3.18.2 Recommendations

Short-Term Actionable	Mid-Term Actionable
GRID-1 **Develop a Program to Segment Less than 500 Customers per Remotely Controllable Circuit**: Initiate a program to prioritize circuits for segmentation with the goal of eventually reaching 500 customers underneath an IGSD. Rebuild a prioritized group of circuits to new "withstand" standards (greater than 65 mph sustained). This will help limit the number of customers who are exposed to outages by providing Distribution Controllers the ability to remotely isolate the damage.	**GRID-3** **Increase Use of Composite Pole and Crossarms:** Consider increasing the use of composite pole and cross-arms use in the CenterPoint service territory. Composite poles and cross-arms have longer service lives and are more resistant to damage than comparable wooden poles and crossarms. This helps to improve system reliability and resiliency performance.
GRID-2 **Develop Laterals Protection and Sectionalizing Strategy:** Install TripSaver® (or similar) reclosers on all currently fused laterals, and then expand deployment to non- fused tap laterals. TripSaver® provides the ability to have a one-shot reclose capability on laterals, which may reduce the number of sustained outages affecting the lateral.	**GRID-4** **Replace Open Wire with Covered Conductors:** Where feasible, systematically replace open-wires in the service territory as open-wires are more prone to damage from felled trees / limbs and are less reliable and resilient to insulated conductors. Where practical, spacer cable (e.g., Hendrix or similar systems) should be used to increase mechanical strength, resist mechanical wear related outages, and better withstand contact related outages.

3.19 Strategic Undergrounding

Electric undergrounding involves installing power lines below ground rather than above it, which can significantly benefit utilities during storm outages. By burying lines, utilities reduce the risk of damage from high winds, falling trees, and other debris that affect overhead lines. This leads to fewer service interruptions and faster restoration times during storms. Undergrounding can enhance the overall reliability of the grid, decrease maintenance costs, and improve safety.

3.19.1 Findings

Preparedness

CenterPoint's electric distribution system is substantially underground in designated areas. There are 159 distribution circuits which supply those areas. CenterPoint currently has plans to extend underground lines into residential areas and for three phase services. The Company's standard practice is to install underground residential distribution (URD) systems to serve subdivisions with 24 or more lots. Normally, the URD installation will include buried primary lines and pad-mounted transformers. For subdivisions with less than 24 lots and for other new business circumstances, developers can pay the overhead underground cost differential to obtain URD service. CenterPoint also identifies areas to be dedicated underground areas such as downtown Houston and the medical center.

Performance

While there was minimal damage to URD systems from Beryl, customers served by most URD systems had their service interrupted due to damage to the overhead circuit supplying the URD system they are fed from.

Hurricane Beryl was not primarily a flooding event, and the underground circuits performed well or were restored swiftly following the storm. Where underground equipment was subject to outage, this was because the specific UG circuits that were fed from overhead circuits.

3.19.2 Recommendations

Short-Term Actionable	Mid-Term Actionable
UG-1 **Identify a Pilot to do Underground Replacement of Existing Overhead Rear Lot Construction:** Identify a pilot project to underground existing rear lot overhead construction. Relocate rear lot to public right of way with better access (sidewalk, street, etc.).	**UG-3** **Expand UG Priority Circuits:** Focus on high-density urban areas, critical facilities, and regions prone to frequent outages. Identify funding and capital for undergrounding, incorporate advanced technologies such as real-time monitoring systems, automated underground fault detection, and predictive maintenance tools to enhance the ability to quickly identify and address issues in underground networks. Use high-quality materials and implement best practices for underground cable installation to reduce the likelihood of future faults. Consider designing systems with redundancy to minimize the impact of any single point of failure. Utilize data analytics to assess the performance of underground systems and inform decision-making. Analyze outage patterns, restoration times, and system performance to continuously improve the undergrounding program.
UG-2 **Develop Worst Performing Feeder Underground Program:** Expand and prioritize circuits to be undergrounded, identifying those that make the most feasible and cost-effective sense and that addresses the circuits that continue to lose power and/or are most likely to lose power often. Identify and prioritize key areas where undergrounding can have the most significant impact on reliability and storm resilience. Assess benefits and costs of undergrounding in varying sections of service territory.	

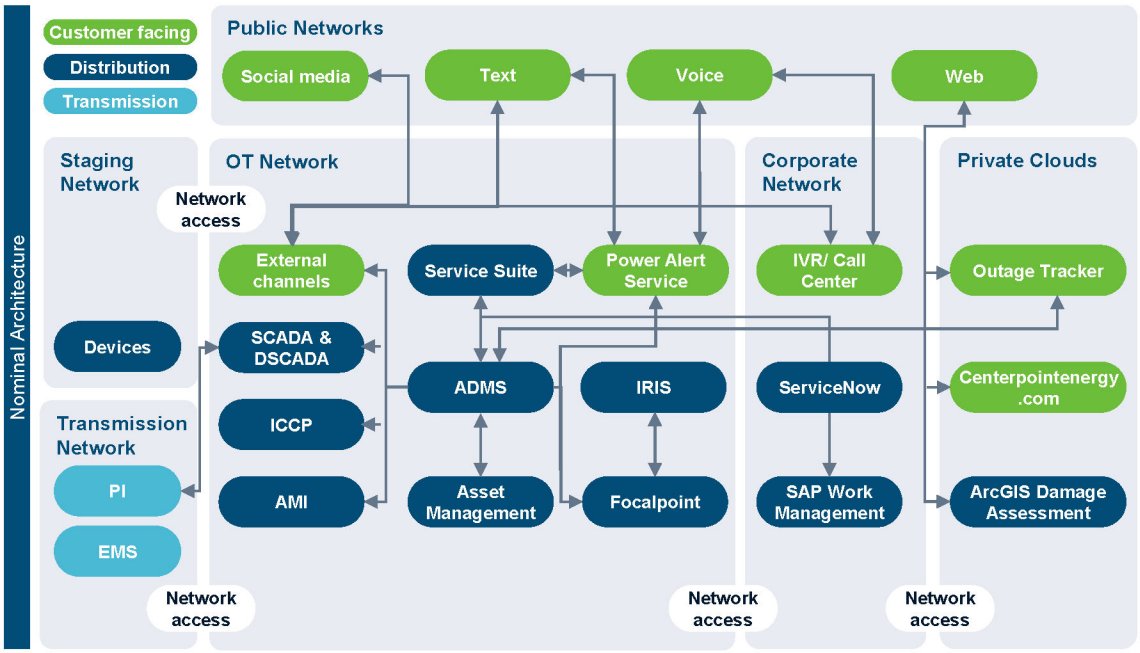
3.20 IT / OT

Other than the issues noted with CenterPoint's Outage Tracker, CenterPoint's information technology and operational technology functioned as designed prior to, during, and after Beryl. Only 13 technology problems were identified during Beryl and the restoration.

3.20.1 Findings

The overall technology landscape reflects normal practices with utility information technology and operational technology. The relevant components of the Information Technology (IT) and Operations Technology (OT) landscape are illustrated in Figure 3 - 7.

Figure 3 - 7: CenterPoint IT and OT Landscape



The systems that performed a notable role during Beryl are:

- Advanced Distribution Management System. CenterPoint uses a widely used ADMS solution hosted on-premise and provides functionality for distribution network monitoring and control, outage management, switching, powerflows, DER management. The ADMS is pivotal to managing outages and functioned as expected during Beryl.
- Asset Management is a collection of tools that maintain a registry, controls, inspection, documentation, prediction and performance models, imagery of assets and their surrounding locations and geographic information on distribution assets. Asset management tools provide asset information to ADMS and other systems so that they function as expected. Asset management also informs activities including Vegetation Management and inspection so that problem trees and access problems are identified and corrected.
- Damage Assessment is a collection of tools used by field inspectors, office-based supervisors and operations teams to assess damage and estimate repairs to distribution assets. CenterPoint uses ESRI tools to capture assessments, which are packaged into logical groupings to inform operations teams of the damage extent, priority and work required. These tools functioned as expected during Beryl.
- SCADA, Distribution Supervisory Control and Data Acquisition (DSCADA) is the solution architecture used for remote control of distribution automation devices such as reclosers, switches and IGSD. SCADA normally refers to transmission level devices and DSCADA refers to distribution level devices. The overlap between the two is within a substation for the reclosing devices used to control distribution circuits exiting the substation. The SCADA and DSCADA functioned as expected during Beryl.
- PAS is a voice, email, and text notification service for customers that is intended to notify customers of outage events and restoration information. Contact data allows CenterPoint to associate a meter number with a customer and the customers' phone, text, and email contact details. PAS is not a mobile app that customers can download, and it doesn't provide for outage or hazard reporting. Given the constraints of Texas energy market rules, CenterPoint only has contact details for 42% of actual electric customers, most of which are gas customers. PAS functioned as expected, within the

constraint of a limited and unknown quality customer contact database. Users of PAS experienced trouble with the service as a consequence of the infrastructure PAS operates on, in addition to external cellular bandwidth limitations.

- IRIS and FocalPoint provide a situational awareness capability with dashboards, driven by information collected from ADMS, Service Suite, and other systems. It is used as an input to command-and-control decisions on the deployment of field resources, as well as monitoring the progress of restoration. IRIS and FocalPoint functioned as expected during Beryl, except for occasional unavailability as a consequence of the infrastructure it operates on.
- Automation of Reports and Consolidated Orders System (ARCOS) is a callout tool typically used for the initial mobilization of field resources. ARCOS functioned as expected during Beryl.
- Service Suite is a work management solution that allows packages of work to be created, assigned, dispatched, updated, and completed. Outages that are detected automatically by SCADA and actioned by ADMS are communicated to Service Suite for further work assignments as well as work assignments created manually through command-and-control actions. Service Suite can be used centrally on large displays and by field workers using small screen devices. Service Suite functioned as expected during Beryl, except for occasional unavailability as a consequence of the infrastructure it operates on.
- Advanced Metering Infrastructure (AMI) is the advanced meters, communication infrastructure and control systems used to read, update and control electric meters. CenterPoint's AMI is 2010 era technology and is undergoing a phased upgrade to modern era technology through 2030. AMI can be used to detect loss of power and reenergize events automatically. It is not CenterPoint's practice to verify restoration with automated pings, but meter pings can be requested manually from the distribution control center. AMI functioned as expected during Beryl.
- OT Network is a secured network where OT systems and devices communicate.
- Corporate Network is a secured network where the main IT systems are available.
- Staging Network is a temporary secured network that enables field workers and supervisors to collaborate.
- IVR and automatic call distribution are call handling tools commonly used in call center operations.

Preparedness

Several perceived application failures were experienced by internal users, and PA expects, but has not verified, impacted external users. The root cause of these failures was not the applications but with the infrastructure they operate due to capacity limitations both internally and externally.

Performance

ServiceNow is used to manage the operation of CenterPoint's technology which is a common practice across well-managed modern companies.

Typical definitions for priorities are:

01 **Priority 1 (P1):** critical impact and/or urgency.

02 **Priority 2 (P2):** high impact and/or urgency

03 **Priority 3 (P3):** moderate impact and/or urgency

Typical levels of problem and incident rates are:

01 Highest performing IT operations achieve an annual rate of <1 per employee.

02 Average performance is in the 2-5 range.

03 Poor performance is 5+.

04 CenterPoint extrapolation from the storm period to one year yields an annual rate of 0.07 with is comfortably in the range for the highest performing operations.

The main observations from this performance are:

- No failures within the core systems or communications in the OT network
- Recommend storm volumes are factored into testing, provisioning and preparation for all critical systems and infrastructure. Commentary on the performance of centerpointenergy.com carries the implication that other systems besides centerpointenergy.com may also have been sized with normal growth rates rather than storm volumes.

3.20.2 Recommendations

Short-Term Actionable	Mid-Term Actionable
IT/OT-1 **Factor Storm Volumes into All Systems:** Recommend storm volumes are factored into provisioning and preparation for all systems. Commentary on the performance of centerpointenergy.com carries the implication that other systems besides centerpointenergy.com may also have been sized with normal growth rates rather than storm volumes.	**IT/OT-3** **Harden IT/OT:** Harden IT and OT infrastructure and communications to increase availability. Use storm volumes, or larger, for load test exercises, covering for (1) all customer reporting/publishing and (2) all internal triggers arriving from AMI, SCADA, and DSCADA. Ensure there is redundancy for infrastructure and communication paths. Use cloud resources for high transaction or page views, triggered by major events.
IT/OT-2 **Ensure Data Quality and Robustness:** Ensure there is a customer data quality process, so that contact information is maintained both securely and with high quality. Outage and problem reporting has multiple methods; rationalize applications to minimize customer information solutions, currently Outage Tracker, PAS, website, and other temporary solutions. Provide for storm, bad weather and blue sky scenario operation for all customer contact methods. Address mismatch between verbal reports of system failures and their absence in service records.	

4. Recommendations by Resiliency Phase

04

The restoration process is structured into three key phases: readiness, responsiveness, and recovery, with recommendations aligned to each phase. Since every phase has specific objectives, PA has developed targeted recommendations and actions to meet them. By following these steps, CenterPoint will not only accomplish the immediate objectives of each phase but also enhance its long-term resilience as a coastal grid. The timing (short- versus mid-term) of recommended actions refers to when CenterPoint should begin or initiate the action and, especially for those recommendations that are not feasible to complete within a short timeframe, does not refer to the completion timing.

Figure 4 - 1: Illustrative Restoration Curve by Phase

Readiness

Table 4 - 1: Recommendations for Reducing Total Outage Count

ID	Name	Timing	Description
Finding Area: Emergency Preparedness & Response			
EP&R-1	**Enact 24-Hour EOC/DOC Operations**	Short-Term Actionable	Switch to 24-hour EOC/DOC operations, operating on two, 13-hour shifts for key functions including Planning.
EP&R-2	**Reevaluate FCC Support**	Short-Term Actionable	Re-evaluate number of FSR needed to support the number of FCC during EOC activations to alleviate some of FCC administrative burden.

ID	Name	Timing	Description
EP&R-3	**Focus Planning Section on Strategic Functions**	Mid-Term Actionable	Revamp Planning Section to focus on more strategic functions. Upgrade the Planning Section Chief to a Vice President-level resource. Update the Planning Section role and responsibilities, including incorporation of Global ETR establishment and management. Establish the strategic response plan for the incident, including resources and allocations needed, restoration tactics, and a global ETR and ETR strategy. Encourage a constructive tension between Planning and Operations Sections.
Finding Area: Damage Prediction			
DM-PR-3	**Build, Develop, or Acquire more Comprehensive Damage Prediction Models**	Mid-Term Actionable	Many of the above limitations can be addressed through a more robust commercially available machine learning based software package. Key elements are the ability to archive small events and scale, use CenterPoint's historical outage data and leverage various sources of data to develop accurate models of damage predictions that can account for various modes of damage (e.g., in addition to the type of downed poles, laterals vs. primary circuit damage locations, transmission and substation damage).
Finding Area: Estimated Time of Restoration			
ETR-3	**Integrate ETR Manager Role into IC**	Mid-Term Actionable	Fully integrate ETR manager role into IC. Fully develop and map out flow of information needed to generate Global / Regional / Substation-level ETRs, as well as all ways to disseminate ETRs to customers and stakeholders, including soliciting additional customer contact information.
ETR-4	**Define and Track ETR Accuracy**	Mid-Term Actionable	Develop metrics to track the accuracy of ETRs that are generated and communicated. Common industry standards define an ETR as accurate if power is restored within a specific time band relative to the ETR, and if customers receive fewer than three updated ETRs for the same outage. Typical time bands include: 1) two hours before the stated ETR to zero hours after, and 2) one hour before to one hour after the stated ETR. Excessive updates can create a perception that ETRs are unreliable, ultimately hindering the ability to shape customer expectations and aid in informed decision-making.
Finding Area: Communications			
COMMS-2	**Revise the Current Communications Strategy**	Short-Term Actionable	Revise communication strategies to focus on delivering essential information to customers, including storm preparedness and expectations, while addressing key concerns like estimated restoration times. Utilize the most effective channels to help ensure clear and timely communication.
COMMS-3	**Expand Relationships with External Stakeholders and**	Mid-Term Actionable	To enhance collaboration and help ensure effective communication, it is vital to deepen relationships with external stakeholders and government officials. Establishing regular engagement and creating a schedule for regular meetings and updates with key stakeholders, including local government

ID	Name	Timing	Description
	Government Officials		officials, emergency management agencies, and community organizations will foster a sense of partnership and facilitate better information sharing. Conduct joint planning exercises and exercises with government agencies and stakeholders to help ensure alignment and coordination during emergencies. This collaborative approach will enhance preparedness and response capabilities.
Finding Area: Customer Experience			
CX-2	**Increase Customer Enrollment and Customer Contact Database**	Mid-Term Actionable	Increase the completeness of customer contact information from 42% to enhance ETR communications during storm events. Identify enrollment strategies, while ensuring the customer data quality process maintains contact information securely and accurately. Support legislative efforts to aid increased enrollment.
CX-3	**Enhance Customer Communication Channels**	Mid-Term Actionable	Assess the feasibility of having customer communication solutions that can both push alerts and receive reports from customers across channels (text, voice, email, social media and web).
Finding Area: Mutual Assistance			
MA-1	**Reevaluate FCC Support**	Short-Term Actionable	Re-evaluate number of FSRs needed to support the number of FCCs during EOC activations to alleviate some of FCC's administrative burdens. Provide FCC support such as administrative, runners, etc. FCC Team should be comprised of a LOTO qualified CenterPoint employee, a service planner or other technical type CenterPoint employee, and an external damage assessment resource (after damage assessment is done). Improve work package distribution. As a stop gap until more robust systems are developed and implemented, provide additional FCC field support to streamline field ETR updates.
Finding Area: Vegetation Management			
VM-1	**Revise Trimming Cycles**	Short-Term Actionable	To enhance the effectiveness of vegetation management, CenterPoint should immediately revise its tree trimming cycles to a more frequent interval of three years. This adjustment will allow for more proactive and responsive management of tree growth, significantly reducing the risk of outages caused by overgrown vegetation interfering with power lines.
VM-3	**Enhance Tree Replacement Programs**	Mid-Term Actionable	Enhance the existing tree replacement program by introducing a range of options for customers with at-risk vegetation. This initiative could include personalized consultations to assess individual properties, recommendations for suitable replacement species, and incentives for participating in the program. By actively engaging customers in the management of at-risk trees, CenterPoint can help reduce the risk of outages while fostering community involvement and promoting environmental sustainability.

ID	Name	Timing	Description
VM-4	**Develop a Digital Intelligence Program to Effectively Perform Condition-Based Trimming**	Mid-Term Actionable	Transition to a data driven, condition-based trimming approach to enhance the effectiveness of vegetation management. Unlike the current practice of relatively long cycle trims, condition-based trimming based on various imagery processing based analytics and tools (LiDAR) focusing on the specific health and growth patterns of trees and vegetation surrounding power lines. This method involves regular assessments of tree conditions, identifying which trees require trimming based on their growth, structural integrity, and proximity to power lines. By adopting this proactive strategy, CenterPoint can prioritize vegetation management efforts on high-risk areas, helping ensure timely interventions that reduce the likelihood of outages caused by falling branches or trees.
Finding Area: Grid Performance, Design, and Automation			
GRID-3	**Increase Use of Composite Pole and Crossarms**	Mid-Term Actionable	Consider increasing the use of composite pole and cross-arms use in the CenterPoint service territory. Composite poles and cross-arms have longer service lives and are more resistant to damage than comparable wooden poles and crossarms. This helps to improve system reliability and resiliency performance.
GRID-4	**Replace Open Wire with Covered Conductors**	Mid-Term Actionable	Where feasible, systematically replace open-wires in the service territory as open-wires are more prone to damage from felled trees / limbs and are less reliable and resilient to insulated conductors. Where practical, spacer cable (e.g., Hendrix or similar systems) should be used to increase mechanical strength, resist mechanical wear related outages, and better withstand contact related outages.
Finding Area: Strategic Undergrounding			
UG-1	**Identify a Pilot to do Underground Replacement of Existing Overhead Rear Lot Construction**	Short-Term Actionable	Identify a pilot project to underground existing rear lot overhead construction. Relocate rear lot to public right of way with better access (sidewalk, street, etc.).
UG-3	**Expand UG Priority Circuits**	Mid-Term Actionable	Focus on high-density urban areas, critical facilities, and regions prone to frequent outages. Identify funding and capital for undergrounding, incorporate advanced technologies such as real-time monitoring systems, automated underground fault detection, and predictive maintenance tools to enhance the ability to quickly identify and address issues in underground networks. Use high-quality materials and implement best practices for underground cable installation to reduce the likelihood of future faults. Consider designing systems with redundancy to minimize the impact of any single point of failure. Utilize data analytics to assess the performance of underground systems and inform decision-making. Analyze outage patterns, restoration times, and system performance to continuously improve the undergrounding program.

Responsiveness

Table 4 - 2: Recommendations for Restoring Outages Faster

ID	Name	Timing	Description
Finding Area: Incident Command			
IC-1	**Streamline EOC Layout**	Short-Term Actionable	EOC physical layout should be updated to facilitate communications and information flow. Planning, Operations, CMC, Logistics, and Finance/Administration each should have dedicated work room in adjacent spaces. Provide workspaces for other IC leader team members as required (Legal, Liaison, Safety, Customer, etc.). Physically align the EOC and the Distribution Operations Section Chief, when the EOC is open for an electric event. Co-locate the EOC and CMC until each entity is fully established and independently operational.
IC-2	**Revise IC Roles and Responsibilities**	Short-Term Actionable	All roles and responsibilities within the EOC structure need to be reviewed and updated as appropriate. The actual personnel staffing these positions should be at the executive level and be the most experienced CenterPoint personnel in major storm restoration. IC organization needs to be at least two-deep across IC section chief and higher roles. Use Deputies as a professional growth and development opportunity.
IC-3	**Expand IC/EOC Training**	Short-Term Actionable	To the extent where possible, arrange for the current Planning Section Chief and Deputy to observe the Planning Section in action during the next major event in the Eastern United States. Tabletop exercise the revised Planning Section responsibilities. In the event of a major weather event in the Atlantic region during the 2024 storm season, designated CenterPoint personnel should shadow with the affected utility's IC to gain valuable insights and experience. Train additional personnel to function in IC roles (e.g., primary as well as backup roles), use shadowing opportunities to create 2-in-box type operations throughout EOC operations.
IC-4	**Continue to Streamline EOC Layout**	Mid-Term Actionable	Split the District Operations Branch during an EOC electric event to maximize impact of restoration efforts. Distribution Operations Branch Leadership located at the EOC. Region 1 work assignment located at Addicks Operations Center. Region 2 work assignment located at the ECDC.
IC-5	**Establish EOC-Sections Daily Meeting**	Mid-Term Actionable	Establish a new daily meeting cadence for the EOC and Sections (e.g., Planning, Operations, Logistics, and Finance/Administration).
Finding Area: Safety			
SAF-1	**Expand Safety Standdowns**	Short-Term Actionable	Safety is an entire-property, all personnel program and significant events should have safety standdown–all resources, operating or support, should know about the incident. Should be top-down decision and responsibility to communicate standdown to all response personnel.

ID	Name	Timing	Description
SAF-2	**Revise Substation Breaker Reclose Policy**	Short-Term Actionable	Change the breaker recloser policy in the event of a storm to require visual confirmation on the circuit before reclosing to ensure it is safe to do so. This would require additional communications and integration of processes between Field Operations (e.g., crews and FCCs as appropriate).
SAF-3	**Bolster Safety Leadership Responsibility**	Mid-Term Actionable	To enhance overall safety management and facilitate effective operational oversight, it is recommended that the responsibilities of the safety group leadership be expanded. Empower safety group leaders with greater authority to enforce safety protocols and make real-time decisions during storm restoration efforts. This will support timely responses to safety concerns and incidents. Provide continuous training on best practices and regulatory updates to help ensure leaders are well-prepared. Establish clear protocols for regular briefings between the safety group and operational teams to address safety concerns promptly.
Finding Area: Damage Prediction			
DM-PR-1	**Gather Beryl Damage Data for Model Refinement**	Short-Term Actionable	Gather granular weather data (e.g., wind gusts, directions) and restoration data from Hurricane Beryl in a well-documented manner to allow for refinement of existing damage prediction model inputs. Gathering this data will help future efforts to improve model accuracy and can be used for future analytics/modeling efforts as well.
DM-PR-2	**Refine Restoration Productivity Assumptions**	Short-Term Actionable	Analyze Beryl's restoration data (e.g., type of pole damage, pole reset durations) that are currently used in the damage prediction models to refine and enhance accuracy of the damage prediction model.
Finding Area: Estimated Time of Restoration			
ETR-1	**Calculate and Disseminate Global ETRs**	Short-Term Actionable	Develop processes to calculate Global ETRs when most customers (e.g., 90% of impacted customers) would be restored. Global ETRs should be calculated and released publicly within 48 hours of storm impact, ideally within 24 hours of the storm leaving the area. Develop internal and external facing material to educate what the Global/Regional/ Substation-levels of ETRs mean, as well as when they would be communicated publicly.
ETR-2	**Develop ETR Strategy and Processes**	Mid-Term Actionable	Develop strategy to calculate Global/Regional/Substation-level ETRs (e.g., approaches to when to disseminate, inputs needed, and roles and responsibilities). Develop processes to consolidate ETR updates from the field and aggregate them to enable the calculation of Regional/Operating Area, or Substation-level ETRs.
Finding Area: Communications			
COMMS-1	**Update the Current Communications Plan**	Short-Term Actionable	Enhancing the plan with additional governance and structure will empower CenterPoint to make communication decisions more quickly, effectively, and consistently during major events.

ID	Name	Timing	Description
			Proactive and informative communication is crucial during power outages, helping enable customers to plan and make necessary accommodations. For utilities, getting this right is a critical component of customer satisfaction.
COMMS-4	**Develop a Liaison Protocol**	Mid-Term Actionable	Clearly define the liaison protocols for both routine (blue sky) days and during emergencies (black/grey sky days). This should include identifying preferred communication methods for different scenarios, ensuring rapid dissemination of information during crises. CenterPoint should designate specific individuals within the organization to serve as liaisons for various stakeholders, ensuring that inquiries and concerns are addressed promptly expanding on what currently exists. Provide training for liaison personnel on effective communication and relationship management, focusing on how to handle inquiries from stakeholders during normal operations and in crisis situations.
COMMS-5	**Establish Customer Experience Feedback Mechanisms**	Mid-Term Actionable	Implement a system to gather feedback from stakeholders (e.g., elected officials, media, key accounts, customers, etc.) regarding the effectiveness of communication strategies and areas for improvement. This will help refine protocols and strengthen relationships over time.
Finding Area: Outage Tracker			
OT-1	**Replace Outage Map**	Short-Term Actionable	Replace the public-facing Outage Map with an Outage Tracker featuring comparable capabilities to the previous version.
OT-2	**Revise Technology Selection and Testing Processes**	Short-Term Actionable	The decision-making process for technology solutions should be reviewed so that critical systems receive heightened scrutiny. This includes clearly defining what constitutes a critical system (to include more than just operational continuity) and preventing any critical system from being taken offline without having a suitable replacement in place.
OT-3	**Expand Customer Reporting**	Short-Term Actionable	Enable customers to report a broader range of issues, including trouble, safety, and hazard incidents (such as wires down or fire), along with guidance for reporting life-threatening situations to the proper emergency agencies. Currently, the Outage Tracker only allows reports for 'Lights Out,' 'Partial Service,' and 'Dim Lights'.
OT-4	**Use Positive Language in Outage Tracker**	Mid-Term Actionable	Modify the messaging on the outage tracker to address customer journeys with positive rather than negative language. Outage statistics can be reported accurately using availability in addition to customers impacted. Currently there are two methods for reporting outages, safety, and hazards, using a local phone number or using the outage map. Multi-channel reporting and alerting are now commonly available from electric utilities. Guidance can be provided on a variety of relevant customer requirements or journeys including resetting customer breakers, preparing for a storm, post storm, gas leaks, fire, cooling and charging center locations, and others.

ID	Name	Timing	Description
OT-5	**Host Software Platforms Reliably**	Mid-Term Actionable	Ensure that all public facing communication solutions are hosted on reliable and scalable infrastructure. The easiest way to achieve this is with major cloud providers including the ESRI. The current outage map is deployed on ESRI's arcgisonline.com. Ensure there is a storm mode designed within the system that protects and isolates the critical internal systems such as ADMS from storm-level traffic and reporting.
Finding Area: Customer Experience			
CX-1	**Implement Real-Time Customer Feedback during Major Events**	Short-Term Actionable	To improve communication and customer satisfaction during major events, the implementation of immediate customer feedback mechanisms is important. This goal focuses on establishing real-time channels for customers to voice their concerns, report outages, and provide feedback on restoration efforts.
CX-4	**Inform Customers of the Potential Need for Electrical Service Work**	Mid-Term Actionable	Once a global ETR is issued, CenterPoint should promptly inform customers to inspect their property. If there is damage to the weatherhead, mast, or panel, advise them to hire an electrician to complete the necessary repairs. This allows them to act before their neighborhood is re-energized, helping to expedite their individual restoration.
Finding Area: Mutual Assistance			
MA-2	**Develop Mutual Assistance Tool**	Short-Term Actionable	Develop mutual assistance resource tracker and onboarding tool. Assess available tools by function and user experience. Eversource Energy onboarding process is publicly available and can be used as a starting point to model a more efficient onboarding process. Foreign Crew (non-native contractors and mutual assistance) management is critical, and the CenterPoint Energy team identified securing a system to manage this which should help them manage logistical support and cost tracking of these resources.
MA-3	**Reevaluate Storm Rider Policy**	Short-Term Actionable	Storm Rider Policy and decision needs to be reevaluated. During Beryl, most employees or contractors were asked to come in after the storm passed which could have delayed immediate restoration efforts.
MA-4	**Supply Mobile Technology to Mutual Assistance Crews**	Mid-Term Actionable	Provide technology for crews (foreign and non-foreign). Equip all CenterPoint and native contract field workers with mobile access to work, outage, circuit, damage assessment and other types of data. Distribute mobile devices (or supply digital apps to personal phones) to all field personnel with an application/tool for time/vehicle/work reporting as well as for onboarding – safety, system information, etc.
MA-5	**Create Equipment Equivalents List**	Mid-Term Actionable	Develop a comprehensive list of equipment equivalents across manufacturers and utilities to facilitate mutual assistance. This will expedite onboarding and task orders, streamline equipment requests, and enhance monitoring through barcode scanning and GPS tracking. Implementing this list will improve future restoration efforts, ETR accuracy, and staging site efficiency.

ID	Name	Timing	Description
MA-6	**Streamline Mutual Assistance Crew Operations for Enhanced Efficiency Across All Functions**	Mid-Term Actionable	Generally, utilize mutual assistance crews in the same efficiency as internal crews. This applies to tagging and grounding and lockout tagout switch out, switching dispatch, communications, how they get to a job every day, what they do, what they need to have.
Finding Area: Logistics			
LOG-1	**Enhance Operational Efficiency through Alternative Staging Site and Logistics Solutions**	Short-Term Actionable	To reduce crew travel time and expedite work, staging sites should be strategically located. In instances where a hotel is identified as a staging site and the hotel is without power, CenterPoint can coordinate and deploy temporary generators to restore electricity, where feasible (e.g., sites can accept power), benefiting both the hotel and restoration efforts. Strategically selecting locations near service centers will help minimize travel time for crews. If applicable, it is essential to confirm that staging sites have adequate staffing to manage operations, clean, and prepare rooms for crews. Additionally, having leadership present at these locations will help maintain an efficient schedule for restoration activities.
LOG-2	**Use Select Service Centers for Staging**	Short-Term Actionable	Where feasible, use existing service centers as staging sites. Staging site versus service center operations should be reevaluated (i.e., move the operations team from staging site to service centers as it is too decentralized currently). Minimize moving workforce to decentralized staging sites. Streamline communications and collaboration between system operations employees and field employees. Depending on where storm damage is located, CenterPoint could use those locations which make most geographic sense.
Finding Area: Damage Assessment			
DM-AS-1	**Integrate Damage Assessment and Vegetation Management Crews**	Short-Term Actionable	Integrate the vegetation management crews and damage assessors with the “cut and clear” resources as a first responder team to be dispatched together.
DM-AS-2	**Pre-Stage Materials/ Equipment**	Short-Term Actionable	While thorough damage assessments may not completely eliminate the need for an FCC to inspect a circuit segment for LOTO and safety purposes, efforts should be made to enhance the identification of required materials, equipment, and vegetation clearing before the arrival of line restoration resources. This proactive approach can help streamline the restoration process and improve overall efficiency.
DM-AS-3	**Streamline Damage Assessment for Work Packages**	Short-Term Actionable	Rework damage assessment processes to improve the usefulness of work packages. During the initial wave of damage assessments, validate and verify damage prediction models regarding required resources and materials. Following this initial assessment, the focus should shift to estimating restoration times to provide accurate timelines for stakeholders. Subsequently, attention should be directed toward proactively supporting line restoration and pole-setting crews to facilitate

ID	Name	Timing	Description
			an efficient recovery process. This structured approach will enhance operational effectiveness and help ensure a timely restoration of services.
DM-AS-4	**Upgrade Damage Assessment Technology**	Mid-Term Actionable	Explore and leverage LiDAR sensors and machine learning to quickly assess and integrate data with ESRI tools. The damage model should be able to take storm tracks, CenterPoint asset information, and develop an estimate for the level of repair efforts that are needed to help the Incident Commander and other IC Staff to confidently determine level of crewing required for restoration duration. The Planning Section Chief should be ultimately responsible for making sure the model is populated, tested, and exercised for accurate results and restoration preparedness.
DM-AS-5	**Revise Resource Utilization**	Mid-Term Actionable	Currently the DOC decides how to utilize the damage assessors. Consider using the damage assessors after initial assessments to be patrol inspectors during the circuit sweep operations. Harmonize veg and line crews and damage assessors, in a way that's more real-time and less sequential – eliminate wait times. "Advance deployment team" (slot team) preparing next line section(s) for work while other crew is working (assess damage, deliver materials, set up isolation and grounding points). So that when line crew moves on to the next section, they can immediately begin work.
Finding Area: Restoration Management			
RM-1	**Expedite IAP Completion**	Short-Term Actionable	The IAP should be finalized and approved before the operating period begins, establishing a clear set of objectives to serve as execution targets for the various operational areas. The IAP should encompass the ETR strategy and resource allocation, along with the prioritization of remaining tasks. Additionally, EOC briefings should concentrate on executing the plans outlined in the IAP rather than developing new plans for the day.
RM-2	**Evaluate FCC Pool Size**	Short-Term Actionable	The effectiveness of decentralization is directly linked to the number of FCCs available and their operational efficiency. To enhance scalability during restoration efforts, it is recommended to assess and potentially expand the FCC pool size. Engaging native contractors with journeyman-level experience as additional FCCs can significantly bolster capacity, allowing for improved management and coordination of field operations. This approach will help ensure that resources align with restoration needs, thereby optimizing overall response efforts.
RM-3	**Use Substation Restoration Segmentation**	Short-Term Actionable	Implement segmentation of restoration efforts by assigning specific crews to operate from designated staging centers associated with their respective substations. This approach will allow crews to focus on the circuits linked to their assigned substation, thereby minimizing the potential for overlap and interference with other crews working across different substations. By clearly delineating responsibilities and

ID	Name	Timing	Description
			operational areas, this strategy should enhance coordination and efficiency during restoration efforts.
RM-4	**Leverage Low Voltage Resources for Parallel Restoration**	Short-Term Actionable	In cases of significant damage to overhead services, deploy low voltage restoration teams to start repairing and replacing services ahead of the primary repairs in an area. This approach optimizes additional resources and helps shorten the tail end of the restoration process.
RM-5	**Test Processes and Technology**	Mid-Term Actionable	Test all revised processes and technologies during smaller storm events, moving beyond simulations or training exercises. Engaging native contractors to implement these new processes in real-world scenarios will provide valuable insights and practical experience. Additionally, conducting after-action reviews following these smaller events will facilitate the gathering of lessons learned, enabling continuous improvement and refinement of operational procedures. This proactive approach will help ensure that processes are effective and efficient when faced with larger storm restoration efforts.
RM-6	**Change RTO/DCO Jurisdictional Boundary**	Mid-Term Actionable	Operational jurisdiction and control of the distribution feeder breaker should be transitioned to the DCO. This will eliminate the bottlenecks inherent in Distribution Controllers calling RTO operators to operate a distribution circuit breaker. This revised boundary will also align much better to the modern distribution system, where automated circuit ties, distributed energy resources, and active voltage management each play key roles in serving customers on both blue sky and grey sky days.
Finding Area: Vegetation Management			
VM-2	**Optimize Crew Coordination**	Short-Term Actionable	To maximize the effectiveness of vegetation management efforts, CenterPoint should focus on enhancing the coordination and optimization of vegetation resources and crews. This involves implementing strategies that streamline operations, improve communication, and helps ensure that the right crews and resources are deployed to the most critical areas.
Finding Area: Call Center/Handling			
CCH-1	**Increase Call Center Resource Pool**	Short-Term Actionable	Identify and train additional resources, whether within the CenterPoint workforce or from third-party agencies, to ensure they can effectively assist during storm response. Train existing CenterPoint gas and Indiana call center organizations to provide supplemental support during storm response.
CCH-2	**Analyze Root Cause of IVR Containment Drop**	Short-Term Actionable	Conduct a root cause analysis to determine why the call center experienced a noticeable drop in the IVR containment rate sustained for five days.
CCH-3	**Forecast Call Center Resource Needs**	Mid-Term Actionable	Develop a framework to forecast additional call center support required during storm response, utilizing historical data from past storms.

ID	Name	Timing	Description
CCH-4	**Establish a Call Center Storm Response Plan**	Mid-Term Actionable	The plan should outline the tiers of additional assistance needed to maintain full operational capacity and establish criteria for deploying these resources. Once the plan is completed, train all mutual assistance call center representatives, including those from third-party agencies.
Finding Area: Grid Performance, Design, and Automation			
GRID-2	**Develop Laterals Protection and Sectionalizing Strategy**	Short-Term Actionable	Install TripSaver® (or similar) reclosers on all currently fused laterals, and then expand deployment to non- fused tap laterals. TripSaver® provides the ability to have a one-shot reclose capability on laterals, which may reduce the number of sustained outages affecting the lateral.
Finding Area: IT/OT			
IT/OT-1	**Factor Storm Volumes into All Systems**	Short-Term Actionable	Recommend storm volumes are factored into provisioning and preparation for all systems. Commentary on the performance of centerpointenergy.com carries the implication that other systems besides centerpointenergy.com may also have been sized with normal growth rates rather than storm volumes.
IT/OT-2	**Ensure Data Quality and Robustness**	Short-Term Actionable	Ensure there is a customer data quality process, so that contact information is maintained both securely and with high quality. Outage and problem reporting has multiple methods; rationalize applications to minimize customer information solutions, currently Outage Tracker, PAS, website, and other temporary solutions. Provide for storm, bad weather and blue sky scenario operation for all customer contact methods. Address mismatch between verbal reports of system failures and their absence in service records.
IT/OT-3	**Harden IT/OT**	Mid-Term Actionable	Harden IT and OT infrastructure and communications to increase availability. Use storm volumes, or larger, for load test exercises, covering for (1) all customer reporting/publishing and (2) all internal triggers arriving from AMI, SCADA, and DSCADA. Ensure there is redundancy for infrastructure and communication paths. Use cloud resources for high transaction or page views, triggered by major events.

Recovery

Table 4 - 3: Recommendations for Minimizing Restoration Duration

ID	Name	Timing	Description
Finding Area: Distributed Energy Resources			
DER-1	**Continue to Catalog DERs and Microgrids in CenterPoint Territory**	Short-Term Actionable	Understanding deployments within CenterPoint's territory can help the utility identify locations where DER and microgrids could be used for resiliency purposes in the future. Identify locations where a DER or microgrid could help temporarily restore power to surrounding areas or temporary emergency response locations.
DER-2	**Leverage Capacity Maps**	Mid-Term Actionable	Leverage capacity maps with relevant parties to encourage behind-the-meter DER installation in certain locations on CenterPoint's circuit where deployments could offer resiliency solutions.
DER-3	**Use DERs during Restoration Efforts**	Mid-Term Actionable	Consider establishing emergency solutions such as staging sites, cooling centers, or other community shelters in areas that can be powered by DERs or microgrids.
Finding Area: Temporary Generation			
TG-1	**Catalog Critical Customers**	Short-Term Actionable	Compile the list of all critical customers in the service territory, prioritize this list taking into account the risk of an extended outage at the specific customer location, the presence of customer owned backup generation, and other relevant factors, and understand how the priority customers with the highest risk of suffering an extended outage can be served by temporary generation.
TG-2	**Test Existing On-site Generation**	Short-Term Actionable	Educate and encourage critical sites that have on-site backup generation to routinely test their generators to ensure performance during a storm event.
TG-3	**Establish Deployment Priority Matrix**	Short-Term Actionable	Establish a priority matrix to deploy and utilize generators at critical facilities including which units are compatible at which site, what size units are available for each site, and what is the priority of deploying generation to each critical site within CenterPoint's territory. In the case of more deployment requests than available generation units, the priority matrix should be followed.
TG-4	**Develop and Promote Interconnection Services for Temporary Generation**	Mid-Term Actionable	Develop and promote an efficient interconnection process that coordinates with and supports critical sites lacking standby generation, helping ensure a seamless interconnection experience. Advise sites to build infrastructure, including bays and cables at all critical sites such as hospitals, cooling centers, and water treatment plants which enable quick deployment of temporary generation with limited additional work to be done to begin supplying sites with energy.
TG-5	**Procure Additional Distribution-scale Generation**	Mid-Term Actionable	Acquire additional smaller generators, between 230 kW and 5 MW in size, to enable greater use of temporary generators during future events.

ID	Name	Timing	Description
Finding Area: Grid Performance, Design, and Automation			
GRID-1	**Develop a Program to Segment Less than 500 Customers per Remotely Controllable Circuit**	Short-Term Actionable	Initiate a program to prioritize circuits for segmentation with the goal of eventually reaching 500 customers underneath an IGSD. Rebuild a prioritized group of circuits to new "withstand" standards (greater than 65 mph sustained). This will help limit the number of customers who are exposed to outages by providing Distribution Controllers the ability to remotely isolate the damage.
Finding Area: Strategic Undergrounding			
UG-2	**Develop Worst Performing Feeder Undergrounding Program**	Short-Term Actionable	Expand and prioritize circuits to be undergrounded, identifying those circuits that make the most feasible and cost-effective sense and that addresses the circuits that continue to lose power and/or are most likely to lose power often. Identify and prioritize key areas where undergrounding can have the most significant impact on reliability and storm resilience. Assess benefits and costs of undergrounding in varying sections of service territory.

Glossary

ADMS	Advanced Distribution Management System	**IAP**	Incident Action Plan
AHT	Average Handle Time	**IC**	Incident Command
AMI	Advanced Metering Infrastructure	**IGSD**	Intelligent Grid Switching Device
ARCOS	Automation of Reports & Consolidated Orders System	**IT**	Information Technology
ASA	Average Speed of Answer	**IVR**	Interactive Voice Response
CCA	Call Center Agent	**kW**	Kilowatt
CEHE	CenterPoint Energy Houston Electric	**LiDAR**	Light Detection and Ranging
CI	Customers Interrupted	**LOTO**	Lockout/Tagout
CMC	Crisis Management Committee	**MW**	Megawatt
CMI	Customer Minutes Interrupted	**NIMS**	National Incident Management System
CNP	CenterPoint Energy	**NOAA**	National Oceanic & Atmospheric Administration
CSAT	Customer Satisfaction	**OH**	Overhead
CST	Central Standard Time	**OMS**	Outage Management System
DCO	Distribution Control Operations	**OT**	Operations Technology
DER	Distributed Energy Resource	**PA**	PA Consulting
DOC	Distribution Operations Center	**PAS**	Power Alert Service®
DSCADA	Distribution Supervisory Control and Data Acquisition	**PI**	OSI PI Data Historian
DVAL	Distribution Evaluation	**PUCT**	Public Utility Commission of Texas
ECDC	Energy Control/Data Center	**QA**	Quality Assurance
EMS	Energy Management System	**REP**	Retail Energy Provider
EOC	Emergency Operations Center	**RFI**	Request for Information
EOP	Emergency Operations Plan	**RMAG**	Resources Mutual Assistance Group
EP&R	Emergency Preparedness and Response	**RTO**	Regional Transmission Organizations
EPRI	Electric Power Research Institute	**SCADA**	Supervisory Control and Data Acquisition
ERCOT	Electric Reliability Council of Texas	**SEE**	Southeastern Electric Exchange
ESRI	Environmental Systems Research Institute	**SIF**	Serious Injury and Fatality
ETI	Entergy Texas, Inc.	**SOC**	State Operations Center
ETR	Estimated Time of Restoration	**TDEM**	Texas Division of Emergency Management
FCC	Foreign Crew Coordinator	**TIMS**	Trouble Information Monitoring System
FEMA	Federal Emergency Management Agency	**TNMP**	Texas New Mexico Power Co.
FSR	Field Service Representative	**TXMAG**	Texas Mutual Assistance Group
FTE	Full Time Employee	**UG**	Underground
GIS	Geographic Information System	**URD**	Underground Residential Distribution
GPS	Global Positioning System	**VOC**	Voice of Customer

Figures

Tables

About PA.

We believe in the power of ingenuity to build a positive human future.
As strategies, technologies, and innovation collide, we create opportunity from complexity.
Our diverse teams of experts combine innovative thinking and breakthrough technologies to progress further, faster. Our clients adapt and transform, and together we achieve enduring results.
We are over 4,000 strategists, innovators, designers, consultants, digital experts, scientists, engineers, and technologists. And we have deep expertise in consumer and manufacturing, defense and security, energy and utilities, financial services, government and public services, health and life sciences, and transport.
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CenterPoint® Energy

2024
Texas Electric
Emergency Operations Plan

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Approvals

The CenterPoint Energy Houston Electric (CEHE) Emergency Operations Plan (EOP) will be reviewed by the Emergency Preparedness & Response Department based on the maintenance and revision schedule established for this plan. Upon completion of review and any revisions, the EOP is submitted and ultimately reviewed and approved by the Senior Vice President Houston Electric and Senior Vice President and Deputy General Counsel.

This Plan was approved and implemented on March 15, 2024.

This supersedes and rescinds all previous versions of this document.

Record of Changes

Date of Change	Version
April 18, 2022	1.0
March 15, 2023	1.1
March 14, 2024	2024*

*Version history changed to reflect the plan year for consistency of updates.

Table of Contents

1. Purpose and Scope

1.1. Purpose

The CenterPoint Energy Houston Electric (CEHE) Emergency Operations Plan (EOP) is a framework for a coordinated response to incidents, emergencies, and Crises (referred to as emergencies throughout this document). This plan provides an incident management system for all emergencies that CEHE may encounter. This EOP operates in conjunction with the CenterPoint Energy Crisis Response Plan (CRP). The CRP establishes the structure, and the EOP establishes the emergency response organization and procedures. Using the Incident Command System (ICS) as its methodology, the EOP facilitates goal- and objective-based responses to emergencies, guided by the roles and responsibilities established in the EOP.

The incident management structure in this plan is scalable and may expand or contract based on the emergency. It is flexible to meet the needs and intricacies of each emergency. Its goal is to assess and respond to any given emergency to manage and mitigate the safety, operational, regulatory, financial, reputational, legal, and other business risks of an emergency effectively and agilely.

This plan is based on a worst-case scenario and provides for the critical roles and functions of CEHE and its parent, CenterPoint Energy, Inc., during an emergency. However, it may not address specific needs for all departments and operations. Departments shall develop any additional plans or procedures necessary for regulatory requirements or to meet specific operational objectives during an emergency beyond this framework.

This plan provides guidelines and a framework for emergency organization, communications and information management, decision-making, response operations, resource management, and recovery operations.

1.2. Scope

The measures in this plan will be enacted for any event or circumstance that impacts CEHE Operations and requires resources and other support greater than normal daily operations to protect safety, property, critical operations, and/or the environment. Generally, there are three types of events:

Incidents: An occurrence or event—natural, technological, or human-caused—that requires a response to protect life, property, or the environment and/or restore operations. Typically does not extend beyond normal day-to-day operational capabilities.

Emergencies: Any incident, whether natural, technological, or human-caused, that requires responsive action to protect life or property. Typically extends beyond normal day-to-day operational capabilities.

Crisis: An occurrence of a natural catastrophe, technological accident, or human-caused emergency that has resulted in severe property damage, deaths, and/or multiple injuries, significant property or environmental damage, or significant disruptions to operations. For CenterPoint Energy this can include emergencies happening simultaneously at different enterprise locations or involving multiple operation functions and those occurring for prolonged periods.

This plan applies to all CEHE locations, operations, and employees and supersedes any and all prior emergency plans. Should an emergency impact, or be expected to impact, any CEHE location or operation, CenterPoint Energy will implement the components of this plan.

1.3. CenterPoint Energy

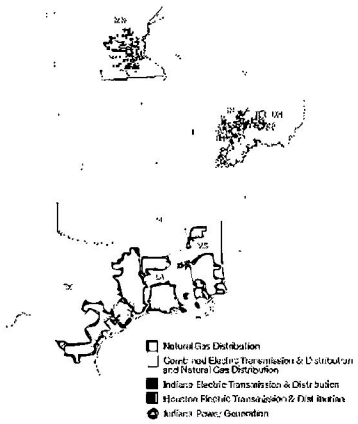
CenterPoint Energy, Inc., headquartered in Houston, Texas, is a domestic energy delivery company that includes electric transmission & distribution and natural gas distribution. With more than 8,900 employees, CenterPoint Energy and its predecessor companies have been in business for more than 140 years.

1.3.1. Gas Operations

CenterPoint Energy sells and delivers natural gas to approximately 4 million homes and businesses in six states: Indiana, Louisiana, Minnesota Mississippi, Ohio, and Texas (including greater Houston area).

1.3.2. Electric Transmission and Distribution and Power Generation

CenterPoint Energy maintains the wires, poles and electric infrastructure serving more than 2.8 million metered customers in the greater Houston area and in southwestern Indiana.



CNP also owns and operates nearly 1,300 megawatts of electric generation capacity in Indiana.

1.4. Regulations and Authorities

The CEHE Emergency Operations Plan is governed by the following regulations and authorities:

- The Public Utility Commission of Texas (PUC) Substantive Rules – Chapter 25
  - P.U.C. Subst. R. §25.53
- North American Electric Reliability Corporation (NERC)
  - EOP-011-2 Emergency Preparedness and Operations

2. Assumptions

This plan is an "all-hazards" plan and is intended to address any emergency situation that may arise and impact CEHE Operations. This plan is based on a set of planning assumptions or assumed operational conditions that provide a foundation for establishing protocols and procedures. These assumptions are listed below:

- Critical lifeline utilities may be interrupted, including water delivery, electrical power, natural gas, telephone communications, radio systems, cellular telephones, and information systems.
- Regional and local services may not be available.
- Major roads, overpasses, bridges, and local streets may be damaged.
- Buildings and structures, including homes, may be damaged.
- Damage may cause injuries and displacement of people.

- Normal suppliers may not be able to deliver materials.
- Emergency conditions that affect CenterPoint Energy locations will likely affect the surrounding community, city, or county.
- CenterPoint Energy will need to conduct its own situation analysis and deployment of on-site resources and management of emergency operations, through the CenterPoint Energy Emergency Operations Center (EOC) and Crisis Management Committee (CMC), if needed, while emergency conditions exist.

3. Concept of Operations

3.1. Threat and Hazard Monitoring

In order to respond effectively and in a timely manner, CEHE must maintain awareness and identify when threats and hazards are forecasted to impact operations.

Emergency Preparedness & Response (EP&R) collaborates with CEHE Operations, Enterprise Risk Management, Corporate Security, Safety, and many other departments to monitor potential threats and hazards that could affect all CNP operations including CEHE.

EP&R monitors natural hazards including hurricanes, tornadoes, extreme heat and cold weather, drought, wildfires, flooding, and others. These natural hazards are forecasted, as appropriate, and communicated to CNP leadership when their impact to CEHE Operations is likely.

When CEHE receives a weather warning, weather watch, weather advisory, or a non-weather-related alert, EP&R will begin to take pre-emergency actions. These actions can include:

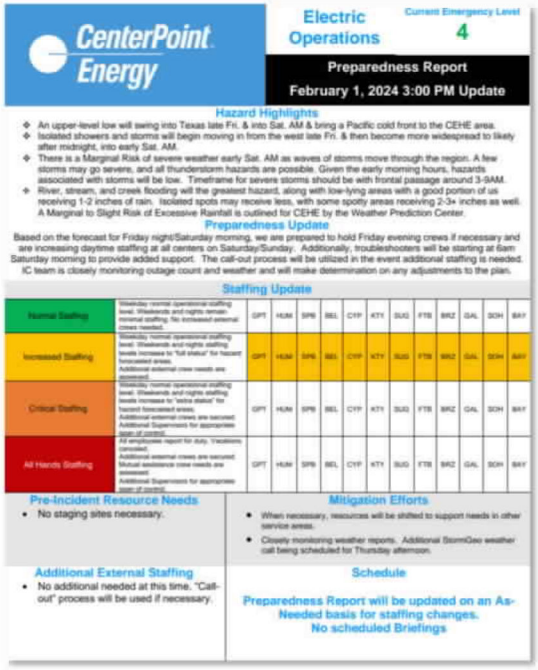
- Distributing the Emergency Monitoring Report
- Confirming CEHE Operations is evaluating it emergency plans and updating the Preparedness Report
- Evaluating the need for/scheduling an Operational Alignment Call, if necessary

3.1.1. Emergency Monitoring Report

The Emergency Monitoring Report is designed to provide awareness and forecasting for the potential impact of the emergency. This report is distributed by EP&R to leaders across the company to alert them to the potential impact and to prepare to respond if necessary.

3.1.2. Preparedness Report

The Preparedness Report provides a pre-emergency status update of the staffing, resource, and operational plan for when the hazard is likely to impact operations. This report is updated as forecasting changes and the hazard impact timeframe draws near.



CenterPoint Energy

Electric Operations

Current Emergency Level 4

Preparedness Report

February 1, 2024 3:00 PM Update

Hazard Highlights

- An upper-level low will swing into Texas late Fri. & into Sat. AM & bring a Pacific cold front to the CEHE area.
- Isolated showers and storms will begin moving in from the west late Fri. & then become more widespread to likely after midnight, into early Sat. AM.
- There is a Marginal Risk of severe weather early Sat. AM as waves of storms move through the region. A few storms may go severe, and all thunderstorm hazards are possible. Given the early morning hours, hazards associated with storms will be low. Timeframe for severe storms should be with frontal passage around 3-9AM.
- River, stream, and creek flooding will the greatest hazard, along with low-lying areas with a good portion of us receiving 1-2 inches of rain. Isolated spots may receive less, with some spotty areas receiving 2-3+ inches as well. A Marginal to Slight Risk of Excessive Rainfall is outlined for CEHE by the Weather Prediction Center.

Preparedness Update

Based on the forecast for Friday night/Saturday morning, we are prepared to hold Friday evening crews if necessary and are increasing daytime staffing at all centers on Saturday/Sunday. Additionally, troubleshooters will be starting at 6am Saturday morning to provide added support. The call-out process will be utilized in the event additional staffing is needed. IC team is closely monitoring outage count and weather and will make determination on any adjustments to the plan.

Staffing Update

		GPT	HUM	SPR	BEL	CYP	KTY	SUG	FTB	BRZ	GAL	SOH	BAY
Normal Staffing	Weekday normal operational staffing level. Weekends and nights remain minimal staffing. No increased external crews needed.												
Increased Staffing	Weekday normal operational staffing level. Weekends and nights staffing levels increase to "full status" for hazard forecasted areas. Additional external crew needs are assessed.	GPT	HUM	SPR	BEL	CYP	KTY	SUG	FTB	BRZ	GAL	SOH	BAY
Critical Staffing	Weekday normal operational staffing level. Weekends and nights staffing levels increase to "extra shifted" for hazard forecasted areas. Additional external crews are secured. Additional Supervisors for appropriate span of control.	GPT	HUM	SPR	BEL	CYP	KTY	SUG	FTB	BRZ	GAL	SOH	BAY
All Hands Staffing	All employees report for duty. Vacations canceled. Additional external crews are secured. Mutual assistance crew needs are assessed. Additional Supervisors for appropriate span of control.	GPT	HUM	SPR	BEL	CYP	KTY	SUG	FTB	BRZ	GAL	SOH	BAY

Pre-Incident Resource Needs

- No staging sites necessary.

Mitigation Efforts

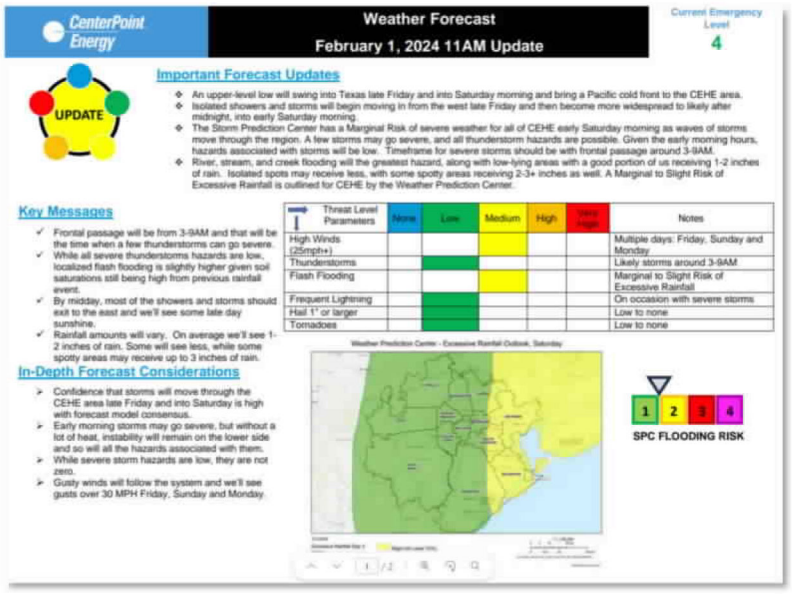
- When necessary, resources will be shifted to support needs in other service areas.
- Closely monitoring weather reports. Additional StormGeo weather call being scheduled for Thursday afternoon.

Additional External Staffing

- No additional needed at this time. "Call-out" process will be used if necessary.

Schedule

Preparedness Report will be updated on an As-Needed basis for staffing changes.
No scheduled Briefings



CenterPoint Energy

Weather Forecast

February 1, 2024 11AM Update

Current Emergency Level 4

UPDATE

Important Forecast Updates

- An upper-level low will swing into Texas late Friday and into Saturday morning and bring a Pacific cold front to the CEHE area.
- Isolated showers and storms will begin moving in from the west late Friday and then become more widespread to likely after midnight, into early Saturday morning.
- The Storm Prediction Center has a Marginal Risk of severe weather for all of CEHE early Saturday morning as waves of storms move through the region. A few storms may go severe, and all thunderstorm hazards are possible. Given the early morning hours, hazards associated with storms will be low. Timeframe for severe storms should be with frontal passage around 3-9AM.
- River, stream, and creek flooding will the greatest hazard, along with low-lying areas with a good portion of us receiving 1-2 inches of rain. Isolated spots may receive less, with some spotty areas receiving 2-3+ inches as well. A Marginal to Slight Risk of Excessive Rainfall is outlined for CEHE by the Weather Prediction Center.

Key Messages

- ✓ Frontal passage will be from 3-9AM and that will be the time when a few thunderstorms can go severe.
- ✓ While all severe thunderstorms hazards are low, localized flash flooding is slightly higher given soil saturations still being high from previous rainfall event.
- ✓ By midday, most of the showers and storms should exit to the east and we'll see some late day sunshine.
- ✓ Rainfall amounts will vary. On average we'll see 1-2 inches of rain. Some will see less, while some spotty areas may receive up to 3 inches of rain.

Threat Level / Parameters	None	Low	Medium	High	Extr. High	Notes
High Winds (25mph+)						Multiple days: Friday, Sunday and Monday
Thunderstorms						Likely storms around 3-9AM
Flash Flooding						Marginal to Slight Risk of Excessive Rainfall
Frequent Lightning						On occasion with severe storms
Hail 1" or larger						Low to none
Tornadoes						Low to none

In-Depth Forecast Considerations

- ➢ Confidence that storms will move through the CEHE area late Friday and into Saturday is high with forecast model consensus.
- ➢ Early morning storms may go severe, but without a lot of heat, instability will remain on the lower side and so will all the hazards associated with them.
- ➢ While severe storm hazards are low, they are not zero.
- ➢ Gusty winds will follow the system and we'll see gusts over 30 MPH Friday, Sunday and Monday.

Weather Prediction Center - Excessive Rainfall Outlook, Saturday

1 2 3 4

SPC FLOODING RISK

Examples of the Preparedness Report and Weather Forecast

3.2. Emergency Plan Activation

CenterPoint Energy has established Emergency Levels to help support CNP in understanding the complexity of an emergency and possible actions that may need to be implemented at the particular emergency level (Emergency Operations Center (EOC) activations, resource/staffing needs, mutual assistance, etc.).

Table 3.2

Level of Activation	Description
Level 4 -Routine Operations Incident	Normal daily operations; any issues are resolved at the crew level
Level 3 – Elevated Incident Conditions	An incident has occurred, but local/regional resources are capable of handling. The Emergency Operations Center (EOC) is not activated. EP&R staff are notified and available for support.
Level 2 – Severe Emergency Conditions	An emergency has occurred that requires coordination among multiple departments and resources. The EOC is partially or fully activated to support depending on significance of emergency. EP&R staff are notified. Crisis Management Committee (CMC) is notified, but likely not activated
Level 1 – Crisis Conditions	A crisis has occurred, and significant coordination is necessary. Crisis may involve multiple CNP operations/locations. EOC is fully activated. Crisis Management Committee (CMC) is activated

The use of these Emergency Levels promotes a common operating picture and mindset among all responding departments about the severity and urgency of the situation.

This plan's concepts and operations will be implemented in accordance with emergency needs, available resources, and the activation levels.

Components of this plan are activated whenever emergency conditions exist which cause normal operations to not be capable of being performed and immediate action is required to:

- Protect lives,
- Restore operations,
- Coordinate communications,
- Prevent damage to the environment, property, or operational components, and/or
- Temporarily assign CenterPoint Energy staff to perform emergency work.

Activation of any emergency response will include the establishment of an Incident Command System. Depending on the scope and nature of the emergency, there may be some emergency functions that are not activated or may be activated after the initial response has already begun. For an effective response, CenterPoint Energy will only activate the functions that are required but maintains the ability to allow for activation of additional functions if the emergency escalates, to include all functions when appropriate. The Incident Commander/Unified Command will determine what functions need to be activated.

The Incident Commander/Unified Command will determine the activation level appropriate for the emergency. They will notify the appropriate leadership positions based upon the activation procedures.

Regardless of the Emergency Level activated, employees must be prepared to respond. Employees should connect with their supervisors and know their roles during an emergency. If necessary and called upon, management will release their employees from their normal responsibilities to assist with an emergency response. Since each event is different and emergencies can change quickly, the procedures and components within CNP's Emergency Plans are designed to be scalable to meet all emergencies, and employees should be prepared to adjust their response, if necessary, to meet changing circumstances.

3.2.1. Trouble Levels

Trouble levels are a reactive decision-making tool for emergency response in CEHE operations. Trouble levels are used to help classify the impact an emergency has had, or may have, on the system. If an emergency is capable of being forecasted, the Emergency Level is designed to provide guidance for what the potential Trouble Level may be and help determine how the Company will respond. CEHE's eight Trouble Levels are used in conjunction with the CNP Emergency Levels.

Level of Activation	Trouble Level	Overview of Typical Electric Impact	Level of Response
Level 4 – Routine Operations Incident	1 - 4	Normal conditions across system.	Regular Operations Duty Team working. Contract crews activated as needed.
Level 3 – Elevated Incident Conditions	5 - 6	Multiple regions affected; requires coordinated response across the service area(s).	Partial • Duty Team responding, as needed; • Contract Crews activated, as needed. Additional Incident Response Team (IRT) Members activated as needed.
Level 2 – Emergency Conditions	7 - 8	Most or all regions affected; requires coordinated response and resource management across the service area(s).	Full • EOC activated upon request or as needed; • Incident Management Team (IMT) activated to CEHE DOC; • Additional IRT Members activated as needed; • Contract Crews activated, as needed; • Logistics activated at Trouble Level 8 as needed. Mutual Assistance Foreign Crews activated, as needed.
Level 1 – Crisis Conditions	8+	All regions affected; requires coordinated response and resource management.	Full Plus • EOC activated; • IMT activated to CEHE DOC; • Additional IRT Members activated; • Contract Crews activated; • Logistics Support activated; • Resource Management Support activated. Mutual Assistance Foreign Crews activated.

3.2.2. Operational Alignment Call

Once an emergency condition is forecasted or occurs for CEHE Operations, the CEHE Incident Commander on duty, or the CEHE Directors and Vice Presidents, or their designees, have the authority to initiate an Operational Alignment Call.

The Operational Alignment Calls are designed to help determine the anticipated impact of the emergency condition, the response capabilities and plans, and whether any emergency centers should be activated.

Operational Alignment Calls are designed for all levels of emergencies and specific to CEHE response and restoration operations and do not replace any emergency briefing calls designed for Level 2 or Level 1 Emergencies. When an Operational Alignment Call is initiated, the deciding authority will schedule the call.

3.2.3. No-Notice Operational Emergency Notifications

Emergencies can happen without notice. If the emergency is sudden, the deciding authority will notify the EP&R staff to activate the appropriate emergency centers based on the level of emergency. EP&R staff will then send a "CNP Alert" with activation details including:

- Type of emergency incident, if applicable
- Reporting location (DOC, EOC, and CMC locations as appropriate)
- Operational Alignment Call information, if applicable
- When to report
- Any safety or security instructions

All identified EOC staff and CMC members should have a secondary and tertiary representative in case they are unable to report upon activation.

3.2.4. Pre-Staging/Resource Mobilization

When a threat or hazard dictates, the Incident Commander, or his/her designee, may direct the pre-staging of response crews, personnel, and/or necessary equipment in areas to allow for efficient and safe deployment. Staging areas may also be activated, if necessary.

3.2.4.1. Personnel/Crew Types

At the onset of an emergency, internal crews will be divided to create as many first responders as possible to assess damage. As damage assessments are completed, staffing will be adjusted to levels needed to assist in restoration.

Internal Crews

CEHE has an internal cadre of trained crews to be utilized in all facets and phases of an emergency. A count of these resources is continually available via the Situational Awareness dashboard. The proper allocation and management of these resources is pivotal to a successful emergency response.

Contract Crews

CEHE maintains contracts with participating contract companies for additional restoration support. Combined, these "contract crews" will complement CEHE's resources. These resources are activated during emergency response when it is determined external crews are required. The number of necessary contract crews requested is determined by the referral rate of work orders during an event.

Mutual Assistance
When the need for additional crews expands beyond the internal and contract crews already available to CEHE may request additional resources.

During a Level 2 or Level 1 Emergency, CEHE will coordinate with the regional mutual assistance groups (RMAGs) for any additional resources. Should other utilities also be in need of resources, the RMAG will utilize the RAMP-UP tool to fairly distribute resources between the requesting parties based on need and contract resources previously acquired. Entries into the RAMP-UP system can be coordinated through CenterPoint's Mutual Assistance Team.

In addition to RAMP-UP, the Mutual Assistance Restoration Coordination (MARC) tool will be utilized. The MARC software may be utilized to manage rosters from off-system resources and electronically deliver work to crews that are not on our internal work-order systems. External crews requested by CEHE may have additional requirements to include some type of mobile technology (*e.g.*, iPad, Smartphone, Toughbook, Laptop, etc.) to send/receive rosters as well as to receive work packets.

3.2.5. Emergency Assessment

In responding to an emergency, CEHE will initiate an Incident Action Plan (IAP) for electric service restoration. This plan establishes the goals and objectives for the restoration of electric service. It may also be necessary to establish service restoration priorities. The establishment of priorities is operationally driven and primarily focused on the restoration of service to as many customers as soon and safely as possible and/or health and public safety services if necessary. Priorities sometimes may need to be modified to accommodate the particular needs of various communities. The EOC will manage priority/objective-setting in a coordinated manner whenever possible.

3.2.6. Damage Assessment

Damage Assessment begins with the mobilization of crews to identify and assess damage to CEHE electric delivery facilities. This may include making repairs or referring the order to be assigned to the appropriate crew. Typically, this will be conducted by internal first responders. patrol inspectors and unmanned aerial vehicles (UAV) may also be activated to assist in damage assessment. This enables damage to be assessed quickly and allows for internal crews to begin to be redeployed to assist in restoration.

3.2.7. Restoration Strategies

Restoration sets priorities to optimize service restoration to the most customers as quickly and safely as possible. CEHE first responders will restore service when possible during damage assessment; however, for cases requiring restoration work activities, work will be referred to construction crews as the emergency progresses. Contract Crews will be activated and utilized depending on the severity of the event and at the discretion of the IC.

There may be emergencies where certain additional strategies are implemented for service restoration due to the complexity of the event. CEHE leadership will determine the appropriate restoration strategy to most effectively respond to the particular emergency and meet the goals and objectives for electric service restoration. In general, CEHE's first priorities are to restore power to the highest number of customers out of power as quickly as possible and to protect critical health and human service and public safety facilities, such as fire stations, police stations

hospitals, warming centers, water treatment facilities, etc. that provide important health and human services and/or public safety service to the community. To meet those priorities, CEHE may deploy a variety of strategies such as cut and clear, order based, etc., and also account for particularly negatively impacted customer and communities, vulnerable populations, particularly prolonged outages, and other unique issues requiring particular attention.

3.2.8. Temporary Emergency Electric Energy Facilities (TEEEF) Strategy

The addition of emergency generation to CEHE's toolkit for Load Shed, EOP Restoration, Mutual Assistance procedures, and other uses cases permitted by statute provides greater ability to supply emergency generation power and bring customers online in targeted areas more quickly while working to restore the grid. This allows for CEHE to allocate crews and resources more efficiently, to restore service more quickly, address particular localized outages, and prioritize service restoration to particular groups of customers. See Annex H for more information.

3.2.9. Develop Objectives

The CEHE response to an emergency of any scope or magnitude is objective-based. The goal of the emergency response is to maintain and stabilize the operational components that support CEHE's critical services. These components are interdependent. Failure in one can cascade across multiple or all of the other components. The Incident Commander will work to establish specific, measurable, achievable, realistic, and time or task-oriented (SMART) objectives.

The CEHE ICS Section Chiefs will take the objectives and identify strategies, tactics, tasks, and activities to achieve these objectives. These will be accomplished through the development and issuance of assignments, plans, procedures, and protocols for various emergency functions.

3.3. Incident Management System

CenterPoint Energy has adopted the National Incident Management System (NIMS) Incident Command System (ICS) as its command structure for emergencies. The Director of EP&R is the coordinator for ICS implementation. ICS is an all-hazards incident management tool allowing the response of many different CNP departments and outside mutual assistance to be

coordinated. This structure can be expanded or contracted based upon the size of the incident, maintaining a manageable span of control and following a clear chain of command.

The EP&R department is responsible for ICS implementation during emergency response operations. EP&R will adhere to the principles of NIMS and ICS, including use of common terminology, integrated communications, and the use of pre-designated facilities such as the Distribution Department Operations Center (DDOC), Transmission Department Operations Center (TDOC) and the Emergency Operations Center (EOC). EP&R will also ensure that NIMS and ICS are integrated into all emergency training and exercises.

During emergency response operations, the Director of EP&R will coordinate with the responsible utility or department to establish an Incident Commander / Unified Command, as required.

3.3.1. Incident Command

When a single Incident Commander (IC) is used, the IC has full responsibility for incident management. This concept can be used for both simple and/or complex organizational structures for the emergency.

Most emergencies will begin with a single Incident Commander. The first responder from CEHE will become the IC and have command responsibilities until:

- A supervisor relieves them.
- The scale and complexity of the emergency changes where an IC change makes sense
- Personnel shift changes as part of the evolution of the emergency.

3.3.2. Unified Command

For emergencies that involve multiple CNP utilities, multiple jurisdictions, or multiple authorities, CEHE may establish or participate in a Unified Command structure as part of the ICS incident management organization. Unified Command enables utility operations or departments with different responsibilities and authorities to work together under a common set of incident objectives. All work that is carried out under a unified command structure will occur without the organizational responsibility, accountability, or authority being lost.

3.3.3. Crisis Command

If an emergency rises to the level of activating the Crisis Response Plan, Crisis Command will likely be used for incident management. Crisis Command is organized to oversee the management of large incidents or multiple incidents that are each being managed by an ICS organization. Crisis Command will be established at the CNP Emergency Operations Center (EOC) or another appropriate location and provide oversight for the consistent implementation of CNP policies, priorities, constraints, and guidance across incidents and efficient use of critical resources.

When the emergency rises to the level of the Crisis Response Plan, the Crisis Management Committee (CMC) working out of the Emergency Command Center (ECC), and the Crisis Command Staff working out of the CNP Emergency Operations Center (EOC). See the Crisis Response Plan (CRP) for more information.

3.3.4. Command and General Staff

CenterPoint Energy fills the following positions within the ICS Command and General Staff, depending upon the nature of the emergency and the Emergency Level. These staff positions comprise the Incident Management Team (IMT). The table below refers to the Command and General staff positions for a Level 2 or Level 1 Emergency.

Position	Primary CNP Staff Title	Emergency Roles and Responsibilities
EOC Manager	Emergency Preparedness & Response Manager	Responsible for managing and overseeing the Emergency Operations Center.
Incident Commander/ Unified Command	VP Distribution Operations and Service Delivery/ VP High Voltage and System Operations	Responsible for the overall management of the incident and guides the incident to resolution as safely, quickly, and completely as possible.
Public Information Officer	VP Corporate Communications, Community Relations, Marketing, & Security	Advises the Incident Commander on information dissemination and media relations, obtains information from and provides information to the Plans Section, and obtains information from and provides information to the community and media. Coordinates between the Command/Response Coordination and the Joint Information Center (JIC).
Liaison Officer	Emergency Preparedness & Response Director	Assists the Incident Commander by serving as a point of contact for agency representatives who are helping to support the operation and provides briefings to and answers questions from supporting agencies.
Safety Officer	VP Safety and Technical Training	Advises the Incident Commander on issues regarding incident safety and works with the Operations Section to ensure the safety of field personnel.
Regulatory and Government Affairs Officer	VP Regulatory Services, Natural Gas	Responsible for providing guidance and discussing regulatory issues impacting the response and coordinates communications with regulatory agencies, public officials, and others.
Legal Officer	VP Associate General Counsel	Responsible for providing guidance and discussing legal issues impacting the response and administering claims.
Operations Section Chief	Director Regional Operations	Responsible for managing all tactical operations for the emergency.
Planning Section Chief	Emergency Preparedness & Response Senior Coordinator	Responsible for overseeing incident-related data gathering and analysis regarding incident operations and assigned resources, facilitates incident action planning Meetings, and prepares the Incident Action Plan (IAP) for each operational period.
Logistics Section Chief	SVP Supply Chain	Oversees the provision of all the incident's support needs, such as ordering resources and providing facilities, transportation, supplies, equipment maintenance and fuel, communications and food and medical services for incident personnel, negotiating leases, maintaining vendor contracts.
Finance Section Chief	VP Financial Planning and Analysis	Oversees staff responsible for recording personnel time, and tracking and analyzing incident costs and considering cost recovery.

The organizational chart below identifies the typical command and general staff for a CEHE emergency response. Depending on the emergency, the groups, branches, and teams may expand or contract to support the goals and objectives of the emergency.

3.4. Incident Organization

CenterPoint Energy uses multiple operations centers at different emergency levels.

Generally, the Emergency Operations Center (EOC) will not activate for an emergency that can be managed at the Department Operations Center (DOC). DOCs are dedicated to a specific department's incident management and response. When CNP's EOC activates, the DOC communicates operational status, resource requests, and logistical needs to the EOC.

3.4.1. Department Operations Center (DOC)

The CEHE Department Operations Center (DOC) is activated whenever the emergency exceeds the capabilities of a CEHE Service Center's operational capabilities and coordination among multiple Service Centers is needed.

3.4.2. Emergency Operations Center (EOC)

The CenterPoint Energy Emergency Operations Center (EOC) is activated when emergency operation coordination exceeds the capabilities of the Department's DOC. The EOC is used when multi-department support is needed for the emergency. In some cases, the EOC may also reduce the burden on incident command during a single department response by managing some operational aspects such as staging sites, etc. The EOC:

- Collects, shares, and disseminates information.
- Supports resource needs and requests.
- Coordinates plans and determines current and future requirements.
- Supports public communications.
- Liaisons with external partners.

- Supports the policy and legal needs of decision makers.

3.4.3. EOC Activation

The Director of EP&R or his/her designee, the on-duty Incident Commander, or CEHE Leadership may activate the EOC. Upon activation, Command and General staff will report to the Emergency Operations Center (EOC). If the primary location is unsafe or otherwise inaccessible, the staff will assemble at an alternate location.

3.4.3.1. EOC Manager

The EOC Manager is responsible for overseeing the Emergency Operations Center. This includes:

- Activate the EOC when necessary.
- Notify the EOC staff of the emergency and the EOC activation.
- Notify the CMC of the EOC activation.
- Conduct briefings and debriefings.
- Approve and oversee the Incident Action Plans (IAPs).

3.5. Situation Reporting

3.5.1. Incident Action Plans

Incident action planning provides a standardized decision-making approach. The Incident Management Team (IMT) will be established for each event and can use incident action planning to collect, analyze, and disseminate information to create and maintain a common operating picture during the response to an emergency. An incident action plan (IAP) documents incident goals, operational period objectives, and the response strategy defined by incident command during response planning. The IAP contains general tactics to achieve the goals and objectives within the overall strategy, while providing important information on the emergency and response. The IAP also facilitates dissemination of critical information about the status of response resources. As the emergency evolves, IAPs must be regularly revised (at least once per operational period) to maintain consistent, up-to-date guidance across the incident management system.

An IAP should include:

- Incident goals
- Operational period objectives
- Response strategies
- Response tactics
- Organization list with ICS chart showing primary roles
- Assignment list with specific tasks
- Critical situation updates and assessments
- Resource status updates
- Safety plan
- Communications plan
- Logistics plan
- Emergency map, if applicable

3.6. Functional Roles and Responsibilities

When the EOC is activated to support a CEHE emergency, CenterPoint Energy relies on Emergency Support Functions (ESFs) to support the core capabilities of response and recovery operations. Not all ESFs are activated during an emergency, and not all of them are activated at the same time. ESFs may or may not be activated or deactivated depending upon the nature of the emergency as well as the response and recovery needs.

Each ESF shall have a primary, secondary, and tertiary representative responsible for the functions of that ESF. The department designated as responsible for the ESF will update the representative contacts on a regular basis in conjunction with the EP&R Department's requirements and within the appropriate management systems.

Emergency Support Function (ESF)	Department Responsible	Responsibilities
ESF #1: Transportation systems and resources	Fleet Services	• Evaluate transportation needs and restore transportation services. • Manage transportation services to support emergency operations.
ESF #2 Communications Systems	Information Technology	• Serve as the lead for the Information Technology (IT)/Communications Unit during EOC activation. • Support communication systems in the EOC and field during an emergency. • Maintain operability of telecommunications and backup emergency communications. • Provide for protection of vital electronic records. • Provide technical assistance in data retrieval and restoration. • Assess the communications infrastructure. Troubleshoot, maintain, and support communication systems.
ESF #3: Critical Infrastructure and key resource restoration	Electric Business	• Pre-identify the critical infrastructure and key resources to support system reliability and service restoration. • Prioritize critical infrastructure. • Pre-identify priority circuits that provide health and human services to community. • Pre-identify critical care customers. • Determine resource needs from staffing internal crews, contractors, damage assessors, and mutual assistance as needed. • Assess activation needs for TEEEF and key equipment depending on nature of event (boats, drones, ATVs, etc.).

ESF #4: Information collection, analysis, and dissemination	Emergency Preparedness & Response	• Staff the Planning Section at the EOC during an emergency. • Coordinate with stakeholders to develop a common operating picture. • Monitor conditions and collect information relative to the emergency event. • Analyze and share information with appropriate stakeholders
ESF #5 Sheltering	Procurement	• Lead the Hoteling coordination at the EOC during an emergency. • Coordinate with departments to support sheltering operations. • Address the hoteling needs of the operations. • Provide frequent reports to the EOC.
ESF # 6: Resource management	Warehouse and Materials Management	• Provide information and status of resources during response. • Evaluate and fulfill resource requests. • Anticipate impact and assess Situation Reports to identify potential resource needs.
ESF #7: Logistics	Procurement	• Secure equipment, supplies, or services. • Maintain a robust and sustainable logistics support capability that is flexible and adaptable to meet unpredictable demands of all hazards.
ESF #8: Direction, control, and coordination	Emergency Preparedness & Response	• Coordinate efforts of CEHE incident management structure with other departments. • Support short- and long-term planning activities. • Ensure goals and objectives are established, tracked, and accomplished appropriately. • Serve as Planning Section Chief in the EOC during an emergency.
ESF #9: Mutual aid	Electric Business	• Follows guidelines of the EEI Mutual Assistance Agreement. • Coordinates with RMAGs, MARC, etc. • Utilizes Resource Allocation Management Program for Utility Professionals (Ramp-Up) to request/respond to utility resource needs. • Resources responding are from investor-owned utility companies and their native contractors. • Non-investor-owned utility contractors may also be acquired.
ESF #10: Emergency Information	Corporate Communications	• Communicate emergency information and updates to customers utilizing the various communications systems and social media outlets.

		• Disseminate emergency alerts and instructions before and after an emergency event to employees. • Capture actions taken by internal and external stakeholders. • Maintain a credible, effective working relationship with the media, ensuring they have access to information. • Organize press conferences.
ESF #11: Government Affairs	Government Affairs	• Provide accurate, timely, and accessible information to local, state, and federal partners as appropriate. • Review regulatory requests and directives and support compliance. • Establish appropriate regulatory staffing required to support the incident. • Assist with resolving regulatory issues as needed. • Coordinate Government Liaisons with local governments to help ensure coordination and collaboration on issues.
ESF #12: Administration and Finance	Finance	• Provide support for the Finance and Administration Section at the EOC during an emergency. • Develop and share guidance for finance and budget personnel during an emergency.
ESF #13: Alert and Notification	Emergency Preparedness & Response	• Implement the Emergency Operations Plan. • Coordinate and liaise with CMC during response period. • Prepare EOC for activation.
ESF #14: Damage Assessment	Electric Business	• Lead damage assessment teams • Report operational information and observed damage to EOC. • Identify any unmet needs that may require immediate attention. • Determine magnitude and severity of damage to structures and infrastructure. • Identify the areas and populations most in need.
ESF #15: Debris Management	Electric Business	• Employ emergency debris clearance. • Lead debris management teams. • Coordinate with stakeholders for the debris removal and/or disposal process.
ESF #16: Food, water, and commodities distribution	Procurement	• Determine anticipated food and water needs and begin the process of obtaining items.

4. Finance

CenterPoint Energy Incident Management Teams (IMT) and all CEHE responding personnel will follow established financial procedures for requesting, receiving, managing, and applying funds for the delivery of emergency response and logistical needs. When the scope and scale of the emergency extends beyond normal financial operational capabilities, or to obtain a timely administrative and financial approval and response, CNP may enact particular emergency financial procedures. This may include:

- Emergency Work Order creations.
- Increases in financial approval limits for key leaders involved in the emergency response.
- Time sheets and work tracking processes.
- Pre-emergency purchases of critical materials or products for response or mitigation efforts.
- Delegation of purchase approvals to key emergency response leaders.

5. Communications

CenterPoint Energy implements the Joint Information System (JIS) during emergencies to organize and provide consistent, coordinated, accurate, accessible, and timely information and updates to the public and stakeholders during an emergency.

Corporate Communications is responsible for leading the JIS operations. This section outlines key communication operations that take place during an emergency.

CEHE maintains liaisons with various first responders and emergency management organizations, as well as third-party assistance agencies and public officials throughout its service area and communicates regularly with these groups regarding the status of electrical emergencies. Additionally, the Company provides required notifications to the PUC, ERCOT, the U.S. Department of Energy, NERC, and the Texas Reliability Entity, as appropriate. These identified liaisons are responsible for communicating with their identified constituents and addressing issues.

In the event of an emergency, the communications team will operate at the Joint Information Center (JIC), a dedicated location to manage the operations of the Joint Information System. The communications team will operate as required until normal schedules can be resumed.

The communications team will set up a base of operations for communications personnel during the emergency. The following items will be set up and tested:

- Phones
- Laptop computers with all needed software, applications and network access
- Printers
- TVs
- Access to system outage maps and situational awareness displays via a large-screen monitor (dashboard)
- CNP Now, the Company's employee communications digital app

Public Information Office personnel will be advised to:

- Pack a bag of personal necessities.
- Bring personal cameras (i.e., smart phones) and chargers.
- Test individual remote access from outside the office to work computers.
- Minnesota and Indiana communications staff are on standby to back up the Houston staff, as necessary.

The team will be responsible for communicating to CNP employees about the activation of the Company's Crisis Communications Plan, Storm Hotline activation and when/where to report to duty.

Under the guidance of the Public Information Officer, the team will also have the responsibility for communicating to our external customers and the media before, during, and after an event.

- Contact with the local news media will be established as soon as deemed necessary.
- Pre-written media advisories and information to alert the public about the length of potential outages, safety tips and how to prepare will be distributed as appropriate.
- As is available during a particular emergency, information on how to track outages and restoration information on demand (e.g., Outage Tracker Web application, Twitter/X feeds or other methods as may be used) will be distributed to news media outlets, emergency management organizations and other stakeholders and posted on our intranet and Internet sites to show number and locations of outages on our system, if necessary, along with information, on the restoration and prioritization process, FAQs, safety tips, etc.
- CenterPointEnergy.com dark site (Web page to be used in the event main website is unavailable) will be updated and verified ready for use.

Duties during emergency

Notification and Call-out - If the Crisis Communications Plan is implemented, decisions will be made including where and when to report for emergency duty, the nature of the emergency and other pertinent information.

Public Communications Manager will be responsible for public information distribution. The team will produce media advisories, news releases and/or other information for public distribution as required to communicate about CEHE's event. The Public Information Officer or a designated person will approve the information.

Information will be collected from the DOC and EOC. The typical information to be collected at least twice a day or as needed includes the following:

- Assessment of system conditions
- Assessment of safety incidents
- Number of customers without service and locations
- Number of restoration crews and their work locations
- Progress of restoration
- Estimates of when service will be restored
- Number of contract crews/mutual assistance and their work locations
- Hazardous or potentially hazardous conditions

- Crew spokesperson updates
- Other updates as appropriate

News conferences may be held, as necessary, at various locations depending on the event and road conditions.

Calls, Social Media inquiries, Monitoring Media, and Control Rumors

The team will be responsible for receiving, logging, referring, and answering, as appropriate, emails received through CNP's media relations email address, media.relations@centerpointenergy.com. Social media will be monitored, captured and responded to as appropriate according to the company's social response decision tree process, with a focus on responding to inquiries relevant to the greatest number of people. Customers submitting service requests via social media may be engaged by the Customer Experience Resolution Team (CERT) supported as needed by a scalable team of trained Online Customer Service staff and/or others as appropriate. The team will also be responsible for addressing rumors and misinformation as appropriate.

Under the Social Media Channel Manager, the social media team will be responsible for managing and monitoring the company's social media channels.

Under the direction of the Social Media Channel Manager, before a storm and beginning Day 1 following a storm the team will perform the following:

- Monitor social media
- Determine hashtags to maximize social media audience reach
- Set up automated monitoring reports for stakeholders as needed

Initial content will provide existing general information and templates for system-wide specific information such as:

- Safety messaging – natural gas and electric – for before, during and after the storm
- Process expectations: how we restore power, what and how often we will communicate
- Resources: supplies to have on hand, where to get help, videos (how we restore power, FAQs, generator tips, etc.)
- System-wide outage counts updated on the same schedule as media advisories/news releases/other public communications
- System-wide estimated times of restoration (ETR) by category of storm until more specific ETRs are available
- "One-to-many" responses to inquiries with system-level information until more granular information is available
- Answers to questions from the field and rumor control

As damage assessment takes place, custom content that leverages the strengths of social media will be added to initial pre-written content:

- CNP-produced news from content created for public officials, employees, mutual assistance crews
- Video coverage of news conferences (e.g., Emergency Operations Center or CNP), messages from executives, etc.

- Videos of crews in action, photos of damage submitted by CNP spokespeople, contract photographer(s) and damage assessors as well as drone videos and photos
- Enhanced outage map with ETR by large sub-areas of system and sub-system-level outage information/ restoration estimates in alignment with outage map
- "One-to-many" responses to inquiries with sub-area ETRs
- Information from crew spokesperson lead reports

Following the transition from damage assessment to creation of work packets and localized restoration, Crew Spokesperson Leaders (CSLs) – at least one per Service Center – will collect and document trends/issues/customer questions as well as field activities from crew leads as reported by crew spokespersons. CSLs participate in Service Area Director calls with DOC and emergency management personnel, communicate throughout the day with service center operations and dispatching, and report to their designated social media team member or external communications writer throughout the day as information is available and at the end of each day in a scheduled phone report. These reports form the basis of neighborhood/service center-level messages to be shared with customers via social media as well as crew spokespeople and other stakeholders. Progress Reports include information such as the following for the service center area:

- Number and location of crews working in the area
- List of key/critical public facilities energized today
- Circuit/substation restoration progress (range of % complete) and Estimated Completion Date
- Potentially hazardous conditions
- Trends, issues, customer questions

For each service center, a Twitter/X hashtag is established to direct customers to more granular outage and restoration information to be provided by neighborhood-level data sources, with service center updates also posted on Facebook. Maps and zip code charts will familiarize customers with the service center for their area.

Under the direction of the Social Media Channel Manager, designated employee ambassadors will share approved Company content with their social networks, including closed networks such as Nextdoor.com and closed Facebook groups.

Employee Communications Manager responsibilities will include creating channels to be used to communicate to employees and will be updated at least twice a day or as needed:

- Email
- Intranet
- Broadcast voice messages
- Electric Employee storm line
- Natural Gas Employee EOP Line, as appropriate
- CNP Now
- Special print and electronic news bulletins, as appropriate
- Digital signs

6. Maintenance and Revisions

Maintenance process for the plan including a method and schedule for evaluation and revision.

6.1. Maintenance and Revisions

The EP&R department is responsible for the maintenance and revision of this plan and annexes.

This plan and its annexes will be reviewed annually and updated and revised as appropriate to incorporate lessons learned from actual emergency situations and exercises or when changes in resources, capabilities, or governance structure occur.

Interim revisions may be made when one of the following occurs:

- A change in CNP site or facility configuration that materially alters the information contained in the plan or materially affects implementation of the Emergency Operations Plan,
- A material change in response resources,
- An incident occurs that requires a review,
- Internal assessments, third party reviews, or experience in drills or actual responses identify significant changes that should be made in the plan,
- New laws, regulations, or internal policies are implemented that affect the contents or the implementation of the plan, and
- Other changes deemed significant.

Plan changes, updates, and revisions are the responsibility of the EP&R department. Suggestions for revisions can be submitted to EP&R through email at emergency@centerpointenergy.com. EP&R will be responsible for distributing any plan changes.

Annexes

Annex A

Extreme Weather Emergencies

Extreme Weather Emergency

Purpose

The purpose of the Extreme Weather Emergency Annex is to provide guidance on preparing for and responding to extreme heat or cold weather situations that could impact CEHE operations.

Scope

There are various situations that could cause an elevated response from CEHE during an extreme weather situation.

- Load Shed as directed by ERCOT
- Widespread outages due to ice-related transformer outages
- Widespread outages due to heat-related transformer outages (also known as a Transformer Tsunami)
-
- High winds, wind shear
- And others

Decision Making

CEHE Operations will use the decision making and activation processes established in the Emergency Operations Plan for extreme weather emergencies. See *Section 3.2* for more information.

Concept of Operations

Load Shed

CEHE's Real Time Operations (RTO) utilizes and maintains a response plan for Load Shed that is directed and coordinated by ERCOT. The RTO Team will utilize the Load Shed procedures along with the EOP as necessary to support this response.

For additional information regarding the load shed plan, please reference *Annex B*.

Equipment Failure

It is the responsibility of the Incident Commander (IC) on duty to monitor the situation and determine if the EOP, or portions of the plan, should be activated.

- Upon activation, the Incident Command structure will be based on the roles identified in the EOP. The IC and support team will make determinations on staffing, resources and materials as necessary.
- In the event of a significant shortfall of materials, staffing, or other issues, the IC has the discretion to activate any needed Emergency Support Functions (ESFs) of the EOP to provide additional support.

Mitigation – Anti-galloping

Since 2015, CEHE has continued system hardening projects to retrofit portions of 69 kV and 138 kV transmission lines with anti-galloping devices to avoid damage from icing conditions.

Proactive Weatherization

CEHE designs its transmission circuits to the then-current edition of the National Electric Safety Code (NESC), which is the industry standard for ice and wind design for coastal and inland areas. The Company's practice for designing all new transmission lines is to utilize Grade B loading requirements. Grade B applies the highest geographically applicable NESC values for wind and ice loading as well as the highest safety overload factors. CEHE also incorporates anti-cascade design features in its transmission lines.

CEHE designs its new substations to conform with the latest version of the NESC wind maps. The Company's practice for new substations and equipment is to utilize 2 wind zones: 140-mph (Coastal) and 120-mph (Non-Coastal), which meets or exceeds the NESC wind load based on the substation's location.

CEHE's equipment specifications and acceptance testing standards include the use of ANSI/IEEE standards, which specify temperature ranges for service conditions covering a wide temperature range. The temperature ranges vary based on type of equipment from -4°F or -22°F to 104°F or 131°F. CEHE equipment specifications specify -22°F for all major substation equipment.

- CEHE installs heaters in substation transformer and breaker control cabinets.
- CEHE's substation control cubicles are climate controlled.
- CEHE utilizes antifreeze for cooling its station service backup generation equipment, and the equipment is oriented in a manner that avoids water and ice buildup on components which could inhibit operation.
- CEHE utilizes station service voltage transformers (SSVTs) in new substation installations, which have been retrofitted to key transmission substations where the station service feed is provided by local distribution providers.
- CEHE installs weep holes in substation buses to avoid water and ice buildup.

Transmission Routine Maintenance

CEHE maintains the integrity of existing transmission structures, wires, and rights-of-ways in a variety of ways, including a five-year cycle transmission line inspection and rehabilitation program that is coordinated with the transmission vegetation management program. Approximately twenty percent of the transmission system is ground inspected each year. Any line component or vegetation conditions identified that will likely cause a failure or a circuit outage within a critically short period of time are mitigated as necessary.

Substation Routine Maintenance

CEHE performs periodic station checks on applicable equipment to verify pressures and levels for Sulfur Hexafluoride (SF6), oil, nitrogen levels, transformer and breaker cabinet heaters, alarms, and supporting circuitry. Station checks are scheduled monthly for 345kV and select 138kV substations. Station checks for the remaining substations are scheduled every 2 months.

CEHE performs additional substation equipment and protection system maintenance according to manufacturer recommendations or in accordance with NERC maintenance interval requirements, generally whichever is more frequent.

Distribution Routine Maintenance

CEHE maintains a distribution wood pole inspection and rehabilitation program based on an average 10-year cycle. Any line component identified that will likely cause a failure or a circuit outage within a critically short period of time is addressed, as necessary.

"As You Go" Inspections

A large amount of CEHE operations personnel are in the field daily. This includes line worker, crew leaders, service consultants, and engineers. As personnel perform their daily business, they are trained to observe the condition of overhead and ground facilities and report any unusual conditions.

Summary of Operations

Preparedness and Response Checklist

The following checklist should be consulted to assist in preparing CEHE personnel and resources during a weather emergency.

Direct Service Center Responsibility

- Secure personnel roster and update emergency contact information
    - Need employee's name, department, title, location, work number, cell number and emergency contact information (Leaders, make sure that you and all employees have updated information in system. Admin to print out a hard copy.)
- Discussion with employees about preparing their homes and families. Allow employees time to secure home and prepare for EOP, typically ½ day
    - Remind Employees to stock up on special foods needed and medication.
    - Employees need to fuel their personal vehicles.
- Identify Storm Riders
- Review Service Center Roster
- Review Staging Site Rosters
- Management Meeting to discuss EOP plans, expectations, and reporting functionality
- Supervision meets with all personnel to share EOP plans and expectations
- Pick-up debris
- Empty the dumpsters
- Secure the yard – Secure/Clean/Restock the vehicles

- ☐ Secure equipment located outside of the service center and remove potential flying debris hazards
- ☐ Review evacuation plans - Baytown, Galveston, and South Houston.
- ☐ Review Cut & Clear and Back feeding SOP
- ☐ Check Service Center for essential supplies (non-perishables, toiletries, stationary, etc.)
- ☐ Check Satellite phones
- ☐ Check on the availability of spare lap top computers and ensure they have the latest updates
- ☐ Secure Gatorade, water, snacks, etc. for crews
- ☐ Update Cyber Keys – make sure to obtain additional batteries
- ☐ Notify FCCs and hold refresher FCC training
- ☐ Ensure sufficient Hand-Held Radios for the FCCs.
- ☐ Establish ramp-down plan

Service Center Coordinate with Support Groups

- ☐ Fuel tanks are filled – coordinate with Fleet
- ☐ Fuel all trucks and stock with material
- ☐ Face trucks toward the dock
- ☐ Check circuit reconfigurations
- ☐ Have a discussion with trouble board about important circuits on work tag at landfall
- ☐ Secure additional food stock in the case of an emergency
- ☐ Have discussion with facilities about boarding windows at the service centers pre-landfall

Service Centers Monitor/ Support Groups Responsibility

- ☐ Test service center generator and make sure back-up generators are topped off
- ☐ Test all generators and pumps - ***Need to do prior to mock drill each year and before every storm***
- ☐ Distribution Control to disable loop sectionalizing schemes (will be done automatically - Cypress, Greenspoint, Humble)
- ☐ Secure caterers at the service centers
- ☐ Secure rental vehicles
- ☐ Secure lodging

- Check availability/condition of cots – –if storeroom supply is insufficient, request storeroom to get more from Central
- Shots – In the event of contaminated rising water
- Service Center Security – Guards stationed at the gates
- Distribution Project Management to secure the poles that have been dropped off in the field

Transmission Operations Checklist

Manager/Supervisor Responsibility

- Secure personnel roster and update emergency contact information
  - Need employee's name, department, title, location, work number, cell number and emergency contact information (Leaders, make sure that you and all employees have updated information in system. Admin to print out a hard copy)
- Discussion with employees about preparing their homes and families. Allow employees time to secure home and prepare for emergency activation, typically ½ day
  - Remind Employees to stock up on special foods needed and medication.
  - Employees need to fuel their personal vehicles
- Identify Storm Riders as necessary
- Management Meeting to discuss EOP plans, expectations, and reporting functionality
- Supervision meets with all personnel to share EOP plans and expectations
- Secure the yard – Secure/Clean/Restock the vehicles
- Review evacuation plans for South Houston.
- Check Satellite phones
- Check on the availability of spare lap top computers and ensure they have the latest updates.
- Secure Gatorade, water, snacks, etc. for crews
- Update Cyber Keys – make sure to obtain additional batteries.
- Ensure sufficient Hand-Held Radios
- Establish ramp-down plan

Ops Supervisor Coordinate with Crews

- Fuel tanks are filled – coordinate with Fleet
- Fuel all trucks and stock with material
- Face trucks toward the dock
- Assign HDLM trucks to take home to expedite patrols
- Secure additional food stock in the case of an emergency
- Have discussion with facilities about boarding windows at the service centers pre-landfall

Manager Monitor/ Support Groups Responsibility

- Secure caterers at the service centers
- Secure rental vehicles
- Secure lodging

- Check availability/condition of cots – if storeroom supply is insufficient, request storeroom to get more from Central
- Shots – In the event of contaminated rising water
- Service Center Security – Guards stationed at the gates

As referenced previously, the Company utilizes four emergency activation levels, designed to ensure sufficient resources are available to effectively respond to any type of emergency impacting CEHE's service territory. The alert levels may be activated, based on need, during a variety of event types. Please see *Section 3.2* for additional details regarding the Company's response to emergency events.

Annex B

Load Shed

Load Shed

Purpose

Firm Load Shed is the controlled action of shedding firm system load to mitigate operating emergencies due to insufficient generating capacity and to avert cascading outages, voltage collapse, underfrequency issues, system equipment damage, and general grid collapse.

In accordance with NERC Standards TOP-001-5 R1, ERCOT Protocols, and ERCOT Operating Guides, CEHE operates to maintain the Reliability and Integrity of the CEHE Bulk Electric System (BES) during normal and emergency conditions. System Controllers shall have the responsibility and decision-making authority to take the actions needed, up to and including shedding firm load. CEHE is required to implement ERCOT directives to maintain grid reliability by utilizing the available load management programs combined with the automatic and manual firm load shed programs.

Scope

CEHE utilizes the following load reduction and controlled load shedding programs.

- Conservation Voltage Reduction (CVR)
- Summer and Winter Load Management Programs (Commercial and Residential)
- Under Frequency Load Shed (UFLS)
- Under Voltage Load Shed (UVLS)
- Manual Load Shed
- Curtailing all non-essential load within Company facilities
- Appealing through the media that all customers voluntarily reduce load

Decision Making

CEHE Operations will use the decision making and activation processes established in the EOP for emergencies involving load shed. See *Section 3.2* for more information.

Concept of Operations

CVR: CVR is a reduction of power consumption resulting from a reduction of voltage. At the direction of ERCOT, CEHE System Controllers will regulate the output voltage of a power transformer by altering the number of turns in one winding.

Load Management Programs: The Load Management Program is an agreement between the Project Sponsor (a qualifying customer or its sponsoring energy services company) and CenterPoint Energy to curtail electric loads on notice. At the direction of ERCOT, CEHE will notify the Project Sponsors to fulfill their commitment.

UFLS: CEHE's UFLS program is intended to arrest severe frequency declines and to facilitate the operation of the ERCOT interconnection as a single island during severe under-frequency events. The UFLS scheme is an automatic program that when there is a system disturbance and the frequency drops to a pre-selected level, then selected loads are shed.

UVLS: CEHE's UVLS program is intended to arrest severe localized voltage declines. The UVLS scheme is an automatic program that when there is a system disturbance and the voltage drops to a pre-selected level for a pre-determined time, then selected loads are shed.

Manual Load Shed: Manual load shedding is the process of manually removing pre-selected loads from a power system to maintain system integrity.

During an ERCOT declared EEA Level 3, CEHE System Controllers shall manually shed load when directed by ERCOT consistent with timeframes established in the ERCOT Nodal Operating Guides, Section 4 Emergency Operations. CEHE has pre-defined Distribution feeders identified in advance based on various criteria.

CEHE System Controllers shall manually shed load if a condition warrants such action, including but not limited to safety, equipment damage, and regulatory or statutory requirements.

Priorities for restoring shed load to service:

When directed by ERCOT to shed load, or if an automatic program is activated, System Controllers shall only restore loads when given the approval to do so by ERCOT. System Controllers may rotate loads to limit the amount of time customers are affected based on the cause of the load shed event.

When an event occurs within the CEHE service territory in which a System Controller sheds load, it is the discretion of CEHE, in coordination with ERCOT, to restore this load.

Critical Load Customers

CEHE maintains a registry of critical load customers, which includes two lists: a list of critical load public safety customers, critical load industrial customers, and critical natural gas facilities and a list of chronic condition residential customers and critical care residential customers. The list of critical load public safety customers, critical load industrial customers, and critical natural gas facilities is managed by the Company's Distribution Accounts group, and the list for chronic condition residential customers and critical care residential customers is managed by the Company's Revenue Protection. The registry of critical load customers is an electronic database located in a secured area within the Company's corporate information technology architecture. The registry is updated as necessary but, at a minimum, annually.

The registry of critical load is updated as customers are approved through the application process. Approved Critical natural gas facilities are tracked for awareness during load shed and restoration planning. To ensure that the critical load registry is accurate, the Company's personnel interact with various local government and area representatives to review and validate the information.

The critical load registry is used to develop circuit prioritization. When a critical load customer is initially added to the registry, the Company circuit serving that critical load is included in that critical load customer's record. Within the critical load registry, reports can be extracted by circuit, and this information is then utilized in an annual circuit prioritization process. In addition, both the Company's Outage Management System and the Geographic Information System depict critical load accounts. The Company assists critical load customers by restoring power after an unplanned outage in a systematic way that takes critical loads into account.

Critical Load, Critical Care Residential and Chronic Condition Residential customers are notified when they are approved to be in the Registry of Critical Load Customers. Critical Care Residential and Chronic Condition Residential customers receive notification by mail reminding them to reapply for inclusion in the Registry of Critical Load Customers. Since a load shed event is an emergency order from ERCOT based on a shortfall of electricity being generated, electric utilities, including CEHE, must comply with this orders within short, specific periods of time and do not have the information to be able to notify individual customers if they may lose power, when they may lose power or how long the load shed event may last. However, we will work to keep our customers informed about the situation through local media outlets, social media, and direct communications.

Customer Service conducts formal training on aspects of serving Critical Load Customers for all Customer Service Representatives. Operations and Engineering personnel are trained to refer customers inquiring about acquiring Critical Load, Critical Care Residential, or Chronic Condition Residential customer status to their Retail Electric Provider and the electric portion of the CNP website.

Annex C

Pandemic and Epidemic

Pandemic and Epidemic

Purpose

CNP, like many other businesses and governmental entities, has developed business continuity plans in response to uncontrollable events and natural disasters. One area of increasing concern has been the possible need to conduct operations over a number of weeks or months with a substantially reduced workforce and without the ability to call or rely on outside contractor assistance. This more recent requirement has been based on the realization that a world-wide infectious disease or a pandemic could strike unexpectedly.

CNP, drawing upon governmental and scientific sources, as well as its own experience in responding to natural disasters affecting its service area, has developed detailed plans in preparation of a possible pandemic. The response activities can apply to other similar catastrophes that might cause large scale workforce absenteeism.

Scope

This Pandemic Preparedness Annex addresses CEHE's actions to prepare for, respond to, and recover from a pandemic/outbreak event. This annex may be applied and adapted for any disease that is declared a public health emergency or a pandemic. Due to the significant differences between diseases, this annex is designed to broadly describe the prevention, response, and recovery actions that apply to any disease and address considerations for crisis action plans.

Decision Making

CEHE Operations will use the decision making and activation processes established in the EOP for Pandemics. See *Section 3.2* for more information.

Concept of Operations

CEHE has three main objectives for the Pandemic Preparedness Annex:

1. **Educate** employees on how to be personally prepared for a potential infectious epidemic. Employees should understand their roles and responsibilities in support of the company's response activities and continue to have the opportunity to work in a safe and healthy environment.
2. **Respond** in an appropriate manner to any such threat and attempt to limit the spread of infection, thereby protecting our workforce as much as possible. The annex will identify critical corporate and infrastructure energy delivery functions and devise methodologies for continuing such tasks without undue interruption.
3. **Maintain** essential services to the community and protect the enterprise and safety of our customers through coordinated efforts with various governmental authorities represented in our area and business footprint.

Key elements

Since we live and work in a highly mobile and global economy, an outbreak of a pandemic infectious disease may provide little lead time before operations are affected. CEHE will continue to encourage education of its employees, customers, and other business partners as to how they can prepare for such an epidemic.

Employees

A high priority will be to protect our workforce from the threat of illness by:

- Emphasizing a clean and healthy working environment,
- Coordinating our activities with federal, state and local public health authorities to assist in making available vaccinations and other medications to our employees, and
- Stressing the need for the sick or those potentially exposed/impacted to remain away from the workplace.

An important deterrent against the spread of infectious disease is the isolation of personnel where practical and the use of temporary "physical distancing". Families should stockpile necessary provisions to be self-sufficient within their homes. However, during a pandemic event some sheltering in place may be required for a lengthy period of time, perhaps weeks, since travel and daily shopping may be limited. In addition, schools and day care will likely be closed during community outbreaks, placing an additional need for food, water and other essentials within the home. While ensuring that families are reasonably secure and protected, CEHE employees will also need to focus on supporting the business services upon which our communities heavily rely.

Management

Each manager and supervisor should develop and maintain business process alternatives and business continuity plans with the expectation that a significant portion of their staff may be unavailable or away from usual work locations. For this to be an effective and sustainable plan during an actual infectious outbreak, it will be essential to retain the active participation of all available employees and contract personnel regardless of their normal job duties or work locations.

Crises Management Committee (CMC) Notification

If an incident shows potential for escalation to a pandemic, the CMC will be notified via the notification process outlined in the CRP.

Critical company functions

Unlike the disasters contemplated by some of the company's other business continuity plans, a pandemic typically does not significantly damage or destroy company facilities or directly affect service to customers. Well into the outbreak, it is expected that our electric utility facilities and gas utility facilities will be operating normally. Should such a disaster affect our service territories, it is not about the equipment itself, but rather the skilled workers that operate that equipment and the multitude of support personnel that assist in delivering CEHE's services.

Further, it will not only be important to maintain service to critical institutions such as hospitals, fire and police stations and government health organizations, but to our customers in general

who may have increased needs of critical infrastructure entities. CEHE's Pandemic Preparedness Plan Team, in conjunction with others within our organization, is charged with maintaining a current list of important company functions and ensuring that detailed response plans are in place to continue operations with a reduced workforce. The following work type levels are utilized by this annex to describe those important business, service, and support activities.

Level 1– Business activities that must continue uninterrupted, even in the face of significant workforce absenteeism, in order to maintain appropriate service delivery levels, public safety and corporate financial integrity. Work activities that fall into this critical category may have to be modified so that any absenteeism experienced will not:

- cause disruptions to service according to current emergency plan restoration priorities; or
- impact functions that maintain safety.

Level 2– Business activities that could be delayed for as much as a week without serious business or service consequences. This delay should not:

- jeopardize the supply chain and inventory levels,
- seriously impact company infrastructure, including:
  - voice, data, and information systems
  - inter-company billings
  - transportation systems
  - payroll processing
- place the company in a serious adverse position relative to contracts, laws, or regulations or
- materially impact the financial stability and/or cash flow of the company.

Level 3– Non-critical business functions that could be delayed indefinitely and rescheduled based on available workforce. Personnel associated with activities in this category could be redeployed as needed to perform Level 1 or Level 2 type work.

Strategies

The strategies outlined below are generally based on a pandemic threat like those monitored by the World Health Organization (WHO). WHO uses phased alerts to inform world health authorities and governments of the changing status of influenza pandemic threats as well as other health-related public threats.

Interpandemic Period
Phase 1: No new virus subtypes have been detected in humans. A virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered low.

Phase 2: No new virus subtypes have been detected in humans. However, a circulating animal virus subtype poses a substantial risk of human disease.

Pandemic Alert Period
Phase 3: Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.

Phase 4: Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.

Phase 5: Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk).

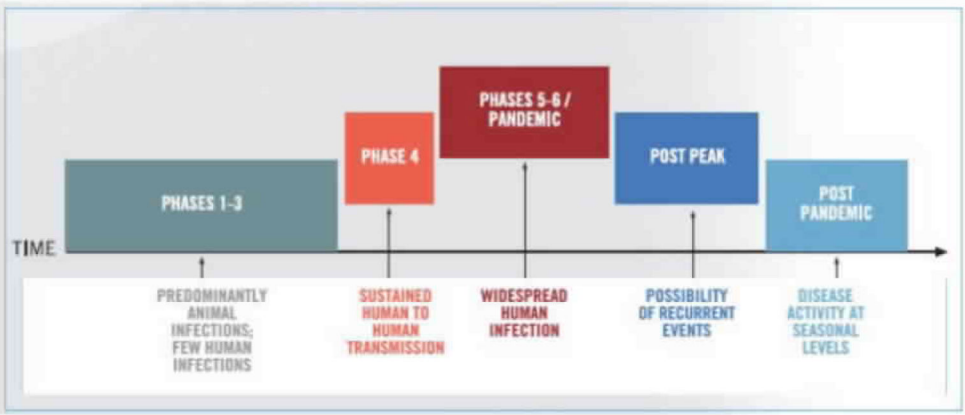
Pandemic Period

Phase 6: Pandemic: New virus is spreading rapidly within human populations around a significant portion of the globe causing serious health concerns. It is worth noting that a pandemic may affect multiple countries, as well as the population within a country, to varying degrees during any of these alert phases as the infectious disease spreads.

Recovery Period

Once the pandemic wave has passed, CEHE will begin recovery of its workforce and develop schedules for completing work that may have been temporarily delayed. The possibility for additional infectious waves must also be considered; therefore, recovery activities should be prioritized as to importance.

Generally, an important activity during the Interpandemic period is the review of key areas, functions and personnel that are vital to a sustained delivery infrastructure and corporate financial integrity. During Pandemic Alert period, CEHE will be focused on employee education, departmental contingency planning, workplace health and safety, and response activity practice. Beginning with the Pandemic Period, CEHE may need to limit employee business travel and discourage other nonessential outside travel. The timing of these and other response activities will be based on information from various authoritative sources such as the Centers for Disease Control (CDC), as well as management's assessment of the nature of specific pandemic threats.



Communication

Accurate, timely and objective communication with all CEHE stakeholders has been identified as a key element to the effectiveness of the Pandemic Preparedness Annex.

Coordination with employees at all levels of the organization, as well as contractors, suppliers, customers, regulatory agencies, news media and the public may prove critical to the level of success we have as a company and community leaders in quickly responding to a pandemic should it occur. Described below is an outline of some of the communication strategies that will be employed in our preparedness efforts.

Communication plan

- Maintain effective communications with all stakeholders
- Coordinate activities with federal, state and local authorities
- Sustain a knowledgeable and confident workforce
- Respond appropriately as threats materialize to protect and reassure our employees

Employees

CEHE's employees are our most valuable assets. The company will endeavor to maintain a healthy and safe work environment and emphasizes the vital role and responsibility of the employee in CEHE's response activities should a highly infectious disease affect our service territory. This requires an understanding of the issues by all involved, communication of our Pandemic Preparedness Annex, discussion with the employees about their roles and responsibilities and practicing response activities as appropriate for each work group to sustain confidence in the effectiveness of the plan.

Therefore, several types of employee communication will be used as appropriate to the audience and situation.

Individual preparation

- Brief email messages about the issues and their national and local importance.
- Listings of useful web sites for self-exploration and education.
- Web access to the Pandemic Preparedness Annex.
- Executive updates at employee meetings and/or through electronic messages to provide current information and respond to questions.
- Emails and posters encouraging seasonal flu vaccination and vaccination to address new viruses for all family members, personal hygiene and social etiquette.
- Education and preparation storyboards for computer-based employee education.
- Special reports and voice mail broadcast messages as necessary.

Departmental Preparation

- Presentation planning material for staff and safety meetings.
- Custom communication for first responder personnel as needed.
- Instructional material for telecommuting and teleconferencing from home.
- Website and Pandemic Hotline with current information and work instructions.

Other stakeholders

CEHE will continue to coordinate its pandemic preparedness plans with its outside stakeholders, including suppliers, contractors, federal, state and local governments and emergency management offices, and regulatory agencies, to clarify roles and responsibilities, verify current contact information and assess and revise response strategies and activities as appropriate.

Educational Resources

This annex is based on a foundation of employee knowledge and understanding of the issues, as well as their dedication and support in executing response activities both at home and work. In that regard, employees should occasionally check for and familiarize themselves with current information on CEHE's intranet website.

The following additional websites also provide excellent background information on pandemics, personal and family preparation and current news articles:

- Centers for Disease Control http://www.cdc.gov/
- World Health Organization http://www.who.int/topics/influenza/en/
- University of Minnesota's Center for Infectious Disease http://www.cidrap.umn.edu/cidrap/content/influenza/panflu/index.html
- American Red Cross www.redcross.org/news/ds/panflu

Annex D

Wildfire

Wildfire

Purpose

The purpose of the Wildfire Annex is to provide actions and strategies to support CEHE's response toward wildfires.

Scope

The scope of this Annex covers actions and strategies to prepare for, mitigate against, respond to, and recover from wildfire incidents directly or potentially impacting CEHE. This Annex depicts CEHE's coordination and communication to support an organized and comprehensive approach to managing wildfires. This Annex will also reference the enterprise Public Safety Power Shutoff (PSPS) procedures.

Decision Making

CEHE Operations will use the decision making and activation processes outlined in Figure 1 for Wildfire emergencies. The Incident Commander (IC) or highest ranking CEHE officer has the authority to initiate a PSPS.

Concept of Operations

Mitigation

Vegetation Management and Equipment inspections

CEHE performs periodic maintenance, including clearing trees and other vegetation and removing dried limbs and other vegetation management debris away from the conductors and equipment on its approximately 1,600 circuits. Proactive vegetation management takes place on a cyclical basis. For 35kV voltage and some selected 12kV circuits, vegetation management is performed about every three years, while the remaining 12kV circuits are trimmed on an approximate five-year basis. Unplanned tree clearing maintenance may be performed at other times based on locations identified by area operations personnel or as reported by customers.

Additionally, a proactive hazard tree inspection program is performed along the main feeder portions of circuits in areas with tree species that traditionally experience higher mortality rates. Other circuit feeders may be included during times of drought or infestations.

Periodic transmission circuit and Right-of-Way (ROW) tree clearing maintenance is performed on a five-year cycle basis with the facilities' inspections performed the quarter following the vegetation work. CEHE also performs an annual inspection of the whole transmission system to identify hazardous trees or other vegetation issues that need immediate attention.

When weather conditions indicate elevated drought conditions and High Fire Danger Risk as defined by the Texas A&M Forest Service, additional enhanced inspections may be performed in selected areas as warranted by conditions or situations conducive to increased tree mortality or risk exposure. These inspections include the evaluation of vegetation growth within and adjacent to transmission and distribution ROWs and equipment condition inspections.

Additionally, when advance notice of hazardous fire conditions is issued by the local Fire Marshal and the condition could involve transmission ROWs and facilities, mowers are dispatched to reduce brush within the ROWs. In addition, herbicide contractors apply fire

retardants to the base of the company's towers and structures to mitigate or reduce potential fire damage.

Disabling of Automatic Reclosing

When weather conditions indicate extreme drought conditions and Very High Fire Danger Risk as defined by Texas A&M Forest Service along with Red Flag warnings issued by the National Weather Service, work tags are issued for all affected circuits located within the area rated with a Very High Fire Danger rating. These work tags result in disabling of automatic reclosers to limit repeat operations of a distribution feeder and reducing the likelihood of a power line fault as source of fire ignition. Once red flag conditions expire, work tags are removed and automatic reclosing is enabled. Table 1 provides an action item checklist.

Public Safety Power Shutoff

To help mitigate the risk of wildfire ignition by company-owned assets, CEHE has developed a Public Safety Power Shutoff (PSPS) program. The objective of the PSPS program is to keep communities safe during wildfire-related weather conditions by proactively de-energizing CEHE facilities in areas that meet certain thresholds. PSPS threshold conditions are defined by several metrics, including, but not limited to: Wind Speed; Relative Humidity; Fuel Models; and asset data.

PSPS must be considered if the following conditions are met:

- A Red Flag warning declared by the National Weather Service.
- Relative humidity levels below 30%.
- Forecasted sustained winds above 19 mph and wind gusts in excess of 45 mph, depending on location and site-specific conditions, such as temperature, terrain and local climate.
- U. S. Drought Monitor status above (D2) Severe Drought.
- Wildland Fire Potential Index (WFPI) above 80.

PSPS may be considered even if not all of the above conditions are met.

The checklists in Table 1 and Table 2 outline the steps taken toward a PSPS initiation.

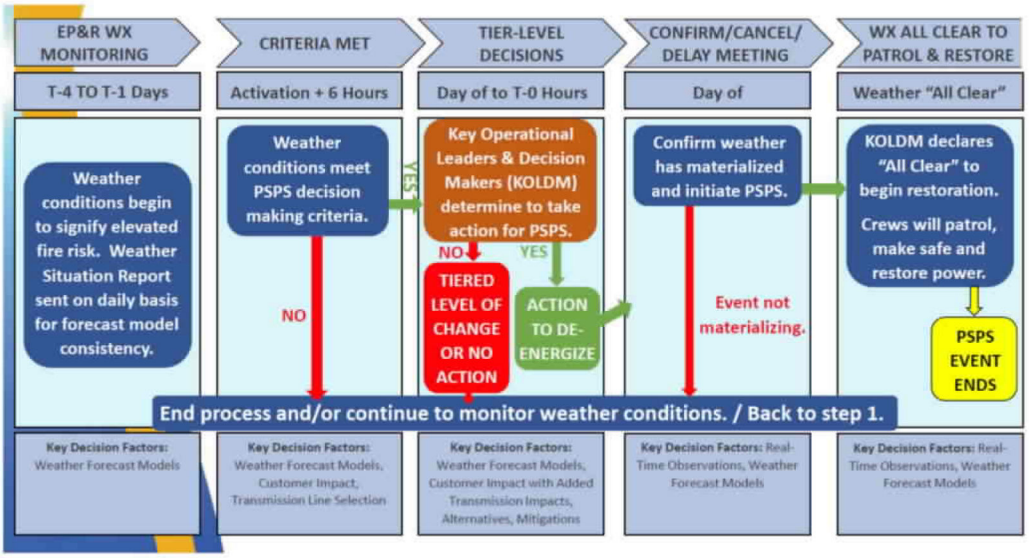
Monitoring and Response

EP&R is responsible for monitoring for wildfire activity and notifying CEHE leadership when conditions begin to signify an elevated fire risk.

Once weather conditions meet an elevated fire risk, EP&R will begin sending situational awareness information via the Weather Monitoring Report to CEHE and CNP leadership.

This approach enables leadership to evaluate and determine the type of response needed. The response is scalable from the mitigation actions outlined above to a PSPS. Below is the decision-making matrix for a PSPS.

Figure 1. PSPS Activation Decision Tree



Coordination

Before, during and after a PSPS event, internal and external stakeholders will be engaged to allow for coordination, communication and notifications, as appropriate.

Communications Objective

The objective of PSPS is to help keep customers safe by temporarily shutting off power in identified high-risk service areas during dangerous weather conditions and to prevent CEHE's electric system from becoming a potential source of ignition.

The primary objectives of this communications plan are: 1) collect information about the event and the progress being made to return the situation to normal conditions; and 2) communicate this information in a timely and accurate manner to customers, employees, management, governmental officials, and other key stakeholders through several tools and channels.

Messaging of campaign

- Primary Messaging – Public Safety Power Shutoff is a tool to help protect our communities during high wildfire risk conditions.
- Secondary Messaging – Weather and other factors influence PSPS decisions and may change where and for how long customers are affected. CEHE provides tools and resources for insight into the factors that could trigger a PSPS event, as well as for learning about what the company is doing to prevent wildfires.

Stakeholders

- Customers (residential, business, industry) (note that due to the competitive market construct in Texas, CEHE does not necessarily have complete or updated customer contact information for all impacted customers (*i.e.*, if the Retail Electric Providers do not provide that information to CEHE and the customers have not signed up for Power Alert Service); CEHE will communicate to customers using the information it has at the time)
- Retail Electric Providers
- First responders (police, fire, etc.)
- Regulators
- Government Officials
- Investors/Board of Directors
- Employees
- Media
- Community Advocates (NGOs, Environmental, etc.)

CEHE Wildfire Communications

CEHE's wildfire communications plan is driven by a set of strategies and tactics that engage and inform stakeholders before, during and after a wildfire. This is consistent with CEHE's longstanding approach to its severe weather and hurricane-related communications.

The foundation of CEHE's advance planning is ongoing communications via traditional and social media and the company's website, as well as the tools and channels used to engage and inform the company's nearly 9,000 employees. Communication themes would include preventing the development of wildfires; being aware of the status of wildfires and wildfire risks in various area; the importance of heeding to the advice of emergency officials regarding wildfire risks; preparing an emergency plan and kit in the event of a wildfire; emphasizing the importance of a plan for customers who may have life-threatening medical conditions and difficulties in evacuating; and signing up for emergency notification systems and alerts. Importantly, this phase of ongoing communications would also include information and engagement to stakeholders about PSPS (e.g., what it is, why is it used, etc.)

During a wildfire event and a potential evacuation, CEHE will turn its focus to proactive communications and outreach to stakeholders about the situation and its impact on customer safety, operations, support for first responders and emergency personnel, the effects on customers' service, and support for community relief and recovery. In addition to the tools and channels highlighted above, the company will leverage more sources and resources to inform and engage the public, including a cadence of scheduled news conferences, participating in media briefings with elected officials, regulators and first responders, and utilizing customer outreach channels such as Power Alert Service, outbound phone campaigns and emails, each as appropriate to the particular situation. CEHE communicators would also be positioned in all appropriate offices of emergency management and response command centers to coordinate communications and messaging. In the event that CEHE implements PSPS, CEHE will provide communications about that, as well (e.g., what it is, why it used, areas impacted, expected duration, etc.).

After the fire has been safely contained, CEHE would focus on continuing support for first responders and emergency personnel, while increasing the amount and frequency of communications to stakeholders related to restoring electric operations back to normal as safely

as possible. During this phase, CEHE would continue many of the communication and outreach efforts above, including media briefings with elected officials, regulators and first responders. At the same time, CEHE would utilize additional strategies, such as deploying its community outreach and engagement vehicle into impacted communities to address questions and concerns, as well as supporting recovery efforts with employee volunteers and donated supplies.

Customer Service

Communicate with our customer service teams the communications timeline so we can be prepared for potential increase in call volume and/or social responses and have a common message across all fronts.

- Utilize IVR messaging to communicate key messages and be able to answer questions before getting through to an agent.
- Create an internal education program for all agents to make sure they are aware of key messages.
- Pre-approved social care messages or Save replies for our social care team to use as a base message to work from. This helping ensures what they say will align with our other communications.

Restoration

When PSPS conditions have passed, the IC will give approval to begin patrolling affected infrastructure. Re-energization timelines and plans are then formulated based on patrol findings. The PSPS program considers risk of all overhead electric assets in both Transmission and Distribution across the entire service territory, with primary focus on those that pass through high-fire risk areas.

Tiered Level of Action / PSPS Activation

The following checklists are for a tiered approach leading up to a Public Safety Power Shutoff (PSPS), if necessary related to wildfire dangers.

Table 1. PSPS Tiered Action Checklist

	Operations	Task	Assigned to	Date Completed
Enter Drought / High Fire Danger Risk				
☐	Transmission / Distribution	Begin evaluating heightened/targeted vegetation management, increased maintenance and inspections.		
Extreme Drought / Red Flag				
☐	Distribution	Issue work tags for all affected circuits in area based on substation		
☐	Distribution	Bypass all hydraulic reclosers		
☐	Transmission	Heightened/targeted inspections		
☐	Transmission / Distribution	Analyze potential switching scenarios		
Activate Public Safety Power Shutoff (PSPS)				
☐	Transmission / Distribution	Review additional criteria to determine heightened risk factors and proactively de-energize, based on leadership decision.		

Active Fire Situation Actions

Table 2. Active Fire Situation Action Checklist

	Operations	Task	Assigned to	Date Completed
Reported Fire				
☐	Transmission / Distribution	Dispatch crews to affected areas		
Verified Fire				
☐	Transmission / Distribution	Coordinate response with Regulatory and Government Relations		
☐	Transmission / Distribution	Crews remain onsite to coordinate emergency responders' requests with appropriate control group		
☐	Transmission / Distribution	Control group determines risk to public/equipment is great enough or close enough to warrant de-energizing		
☐	Transmission / Distribution	Equipment showing signs of being affected by active fire (operations)		
☐	Transmission / Distribution	Develop switching plans for affected lines		
Activate PSPS				
☐	Transmission / Distribution	De-energize based on onsite command personnel		
☐	Transmission / Distribution	Execute switching plans for affected areas		

Recovery Operations

CEHE is committed to timely, well-coordinated restoration and recovery activities; and while each incident has unique facts and circumstances, CEHE's post-incident restoration approach empowers teams to rebuild and recover from a disaster safely, efficiently, effectively, and consistently. Community support and rebuild activities will be determined based on CEHE's analysis of the wildfire impact.

Table 3. Restoration Checklist

	Operations	Task	Assigned to	Date Completed
No Fire, No PSPS, Circuit Lock Out				
☐	Transmission / Distribution	Fully inspect line / circuit prior to re-energizing		
No Fire, PSPS activated proactively				
☐	Transmission / Distribution	Follow standard re-energization protocols		
☐	Transmission / Distribution	Inspect any line / circuit and their right of ways prior to re-energizing		
Active Fire, PSPS activated				
☐	Transmission / Distribution	Inspect affected equipment to determine if any repairs are necessary		
☐	Transmission / Distribution	Make repairs / clean identified equipment		
☐	Transmission / Distribution	Evaluate and address any vegetation removal needs		
☐	Transmission / Distribution	Re-energize		
☐	Transmission / Distribution	Evaluate / inspect similar areas based on cause of fire		

Annex E

Hurricane

Hurricane

Purpose

This annex provides a framework for the emergency activation for both a system-wide and partial system hurricane response. Hurricane events that may cause disruption to the area's electric service are varied and unpredictable as to severity and portion of the system affected.

To activate the plan, clear communication must be provided to all personnel involved in the planning, response and recovery phases supporting the restoration of electric service.

CEHE leadership, or authorized designees, shall follow the activation and response procedures for hurricanes based on the established emergency activation levels established in the EOP. See *Section 3.2* for more information.

Scope

This annex is for hurricane response and operations for CEHE.

Decision Making

CEHE Operations will use the decision making and activation processes established in the Emergency Operations Plan for Hurricane emergencies. See *Section 3.2* for more information.

Concept of Operations

Pre-Storm Preparation

Hurricane Drill

To promote familiarity with the Plan, a general hurricane drill exercise takes place annually. When possible, this exercise coincides with the State Hurricane exercises to provide increased realism.

EOP Storm Roster

The Employee Storm Roster (ESR) is a web-based application that has been developed in house in SAP to help:

- Manage emergency assignments for Company personnel
- Manage and track mutual assistance and contract personnel
- Manage lodging facilities required during a storm event

A process is in place to manage the assignment of personnel as employees are hired, transferred or leave the Company. Employees are encouraged to log into ESR at any time to update and review their emergency-related information as needed. Employees can access ESR by clicking on the "Employee Storm Roster" button on the Company's internal website.

Hurricane Vacation Policy

During Hurricane Season (June 1st through November 30th), when a Level 1 Emergency event is declared, no vacation requests will be approved for Operations staff in CEHE and Houston Gas who serve in Storm Rider and First Responder roles, including critical support functions.

Furthermore, vacations already scheduled during the restoration period may be cancelled by management, and no new vacation requests will be authorized.

If a non-operations employee has a planned vacation, but an emergency event is declared prior to the start of that vacation, the employee is expected to talk to his or her emergency leader and direct supervisor. The emergency leader and the employee's direct supervisor have the discretion to allow the employee to take the vacation as planned or deny the time off based on the criticality of his or her emergency role.

If an employee is already on vacation and out of town at the time the Company declares a Level 1 Emergency event, the employee is not expected to immediately return to fill his/her emergency role. Upon returning from vacation the employee is expected to immediately report for emergency duty in the designated role. If the vacationing employee is in town, he or she is expected to return to work immediately to fulfill his or her emergency assignment, and any unused vacation may be rescheduled after the Company returns to normal operations.

If the employee is denied the time away from work and suffers financial loss directly associated with the vacation, such as airline tickets, hotel/condo rental, tour or cruise expenses, he or she shall submit a request for reimbursement to the Company's designated Human Resource Manager, within 10 days after being relieved of emergency duties. The request will be reviewed by management and a decision made within 30 days after the final day of the emergency event.

Employee Responsibilities

If the Company has an emergency activation because of a threat to the continuation of electric service to our customers, employees may be called upon to change job assignments prior to and/or during service restoration. There will be a plan for employees to be released for final emergency preparation prior to an emergency event and lodging planned for "First Responders" with established criteria will be communicated by local management.

Business continuity during an emergency is critical. All employees, whether in their normal job or an emergency assignment, are essential to successful service restoration. The Company values the role each employee plays in serving the needs of our community. Employees are expected to:

- Understand their roles and responsibilities.
- Understand that the primary reporting relationship during the emergency is to the assigned emergency chain of command. Daily assignments during the emergency will be determined by the emergency leader and employees may be asked to take on different assignments as needs change during the service restoration process.
- Participate in the annual emergency exercise, training, and other planning activities as required.
- Make the necessary personal pre-storm preparations to be ready and available to perform the emergency assignment.
- Establish storm plans with their families in advance to ensure employees are prepared to report as directed and to fully execute their assignments during the emergency.
- Maintain a hard copy of important phone numbers, including emergency operations contacts, immediate supervisor, CNP Storm Mailbox (which provides general information during the emergency) and the HR Hotline (which provides employee assistance).

- Be aware that employees in "Day 1" assignments will not be allowed to leave the greater Houston area once an emergency response is activated for a hurricane (72 hours or less until storm landfall).
- Make their management aware of any special needs that may impact their ability to report to duty for the emergency assignments, in advance of the emergency activation.
- Understand that employees are ultimately responsible for their own personal safety and that of their families and take appropriate actions to ensure a safe and timely execution of their roles and responsibilities in the emergency.
- Maintain current contact information in Employee Service Roster (ESR) and ensure their emergency leader and immediate supervisor have the most current information.
- Notify immediate supervisor and emergency leader throughout the year and during emergency assignment, if necessary, of any change in personal needs or responsibilities that may affect their ability to fulfill their emergency assignment. Examples could include: change in residence, phone numbers, or fitness for duty.
- Establish and maintain contact with immediate supervisor and emergency leader in the event of an emergency activation and throughout the active period.
- Recognize emergency assignments will require working extended hours with shifts ranging from 10 to 16 hours per day, seven days a week. Some assignments require long periods of exposure to all weather conditions, walking several miles a day, standing for hours, or taking vehicles off road.
- Recognize that failure to report to duty as scheduled or failure to fully execute the emergency assignment may subject employees to disciplinary action, up to and including termination of employment.

INITIAL STORM ACTIVATION

Basis of activation

The Company will use the activation process established in the Emergency Operations Plan for hurricane response. See *Section 3.2* for more information.

Regardless of the Emergency level declared, employees must be prepared to respond. Employees should connect with their supervisor and know their emergency role if any level of an emergency is activated. If necessary and called upon, management will release their employees from their normal responsibilities to assist in the emergency response. Since emergency events can change quickly, employees should be prepared to escalate response when necessary. Employees will be contacted by their emergency leader and provided with instructions on where to report. For those who do not currently have a role, the Incident Command team will make assignments after determining where assistance is most needed.

Evacuation and Re-Entry Procedures

In the event of a storm, the Galveston, South Houston, and Baytown Service Centers evacuate in conjunction with activation of the evacuation plans of Harris and Galveston Counties. The Galveston Service Center evacuates to the South Houston Service Center, and the Baytown Service Center evacuates to the Humble Service Center. All CNP personnel that live in evacuation zones and that also have Day 1 or Day 2 emergency assignments will be offered lodging by the Company, so that they can be readily available for duty immediately after a storm. The Company has worked with local emergency officials and the State of Texas Phased

Re-entry Plan to obtain written permissions and to facilitate/expedite the movement of restoration resources into evacuated areas for the purpose of restoring power.

Toll Road Procedures

A key route utilized to access portions of the Company's service area is the Harris County Toll Road system. The following procedures have been put in place to address usage:

The Security Branch Director will contact the Harris County Toll Road Authority (HCTRA) to obtain approval from Harris County Commissioners Court for a specific start and end time that restoration vehicles can utilize the toll roads "toll" free. Providing license plate information is imperative to this process.

In the event of a storm:

- Fleet will send a list of the license plate information for any rental vehicles to Corporate Security as soon as possible.
- Fleet will send a list of the license plate information for Houston-area fleet vehicles and trailers.
- Service Area Managers will provide a list of the license plate information for any emergency responders needing access to the toll roads and submit it to the Security Branch.
- Check-in Support at the staging sites will gather CNP personnel license plate information and submit it to Corporate Security.
- During check-in of mutual assistance crews at staging sites:
- Check-in Support will verify any license plate information provided on the rosters and attach CNP decals near the back license plate (such as on the bumper below license plate or on the tailgate above license plate) on each non-CNP vehicle.
- If license plate information is not provided, Check-in Support will record license plate numbers and the state issued for mutual assistance vehicles and trailers.
- Site administrators will send these lists to the Security Branch via fax or email.
- The Security branch will send the license plate information to HCTRA for entry into their system to automate the "No Fine" process.
- Any violation notices issued during the time frame approved by Commissioner's Court should be sent to Corporate Security via fax or email within five days of the invoice date stated on the notice. Corporate Security will then send the notice to HCTRA for dismissal.

Activation Phase Descriptions

The following table describes points for which CEHE has designated specific storm preparation activity. This table describes the parameters required to determine when each of these points has been or will be achieved. These phases are based on When StormGeo identifies a location as "Positive" for a hurricane risk. A notification of this risk will be made by adding a notice atop the TropicsWatch web page and communicating through the monitoring and alert processes established in the EOP.

Phase	Description
1 - Hurricane risk indicator is positive	**Weather Monitoring Report distributed by EP&R**
2 - The worst case scenario for 39 mph winds reaching this location is < 120 hours and the probability of 58 mph winds impacting this location is > 8%	**Communication to employees** The Public Information Officer (PIO) sends out company-wide communications to employees to tell them to prepare home and family for a storm, know their emergency assignment, etc. The PIO also keeps employees clearly informed of developing storm conditions. **Functional managers verify and report emergency readiness** Make an early ID of shortfalls and take corrective actions as necessary (roster, supplies, personnel, facilities, ice machines, telecommunications, generators, etc.). **Branch director's leaders initiate communication with emergency-assigned employees** Keep emergency assigned employees clearly informed of developing storm conditions and notify them to begin preparations for manning their emergency assignments. Confirm information for emergency team members.
3 - The worst case scenario for 39 mph winds reaching this location is < 96 hours and the probability of 58 mph winds impacting this location is > 15%	**EP&R implements storm updates using email and text messaging systems** EP&R commences tracking of storm and periodically communicates position of storm to CNP personnel using the email and text messaging systems. The purpose of this action is to keep CNP personnel updated on direction/intensity of storm.
4 - The worst case scenario for 39 mph winds reaching this location is < 72 hours and the probability of 58 mph winds impacting this location is > 20%	**Emergency Level is determined, if applicable.** **The Resource Acquisition group contacts Regional Mutual Assistance Groups (RMAG's) as needed to set up mutual assistance conference calls.** CEHE is a member of the S.E.E., the Midwest, and the Texas RMAG's. Contact these groups as needed to initiate Mutual Assistance Conference Calls. **Logistics alerts staging site owners** Staging site managers make preliminary contact with the staging site owners to notify them of our possible intent to activate our contracts with them.

Phase	Description
	Logistics section makes lodging arrangements This action is taken in preparation to accommodate CEHE personnel that are storm riders and first responders that must evacuate according to the Harris County Office of Emergency Management. These activities continue as more zip codes are evacuated. The Lead Hotel Coordinator should book hotel space based as CNP head count determined. **PIO activates the Joint Information Center (JIC)/activate storm hotline** **Finance submits a request for cash to Treasury** **Logistics section secures food beginning 48 hours after the landfall** Operations section secures enough food to feed personnel at all emergency operating sites until the caterers have had a chance to arrive and set up. **Operations evacuates service centers in storm surge areas** Operations will conduct Galveston, South Houston, and Baytown Service Center evacuations in conjunction with evacuation plans for Harris and Galveston counties. Baytown Service Center will evacuate to Humble Service Center. Galveston Service Center will evacuate to South Houston Service Center. **Logistics tops off CNP fuel tanks and secure additional fuel and fuel tanks** Logistics coordinates fuel deliveries to top off underground fuel storage tanks and facility backup generator fuel tanks. They also secure temporary fuel tanks and fuel products for service centers, offsite parking and staging sites. **Communications Unit executes cell relay/DCE extensions to maximum days** **JIC sends communications to Texas market regarding possibility of interruptions regarding meter data** **Operations assesses the operability of production IG devices** **Communications Unit considers securing satellite telephone rentals**

Phase	Description
	Communications Unit will evaluate the need of rental satellite telephones for the staging site supervisors. **Communications Unit considers securing portable voice radio rentals** Communications Unit will evaluate the need for rental of portable voice radios to supplement CNP's normal inventory.
5 - The worst case scenario for 39 mph winds reaching this location is < 66 hours and the probability of 58 mph winds impacting this location is > 25%	**EP&R established Briefing call cadence and initiates calls. These calls will continue through the remainder of the phases.** **Logistics alerts material and logistics suppliers** The Logistics sections provide these suppliers with advance notice to begin making their preparations to supply CEHE with storm restoration materials. They alert suppliers of the coming need for tents, trash, cars, food, laundry, etc. They also alert materials suppliers for poles, transformers, wire, insulators, hardware etc. **Logistics begins relocation of storm stock** The Logistics section delivers the remaining emergency material and bedding to service centers in advance of evacuations. **Logistics analyzes emergency inventory levels** In preparation for the Special Material Release presentation to the section chiefs, the Logistics section will prepare to make preliminary recommendation for purchase quantities based on current inventory levels and storm strength projections. Logistics will continually monitor and evaluate material requirement needs for the Special Material Release as the storm approaches in preparation for the final Special Material Release recommendation at 6 hours prior to landfall. **Resource Acquisition participates in the RMAG Conference Call** The Resource Acquisition group participates in a conference call for each RMAG that calls were set up with. The purpose of these calls is to determine the number of first wave line and tree trimming resources that are available from these RMAG's. Mutual Assistance utilities can provide line crews, damage assessors, material handlers, and staging site management teams, along with various other personnel.

Phase	Description
6 - The worst case scenario for 39 mph winds reaching this location is < 60 hours and the probability of 58 mph winds impacting this location is > 25%	**Conduct operations conference call** Branch directors, SADs, and service center operations conduct conference call to determine preparation progress. **Section chiefs assess special material release** Purchasing presents results of assessment to section chiefs and recommends Special Material Release quantities, values, and timing. **Section chiefs assess preparation** Section chiefs update command staff on preparation progress.
7 - The worst case scenario for 39 mph winds reaching this location is < 54 hours and the probability of 58 mph winds impacting this location is > 25%	**Activate the Emergency Operations Center (EOC)** Prior to activation CNP performs the following on a routine basis: • Ensure all systems and equipment at the EOC are functioning properly • Obtain supplies as needed; set up rooms as planned • Set up computers, telephones, Satellite TV access • Test communications • Ensure that the EOC phone number rings at that location. **The Public Information Officer issues employee communication regarding employee evacuation of storm surge area.** **Resource Acquisition group participates in RMAG Conference Call #2** The purpose of this call is to further refine the available resource numbers. **Test radio communications at EOCs and DOCs** Telecom visits each operations center and tests its radio for operational performance.
8 - The worst case scenario for 39 mph winds reaching this location is < 48 hours and the probability of 58 mph winds impacting this location is > 30%	**Logistics updates logistics and material suppliers** The Logistics section provides these suppliers with updated information to assist them in their preparations to supply CEHE storm requirements. **Logistics updates staging site owners**

Phase	Description
	Staging site managers make update calls to staging site owners. They verify the availability of facilities previously agreed upon. **Resource Unit pre-positions local tree and line contractors** The Resource Unit allocates all local contractor resources to the service centers in accordance with the plan, to enable contractors to provide immediate response for priority service work. **Fleet Services branch secures rental vehicles** The Fleet Services group within the Fleet Services branch secures rental vehicles to meet emergency storm needs. Based on severity of storm, Fleet will contact potential users of rental vehicles to determine pre-and post-storm needs and to make arrangements to obtain needed vehicles.
9 - The forecasted time of arrival for 39mph winds for this location is < 36 hours and the probability of 58 mph wind impacting this location is > 50%	**Conduct operations conference call** Distribution Operations branch managers, SADs, and service center operations conduct a conference call to determine progress of preparation. **Logistics section activates logistics (suppliers, caterers, etc.)** At the direction of Operations, the Logistics section engages logistics suppliers to execute CEHE emergency logistics needs. **Logistics prepares for employee refueling (if necessary)** The Fleet Services group within the Logistics section sets up employees for access to the automated fueling system. Distribute instructions and recording forms in case of fuel system by-pass and temporary fuel tanks. **The PIO communicates with employees regarding emergency show up time** **Operations activates staging sites as required** Operations begins activating staging sites. They continue to update staging site owners if we will use or not use their facility. **Section chiefs assess Special Material Release** Purchasing presents updated recommendations for the Special Material Release based on evolving storm and material availability data.

Phase	Description
10 - The forecasted time of arrival for 39 mph winds for this location is < 30 hours and the probability of 58 mph winds impacting this location is > 60%	Emergency Operations Center conducts briefing call Potential topics to cover: • actual or expected storm category • storm condition • emergency level • type of event • damage projection • time of impact • duration of event • emergency timeline status • plan for recovery • progress of preparedness • communications Operations sends select crews and staff home The Operations section releases crews to prepare their homes for storm. They rotate crews, sending half the first 4 hours and the second half the next 4 hours.
11 - The forecasted time of arrival of 39 mph winds for this location is < 24 hours and the probability of 58 mph winds impacting this location is > 60%	**Operations restricts Galveston and/or Baytown access** Once Harris and Galveston Counties have been evacuated and restrictions put in place by government entities, CEHE service area management representing the service areas in the perspective counties identifies and follows the process for re-entering restricted areas. **Resource Acquisition participates in the RMAG Resource Division Conference Call** The call will be necessary if more than one utility is impacted by the Storm event. The impacted utilities will divide the available resources based on the expected outage counts and amount of damage. Resource Acquisition initiates efforts to secure additional resources outside of S.E.E., Texas and Midwest RMAGs This effort should be initiated if additional resources are still required after exhausting the available resources of the three RMAG's we are members of. The Resource Acquisition group arranges additional conference calls with RMAG's that are more distant from our area but could still provide resources if necessary.

Phase	Description
12 - The forecasted time of arrival of 39 mph winds for this location is < 18 hours	**Operations suspends normal operations** The Operations section notifies day crews to start when safe, then begin work the next day, working from 5 am to 9 pm. **Operations puts night crews and critical operations personnel in place** Operations rolls trouble shooters and third-shift employees, with a support employee, to the night shift (5 pm to 9 am) to ride out the storm and continue to work that shift throughout the restoration. **Emergency Operations Center conducts briefing call**
13 - The forecasted time of arrival of 39 mph winds for this location is < 6 hours	**Section chiefs assess Special Material Release and approve placement of order** The Supply Chain group presents final recommendations for the Special Material Release based on evolving storm and material availability data. **Supply Chain notifies vendors of Special Material Release** The Supply Chain group places the Special Material Release approved by section chiefs.
14 - Sustained winds fall below 39 mph	**Operations branch directors conduct operations conference call** The Operations branch directors, SAD's, and service center operations conduct a conference call to determine the impact too their facility, equipment and ability to operate. They also report any initial damage assessment. Activate helicopters and Unmanned Aerial Vehicles (UAVs) The Operations Section Chief communicates with Transmission, Substations, and Distribution regarding the need for helicopters and the number needed by each group. Establish landing sites, number of passengers flying, and estimated duration (number of days/hours). Activated when wind is on our shore. **Resource Acquisition participates in RMAG Conference Call #3** Resource Acquisition updates the Resource Request from previous conference calls. They also determine assigned resources and request additional resources outside of S.E.E. if needed.

Phase	Description
	Update the employee storm hotline PIO updates information and instructions on the employee storm hotline. Resource Acquisition continues to maintain contact with responding resources and keep them updated as they travel to our territory. **Operations sets up staging sites** The Staging Site Managers within Operations report on the progress of staging site setup to the Operations Section Chief. Operations Section Chief will provide updates to other Section Chiefs as needed. **Security director activates security and traffic control** The director of Security, in the Logistics sections, works with local authorities to provide access for CEHE personnel conducting restoration activities to storm-damaged areas. The director also provides security and traffic control for service centers and staging sites. EOC conducts briefing call This is the first scheduled briefing update after landfall. The call may cover updated versions of the topics mentioned previously and should include goal and objective setting and issues. **Logistics** Based on the latest resource count, the Hotel Coordinator will begin contacting hotels and reserving rooms for incoming mutual assistance and contract crews. These activities will continue through the duration of the incident.

Operations Centers

CNP will use the Emergency Operations Center (EOC) and Department Operations Centers (DOCs) to coordinate the response and operations for a hurricane. See *Section 3.4* for more information.

Incident Command Structure

Based on the emergency level for the hurricane response, CEHE will use the incident command structures outlined in this EOP and the CNP Crisis Response Plan.

The EOC and DOCs will follow the activation processes established in the EOP.

Distribution Department Operations Center

The Director of Distribution Operations will be responsible for establishing a Distribution Department Operations Center (DOC) in the Greenspoint Service Center, 2nd Floor. The Operations Branch Director will staff and assign personnel as appropriate to the Distribution DOC to ensure:

- Accurate and comprehensive assessment and evaluation of system conditions
- Initiation of corrective measures
- Effective organization of restoration activities
- Efficient prioritization of all resources
- Written summaries regarding available information will be prepared and provided to the Incident Commander, command staff, and EOC in accordance with the ICS Planning Process.

To facilitate tracking system status and restoration progress, information will be maintained on a master system map in the Distribution Department Operations Center (DOC). Personnel to maintain this map will be provided according to the staffing list. Contingent on availability of the supporting systems, Situational Awareness will be used to track restoration progress and prioritization of restoration.

Official reports shall be available by approximately 9:00 am daily. This schedule allows for releasing the most accurate information. The status of restoration assessment and progress shall be communicated to the EOC via the scheduled periodic briefing calls. Staffing requirements will be based on 16-hour shifts with adjustments as deemed necessary by the Incident Commander. Access to the DOCs shall be limited to assigned duty employees, interface personnel, and appropriate Company officers.

Underground Department Operations Center

The Major Underground Director, or their designee, will be responsible for establishing a Department Operations Center (DOC) at the Harrisburg Service Center. The Major Underground Manager will staff and assign personnel as appropriate to the Harrisburg Service Center in order to assure accurate and comprehensive assessment and evaluation of system conditions, initiation of corrective measures, effective organization of restoration activities, and efficient prioritization of all resources. The Major Underground Department Operations Center (DOC) reports up through Operations Section Chief.

Transmission and Substation Department Operations Center

The Transmission / Substation Branch Director, or their designee, will be responsible for establishing the Transmission and Substation Department Operations Center (DOC) at EC/DC. Personnel will be assigned as necessary to ensure:

- Accurate and comprehensive assessment and evaluation of system conditions
- Initiation of corrective measures
- Effective organization of restoration activities
- Efficient prioritization of all resources

Status of restoration assessment and progress shall be communicated to Operations Section Chief per the update schedule as determined by the Incident Commander. Staffing

requirements will be based on 16-hour shifts as deemed appropriate by the Incident Commander and with adjustments as conditions warrant. Access to these evaluation centers shall be limited to assigned duty employees, interface personnel, and appropriate Company officers and staff.

Summary of Operations

Evacuation and Re-Entry Procedures for Facilities Located in Hurricane Evacuation Zones

While Brazoria, Fort Bend, Galveston, South Houston, Baytown, Harrisburg and Baytown are the facilities in Hurricane Evacuation Zones, our plan is to have all facilities with evacuation and re-entry procedures to follow.

Evacuation Procedures

Galveston:

- Evacuate all equipment – partner with logistics on best place to relocate
- Evacuate all fleet
- Evacuate all storm-rider personnel

South Houston, Baytown, Brazoria:

- Evacuate all fleet
- Evacuate all storm-rider personnel

Bellaire, Fort Bend, Sugar Land, Spring Branch, Harrisburg, Humble, Greenspoint, Cypress, Katy:

- Evacuate all storm-rider personnel
- ** Maintain very minimum staffing – possibly perform emergency switching immediately following storm. Will likely require union volunteers or management with previous line skill experience.
- Equipment remaining in yards should be secured.
- Consider relocating transformers and critical equipment inside of warehouse or on elevated dock area.
- Consider installation of anchors installed adjacent to pole racks to enable poles to be strapped down. Initial recommendation would be Galveston, Brazoria, Baytown, and South Houston.
- Fleet could be relocated to staging site locations, i.e. Pasadena Fairgrounds, Fort Bend Fairgrounds, Sam Houston Horse Track, etc.
- Remind employees that storm-riders will be relocated to evacuation sites. Due to space limitations, storm-riders should make prior arrangements for family members and have plans to safely evacuate their family members elsewhere.
- Discussing ability to utilize neighboring utilities staging sites as evacuation site for storm-rider employees and limited fleet.
- Look into mobilization of sleeping trailers for storm-riders.
- Catering can be arranged for these staging site/evacuation sites.
- Should utilize buses, if possible, to transport storm-riders to evacuation sites.

- Focus should be on employee evacuation and safety.
- Very small contingency of employees should remain, and focus should be on avoiding a system-wide blackout.
- May want to consider a handful of line skills to remain for emergency switching, immediately following the event. Would likely have to consider union volunteers or possibly management with line skill experience.
- Send out EOP preparation checklist to Dist. Ops. Leadership

Re-Entry Procedures

All Locations:

In the State of Texas, municipal and county chief elected officials (mayors and county judges) are responsible for deciding the specifics of the reentry process. As a result, reentry processes may differ among counties or municipalities. Because of this, the state reentry strategy is designed to operate in tandem with varied local response and recovery efforts and to support associated requirements.

Each local jurisdiction has the authority to determine who receives credentials and how that process occurs. The purpose of credentialing is to ensure and validate the identity and attributes of an individual. An effective credentialing solution enables a local incident commander to request, receive and use personnel from outside their jurisdiction.

Credentialing should take place before an incident occurs. Some incidents, however, may require the activation of a just-in-time process for validating, issuing, and tracking credentials.

The US Department of Homeland Security (DHS) has developed a National Incident Management System (NIMS) Guideline for the Credentialing of Personnel. The processes laid out by DHS are voluntary and do not override the authority of local officials or states to manage response operations.

Once Incident Command has determined it is safe for CEHE personnel to return for assessment, crews will follow re-entry procedures determined by local and state officials.

- Communicate to all internal and external workforce the importance of safe work practices.
    - Be aware of high-water areas and monitor current weather conditions. Be prepared for severe weather.
- All centers continually assess and monitor high water areas for mobility and restoration purposes.
- Review operational status of all service centers and facilities.
- All centers with possible accessibility issues develop mobility plans.
- Continue to evaluate possible resource requirements.
- Develop and execute an external communications plan. (Public Affairs, Regulatory, Government Affairs)
- Review any outstanding fleet resource needs.

Review individual service center plans to restore service to facilities vital to public safety, health, and welfare.

Annex F

Cyber Security

Cyber Security

Purpose

Cyber incidents are not unlike operational incidents. When a user or operation identifies or believes a cyber incident is occurring or has occurred, their first responsibility is to contact CNP Cyber Security to initiate actions, procedures, and/or practices to stabilize any impact to business or operational systems which may jeopardize employee or public safety, result in consequences to employee or customer information, or interrupt of business continuity. It is incumbent upon the user to contact Cyber Security to initiate the procedures outlined in the Cyber Incident Response Plan (CIRP) immediately upon the initial incident detection.

Cyber security programs at CNP are enforced through Information Technology (IT) Security policies and procedures that identify:

- Authorized and unauthorized actions within CNP on technology systems.
- Assigned organizational responsibilities.
- Acceptable levels of risk.

When CNP's IT Security policies and procedures are violated, a cyber incident may occur. To detect, respond, and manage violations, incident response policies and procedures should be used to minimize risk and facilitate recovery from a violation.

The purpose of CNP's CIRP is to provide a structured, systematic incident response process for all company information technology systems, including third party services and/or systems to: identify, escalate, and respond to Information Security incidents. The CIRP is intended to:

- Assist CNP and third-party personnel to recover from different levels of Information Security Incidents quickly and efficiently.
- Define the business, IT, and/or control systems incident process and step-by-step guidelines creating a consistent, repeatable incident response process.
- Mitigate and/or minimize the loss or theft of information or disruption of critical infrastructure.
- Provide consistent documentation of activities related to actions taken during incidents.
- Synthesize knowledge and experience into preventative security measures.
- Reduce overall exposure for CNP.
- Decrease the total time to reach incident resolution by initiating an effective and efficient response to Information Security Incidents.

Provide for business understanding and participation in the IT incident response and incident management processes in order to establish a more effective strategy and response to future Information Security Incidents.

Scope

The standards and guidelines contained in this document define CNP's CIRP that applies to:

- The fundamental information actions and tasks needed for IT personnel to provide incident response services to CNP's control system and/or related IT systems.
- All CNP business groups, divisions and subsidiaries and their employees, contractors, vendors and business partners.

- All computer systems, computing devices, control systems, and networks connected to the CNP network.
- Incident notifications that are automated (i.e., – system notification) or manual (i.e., – employee notification, external party notification).

Decision Making

CEHE Operations will use the decision making and activation processes established in the Crisis Response Plan for emergencies involving cyber security. See the Crisis Response Plan for more information.

Concept of Operations

To efficiently and effectively respond to an Information Security Incident, the groups responsible for investigating, containing, remediating and returning the systems back to normal are outlined in the CIRP with their roles and responsibilities during an Information Security Incident.

Unavailability of critical personnel can arise at any time, because Paid Time Off ("PTO"), illness, accidents and unforeseen events are inevitable. To avoid a single point of failure, backup arrangements for personnel should be made in advance. Members of the CIRT should not be allowed to have the same day off. The lack of critical personnel may arise during the time just before and after business hours. During that time most of the critical team members may be commuting to or from home. They may be reachable but may have a difficult time performing specific actions. This can be avoided by having team members "stagger" their business hours.

For these reasons, each Business Unit must prepare and maintain a list of primary and secondary contacts and provide it to the Corporate Cyber Security Department on a regular basis.

The CenterPoint Energy Incident Response Framework consists of the five (5) steps to handle Information Security Incidents in a consistent manner: Detect, Notify, Analyze, Recover, and Follow-Up.

Should the cyber security emergency impact operation technology (OT), CEHE Operations will activate all or portions of this CIRP to support continuance of operations during the emergency.

Annex G

Physical Security

Physical Security

Purpose

This annex addresses company facilities and assets including office buildings, service centers, vehicles, equipment, materials, and supplies, as well as company employees and contractors on company property or while performing work on behalf of CEHE.

For CEHE facilities or assets subject to federal security requirements such as North American Electric Reliability Corporation (NERC), Transportation Security Administration (TSA) Pipeline Security Guidelines, Department of Homeland Security (DHS) 6 CFR 27 Chemical Facility Anti-Terrorism Standards (CFATS) or 49 CFR 193 LNG, the applicable federal rules / requirements are primary, and the CNP security guidelines and requirements are supplementary.

This document is considered supplementary and secondary to the CNP Physical Security Policy and Corporate Security Emergency Plan.

Scope

The security branch is responsible for all security and law enforcement related services during an emergency event. The organization is made up of a combination of CNP employees and select contractors.

Corporate Security is responsible for:

- Maintaining a safe and secure work environment for all personnel and vehicles involved in recovery of an emergency.
- Securing assets during incident coordination and deployment of contract security officers and off- duty police officers
- Acting as a liaison with law enforcement or other governmental agencies
- Coordinating police escorts of crews and materials
- Prompt handling of all incidents of a security nature
- Traffic control for AM and PM crew truck movements at staging sites
- Coordination of toll road procedures with local toll road authorities
- On-going maintenance, monitoring, and responses to electronic security systems

Personnel should refer to the STORM hotline for updates and reporting duties during an emergency event.

Concept of Operations

Physical Security Policy

Corporate Security has published a Physical Security Policy which is a controlling and overarching policy above this manual. This manual is secondary and supplementary to the Physical Security Policy available in the Policies section of CNP Today.

Security Operations Center (SOC)

The Security Operations Center (SOC) is a 24/7 operation center, which provides dispatch and security support to all CNP properties, employees, contractors, and other stakeholders. As the primary point of contact for security issues and incidents that occur at CNP properties, SOC Operators play a key role in both operational security and facility safety. Using various technical

security systems and monitoring software, the SOC is responsible for the detection, triage, and alerting of routine and critical security incidents. The SOC assists with the escalation and incident management of critical security incidents.

Security Incident Reporting

The immediate reporting of security incidents to the Corporate Security Department is required and is very important to help ensure a prompt Company response and the implementation of effective mitigation solutions.

WHAT TO REPORT

- Crimes - thefts, threats, assaults, etc.
- Security related incidents - fires, cut fences, trespassers, card reader doors propped open, improper security procedures being followed, etc.
- Suspicious and unusual incidents - persons photographing Company facilities, unknown packages left unattended, aircraft low fly-overs of critical facilities, unusual calls to obtain Company information, etc.

COST OF LOSS

Business units should report an estimated cost of loss when the incident is originally reported. The actual cost of loss will be reported after all costs of loss and repair have been completed and calculated.

Cost of loss is defined as the total cost to replace the loss of an asset. As an example, cost of loss for the theft of equipment would include the replacement cost, plus the estimated cost of labor involved in obtaining the replacement equipment. In the event of a copper theft the cost of loss would be the cost of replacement material, employee labor, and any contractor costs. Cost of loss can be a determining factor in deciding the appropriate security mitigation actions.

HOW TO REPORT

In case of a fire or life-threatening emergency, immediately call 911, and then notify your supervisor and Corporate Security.

CORPORATE SECURITY RESPONSE TO INCIDENTS

Corporate Security will notify local law enforcement agencies for response to all suspected or actual criminal incidents. As appropriate, Corporate Security will notify state or federal security or law enforcement agencies (FBI, DHS, State Police, etc.)

Protection of People and Assets

Suspicious Persons and Activities

- All employees should be aware of their work surroundings and report any and all suspicious persons or activities they observe.
- Suspicious persons or activities could include:
    - Unknown persons or vehicles in the work area.
    - Transients.
    - An employee in an area they do not belong.
    - Persons loitering near company property or work areas.