OGM2%40thread.v2/0?context=%7b%22Tid%22%3a%22ce91fdf1-1d35-455c-a720-10044d2c846b%22%2c%22Oid%22%3a%226a65b679-d84e-4579-85bc-df6998d81edf%22%7d

The meeting was held at 10:00am (CDT) on Thursday, October 13, 2022.

Invited/Notified

The Emergency Response Plan preparedness test information was filed with the Public Utility Commission. In addition, Mr. Brian Brumfield, the Texas District Coordinator for District 4A of Texas Department of Emergency Management was notified and invited to attend the test.

Attendees

Quentin Howard	Blake Beavers	Jeff Pannell
Robert Bernhoft	Mauri Montgomery	Reid Carroll
Cory Menzel	Mark Buckner	Mark Dixon
Marcellus Nixon	Ed Nunez	Brody Weems
Marty Haught	Jerry Scott	Robert Sherman
Landy Bennett	John Huffman	Clay Turner
Jared Wennermark	Gynger Gossett	Eric Cagle
Russell Young	Bruce Goss	John Davis
Kevin Keesee	Jason Dillard	

Background

In early July 2022, United's territory was hit by a late season thunderstorm that was isolated to the north central Texas area. At the same time the rest of Texas was experiencing record heat which was resulting in a prediction for record demands on the ERCOT system and high probability of rolling outages across the State of Texas.

While the storm that hit United's territory brought slightly cooler temperatures and some much-needed rain, they also brought heavy lightning and hail to the area, causing over 100 outages across UCS's system which left approximately 5,000 meters without power at the height of the storm. The restoration efforts for these outages were exacerbated by the fact that several of United's employees were on vacation following the July Fourth Holiday, and a number of the Cooperative's IS&T, Billing, and Member Service supervisors were in Kennebunkport, Maine for the annual Milsoft Users Conference.

Phishing emails were being sent to utilities (including United) posing as ERCOT requesting emergency load shed to stabilize the grid. An employee that was busy working the outages accidentally clicked on the link in the email which loaded a Zero-Day ransomware on to their computer and began spreading across the cooperative network.

Burleson POP building has been damaged with water penetrating the roof. Minimal equipment has been damaged needing immediate repairs to the structure as well as redeployment of internet equipment to the Burleson POP. Additionally, there were approximately 12,000 Internet Customers who lost internet access

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across United's territory including the cooperative's offices. The cooperative's Cloud based VOIP Phone system was also rendered unusable because of the damage to the Burleson POP.

Issues to be Tested:

- 1) Does United have proper guidelines and procedures in place to handle the situation described?
 - a. Key points of this scenario include:
 - i. While the disaster may not be a FEMA event, it will need to be handled as a FEMA event until additional information is available.
 1. Will FEMA pay for internet services damages – Fiber Communications
 - ii. Damage assessment and restoration efforts will need to be coordinated.
 - iii. Resources may be limited at the beginning of the event (both contractor and in-house).
 - iv. Coordination between electric and internet personnel and contractors will be essential.
 - v. Mutual aid agreement or other similar agreements of like kind for fiber.
 - vi. Coordination of internet crews and imbedding Coop personnel with outside contractors.
 - vii. Coordination with System Operations to ensure that Fiber and Electric outages are handled safely and efficiently.
 - viii. Material for the internet infrastructure is only located in two locations (Cleburne and Alvarado), and the material is controlled by the fiber contractor.
 - ix. Fiber restoration order must be prioritized in a similar fashion as electrical.
 - x. Currently there is not an OMS for fiber.
 - xi. Burleson POP is affected by the storm, and this will have to be addressed.
 - xii. Interoffice connectivity and field devices are down as a result of the Burleson POP being damaged leading to Burleson being on an island.
 - xiii. The issues caused by the cyber attack will need to be addressed.
 - xiv. The remoteness of the billing, IS&T, and member services personnel will have to be addressed.
 - xv. OLTs, splitter cabinets, terminals, backbone and distribution fiber will be damaged. As a result, spare items will need to be taken from stock.
 - xvi. High probability of rolling outages will need to be addressed.

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- xvii. Internet dependent circuits will need to be reviewed and addressed in terms of the possibility of rolling outages.
 - xviii. Mobile hotspot usage will need to be reviewed for Cooperative usage.
 - xix. Communications with the public will need to be regularly updated during the outage event, and internal communications will need to be coordinated with system operations.
- b. Does United have proper guidelines and procedures in place to handle the situation described?
- i. While the disaster may not be a FEMA event, it will need to be handled as a FEMA event until additional information is available. (Quentin) United's Emergency Response Plan has several sub sections that address the use of FEMA approved documentation methods in the event of a disaster.
 - 1. Will FEMA pay for internet services damages – Fiber Communications (Quentin)
 - a. Yes – FEMA will reimburse for fiber damage under the same Program that they reimburse for the electric system after a disaster.
 - ii. Damage assessment and restoration efforts will need to be coordinated. (Jason D., Ed, Jerry, Cory, and Clay) Yes Updating DA Document with following parties
 - iii. Resources may be limited at the beginning of the event (both contractor and in-house). (Quentin) Yes (electrical) – United has a Mutual Aid Agreement with Texas Electric Cooperatives which will provide additional resources in the event of an emergency. No (internet) – United currently does not have a Mutual Aid Agreement in place for the internet infrastructure.
 - iv. Coordination between electric and internet personnel and contractors will be essential. (Bruce, Clay, Ed, Jerry, and Safety) We do have the proper guidelines and procedures in place. Internet contractors to be dispatched according to damage assessment and following fiber restoration priorities listed below line item ix. Communication between System OPS and UCS Operations will continue through OSP personnel as updates are appropriate.
 - v. Mutual aid agreement or other similar agreements of like kind for fiber. (Marcellus) – There is not a Mutual Aid Agreement for Internet/Fiber.
 - vi. Coordination of internet crews and imbedding Coop personnel with outside contractors. (Clay) OSP employees will be assigned to a crew/area to assess damage and assist contractors navigating outages safely to report back to System OPS/NOC and OSP Manager. If additional Coop personnel are needed to navigate outside contractors, the coordination of available UCS resources to contractor will be discussed with FER group, Operations, and assigned to a contractor by OSP Manager and said UCS employee's supervisor.
 - vii. Coordination with System Operations to ensure that Fiber and Electric outages are handled safely and efficiently. (Safety, Eric, and Bruce) Fiber contractors working

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outages during an event will communicate their locations with OSP's. System Operations will coordinate with the OSP's to track the location of the Fiber Crews.

- viii. Material for the internet infrastructure is only located in two locations (Cleburne and Alvarado), and the material is controlled by the fiber contractor. (Robert S. and Jason G.) The existing Fiber and Warehouse Disaster Recovery Plan adequately covers this.
- ix. Fiber restoration order must be prioritized in a similar fashion as electrical. (Marcellus and Clay)
 - 1. POP fiber
 - 2. Backbone, Network, Scada fiber
 - 3. Distribution fiber feeds Splitter cabinets/Terminals
 - 4. Drop replacements
- x. Currently there is not an OMS for fiber. (Cory and Marcellus). The internet services OMS functionality is currently being created. Once completed, pertinent documentation will be added to the ERP.
- xi. Burleson POP is affected by the storm and this will have to be addressed. (Robert S., John H., and Marcellus) The water penetration will be handled under United's current service contracts with existing roofing contractors.
- xii. Interoffice connectivity and field devices are down as a result of the Burleson POP being damaged leading to Burleson being on an island. (IS&T, Jared, and Internet Service) Currently, all substation SCADA and most DA comm lines enter Burleson through the Brazos MW hut, so they would still be up even with loss of POP in this scenario. The DA comm lines on fiber may be impacted, and adequate processes have not been documented for this scenario. Processes to address loss of interoffice connectivity on fiber and/or MW have also not been documented.
- xiii. The issues caused by the cyber attack will need to be addressed. (IS&T). Yes – there are processes to assist if a cyber attack has occurred.
- xiv. The remoteness of the billing, IS&T, and member services personnel will have to be addressed. (Robert B.) Remote working protocols will be considered and documented in the ERP
- xv. OLTs, splitter cabinets, terminals, backbone and distribution fiber will be damaged. As a result, spare items will need to be taken from stock. (Robert S. and Internet Services) United keeps a backup stock of all material items needed to construct and maintain the fiber system with the exception of headend (electronic) equipment. The material items are kept at Burleson and/or Johnson/Alvarado.
- xvi. High probability of rolling outages will need to be addressed. (Bruce)
System Operations and System Engineering will continuously monitor the grid status through ERCOT. If rolling outages are called for by ERCOT and we are contacted by Brazos, the System Operator's will meet the load shed obligation within 15 minutes

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and continue to roll circuits on/off until Brazos notifies United that the load shed situation has passed.

- xvii. Internet dependent circuits will need to be reviewed and addressed in terms of the possibility of rolling outages. (John T. and Bruce) System Operations and Network Deployment will communicate before and during a load shed event to ensure that internet dependent circuits are taken into consideration while circuits are being rotated.
- xviii. Mobile hotspot usage will need to be reviewed for Cooperative usage. (Marty, Robert B., and Cory) Yes -The hotspot usage document will be reviewed, and updates applied to the ERP.
- xix. Communications with the public will need to be regularly updated during the outage event, and internal communications will need to be coordinated with system operations. (John D., Marty, and Bruce) System Operations will send out regular emails to internal personnel during the event outlining outages, issues, and any other pertinent information.

2) Does the Cooperative's Emergency Response Plan address the listed situation in terms of:

- i. While the disaster may not be a FEMA event, it will need to be handled as a FEMA event until additional information is available. (Quentin)
Yes – United's Emergency Response Plan has several sub sections that address the use of FEMA approved documentation methods in the event of a disaster.
 - 1. Will FEMA pay for internet services damages – Fiber Communications
 - a. Yes – FEMA will reimburse for fiber damage under the same Program that they reimburse for the electric system after a disaster, and the procedures for preparing to apply for FEMA funding is covered by the ERP.
- ii. Damage assessment and restoration efforts will need to be coordinated. (Jason D., Ed, Jerry, Cory, and Clay) Yes, but need to update the DA document with listed parties.
- iii. Resources may be limited at the beginning of the event (both contractor and in-house). (Quentin)
Yes (electrical) – The ERP addresses the Mutual Aid Agreement with Texas Electric Cooperatives. No (internet) – United currently does not have a Mutual Aid Agreement in place for the internet infrastructure – a Mutual Aid Agreement of similar arrangements shall be acquired and included in the next ERP update.
- iv. Coordination between electric and internet personnel and contractors will be essential. (Bruce, Clay, Ed, Jerry, and Safety) No - Internet Services will need to be added to the ERP for all impacted sections. Internet contractors to be dispatched according to damage assessment and following fiber restoration priorities listed below line item ix. Communication between System OPS and UCS Operations will continue through OSP personnel as updates are appropriate.

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- v. Mutual aid agreement or other similar agreements of like kind for fiber. (Marcellus) No – The current ERP does not include a Mutual Aid Agreement for fiber. A Mutual Aid Agreement will be developed over the next several months and included in the ERP as soon as it is available.
- vi. Coordination of internet crews and imbedding Coop personnel with outside contractors. (Clay) Yes OSP employees will be assigned to a crew/area to assess damage and assist contractors navigating outages safely to report back to System OPS/NOC and OSP Manager. If additional Coop personnel are needed to navigate outside contractors, the coordination of available UCS resources to contractor will be discussed with FER group, Operations, and assigned to a contractor by OSP Manager and said UCS employee's supervisor.
- vii. Coordination with System Operations to ensure that Fiber and Electric outages are handled safely and efficiently. (Safety, Eric, and Bruce) Yes (Electric and Fiber)
- viii. Material for the internet infrastructure is only located in two locations (Cleburne and Alvarado), and the material is controlled by the fiber contractor. (Robert S. and Jason G.) Yes - The existing Fiber Material portion of the ERP adequately covers this scenario.
- ix. Fiber restoration order must be prioritized in a similar fashion as electrical. (Marcellus and Clay) Yes
 1. POP fiber
 2. Backbone, Network, Scada fiber
 3. Distribution fiber feeds Splitter cabinets/Terminals
 4. Drop replacements
- x. Currently there is not an OMS for fiber. (Cory and Marcellus) No - The internet services OMS functionality is currently being created. Once completed, pertinent documentation will be added to the ERP.
- xi. Burleson POP is affected by the storm and this will have to be addressed. (Robert S., John H., and Marcellus) Yes – The water penetration portion is addressed in the Short-Term recovery portion of the ERP.
- xii. Interoffice connectivity and field devices are down as a result of the Burleson POP being damaged leading to Burleson being on an island. (IS&T, Jared, and Internet Service) No, the ERP does not address the issues with DA on fiber or interoffice communications (fiber or MW).
- xiii. The issues caused by the cyber attack will need to be addressed. (IS&T) No - A cyber-attack protocol will need to be created and updated in the ERP
- xiv. The remoteness of the billing, IS&T, and member services personnel will have to be addressed. (Robert B.)
- xv. OLTs, splitter cabinets, terminals, backbone and distribution fiber will be damaged. As a result, spare items will need to be taken from stock. (Robert S. and Internet

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Services) Yes - United keeps a backup stock of all material items needed to construct and maintain the fiber system with the exception of headend (electronic) equipment. The material items are kept at Burleson and/or Johnson/Alvarado.

- xvi. High probability of rolling outages will need to be addressed. (Bruce) Yes (Electric)
 - xvii. Internet dependent circuits will need to be reviewed and addressed in terms of the possibility of rolling outages. (John T. and Bruce) No - this will need to be addressed in the ERP.
 - xviii. Mobile hotspot usage will need to be reviewed for Cooperative usage. (Marty, Robert B., and Cory) Yes -The hotspot usage document will be reviewed, and updates applied to the ERP.
 - xix. Communications with the public will need to be regularly updated during the outage event, and internal communications will need to be coordinated with system operations. (John D., Marty, and Bruce) Yes.
- 3) Since the situation described has the potential of qualifying as a FEMA event, are United's processes and procedures appropriately designed to ensure that proper FEMA documentation and reporting will be maintained? Yes – the Emergency Response Plan has several sections that cover preparing for FEMA funds applications. Additionally, United's work order system provides process that is easily transferable to FEMA applications.
- 4) What updates are needed to be made to the Emergency Response Plan as a result of this test?
- i. While the disaster may not be a FEMA event, it will need to be handled as a FEMA event until additional information is available. (Quentin)
No updates needed
 - 1. Will FEMA pay for internet services damages – Fiber Communications
 - a. No updates needed
 - ii. Damage assessment and restoration efforts will need to be coordinated. (Jason D., Ed, Jerry, Cory, and Clay) Specification drawings will need to be included in the construction units for damage assessment. Partner module may need to be updated to include Fiber specifications. Personnel and responsibilities will need to be updated.
 - iii. Resources may be limited at the beginning of the event (both contractor and in-house). (Quentin)
No updates needed for the electrical infrastructure; The ERP does need to updated to address the use of a Mutual Aid Agreement or similar arrangements; and this information shall be acquired and included in the next ERP update.
 - iv. Coordination between electric and internet personnel and contractors will be essential. (Bruce, Clay, Ed, Jerry, and Safety) Yes, update to include internet personnel and responsibilities.

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- v. Mutual aid agreement or other similar agreements of like kind for fiber. (Marcellus) A Mutual Aid Agreement will need to be developed and circulated among other interested Cooperatives. Once the Agreement is executed a copy shall be included with the Emergency Response Plan.
- vi. Coordination of internet crews and imbedding Coop personnel with outside contractors. (Clay) No updates are needed.
- vii. Coordination with System Operations to ensure that Fiber and Electric outages are handled safely and efficiently. (Safety, Eric, and Bruce) No updates are needed.
- viii. Material for the internet infrastructure is only located in two locations (Cleburne and Alvarado), and the material is controlled by the fiber contractor. (Robert S. and Jason G.) No updates are needed.
- ix. Fiber restoration order must be prioritized in a similar fashion as electrical. (Marcellus and Clay) No updates are needed.
- x. Currently there is not an OMS for fiber. (Cory and Marcellus) The internet services OMS functionality is currently being created. Once completed, pertinent documentation will be added to the ERP
- xi. Burleson POP is affected by the storm and this will have to be addressed. (Robert S., John H., and Marcellus) No updates are needed to the facilities portion of the plan.
- xii. Interoffice connectivity and field devices are down as a result of the Burleson POP being damaged leading to Burleson being on an island. (IS&T, Jared, and Internet Service) Processes need to be developed and documented to address DA devices on fiber network and interoffice communications on fiber.
- xiii. The issues caused by the cyber attack will need to be addressed. (IS&T) Protocols for cyber attack follow up will be included in the ERP update.
- xiv. The remoteness of the billing, IS&T, and member services personnel will have to be addressed. (Robert B.)
- xv. OLTs, splitter cabinets, terminals, backbone and distribution fiber will be damaged. As a result, spare items will need to be taken from stock. (Robert S. and Internet Services) No updates are needed to the Fiber Material portion of the plan.
- xvi. High probability of rolling outages will need to be addressed. (Bruce) No updates needed.
- xvii. Internet dependent circuits will need to be reviewed and addressed in terms of the possibility of rolling outages. (John T. and Bruce) Language needs to be added saying that we will verify the internet dependent circuits as part of our Load Shed Review process.

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- xviii. Mobile hotspot usage will need to be reviewed for Cooperative usage. (Marty, Robert B., and Cory) This process will be reviewed and any updates included in the ERP.
- xix. Communications with the public will need to be regularly updated during the outage event, and internal communications will need to be coordinated with system operations. (John D., Marty, and Bruce) No updates needed

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IS-00100.c

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Issued this 11th Day of March, 2022



Jeffrey D. Stern, Ph.D.

Superintendent

Emergency Management Institute

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ICS-200

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IS-00700.b

**An Introduction to the National Incident
Management System**

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Jeffrey D. Stern, Ph.D.
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Emergency Management Institute
Federal Emergency Management Agency

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IS-00800.d

National Response Framework, An Introduction



Issued this 18th Day of March, 2022



Jeffrey D. Stern, Ph.D.
Superintendent
Emergency Management Institute
Federal Emergency Management Agency

Emergency Response Plan – Fiber Optic Facilities and Internet

<u>Description</u>	<u>Obtained From</u>
OSP Emergency Levels	Clay Turner
ISP Emergency Levels	Eric Cagle
DA/AMI Damage and Emergency Scenarios	Marcellus Nixon
Member Access to Internet in the Event of an Emergency	Marcellus Nixon
OLT Dependent Electrical Circuits	Clay Turner

Emergency Response Plan

Levels:

- 1 – Large localized outage
- 2 – Extended outage comprising two or more rings/PoPs
- 3 – Catastrophic total network outage

OSP

Level 1 Emergencies

- Distribution fiber cut
- Localized storm/fire damage
- Splitter cabinet destroyed
 - OSP should be notified to coordinate OSP team for damage assessment
 - Communicate all updates to UCS contacts via Status.io and member emails
 - Notify contractors of event
 - Prioritize damage and repairs
 - Sync with system operations on electrical damage/circuit repair
 - coordinate with contractors to repair
 - Network/backbone
 - Distribution
 - Drops
 - Coordinate with Network Operations to verify connectivity as repairs are made

Level 2 Emergencies

- Backbone fiber cut
- OLT cabinet destroyed
- Widespread storm/fire damage
 - OSP should be notified to coordinate OSP team for damage assessment
 - Communicate all updates to UCS contacts via Status.io and member emails
 - Notify contractors of event and have all-hands-on-deck
 - Prioritize damage and repairs
 - Sync with system operations on electrical damage/circuit repair
 - coordinate with contractors to repair
 - Network/backbone
 - Distribution
 - Drops
 - Coordinate with Network Operations to verify connectivity as repairs are made

Level 3 Emergencies

- Regional storm/fire damage through much of UCS territory
 - OSP should be notified to coordinate OSP team for damage assessment
 - Communicate all updates to UCS contacts via Status.io and member emails
 - Notify contractors of event and have all-hands-on-deck
 - Request mutual aid for material/labor
 - Prioritize damage and repairs
 - Sync with system operations on electrical damage/circuit repair
 - Coordinate repairs based on priority
 - Network/backbone
 - Distribution
 - Drops
 - Coordinate with Network Operations to verify connectivity as repairs are made

ISP

Level 1 Emergencies

- OLT/OLT Card failure
- Power loss to OLT cabinet
- Hardware in PoP
- Carrier circuit down
 - Network Operations to contact all on-call
 - Communicate all updates to UCS contacts via Status.io and member emails
 - Identify and locate outage source
 - Assess damage and effect repairs
 - In extended power loss, deploy generator
 - Open tickets with vendor(s) to assist as necessary

Level 2 Emergencies

- OLT cabinet destroyed
- Some network components compromised by bad actors
- Core network hardware failure affecting service
- Multiple carrier circuits down
 - Network Operations to contact all on-call
 - Communicate all updates to UCS contacts via Status.io and member emails
 - Assess damage and effect repairs
 - Meeting with OSP for cabinet replacement
 - Enact SLA with vendor(s) to assist as necessary, Adtran, Juniper, Dell, etc

Level 3 Emergencies

- Entire PoP location destroyed
 - Network Operations to contact all on-call

- Communicate all updates to UCS contacts via Status.io and member emails
- Implement plan to re-route traffic to functioning location
- Assess damage and effect repairs
- Enact SLA with vendor(s) to assist as necessary, Adtran, Juniper, Dell, etc
- Equinix co-location sites inoperable
 - Network Operations to contact all on-call
 - Communicate all updates to UCS contacts via Status.io and member emails
 - Coordinate with carriers to connect to internet from alternate locations
- Network disabled or ransomed by bad actors
 - Network Operations to contact all on-call
 - Communicate all updates to UCS contacts via Status.io and member emails
 - Assess damage and effect repairs
 - Contact vendor(s) to assist as necessary, Adtran, Juniper, Dell, etc

DA/AMI – What happens if...?

Lose Burleson POP

- First objective is to get rings 1 and 2 back online and able to communicate to Stephenville—physical connectivity already exists
- Cleburne office TA5000 is directly connected to Stephenville POP is now directly connected to Stephenville POP via 10G fiber as part of inter-office WAN
- Current routing for DA/AMI is from Burleson office to Burleson POP for all communications, but can easily be changed to route via Stephenville core network—gateway IP is already established
- There would need to be internal office routing changed to reflect the changes for SCADA controllers to be able to reach all DA via Stephenville as well and Command Center to reach AMI
- Estimated time 4-6 hours

Lose connectivity to other POPs from Burleson

- There are multiple routing possibilities for communication between POPs available—direct via UCS fiber (preferred), via Brazos MW, via Dallas edge routers.
- The POPs can function independently of each other, except for provisioning of new service and monitoring network status
- Would just be a matter of changing routes to reach Burleson over alternate path

Cyber attack on DA/SCADA network and devices

- All DA/SCADA devices on fiber network are using private IP addresses that are not routable over the internet
- No devices on the DA/AMI network are allowed to have internet access
- If attacker has been determined to be on the DA/AMI network, then there is a compromised device on the UCS office network that is being controlled to reach the DA/AMI devices

- First thing to do is disable interface on SRX firewalls that links DA/AMI networks to internet
- This would essentially cut off any attacker from accessing the DA/AMI devices
- Determine point of compromise at the core network by monitoring traffic trying to reach the DA/AMI devices
- Shut down the compromised device that the attacker is using

Fiber cut

- If a fiber is cut on the backbone rings, ERPS should handle the condition and connectivity will continue as usual
- If a fiber is cut on the distribution or drop to a DA/AMI device, then OSP will need to be notified and have a fiber/splicing crew go onsite to repair

Power failure

- If a power failure occurs at the DA or remote AMI site, then UCS system operations will need to be notified to determine cause and correct
- If a power failure occurs at the AMI substation collector, then there could be a power problem on the grid or with substation power, in which case Brazos is likely to be aware and will correct
- If a power failure at an OLT cabinet, UCS system operations will need to be notified to determine cause and correct
 - Internet Services will deploy existing generator to location of OLT and power up
- For power at headend/POP, all locations are generator backup with UPS
 - Burleson, Stephenville, and PK have 1.5 hour UPS runtime in case generator does not start up
 - Meridian and Granbury have a UPS, but we are unaware of runtime (shared with IS&T)

Member access to internet in event of emergency

Provide Wi-Fi internet access for general public

- Using the ONTs and Calix routers that are stored in the warehouses, we can connect them to TA5000 cabinet and provide internet access at roadside locations
- Mobile location - In areas where FWA is only option, we can take remote Radwin SU and Calix router and set up temporary hot spot at physical location or in a vehicle if equipped with DC-to-AC inverter, may need bucket truck to antenna to reach line of site to tower
- At UCS office - We can offer guest wi-fi access to public and/or connect a Calix router to POP core network for internet access to be available in lobby/community rooms

Substation	Circuit
Glen Rose	11
Stephenville	3
Sand Flat	1
Lake Alvarado	3
Keene	1
Tenaska	12
Domino	12
Granbury	13
Port Royal	12
Long	1
Carlton	1
Cranfills Gap	3
Lingleville	12
Meridian	2
Morgan	11
Mountary	4
Powell	3
Selden	2
PK Lake	14
Timbergreen	2
Retta	2
Burleson	21
Highpoint	13
Lillian	24
Jessica	13
Valley Branch	14
St Paul	22
Railport	21
Conley	1
Covington	6
Griffith	3
Egan	4
Norfork	13
Wright	1
Bluff Dale	13
Abby Bend	12
Georges Creek	1
Bono	23
New Hope	1
Little Hoss	12
Wildcat	21
Crowley	21
Joshua	11
Fall Creek	11
Nassau Bay	3
Lakewood	24
Acton	4
Hood	11
Friendship	22
Joshua	11
Highpoint	13
Selden	1
PK Lake	14
Meridian	2
Acton	4