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September 6, 2024

John B. Lajzer
Division Director
Division of Compliance and Enforcement
Public Utility Commission of Texas
P.O. Box 13326
Austin, Texas 78711-3326

Re: Project No. 56822, *Investigation of Emergency Preparedness and Response by Utilities in Houston and Surrounding Communities*

Dear Mr. Lajzer:

CenterPoint Energy Houston Electric, LLC (CenterPoint Houston) hereby files the attached roadmap to its responses filed on August 30, 2024, to the requests for information (RFIs) issued by the Staff of the Public Utility Commission of Texas (Commission) in this project. The roadmap includes corresponding references to specific RFIs, the Bates Numbers for CenterPoint Houston's responses and reference documents, if any, and the CenterPoint Houston individual sponsoring the response. Please note that while the roadmap is intended as a resource to facilitate Staff's review of CenterPoint Houston's RFI responses, the RFI responses filed on August 30, 2024, constitute CenterPoint Houston's official responses and control in the event of any inadvertent differences between the RFI responses and this roadmap.

Please do not hesitate to contact me if you have any questions.

Sincerely,

/s/ Patrick Peters _____
Patrick Peters

Category	RFI	Summary of Response	Reference Document(s)	Sponsor(s)
Emergency Planning and Event Response	1-1, 1-2, 1-3 1-4	<p><u>Annual Hurricane Drill</u> (Bates Nos. 3-4, 79, 80)</p> <p>CenterPoint Energy conducted its annual hurricane drill on April 23rd. The simulated drill conditions were:</p> <ul style="list-style-type: none"> ▪ Category 3 hurricane, maximum sustained winds at 125 mph, gusting winds at 150 mph <ul style="list-style-type: none"> ▪ Hurricane Gilbert (1988) used to set hurricane conditions ▪ 2.1 million outages due to downed power lines, damage to substation transformers, and damaged transmission structures <ul style="list-style-type: none"> ▪ Hurricane Ike (2008) used to set outages and overall impact conditions <p>Stakeholder input/involvement in prior hurricane drills:</p> <ul style="list-style-type: none"> ▪ Municipal officials have been invited to prior hurricane drills and have received briefings on the storm restoration process ▪ PUC personnel have been invited to observe previous hurricane drills 	2024 Hurricane Tabletop Exercise Slide Deck (Bates Nos. 5-78); 2024 Hurricane Felice Simulation Slide Deck (Bates Nos. 81-182)	Chasta Martin, Vice President, Field Services
	1-5	<p><u>Weather Monitoring</u> (Bates No. 184)</p> <p>CenterPoint Energy uses the following resources to monitor weather and track storms:</p> <ul style="list-style-type: none"> ▪ National Weather Service ▪ National Hurricane Center ▪ StormGeo: Provides daily weather forecasts and 24/7 meteorological support ▪ Harris County Office of Homeland Security and Emergency Management Tropical Awareness Update reports ▪ Texas Division of Emergency Management State Operations Center 		Chasta Martin, Vice President, Field Services

	1-7	<p><u>Tracking of Hurricane Beryl</u> (Bates No. 186)</p> <p>CenterPoint Energy began tracking the tropical disturbance that eventually became Hurricane Beryl on June 25, 2014. On June 30th, CenterPoint Energy initiated its Weather Monitoring Report to apprise internal leadership of the tropical disturbance and its forecasted track.</p>	<p>StormGeo Atlantic Daily Briefing Issued on June 25, 2024 (Bates Nos. 189-191); EP&R Monitoring Notification sent on June 30, 2024 (Bates Nos. 187-188); May 2024 Derecho and Hurricane Beryl Timeline submitted as part of response to RF1 1-15 (Bates Nos. 380-389)</p>	<p>Chasta Martin, Vice President, Field Services</p>
	1-12, 1-13	<p><u>Emergency Response Processes</u> (Bates Nos. 376-377)</p> <p>CenterPoint Energy’s Emergency Operations Plan details the processes used to categorize emergency events. CenterPoint Energy uses an operating condition system, as detailed in its Emergency Operations Plan, which details the following levels:</p> <ul style="list-style-type: none"> ▪ Level 1: Crisis Conditions ▪ Level 2: Severe Emergency Conditions ▪ Level 3: Elevated Incident Conditions ▪ Level 4: Routine Operations Incident <p>CenterPoint Energy’s distribution operations also uses an operating condition system (Trouble Levels 1-8) that classifies the impact a storm has or may have on the distribution system.</p>	<p>Emergency Operations Plan (Bates Nos. 293, 295)</p>	<p>Chasta Martin, Vice President, Field Services</p>
	1-15	<p><u>Advance Preparation for Hurricane Beryl</u> (Bates No. 379) July 2nd</p> <ul style="list-style-type: none"> ▪ Employees notified about monitoring of Beryl developments and then path towards northeast Mexico ▪ Preparation call with line skills resource aggregator 	<p>May 2024 Derecho and Hurricane Beryl Timeline (Bates Nos. 380-389)</p>	<p>Chasta Martin, Vice President, Field Services</p>

July 3rd

- Employees notified about monitoring of Beryl developments and then path towards northeast Mexico
- Preparation calls with line skills resource aggregators

July 4th

- Employees notified about monitoring of Beryl developments and then predicted landfall 60 miles south of Brownsville, Texas

July 5th

- Preparation calls with line skills resource aggregators and vegetation management resource aggregators
- Staging site managers and external turnkey providers notified about possible activation
- Temporary generation vendor notified about potential deployment of temporary generation units

July 6th

- Operational, planning, and weather calls throughout the day
- Activation and notification of resources to report by 6:00 a.m., Monday, July 8th
 - Internal: 1,131 line skills
 - Native contractors: 740 line skills, 501 vegetation management
- Mutual assistance request: 2,787 line skills
- Preparation calls with line skills resource aggregators and vegetation management resource aggregators
- Staging sites and warehouse teams notified

July 7th

- Emergency Level 2 activated
- Operational, planning, and weather calls throughout the day
- Internal damage assessment teams activated and notified

		<p>to report to staging sites by 6:00 a.m., Monday, July 8th</p> <ul style="list-style-type: none"> ▪ Coordination with the Texas Mutual Assistance Group and the Southeastern Electrical Exchange to secure additional resources <ul style="list-style-type: none"> ▪ 2,502 line skills requested ▪ 594 vegetation management requested ▪ 400 damage assessment requested ▪ 4 staging sites to be activated on Monday, July 8th 		
	1-9, 1-15, 1-111	<p><u>Mutual Assistance Requests</u> (Bates Nos. 193, 379, 1390-1391)</p> <p>Beginning on July 2nd, CenterPoint Energy contacted two mutual assistance organizations, the Texas Mutual Assistance Group and the Southeastern Electric Exchange, and multiple aggregators for line skill resources and vegetation management resources. Between July 6th-14th, CenterPoint Energy requested 9,388 line skills resources, 2,837 vegetation management resources, and 1,000 damage assessment resources from external contractors. Over 94% of these resources were requested by July 8th, the day that Hurricane Beryl made landfall.</p>	May 2024 Derecho and Hurricane Beryl Timeline (Bates Nos. 380-389)	Deryl Tumlinson, Vice President, Distribution Operations and Service Delivery
Communication and Coordination	1-57, 1-59	<p><u>New Outage Tracker</u> (Bates Nos. 1085, 1087-1088)</p> <p>CenterPoint Energy saw performance issues with the original Outage Tracker on May 16th at approximately 7 p.m. CenterPoint Energy's new outage tracker was released on August 1st, with the following functionality:</p> <ul style="list-style-type: none"> ▪ Available at least 99.99% of the time ▪ Able to accommodate 100,000 concurrent users ▪ Captures all levels of outage events: circuit, fuse, transformer, localized <p>CenterPoint Energy load-tested its new outage tracker up to 30,000 concurrent users and approximately 2.2 million impacted customers</p>		Kate Porter, Vice President, Enterprise Operational Excellence; Stephenie Howard, Vice President, Customer Strategy and Platform Development

		<ul style="list-style-type: none"> ▪ No degradation in performance ▪ Autoscaling capability was successful 		
	1-29, 1-47	<p><u>Communication Strategy</u> (Bates Nos. 982-983, 1074-1075)</p> <p>In preparation for the 2024 Hurricane Season, CenterPoint Energy conducts meetings with critical facilities to share information about emergency preparedness. In 2024, CenterPoint Energy conducted 12 meetings at the following locations that covered our Emergency Operations Plan, advance preparation and coordination of internal resources, and our communications plan:</p> <ul style="list-style-type: none"> ▪ May 30th: Katy Service Center ▪ June 4th: Galveston Service Center Auditorium, Cypress Service Center ▪ June 5th: Baldree Community Center ▪ June 6th: Pasadena Convention Center, Fort Bend Service Center, Harris County Annex, Humble Service Center ▪ June 7th: Brazoria Service Center ▪ June 11th: Sugar Land Service Center ▪ June 13th: Bellaire Service Center ▪ June 26th: Spring Branch Service Center <p>Additionally, CenterPoint Energy had 2 briefings to inform state stakeholders about hurricane preparation and coordination efforts:</p> <ul style="list-style-type: none"> ▪ April 5th: Texas Division of Emergency Management staff, Public Utility Commission of Texas staff, Local Emergency Management staff ▪ May 22nd: Legislators and Legislative staff (as part of Association of Electric Companies of Texas' briefing) <p>CenterPoint Energy utilizes news releases, media responses, on-camera interviews, social media, e-mail, Power Alert Service, and CenterPoint Energy's website to communicate prior to, during, and after a storm event.</p>	July 6th News Release (Bates Nos. 988-989)	John Sousa, Vice President, Corporate Communications, Marketing, and Security; Rina Harris, Vice President, Strategic Business Growth and Engagement

		<p>CenterPoint Energy issued its first Hurricane Beryl-related communication on Saturday, July 6th. The following summarizes communications prior to, during, and after Hurricane Beryl:</p> <ul style="list-style-type: none"> ▪ 55 media interviews; responses to 390 media inquiries ▪ 20 daily news release updates ▪ 4 e-mails to customers: approximately 1.35 million customers reached ▪ Social media <ul style="list-style-type: none"> ▪ 376 posts on X: approximately 14.3 million impressions ▪ 170 posts on Facebook: approximately 14.5 million people reached ▪ 185 posts on Instagram: more than 972,000 people reached ▪ 118 posts on LinkedIn: more than 729,000 impressions 		
7	1-35	<p><u>Communication with Local and State Officials</u> (Bates Nos. 1052-1053)</p> <p>CenterPoint Energy has employees that act as liaisons with local and state offices of emergency management. CenterPoint Energy’s liaisons participate in pre-storm, post-storm, and restoration calls and coordinate in the daily flow of communication and restoration updates.</p> <p>During Hurricane Beryl restoration efforts, CenterPoint Energy’s liaisons were embedded at the following offices of emergency management:</p> <ul style="list-style-type: none"> ▪ Texas Division of Emergency Management <ul style="list-style-type: none"> ▪ State Operations Center ▪ Disaster District Emergency Operating Center 16 (Houston District) ▪ City of Houston ▪ Harris County ▪ Brazoria County ▪ Fort Bend County 		<p>John Sousa, Vice President, Corporate Communications, Marketing, and Security; Stephen Bezecky, Vice President, Regulatory Services, Natural Gas Rates and Regulatory Portfolio Management Organization</p>

	<ul style="list-style-type: none"> ▪ Galveston County ▪ Montgomery County <p>CenterPoint Energy also had liaisons that provided virtual support to offices of emergency management of Chambers County and Waller County.</p> <p>Beginning on July 8th, the day that Hurricane Beryl made landfall, CenterPoint Energy sent two text messages per day to:</p> <ul style="list-style-type: none"> ▪ Governor Greg Abbott ▪ Lieutenant Governor Dan Patrick ▪ Senator Charles Schwertner, Chair of the Senate Business and Commerce Committee ▪ Senator Phil King, Vice Chair of the Senate Business and Commerce Committee ▪ Representative Todd Hunter, Chair of the House State Affairs Committee ▪ Representative Ana Hernandez Vice Chair of the House State Affairs Committee ▪ Members of the Texas Legislative Delegation of Houston and surrounding areas <p>The text messages sent by CenterPoint Energy provided restoration information such as the number of customers restored, the number of crews assisting, and the number of staging sites. Additionally, beginning on July 10th, CenterPoint Energy held daily telephone briefings for elected state and local officials.</p> <p>CenterPoint Energy also provided information, once in the morning and once in the evening, to the Commissioners of the Public Utility Commission of Texas and agency leadership. Information was also shared with the Office of Public Utility Counsel and Texas Division of Emergency Management personnel that were at the State Operations Center.</p>		
	1-33, <u>Call Center Staffing and Volume</u>	Electric Outage Training	Shonda Royston-

	1-34	<p>(Bates Nos. 1047, 1050-1051)</p> <p>Staffing:</p> <ul style="list-style-type: none"> ▪ 379 call center agents; 73% internal, 27% contractors ▪ Goal: Address customer's issue within 250 seconds from when the call was answered ▪ Hurricane Beryl: Call center was augmented to 441 call center agents <p>Call center agents receive training related to major outages and major weather events.</p> <p>From July 8th-19th, CenterPoint Energy's call center had a daily average of 184,680 calls, with peak calls of 426,456 occurring on July 9th, the day after Hurricane Beryl made landfall.</p>	Document (Bates Nos. 1048-1049)	Johnson, Vice President, Customer Experience				
Customer Restoration Workflow	1-64, 1-65	<p><u>Restoration Process</u> (Bates Nos. 1100, 1180)</p> <p>The prioritization of restoration efforts following a hurricane or a major storm are described in CenterPoint Energy's Emergency Operations Plan and Emergency Restoration Plan. CenterPoint Energy's restoration process seeks to restore power to the highest number of customers and to restore critical facilities such as hospitals, fire stations, police stations, water treatment facilities, senior/assisted living, warming/cooling centers, grocery stores etc. The restoration process generally utilizes the following sequence: (1) circuit/section level restoration, (2) fuse level restoration, (3) transformer level restoration, and (4) localized outage restoration.</p>	CenterPoint Energy Emergency Operations Plan (Bates Nos. 297-298); CenterPoint Energy Storm Restoration Plan (Bates Nos. 1105)	Deryl Tumlinson, Vice President, Distribution Operations and Service Delivery				
	1-68	<p><u>Customer Outage Percentage by County</u> (Bates No. 1202)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Austin</td> <td style="width: 50%;">Harris</td> </tr> <tr> <td>▪ July 8th: 19.4%</td> <td>▪ July 8th: 58.16%</td> </tr> </table>	Austin	Harris	▪ July 8th: 19.4%	▪ July 8th: 58.16%	Daily Customer Outage Percentage by County Spreadsheet (Bates Nos. 1203-1205)	Eric Easton, Vice President, Grid Transformation and Investment Strategy
Austin	Harris							
▪ July 8th: 19.4%	▪ July 8th: 58.16%							

		<ul style="list-style-type: none"> ▪ July 13th: 0.14% ▪ July 18th: 0.00% <p>Brazoria</p> <ul style="list-style-type: none"> ▪ July 8th: 73.4% ▪ July 13th: 10.6% ▪ July 18th: 0.03% <p>Chambers</p> <ul style="list-style-type: none"> ▪ July 8th: 31.64% ▪ July 13th: 6.06% ▪ July 18th: 0.04% <p>Colorado</p> <ul style="list-style-type: none"> ▪ July 8th: 16.51% ▪ July 13th: 0.00% ▪ July 18th: 0.23% <p>Fort Bend</p> <ul style="list-style-type: none"> ▪ July 8th: 63.35% ▪ July 13th: 4.71% ▪ July 18th: 0.03% <p>Galveston</p> <ul style="list-style-type: none"> ▪ July 8th: 62.32% ▪ July 13th: 6% ▪ July 18th: 0.03% <ul style="list-style-type: none"> ▪ July 13th: 15.33% ▪ July 18th: 0.16% <p>Liberty</p> <ul style="list-style-type: none"> ▪ July 8th: 90.57% ▪ July 13th: 14.15% ▪ July 18th: 0.1% <p>Matagorda</p> <ul style="list-style-type: none"> ▪ July 8th: 36.97% ▪ July 13th: 31.34% ▪ July 18th: 0.00% <p>Montgomery</p> <ul style="list-style-type: none"> ▪ July 8th: 68.71% ▪ July 13th: 17.47% ▪ July 18th: 0.01% <p>Waller</p> <ul style="list-style-type: none"> ▪ July 8th: 16.03% ▪ July 13th: 2.74% ▪ July 18th: 0.02% <p>Wharton</p> <ul style="list-style-type: none"> ▪ July 8th: 43.59% ▪ July 13th: 4.56% ▪ July 18th: 0.99% 		
	1-69	<p><u>Call Center Service Requests and Process</u> (Bates No. 1206)</p> <p>General process:</p> <ul style="list-style-type: none"> ▪ Call center agent creates a service order ▪ Service order dispatched to operations and assigned to a technician ▪ Technician is dispatched to field to work on service order as schedule permits 		Shonda Royston-Johnson, Vice President, Customer Experience

		<p>Process for hazardous conditions:</p> <ul style="list-style-type: none"> ▪ Call center agent issues service order ▪ “Hot Seat” agent is notified; agent verifies the service order has been created and updated ▪ Crews notified of the potentially hazardous condition, indicating need to perform a prioritized response ▪ If crews determine a hazardous condition exists, completion of the service order will be prioritized <p>Process for critical care customers:</p> <ul style="list-style-type: none"> ▪ Call center agent issues service order ▪ “Hot Seat” agent is notified; agent verifies the service order has been created and updated 		
Distribution Infrastructure	1-75	<p><u>Pole Inspection and Replacement/Reinforcement</u> (Bates Nos. 1212-1213)</p> <p>CenterPoint Energy has over 1 million distribution poles on its distribution system. Distribution poles are inspected on a 10-year cycle, with approximately 10% of distribution poles being inspected annually.</p> <p>Inspection process:</p> <ul style="list-style-type: none"> ▪ Use historic data to identify poles to be inspected in the upcoming year <ul style="list-style-type: none"> ▪ e.g. Data from 2015 is being used to identify poles to be inspected in 2025 ▪ 18-step process that includes a visual inspection, manual excavation to assess decay, and boring/sounding to locate internal voids ▪ Supporting guy wires, strains, and anchors are also inspected <p>Reinforcement and replacement considerations:</p> <ul style="list-style-type: none"> ▪ For poles that have remaining pole strength below NESC standard of 67%, a steel truss will be used to reinforce if: <ul style="list-style-type: none"> ▪ Remaining strength is not at or below 13% ▪ Steel truss can restore remaining pole strength to 75% 	NESC Table 261-1: Strength factors for structures, crossarms, braces, support hardware, guys, foundations, and anchors (Bates No. 1214)	Randal Pryor, Vice President Major Underground and Distribution Modernization, Incident Commander for Hurricane Beryl

		<ul style="list-style-type: none"> ▪ Pole meets current loading standards ▪ Poles that do not meet criteria for reinforcement will be replaced 		
	1-81, 1-82	<p><u>Wind Loading Standard for Distribution Poles</u> (Bates Nos. 1263-1264)</p> <p>CenterPoint Energy’s current wind loading standard for distribution poles was adopted in 2022:</p> <ul style="list-style-type: none"> ▪ NESC 250C for extreme wind <ul style="list-style-type: none"> ▪ 110 mph or 132 mph, depending on proximity to Gulf Coast ▪ NESC 250D for ice <ul style="list-style-type: none"> ▪ 30 mph with 1/2-inch ice <p>CenterPoint Energy designs distribution poles to meet NESC standards that were in affect at the time of design.</p>		Mandie Shook, Vice President, Electric Engineering
	1-76	<p><u>Right-of-Way Widths</u> (Bates No. 1215)</p> <p>Current standards for three-phase and single-phase overhead distribution lines:</p> <ul style="list-style-type: none"> ▪ CenterPoint Energy only: 10 feet ▪ Shared with dry utilities (e.g. gas, telecom): 14 feet ▪ Shared with dry utilities and a wet utility (e.g. water): 16 feet <p>CenterPoint Energy’s historic agreements that pre-date current standards may provide smaller rights-of-way.</p> <p>Typically, CenterPoint Energy also has an aerial easement of 30 feet that begins 15-20 feet above ground.</p>	Distribution Standards 05-885, 05-890, 05-900 05-925, 05-930, and 05-940 (Bates Nos. 1216-1221)	Randal Pryor, Vice President Major Underground and Distribution Modernization, Incident Commander for Hurricane Beryl; Eric Easton, Vice President, Grid Transformation and Investment Strategy
	1-84	<p><u>Distribution Pole Counts</u> (Bates No. 1276)</p> <p>Total distribution poles as of May 2024: 1,165,862</p> <ul style="list-style-type: none"> ▪ Wood: 1,000,229 		Eric Easton, Vice President, Grid Transformation and Investment Strategy

		<ul style="list-style-type: none"> ▪ Fiberglass: 12,526 ▪ Steel: 6,042 ▪ Steel tower: 79 ▪ Concrete: 2,338 ▪ Ductile iron: 1,013 ▪ Foreign wood: 142,709 ▪ Foreign fiberglass: 9 ▪ Foreign steel: 698 ▪ Foreign concrete: 219 		
	1-83, 1-85, 1-86	<p><u>Outages and Pole Replacements During Beryl</u> (Bates Nos. 1265-1266, 1300)</p> <p>Approximately 200 of CenterPoint Energy’s approximate 1,800 distribution circuits did not experience a sustained outage during Hurricane Beryl.</p> <p>CenterPoint Energy replaced approximately 3,025 distribution poles during Hurricane Beryl restoration.</p>	Sustained Outage Spreadsheet (Bates Nos. 1267-1275); Pole Replacement Spreadsheet (Bates No. 1284)	Deryl Tumlinson, Vice President, Distribution Operations and Service Delivery
Transmission Infrastructure	1-92, 1-93	<p><u>Design, Inspection, and Structure Failures</u> (Bates No. 1349, 1351)</p> <p>CenterPoint Energy designs its transmission circuits to the latest applicable NESC standards for wind and ice loading, which are updated every five years. Transmission circuits are inspected on a five-year cycle.</p> <p>During Hurricane Beryl, 20 structures failed, 16 of which caused an outage. The last inspection dates for the 20 structures that failed were:</p> <ul style="list-style-type: none"> ▪ April 16, 2024: 1 structure ▪ February 22, 2024: 14 structures ▪ November 15, 2023: 1 structure ▪ February 15, 2023: 1 structure ▪ April 26, 2022: 1 structure ▪ March 9, 2021: 1 structure ▪ January 18, 2021: 1 structure 	Transmission Structure Failure List (Bates No. 1350); Transmission Structure Inspection List (Bates Nos. 1352-1353)	David Mercado, Vice President, High Voltage and System Operations

Vegetation Management	1-95	<u>Distribution Circuit Clearances</u> (Bates Nos. 1367-1368) 35 kV: ▪ Lateral: 10 feet ▪ Below: 15 feet 12 kV: ▪ Lateral: 7 feet ▪ Below: 15 feet		Randal Pryor, Vice President Major Underground and Distribution Modernization, Incident Commander for Hurricane Beryl
	1-94	<u>Staffing Levels</u> (Bates Nos. 1365-1366) CenterPoint Energy internal staff: ▪ 1 manager ▪ 2 supervisors ▪ 6 distribution foresters ▪ 2 transmission foresters ▪ 1 business analyst Contractor staff: ▪ 8 foresters ▪ 608 personnel		Randal Pryor, Vice President Major Underground and Distribution Modernization, Incident Commander for Hurricane Beryl
	1-103	<u>Vegetation Management Plan</u> (Bates No. 1380) Beginning in January 2020, CenterPoint Energy used an analytics model to prioritize vegetation management on circuits based on several factors, including last trim date, vegetation caused outages, potential impact on critical loads, and overall customer count impacted.		Randal Pryor, Vice President Major Underground and Distribution Modernization, Incident Commander for Hurricane Beryl
	1-99	<u>Vegetation-Related Outages During Hurricane Beryl</u> (Bates No. 1372) Distribution: 2,643 vegetation-related sustained outages	Distribution Outage Spreadsheet; Transmission Outage Spreadsheet	Randal Pryor, Vice President Major Underground and

		greater than 1 minute Transmission: 17 vegetation-related outages		Distribution Modernization, Incident Commander for Hurricane Beryl
Staffing and Mutual Assistance	1-107	<u>Membership</u> (Bates No. 1384) CenterPoint Energy is a member of the following mutual assistance groups: <ul style="list-style-type: none"> ▪ Texas Mutual Assistance Group ▪ Southeastern Electric Exchange ▪ Midwest Mutual Assistance Group 		Deryl Tumlinson, Vice President, Distribution Operations and Service Delivery
	1-114	<u>Costs</u> (Bates No. 1395) Rates for personnel and reimbursement of expenses are agreed to in advance. Invoices submitted for costs and expenses are reviewed to ensure compliance with contract terms and are reasonable and prudent.		Deryl Tumlinson, Vice President, Distribution Operations and Service Delivery
	1-115	<u>Staging Sites</u> (Bates Nos. 1396-1397) CenterPoint Energy utilized 22 staging sites and 4 lodging sites during Hurricane Beryl restoration: <ul style="list-style-type: none"> ▪ Total headcount: 13,612 <ul style="list-style-type: none"> ▪ Distribution line skills: 10,361 ▪ Transmission line skills: 245 ▪ Vegetation management: 2,817 ▪ Field support: 189 ▪ Damage assessors: 1,228 <ul style="list-style-type: none"> ▪ Internal: 209 ▪ External: 1,019 Staging site personnel include: <ul style="list-style-type: none"> ▪ Operations manager 	Staging Sites Spreadsheet (Bates Nos. 1398-1399)	Carla Kneipp, Senior Vice President, Procurement

		<ul style="list-style-type: none"> ▪ Foreign crew coordinators ▪ Administration (e.g. check-in, lodging and bussing) and logistics (e.g. fuel, warehouseman) ▪ Information technology ▪ Cooking, janitorial 		
Temporary Generation	1-133	<p><u>Deployment Process</u> (Bates No. 1615)</p> <p>5 levels for deployment:</p> <ul style="list-style-type: none"> ▪ Level 1 (notification): Vendor notified about possible deployment ▪ Level 2 (preparation): Vendor directed to prepare for potential deployment ▪ Level 3 (pre-deployment): Vendor directed to ready units and personnel for deployment and to arrange for transportation of units ▪ Level 4 (deployment): Vendor is directed to transport and mobilize units to deployment sites ▪ Level 5 (recall): Units are recalled or re-deployed <p>Deployment prioritization:</p> <ul style="list-style-type: none"> ▪ Priority 1: Level 1 trauma centers, 100+ bed in-patient hospitals, cancer treatment centers ▪ Priority 2: City and county emergency management, first responder facilities, airport facilities ▪ Priority 3: Cooling centers ▪ Priority 4: Senior living, assisted living ▪ Priority 5: Small emergency rooms, dialysis ▪ Priority 6: Clinics, pharmacies ▪ Priority 7: Grocery stores ▪ Priority 8: Commercial facilities that support logistics, supply chain, community and individual relief and restoration efforts 	Beryl TEEF Deployment Document (Bates Nos. 1616-1617); Emergency Operations Plan (Bates No. 372)	Eric Easton, Vice President, Grid Transformation and Investment Strategy
	1-133	<p><u>Deployment During Hurricane Beryl Restoration</u> (Bates No. 1615)</p>	Beryl TEEF Deployment Document (Bates Nos. 1618-1620)	Eric Easton, Vice President, Grid Transformation

	<p>TEEEF units available:</p> <ul style="list-style-type: none"> ▪ On hand prior to Hurricane Beryl: ▪ 2 x 500 kW ▪ 2 x 1 MW ▪ 5 x 5 MW <p>July 7th: 4 x 400 kW procured July 10th: 4 x 1.2 MW procured (mutual assistance) July 12th:</p> <ul style="list-style-type: none"> ▪ 3 x 230 kW procured ▪ 2 x 200 kW procured ▪ 4 x 560 kW procured (mutual assistance) ▪ 1 x 625 kW procured (mutual assistance) <p>July 13th: 3 x 625 kW procured (mutual assistance)</p> <p>TEEEF units were deployed 31 times at 28 sites, providing approximately 3,000 hours of electricity to the following sites:</p> <ul style="list-style-type: none"> ▪ Hospital/medical facilities: 7 ▪ Senior/assisted living facilities: 9 ▪ Water/sewer facilities: 2 ▪ Cooling centers: 4 ▪ Emergency call center: 1 ▪ Community center: 1 ▪ Jail: 1 ▪ Non-profit organization housing families with seriously ill children: 1 ▪ Water bottling facilities: 2 		<p>and Investment Strategy</p>
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