



Filing Receipt

Filing Date - 2024-07-24 03:52:55 PM

Control Number - 56793

Item Number - 17



Project No. 56793

*Issues Related to the Disaster Resulting
from Hurricane Beryl*

Supporting Materials for Presentation at the
July 25, 2024 Open Meeting

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

1. Emergency Communications Action Plan
2. New Outage Tracker Screenshots
3. Fact Sheets
4. Hurricane Beryl Weather Report
5. Consolidated Daily Summaries
6. CenterPoint Website Communications
7. July 6th/7th CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
8. July 8th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
9. July 9th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
10. July 10th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
11. July 11th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
12. July 12th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
13. July 13th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
14. July 14th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
15. July 15th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
16. July 16th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
17. July 17th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
18. July 18th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
19. July 19th Daily Summary, CenterPoint Press Releases, Emails to Customers, and Select Social Media Posts
20. CenterPoint Emergency Management Materials
21. Expert Biographies

THIS PAGE INTENTIONALLY LEFT BLANK

TAB 1

THIS PAGE INTENTIONALLY LEFT BLANK



Emergency Communications

Action Plan to Strengthen Communications
Before, During and After Weather Events



Immediate Action to Strengthen Communications



CenterPoint Energy is committed to acting with urgency to make immediate improvements to our communications before, during and after a weather event impacting our service area

The accompanying actions are based on:

- An assessment of CenterPoint's existing practices
- Industry best practices
- Input to date from customer and key stakeholders, which we are continuing to gather



Feedback is being incorporated into a new communications playbook that will serve to guide our practices going forward.

We will continue to assess and enhance these practices to make ongoing improvements

Improve the Depth and Breadth of Communications Content

We are committed to improving the **depth** and **breadth** of information we are providing to our customers, communities and all stakeholders before, during and after a weather event

Immediate improvements will include more detailed information, in all communication channels, on:

- **What customers and the community can do to prepare for a storm** (including safety practices)
- **How CenterPoint is preparing for the storm**
- **Our restoration process**, including how we prioritize critical facilities, and communication of ETRs
- **Operational updates and status reports** on an ongoing basis post-storm



Enhance Communication Across all Channels to all Stakeholders



Communicate earlier, more frequently and more widely throughout the storm cycle.

Key practices will include:

- **Launching initial communications** earlier in the cycle (at least 96 hours pre-storm, and potentially earlier, based on availability of storm data)
- **Initiating daily press briefings** with senior operations personnel throughout the storm cycle including the CEO, when appropriate; directly broadcasting these updates to the public via social media channels
- **Issuing news release updates four times daily** throughout storm restoration and maintaining a media briefing room at the company's emergency operations center
- **Providing post-storm press briefings** from field locations, when appropriate, to visually illustrate operational updates
- **Providing daily or more frequent updates** to customers (inbound and outbound), state and local government stakeholders, and regulators



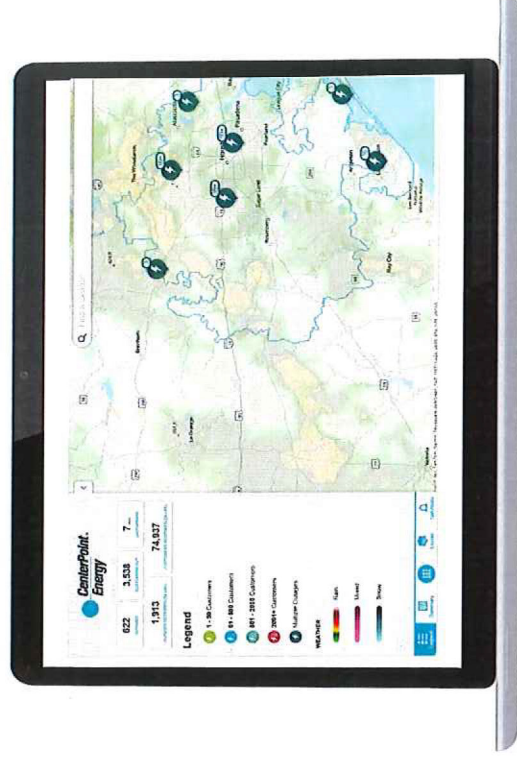
Enhance Communication Across all Channels to all Stakeholders (continued)



Communicate earlier, more frequently and more widely throughout the storm cycle.

Key practices will include:

- **Maintaining a comprehensive, dedicated storm page** on the CenterPoint website with a prominent top-of-page link from the company's homepage; the storm site will be a comprehensive repository of all communications during the event
- **Ensuring that the company has representatives in state and local emergency centers** to act as conduits for information
- **Implementing paid messaging** where appropriate for social media placement and radio ads with information on preparing for storms, safety information and other important information to inform customers and the public
- **Monitoring and responding** to information being posted on social media as appropriate



Establish a Robust Daily Cadence for Communications Planning, Assessment and Execution

We will implement a recurring daily cadence for all communications to ensure consistency in planning and execution throughout a storm event. Key practices will include:

- **A daily assessment of communications performance** (and adjustments as necessary) by a senior team to include the Public Information Officer and representatives of operations, customer, regulatory, government affairs and community relations
- **Activating a recurring 24-hour cycle for all communications** to all stakeholders so that stakeholders know when to expect frequently updated information
- **Daily calls** with key stakeholder groups as part of the cycle of ongoing communications
- **Assigning dedicated personnel** to address questions or concerns related to critical community facilities

Type	Activities
Coordination Meetings	• Leadership meetings • Operational briefings
Outreach	• Media briefings • Social media • News releases • Rapid response to media inquiries • Radio and television advertisements • Outage tracker continuously updated • Dedicated storm page on website
Agencies	• Key Partners briefing call • Community-based organizations • Dedicated representatives coordinating with state and local emergency operations
Critical Facilities	• Dedicated representatives coordinating with critical facilities
Employees	• Daily employee emails

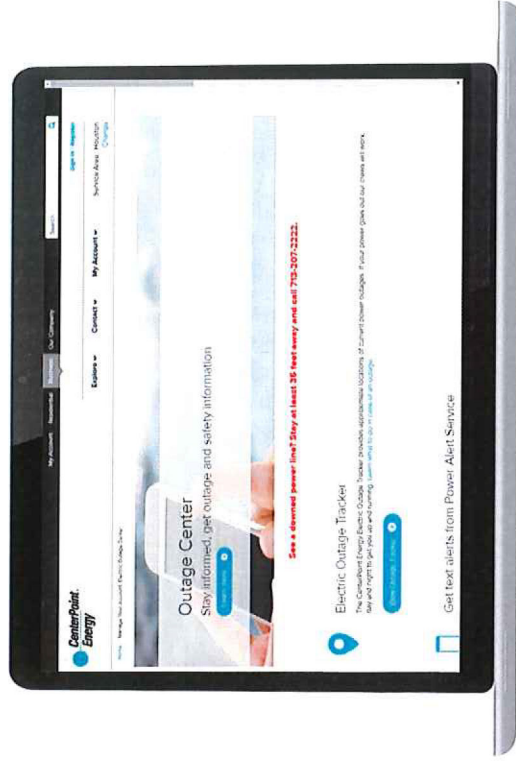
Drive Improvements to Meet Customer Expectations for Better Communication

We will establish and communicate ETRs within 24 hours of the start of restoration and update them throughout the process



Additional improvements include:

- Implementing a new **cloud-based outage tracker** that can scale to customer demand for information
- Continuing to drive the adoption of **Power Alert Service** to increase our ability to push information to customers in a timely fashion



Continue to Enhance our Practices



During and after the current storm season, we will continue to **identify and implement improvements** both immediately and over the longer-term.

These will include:

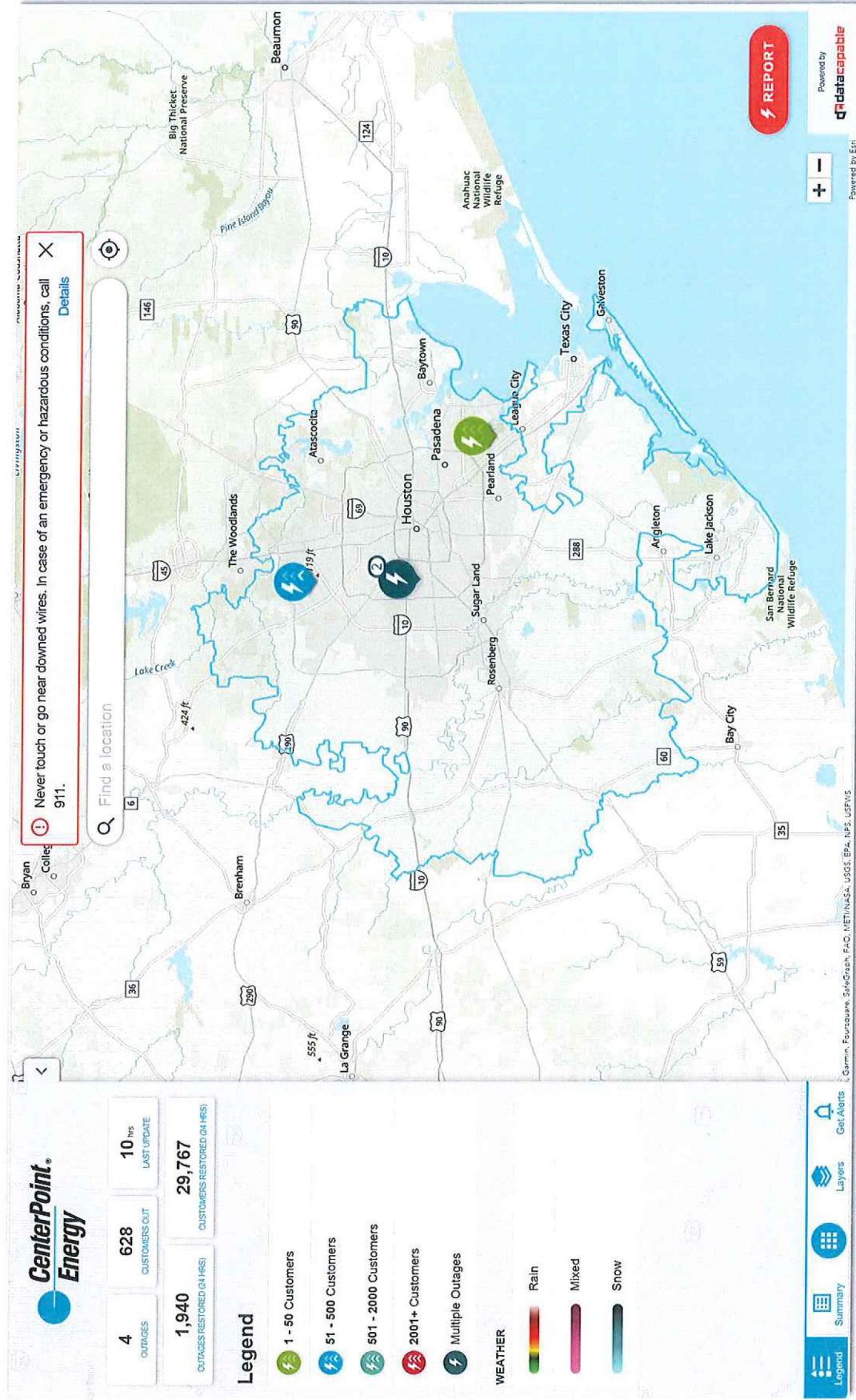
- **Conducting a “dry run” drill** prior to storm season that includes key stakeholders and the media
- **Conducting grassroots outreach** to a broad range of community organizations, churches, non-profits and others on storm preparedness for them and for the company
- **Continuing to gather feedback** and input in order to enhance our practices and responsiveness



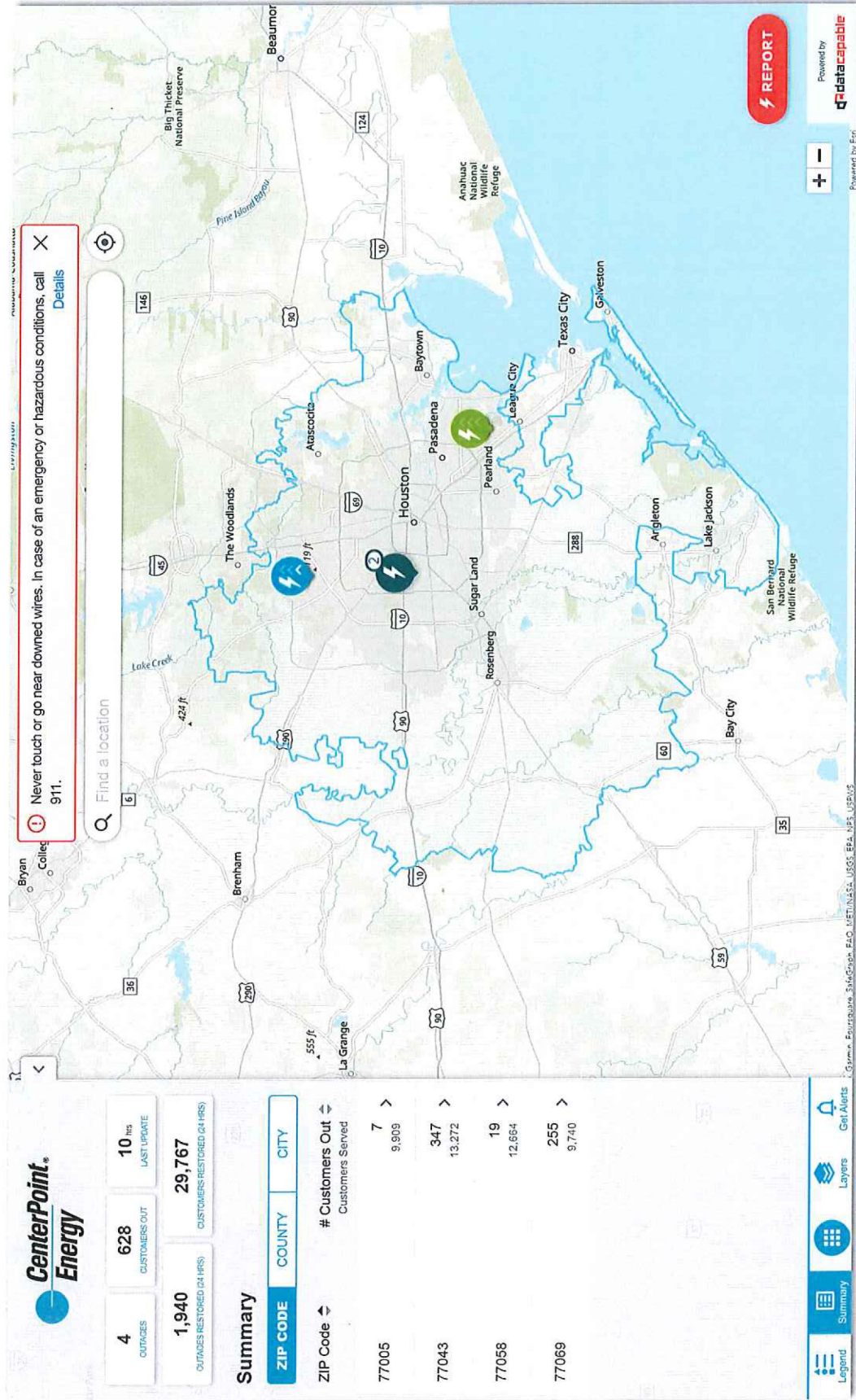
TAB 2

THIS PAGE INTENTIONALLY LEFT BLANK

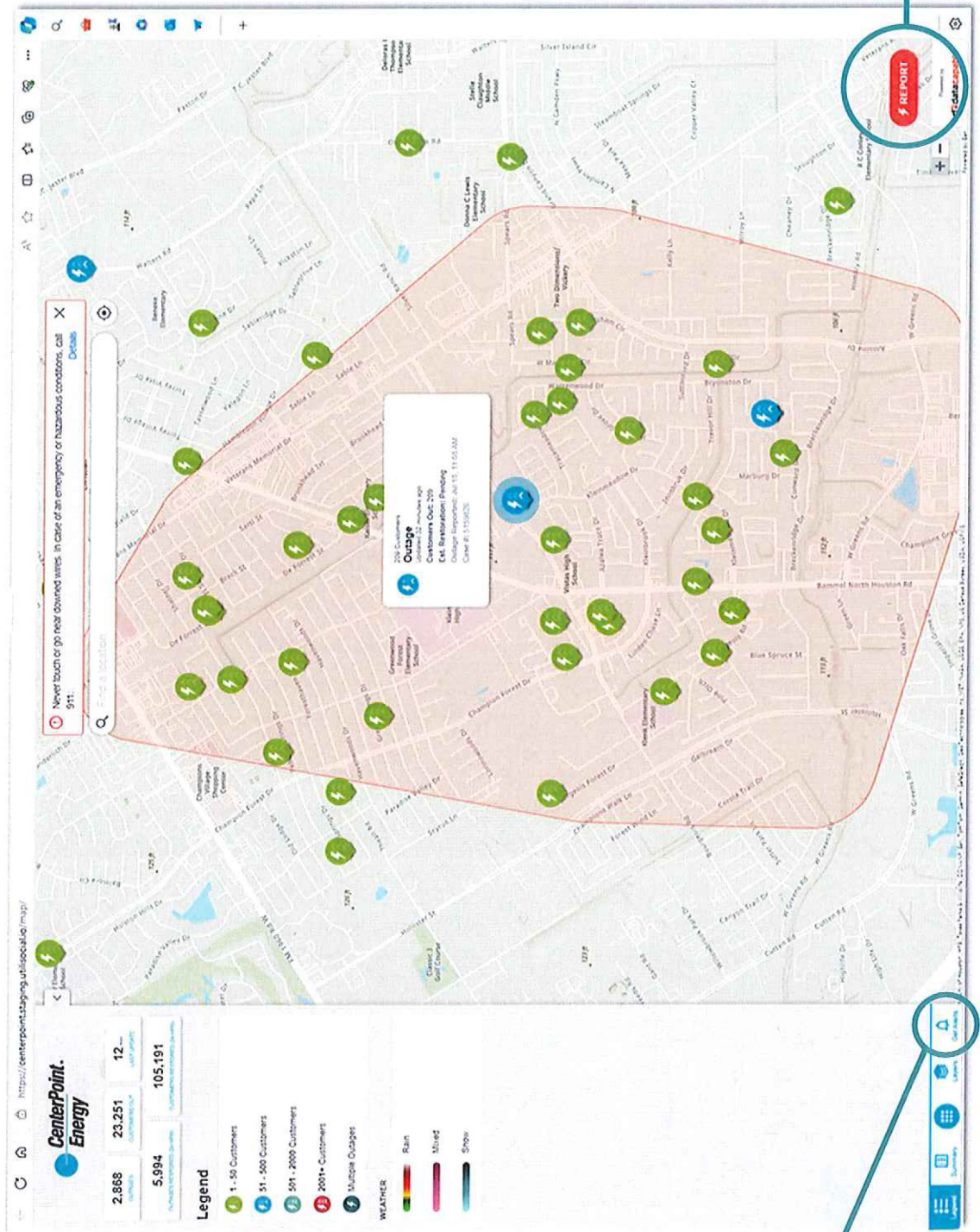
Landing Page



Summary Tab



Outage Event Polygons – Highlight Impacted Area



Power Alert Service Enrollment

Outage Reporting Link

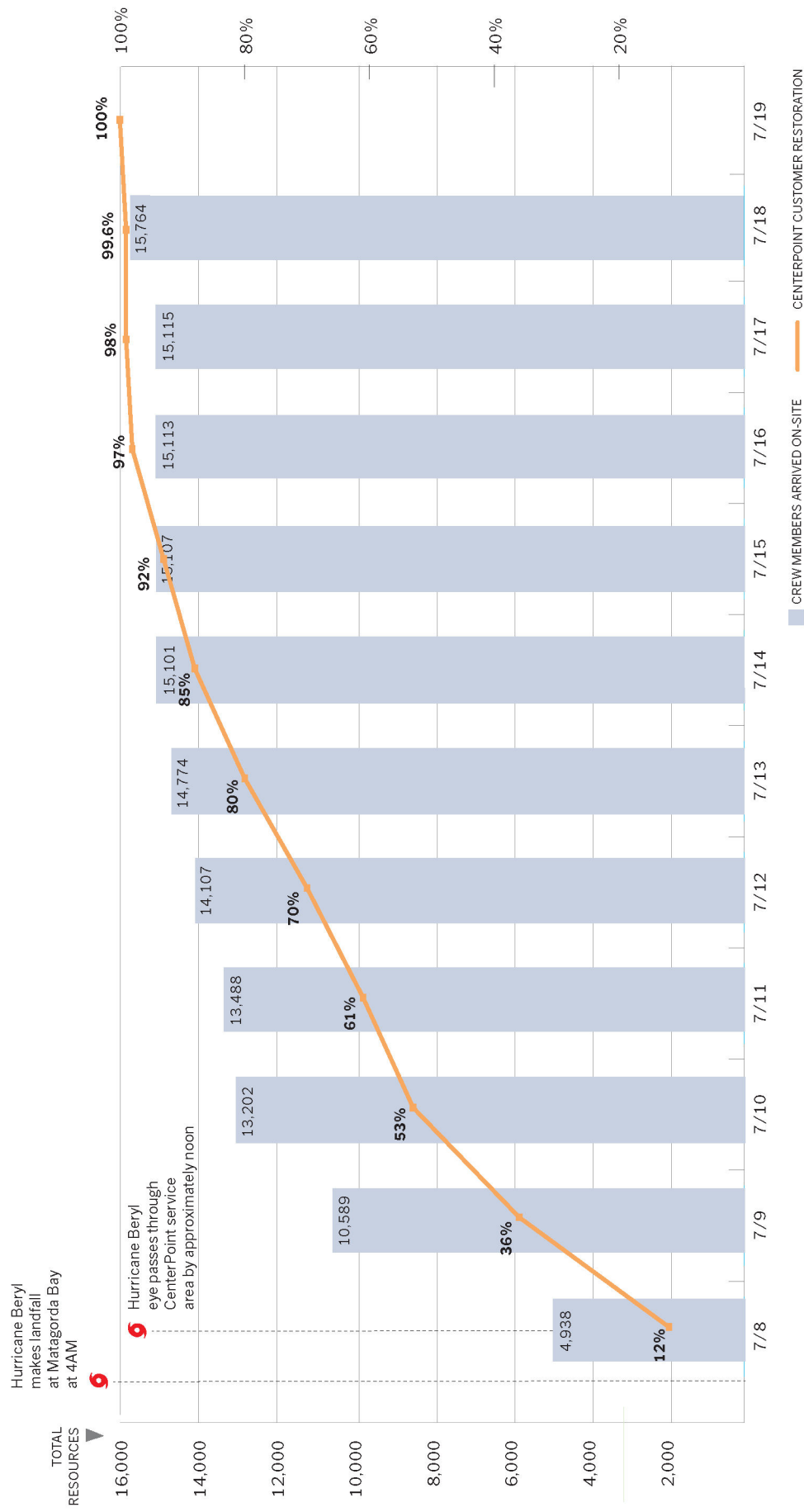
Outage Event Details



TAB 3

THIS PAGE INTENTIONALLY LEFT BLANK

Work Crew Arrivals and Restoration Progress



FIGURES ARE NOT FINAL AND ARE SUBJECT TO REVIEW

Mutual Assistance/Work Crews

CenterPoint activated its **internal resources** (line skills: 1,131; damage assessment: 210) and **native-contractor resources** (line skills: 740; vegetation management: 501) to report at 6:00 am on 7/8.

9 Hurricane Beryl makes landfall 4AM

July 2	July 3	July 4	July 5	July 6	July 7	July 8	July 9	July 10	July 11	July 12	July 13	July 14
--------	--------	--------	--------	--------	--------	--------	--------	---------	---------	---------	---------	---------

July 2 through July 8

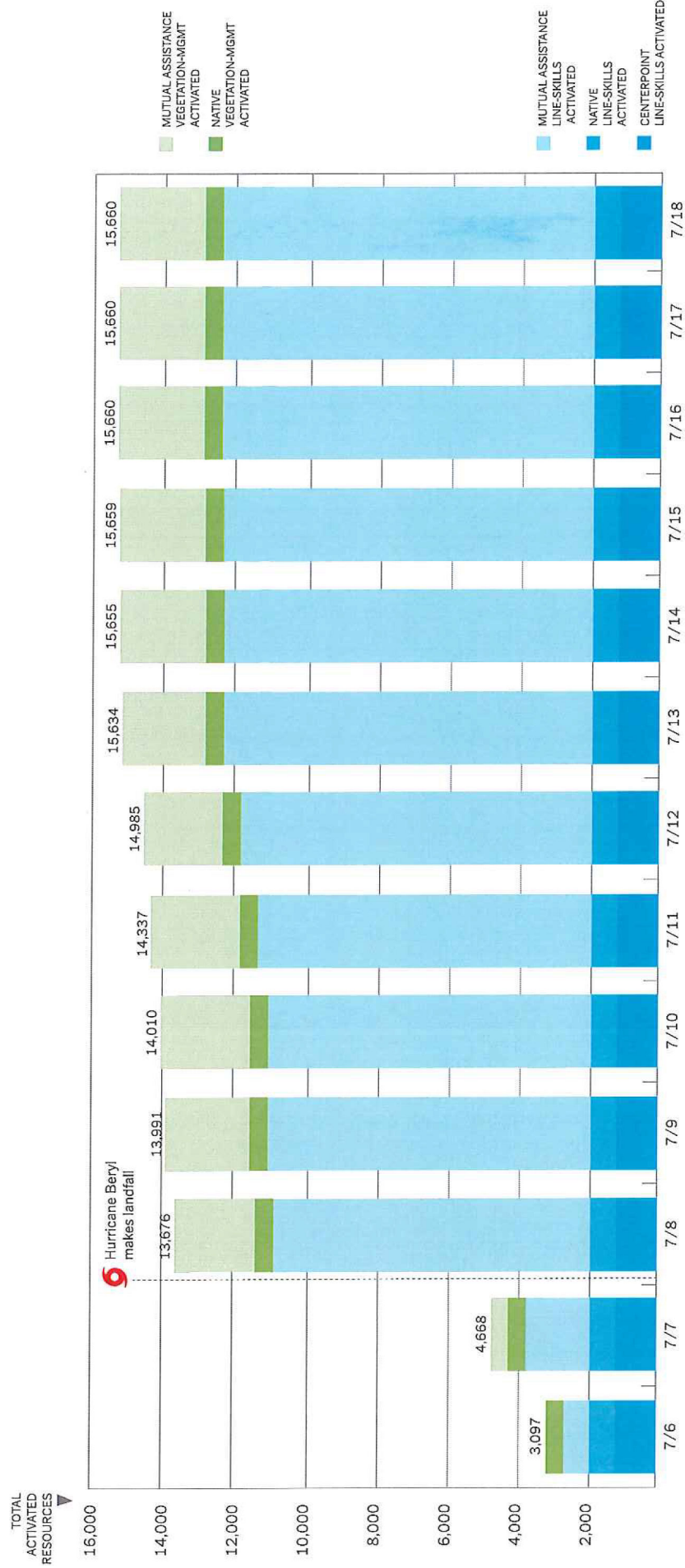
CenterPoint personnel contacted at least seven aggregators of line-skills and vegetation-management contract resources (e.g., Center Phase Energy, LLC, Collective Strategic Resources, Bird Electric, Inc., Mid-Con Energy Services Inc.) and two mutual assistance organizations (Texas Mutual Assistance Group and Southeastern Electric Exchange) to prepare for Beryl.

July 6 through July 14

CenterPoint personnel requested 9,388 line-skills resources, 2,837 vegetation-management resources, and 1,000 damage-assessment resources from external contractors.

CenterPoint requested over 94% of those resources by 7/8				TOTAL (JULY 6-8)	
LINE SKILLS RESOURCES REQUESTED	2,787	2,502	3,626	8,915	
VEGETATION MANAGEMENT RESOURCES REQUESTED	0	594	1,928	2,522	
DAMAGE ASSESSMENT RESOURCES REQUESTED	0	400	600	1,000	

Daily Work Crews Activated



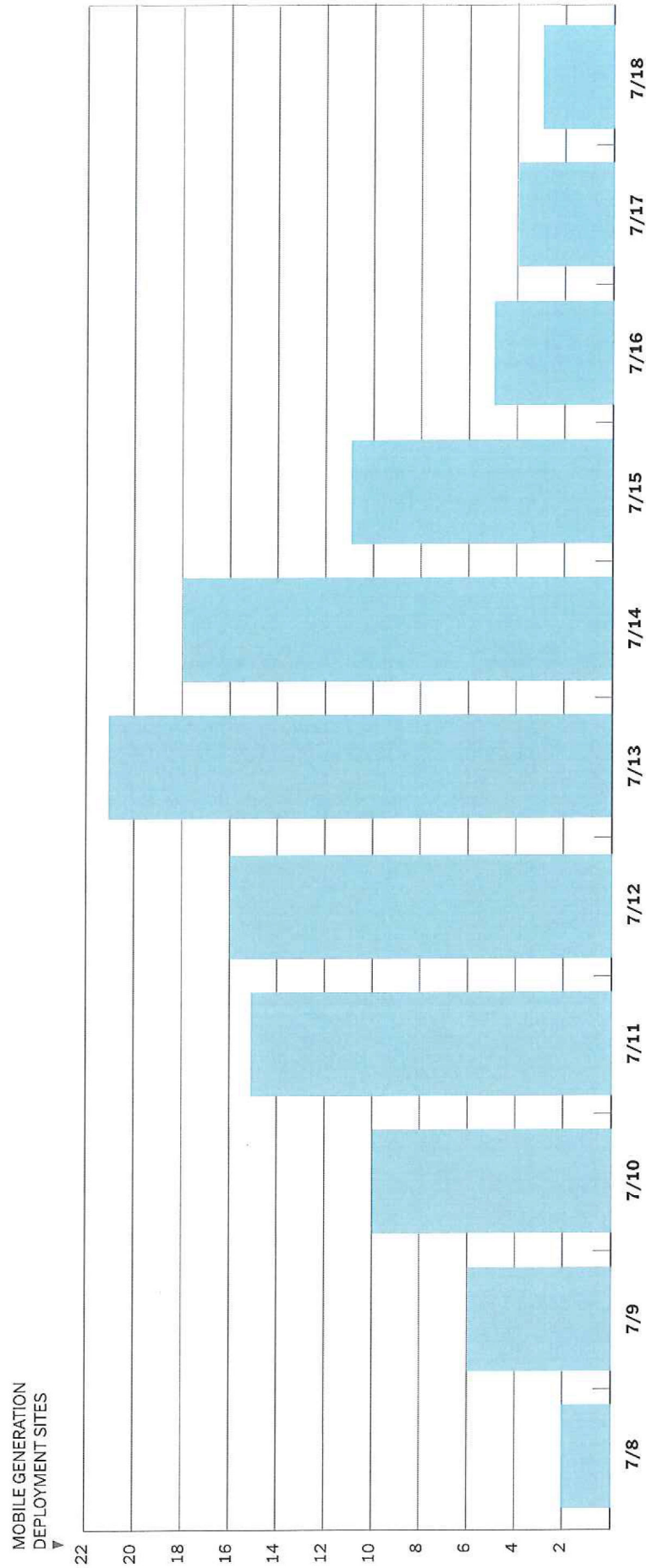
FIGURES ARE NOT FINAL AND ARE SUBJECT TO REVIEW

Daily Work Crews Arrivals



FIGURES ARE NOT FINAL AND ARE SUBJECT TO REVIEW

Daily Deployment of Commercial Point of Use and Distribution Feeder Temporary Units



FIGURES ARE NOT FINAL AND ARE SUBJECT TO REVIEW

CenterPoint Hurricane Preparedness

To install backup generation, CenterPoint needed: (1) a generator sized appropriately for the customer's needs; (2) with the correct number of phases; (3) compatible transformer configuration; (4) physical space to install the generator; (5) confirmation from the customer's electrician that the customer's facilities were electrically intact and could be safely interconnected with the mobile generator; and (6) road access to physically transport the generator to the Customer's premises. CenterPoint also considered whether the Customer was about to be reconnected or could be more efficiently reconnected to utility power before dispatching mobile generation.

As of Saturday, July 6*	Sunday, July 7	Monday, July 8	Wednesday, July 10	Thursday, July 11	Friday, July 12
(2) 500 kW commercial point of use mobile generators leased from ERS (2) 1 MW commercial point of use mobile generators leased from ERS (5) 5 MW distribution feeder mobile generators leased from LCP.	(4) additional 400 kW commercial point of use mobile generators acquired from ERS	 Hurricane Beryl makes landfall	(4) additional 1.2 MW commercial point of use mobile generators received from Oncor (accompanied by crews)	(1) additional 625 kW commercial point of use mobile generator received from Oncor (with crews)	(5) additional 230 kW commercial point of use mobile generators obtained from ERS (4) additional 560 kW commercial point of use mobile generators received from AEP (equipment only) (3) additional 625 kW commercial point of use mobile generators obtained from Oncor (with crews)
9	13 [+4]		17 [+4]	18 [+1]	30 [+12]
TOTAL UNITS					

*CenterPoint also has (15) 30 MW transmission temporary generation units leased from LCP for load shed events, which are not useful when there is significant distribution system damage and are not intended for recovery from events resulting in widespread distribution damage.

Emergency Operations Center

SAT	SUN	MON	TUE	WED	THU	FRI	6
8AM StormGeo Weather Call 8:30AM Beryl Ops Call 8:45AM Ops Call - Storm Shift 9AM Beryl Response Support Call 9:30AM Hurricane Response Strategy Meeting - to align on resource needs and support for response operations 10:30AM CMC Hurricane Update 2:00PM Emergency Level 2 activated for Houston Electric 2:30PM StormGeo Weather Call 3PM Beryl Response Support Call 4PM CMC Hurricane Update 5PM Beryl Dept Ops Center meeting - in person 6:30PM Ops Call - Beryl 8PM Beryl Follow Up Call-to provide a status update on actions identified in CMC update	7 8AM StormGeo Weather Call 8:30AM Beryl Ops Call 8:45AM Ops Call - Storm Shift 9AM Beryl Response Support Call 9:30AM Hurricane Response Strategy Meeting - to align on resource needs and support for response operations 10:30AM CMC Hurricane Update 2:00PM Emergency Level 2 activated for Houston Electric 2:30PM StormGeo Weather Call 3PM Beryl Response Support Call 4PM CMC Hurricane Update 5PM Beryl Dept Ops Center meeting - in person 6:30PM Ops Call - Beryl 8PM Beryl Follow Up Call-to provide a status update on actions identified in CMC update	8 6AM Hurricane Beryl makes landfall 8AM EOC briefing to provide incident update and report any resource needs or outstanding issues (command staff; general staff; others) 8:30AM CMC update on situation, objectives, and operational strategy (EOC Director, Incident Commander, CMC members) 10:00PM Emergency Level 1 activated for Houston Electric 1:30PM EOC check-in to review and revise objectives (command staff and general staff, Incident Commander, CMC members) 2PM CMC update on situation, objectives, and operational strategy (EOC Director, Incident Commander, CMC members) 6PM EOC briefing to provide an incident update and report any resource needs or outstanding issues (command staff; general staff; others) 6:30PM Objectives and strategy development meeting to develop a unified EOC strategy to support on-scene ops (command staff and section chiefs) 8PM CMC update on situation, objectives, and operational strategy (EOC Director, Incident Commander, CMC members)	9 EOC Meeting Cadence EOC briefings (2x per day): Status updates from different sections (e.g., Operations, Logistics, Finance, PIO); address issues and resource needs (Command staff, general staff, others) CMC updates (3x per day): Address high-level issues (e.g., policy issues) and resource needs (CMC members, Incident Commander, EOC Director)	10 EOC Meeting Cadence	11 EOC Meeting Cadence	12 EOC Meeting Cadence	13 EOC Meeting Cadence 8AM StormGeo Weather Call 8:30AM Ops Call for Beryl: Purpose: "Discuss latest storm track and possible resource needs" 9AM "Hurricane Beryl Response Support Call" Agenda: Weather update and report outs from gas ops, electric ops, logistics, finance, and PIO regarding ops update, storm prep, resource needs, and any issues. Logistics, finance, and PIO to cover current support being provided and questions that need answers" 10AM Pre-Hurricane Call Follow-Up 2:30PM StormGeo Weather Call 4 PM Beryl Ops Call - Lead staff in the "DVAL operations hub" 6PM Model Discussion
	EOC Meeting Cadence Centerpoint customers without power: 262,499 Centerpoint customers restored: 2,002,501 Percent Restored: 88%	EOC Meeting Cadence Centerpoint customers without power: 157,698 Centerpoint customers restored: 2,107,302 Percent Restored: 93%	EOC Meeting Cadence Centerpoint customers without power: 53,800 Centerpoint customers restored: 2,211,200 Percent Restored: 97%	EOC Meeting Cadence Centerpoint customers without power: 25,811 Centerpoint customers restored: 2,239,189 Percent Restored: 99%	EOC Meeting Cadence Centerpoint customers without power: 6,015 Centerpoint customers restored: 2,258,985 Percent Restored: 99%	EOC Meeting Cadence Centerpoint customers without power: 678,257 Centerpoint customers restored: 1,586,743 Percent Restored: 70%	EOC Meeting Cadence Centerpoint customers without power: 461,185 Centerpoint customers restored: 1,803,815 Percent Restored: 85%
	EOC Meeting Cadence Centerpoint customers without power: 262,499 Centerpoint customers restored: 2,002,501 Percent Restored: 88%	EOC Meeting Cadence Centerpoint customers without power: 157,698 Centerpoint customers restored: 2,107,302 Percent Restored: 93%	EOC Meeting Cadence Centerpoint customers without power: 53,800 Centerpoint customers restored: 2,211,200 Percent Restored: 97%	EOC Meeting Cadence Centerpoint customers without power: 25,811 Centerpoint customers restored: 2,239,189 Percent Restored: 99%	EOC Meeting Cadence Centerpoint customers without power: 6,015 Centerpoint customers restored: 2,258,985 Percent Restored: 99%	EOC Meeting Cadence Centerpoint customers without power: 678,257 Centerpoint customers restored: 1,586,743 Percent Restored: 70%	EOC Meeting Cadence Centerpoint customers without power: 461,185 Centerpoint customers restored: 1,803,815 Percent Restored: 85%

FIGURES ARE NOT FINAL AND ARE SUBJECT TO REVIEW

Logistics and Staging

July 8

Hurricane Beryl
makes landfall 4AM

Staging Pre-Beryl

- CenterPoint maintained permanent agreements with landowners for 16 staging sites and 2 man camp sites.
- CenterPoint maintained agreements with 7 turnkey providers for staging site support.
- By July 7, four staging sites were activated with landowner and turnkey providers. 6 additional staging sites were on standby.

Staging Sites During Beryl

By July 12, CenterPoint has 22 total staging sites to allow for strategic deployment of crews and material.

July 8: AM: CenterPoint began loading staging site materials at approximately 10:20 AM and departed for the first 4 staging sites in approximately one hour.

PM: First 4 staging sites were "check-in and dispatch" ready.

July 9: 14 additional staging sites were "check-in and dispatch" ready.

July 10: Staging sites continued operations.

July 11: 1 additional staging site was "check-in and dispatch" ready.

July 12: 3 additional staging sites were "check-in and dispatch" ready.

Post July 12: CenterPoint continued operating staging sites in strategic locations.

**"Check-in and dispatch ready" means the staging site had sufficient materials and resources to receive, check in, and dispatch mutual assistance crews.

Lodging During Beryl

- Hotels: CenterPoint reserved approximately **5,600 to 12,000 total hotel beds nightly**.
- Man camps: As of July 9, estimated bed capacity was approximately **5,800 nightly**.
- Buses: CenterPoint secured **233 buses** to transport crews between lodging and staging sites.

Logistics and Staging

	TOTAL STAGING SITES	TOTAL STAGING SITE CAPACITY	STAGING SITES ADDED	STAGING SITE CAPACITY ADDED	SEMI-TRUCKS IN USE	HOT SHOT TRUCKS IN USE
July 8	4	3,596	4	3,596	18	0
July 9	18	12,288	14	8,692	40	0
July 10	18	12,288	0	0	39	0
July 11	19	12,748	1	460	36	14
July 12	22	13,665*	3	1,317	36	30
July 13	21	13,665	0	0	35	30
July 14	21	13,665	0	0	35	30
July 15	21	13,665	0	0	25	19
July 16	21	13,665	0	0	35	29
July 17	21	13,665	0	0	35	30
July 18	21	13,665	0	0	40	6

*Due to security concerns, Barnett staging site was deactivated and relocated to Berry Center staging site. Barnett continued to be used for materials pickup through July 12.

"Staging Site" means a site that became "check-in and dispatch ready" that day. A staging site provides services and infrastructure including fueling for vehicles and equipment, material laydown yards, food, security, telecommunications, bussing to lodging facilities, laundry service, and other human needs.

"Capacity" means headcount capacity, not number of trucks.

"Total sites" refers to the total number of sites (cumulatively) that are "check-in and dispatch ready."

"Hot shot truck" means a truck capable of carrying between 2-4 pallets.

Material Delivered to Staging Sites

as of July 19, 2024

2,222 Poles
2,718 Transformers
225,751 Conductor/wire ft.
479,466 Conductor/wire lbs.
10,649 Splices
37,755 Insulators

- All staging sites received materials.
- Different conductor/wire have units of measure in feet (ft.) and others are in pounds (lbs.). These counts are for different items.

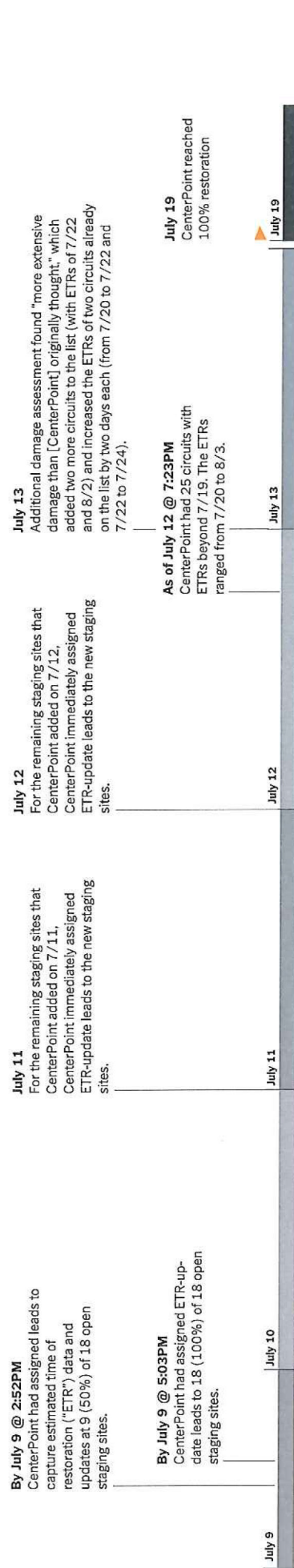
Dispatch and Deployment of Work Crews

- Leading up to Hurricane Beryl, CenterPoint had 24 active non-storm-related outages with 630 impacted customers.
- CenterPoint has an existing 85-page Emergency Restoration Plan (last revised October 21, 2019) that addresses restoration priorities and resource mobilization:
 - The general restoration priority sequence is:
 - (1) circuits/sections,
 - (2) fuses,
 - (3) transformers, and
 - (4) local outages (i.e., individual customers).
- When CenterPoint uses Mutual Assistance or Aggregator contractor crews, CenterPoint uses the following process:
 - (1) the Planning Section Chief reviews/prioritizes referred work orders;
 - (2) the internal Foreign Crew Coordinator ("FCC"), who works with Mutual Assistance and Aggregator crews, communicates referred work to their assigned contractors' General Foreman;
 - (3) the FCC receives tickets through Service Suite and assigns work orders and service center locations to contractors in the Service Suite - Dispatch Application;
 - (4) each contractor's General Foreman assigns specific work orders to each contractor crew through the Service Suite - Dispatch Application;
 - (5) the contractor crew works the assigned work order to completion; and
 - (6) the contractor's General Foreman marks the work order as complete with completion notes in the Service Suite - Mobile Application.
- When responding to outages, CenterPoint dispatches line-skills and vegetation-management resources based on geographic location of responders, number of customer outages, amount of resources/materials needed, number of trouble cases by type, quantity of damage locations, difficulty level (e.g., whether the outage is in the easement or whether the outage is accessible to trucks), equitable coverage across the service-area footprint, and other factors as required (e.g., if CenterPoint recognizes widespread catastrophic damage in a particular area of the footprint).

Dispatch and Deployment of Work Crews

- CenterPoint maintains a current list of EOP priority circuits by tiers with priority reasoning and notes regarding any potential accessibility concerns:

Tier	Circuit Count	Customer Count [AS OF 3/31/2024]
CenterPoint Service Centers and Staging Sites	16	23,818
Hospitals	101	208,232
Public Safety	122	206,561
Water Plants	240	548,017
Police/Fire	78	131,645
Lift Stations	110	152,682
Industrial	56	28,239
Remaining Circuits by Customer Count	952	1,464,133
Total	1,675	2,763,327



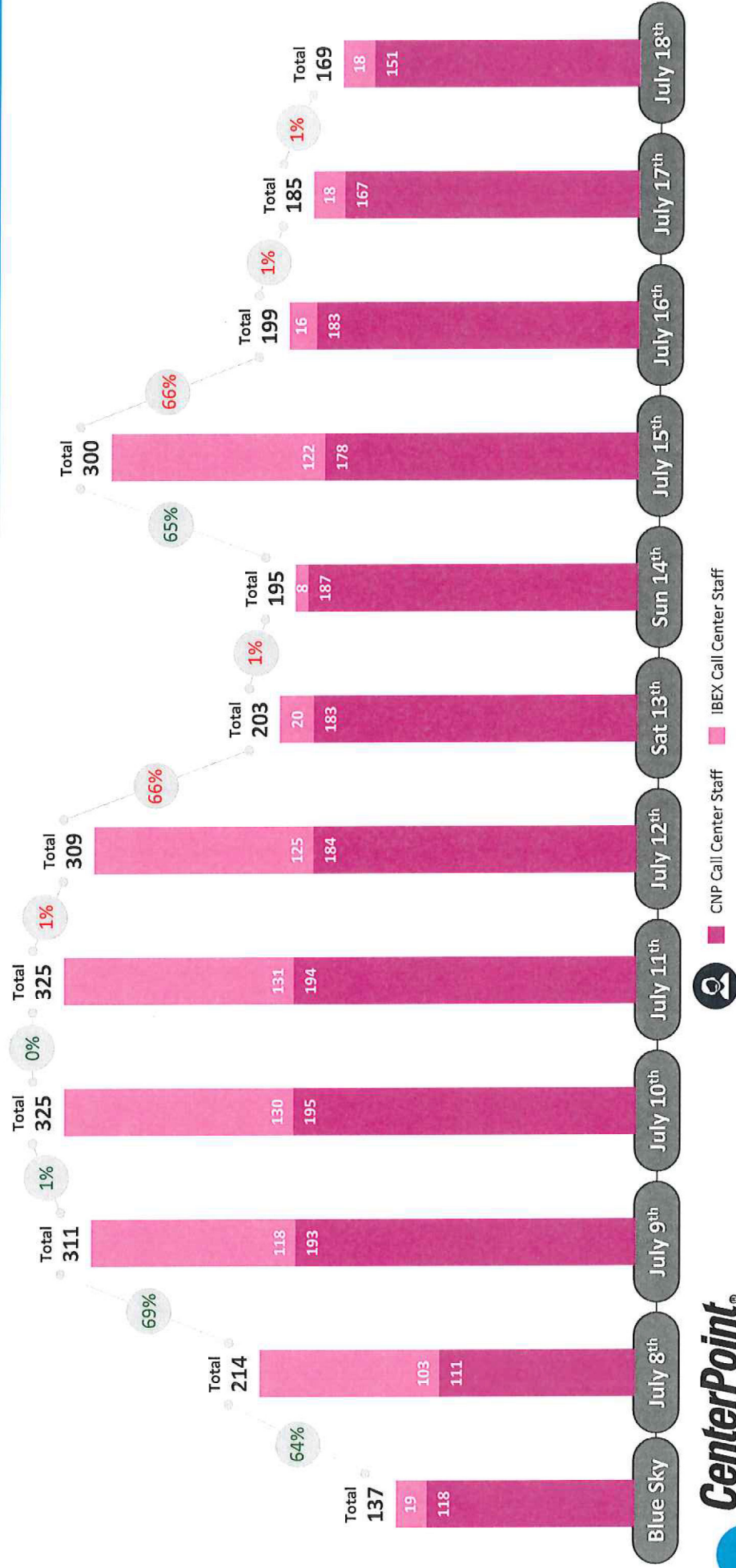
FIGURES ARE NOT FINAL AND ARE SUBJECT TO REVIEW

General Framework for Small-Unit Generation Deployment

General Priority Level	Category	Example
1	Hospital	100 bed in-patient hospitals, Cancer treatment centers, Level 1 Trauma Center
2	Emergency Services/ Houston Airport System	City/County Emergency Management, Police/Fire/Ambulatory Facilities, Critical Airport facilities
3	Cooling Centers	Cooling centers designated by local facilities
4	Senior/Assisted Living	Services support
5	Small Emergency Rooms/Dialysis	Out-patient Care facilities, Dialysis Clinics, Small Emergency Room Centers
6	Clinics/Pharmacy	Urgent Care, Clinics, Commercial Pharmacies
7	Grocery Stores	Major grocery store chains
8	Hardware Stores/Commercial Businesses	Commercial facilities that support logistics/supply chain and community/individual relief and restorations efforts

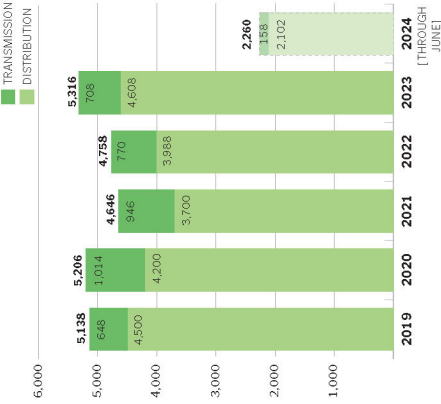
FIGURES ARE NOT FINAL AND ARE SUBJECT TO REVIEW

Hurricane Beryl: Call Center Staff Summary



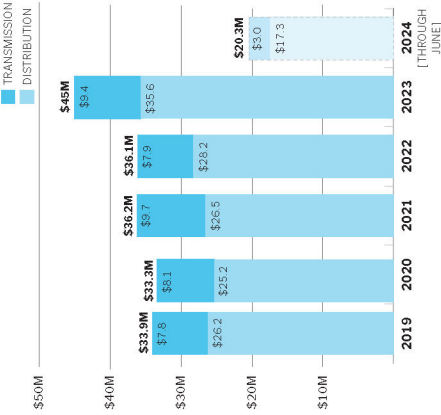
Vegetation Management

Proactive Miles Trimmed



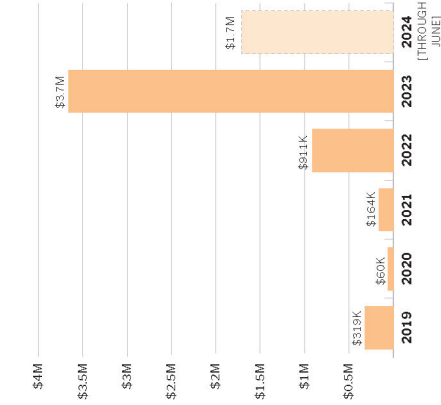
- Each year, CenterPoint proactively plans to trim at least 3,500 miles of overhead distribution lines, in addition to reactive tree trimming, proactive tree hazard removal, and restoration. It scores circuits based on a combination of time and reliability impact. The highest scoring circuits are trimmed first. Additionally, circuits with vegetation putting them at risk of 300% worse than CenterPoint's system SAIDI/SAIFI average or among the 10% worst-performing circuits are also trimmed.
- CenterPoint trims transmission circuits on a five-year cycle.
- Tree trim clearances minimum of 7' laterally for 12 kV and 12 kV narrow voltages and minimum of 10' laterally for 35 kV. Tree trim clearances minimum 15' below primary conductor for all voltages.

Cost of Scheduled Vegetation Maintenance



- CenterPoint inspects and proactively trims rights of way based on the reliability of each circuit and each circuit's trim cycle.

Cost of Hazardous Tree Removal Program



- CenterPoint operates a separate program to inspect, and identify, and proactively remove potentially hazardous trees showing stress outside of the easement with the landowner's consent. CenterPoint patrols high-risk areas to identify trees that are at risk of falling on circuits. Importantly, CenterPoint cannot force a landowner to remove a potentially hazardous tree, and does not identify or remove healthy trees that could impact circuits.
- Between 2021 and 2023, the Houston area experienced drought and extreme cold, resulting in an abnormally large amount of trees outside the easement needing to be removed. CenterPoint spent \$3,660,247 on such removals compared to the budgeted \$523,000.

Initial Feedback from the Field on Vegetation and Hurricane Beryl

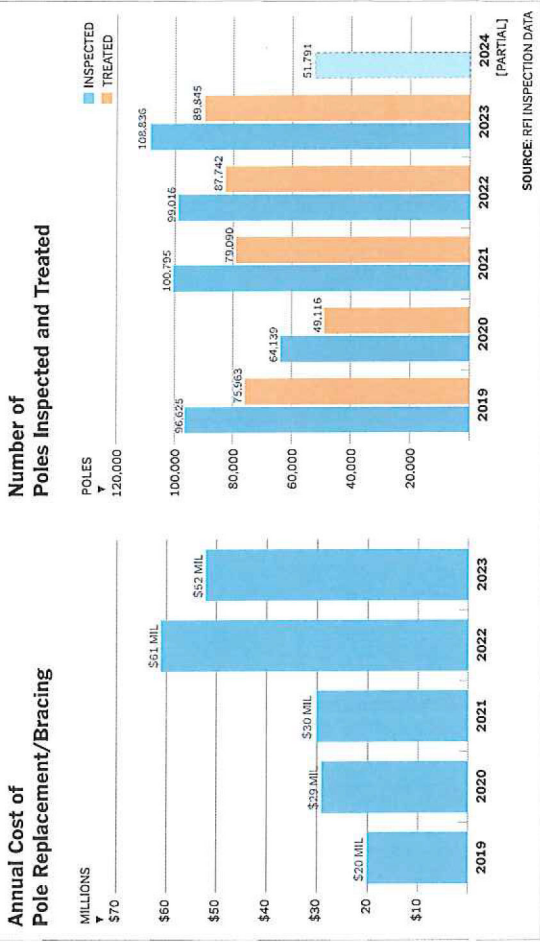
- The damage found by vegetation management crews during the storm indicates that **significant** circuit damage came from trees and large branches falling from outside the right of way.
- One of the largest vegetation management providers working after Hurricane Beryl (Lewis Tree Services) recorded that more than 50% of the trees "worked" were outside of the easement (defined as greater than 5 feet from the centerline). Of these, daily reports indicate 70% or more were removals. It described the inside-of-easement work as trimming to enable new conductor to be raised and to permit access to the poles.
- Potential contributing factors to tree falls were: the 2022 and 2023 droughts and extreme cold, Derecho, and high soil moisture in advance of Beryl.
- CenterPoint estimates that 3,200 poles were replaced during Hurricane Beryl which is approximately .3 of 1% of the entire population of poles.

Proactive Pole Inspection/Replacement

CenterPoint systematically inspects and remediates poles, including third-party owned poles with CenterPoint equipment, to enhance system resiliency by identifying pole decay and other pole weakening factors that contribute to risk of power outages due to pole failures from extreme weather.

Overview

- CenterPoint operates transmission and distribution utilities for roughly 2.8 million Houston Electric customers and maintains a little over one million wood structures and poles. These include approximately 1,000,182 wood distribution poles and structures and 1,858 wood transmission poles and structures.
- Distribution and transmission poles are inspected by Osmose on a 10-year cycle. So approximately 10% of CenterPoint's distribution and transmission poles are assessed annually, on average, on a rolling 10-year cycle.
- Transmission poles are also inspected by CenterPoint on a 5-year cycle. So approximately 20% of CenterPoint's transmission poles are assessed annually, on average, on a rolling 5-year cycle. In addition, CenterPoint conducts annual aerial inspections by helicopter of its entire transmission system.



Process

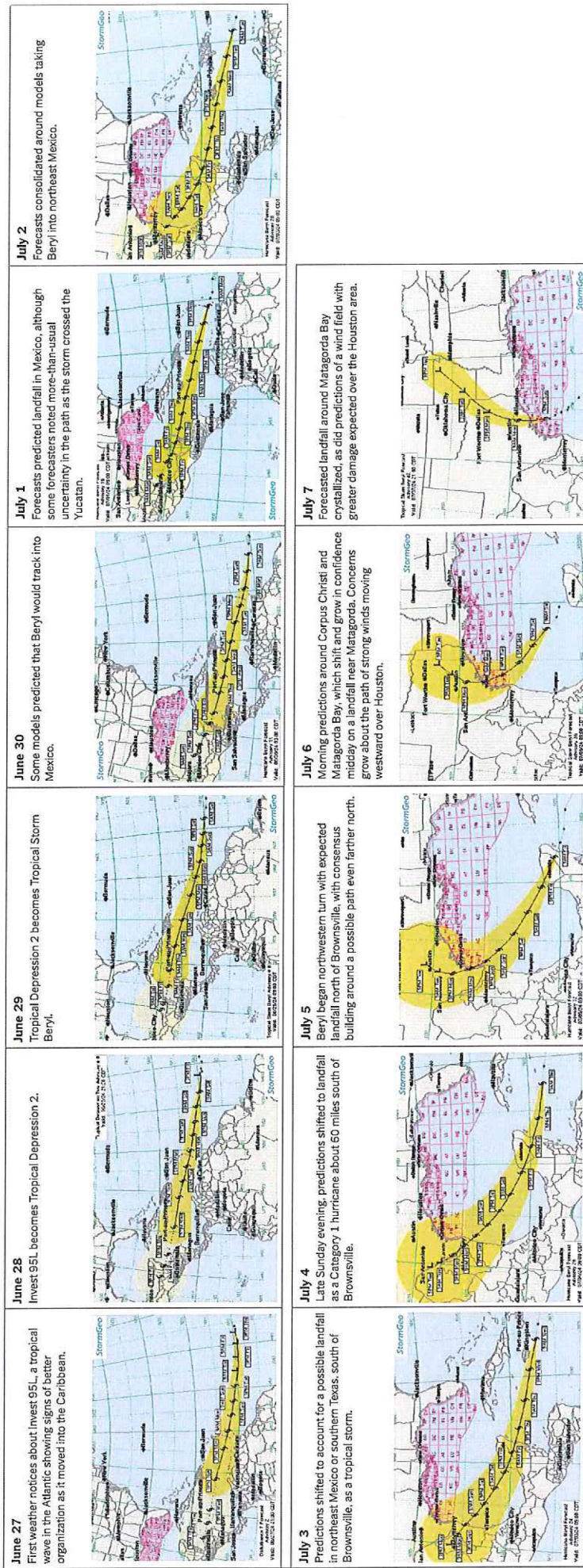
- Inspections are conducted by Osmose. Inspections involve an 18-step process that includes manual excavation to assess any decay below the ground line and boring/sounding to locate internal voids. Osmose considers this process a leading practice in the industry.
- Based on its inspection, Osmose calculates remaining pole strength and provides CenterPoint with a list of poles for remediation (pole bracing or replacement) in accordance with National Electric Safety Code (NESC) pole standards.
- Poles of sufficient strength remain in service until the next scheduled assessment and are treated with a preservative paste (or with a fumigant, as necessary) and tagged.
- In accordance with NESC standards, poles with less than two-thirds strength remaining require some form of remediation. CenterPoint remediates (replaces or braces) these poles within 12 months.
- Poles, however, that Osmose identifies as being close to the point of failure are immediately made safe in the field until replacement can occur. Such poles comprise approximately .06% of poles (~ 62 out of 108,836) inspected in 2023.
- CenterPoint ensures quality of inspections and remediation by randomly inspecting 2% of the poles inspected by Osmose and sampling pole replacements completed by contractors.

FIGURES ARE NOT FINAL AND ARE SUBJECT TO REVIEW

Weather

- CenterPoint received weather updates from county and state authorities and from StormGeo, a weather-tracking service. Those forecasts generally aligned.
- CenterPoint first became aware at the end of June of possibility of a developing storm, which became Beryl.
- From June 27 until the afternoon of July 5, forecasts predicted landfall of a tropical storm in northeast Mexico or the Texas border, close to Brownsville.
- On July 6, the storm's projected path shifted northward to an expected landfall on the morning of July 8 in Matagorda Bay.
- Emergency Level 2 activated for CenterPoint on July 7 at 2:03PM.
- Emergency Level 1 activated for CenterPoint on July 8 at 1:07PM.

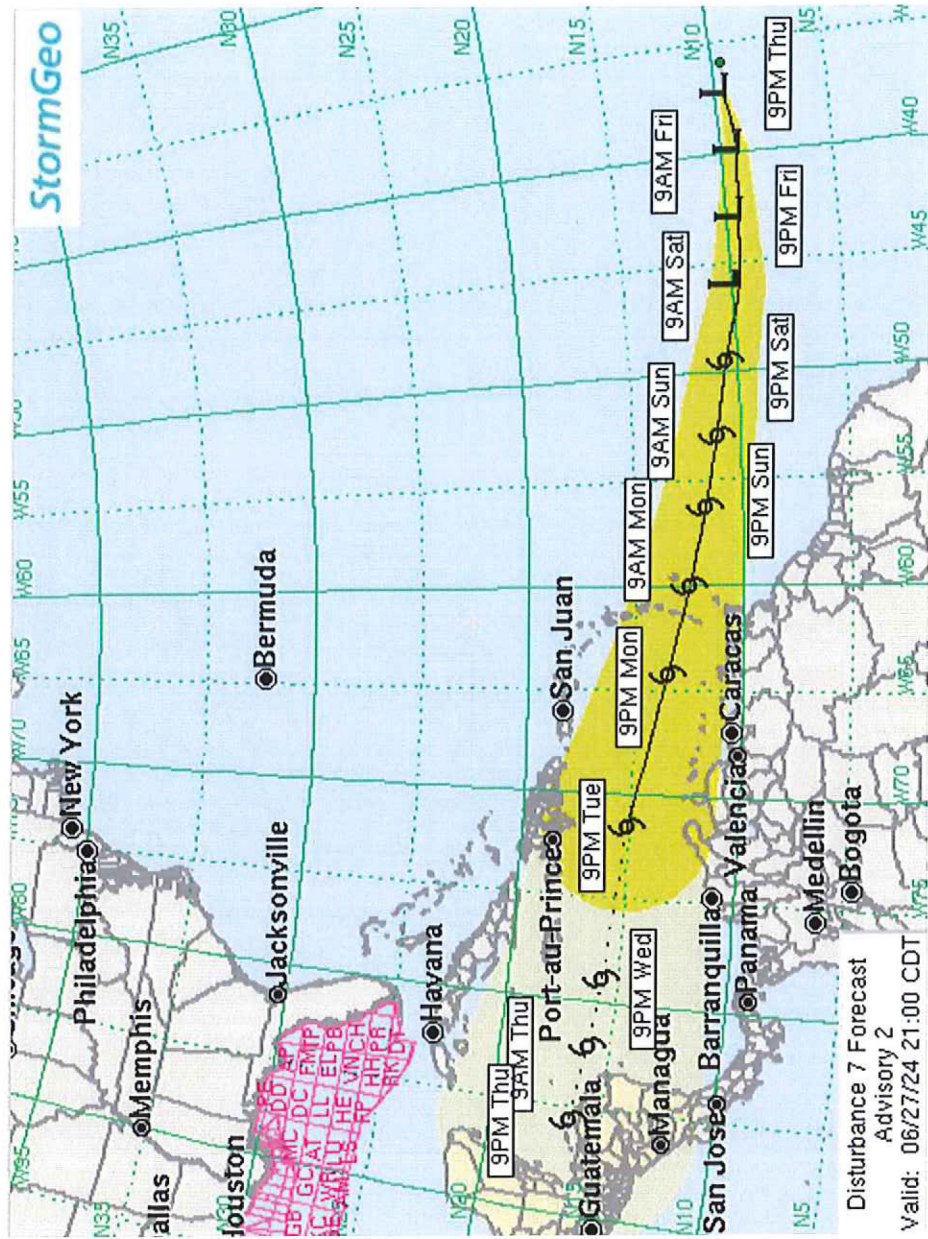
Storm Track and Shifting Forecasts



Storm Track and Shifting Forecasts

June 27

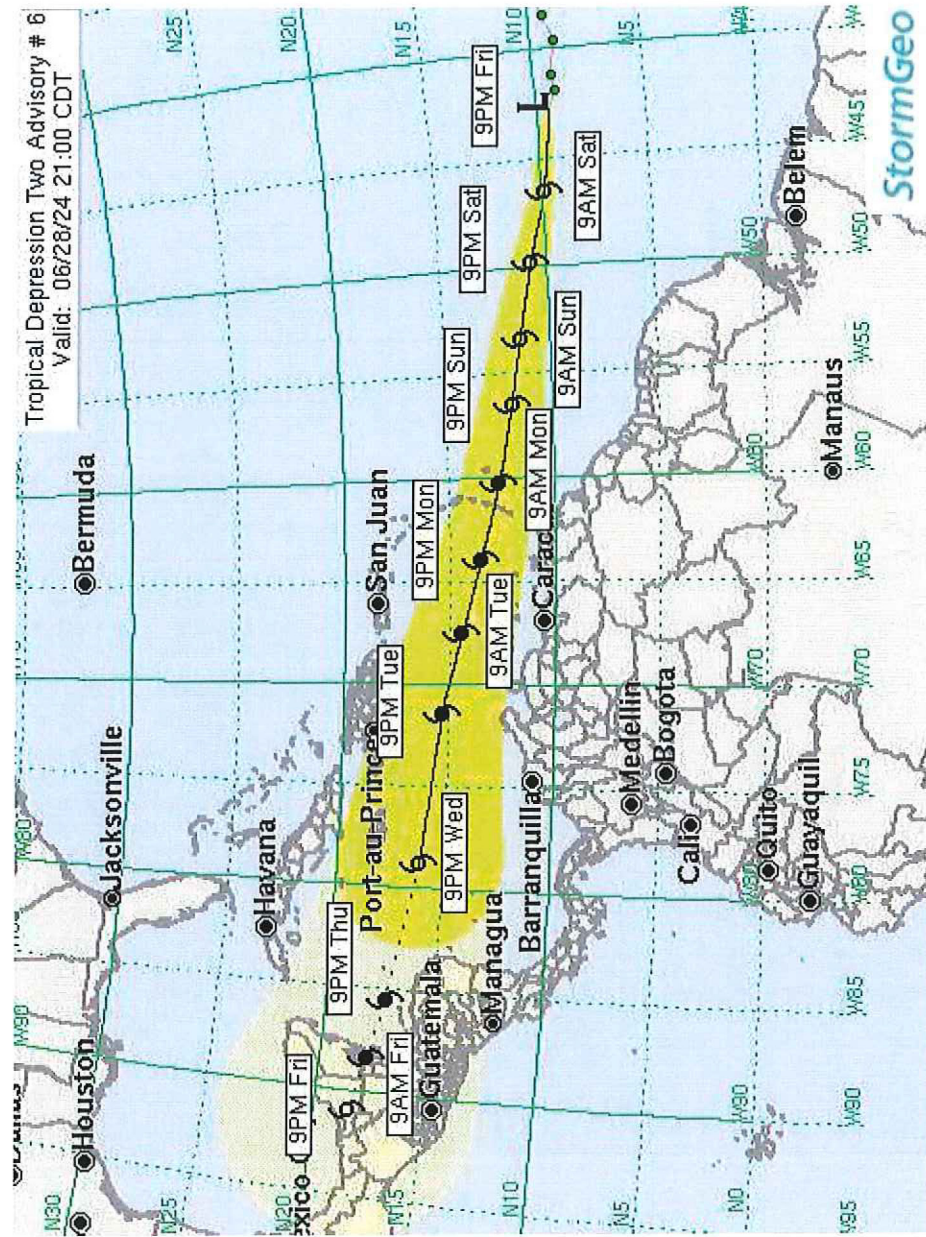
First weather notices about Invest 95L, a tropical wave in the Atlantic showing signs of better organization as it moved into the Caribbean.



Storm Track and Shifting Forecasts

June 28

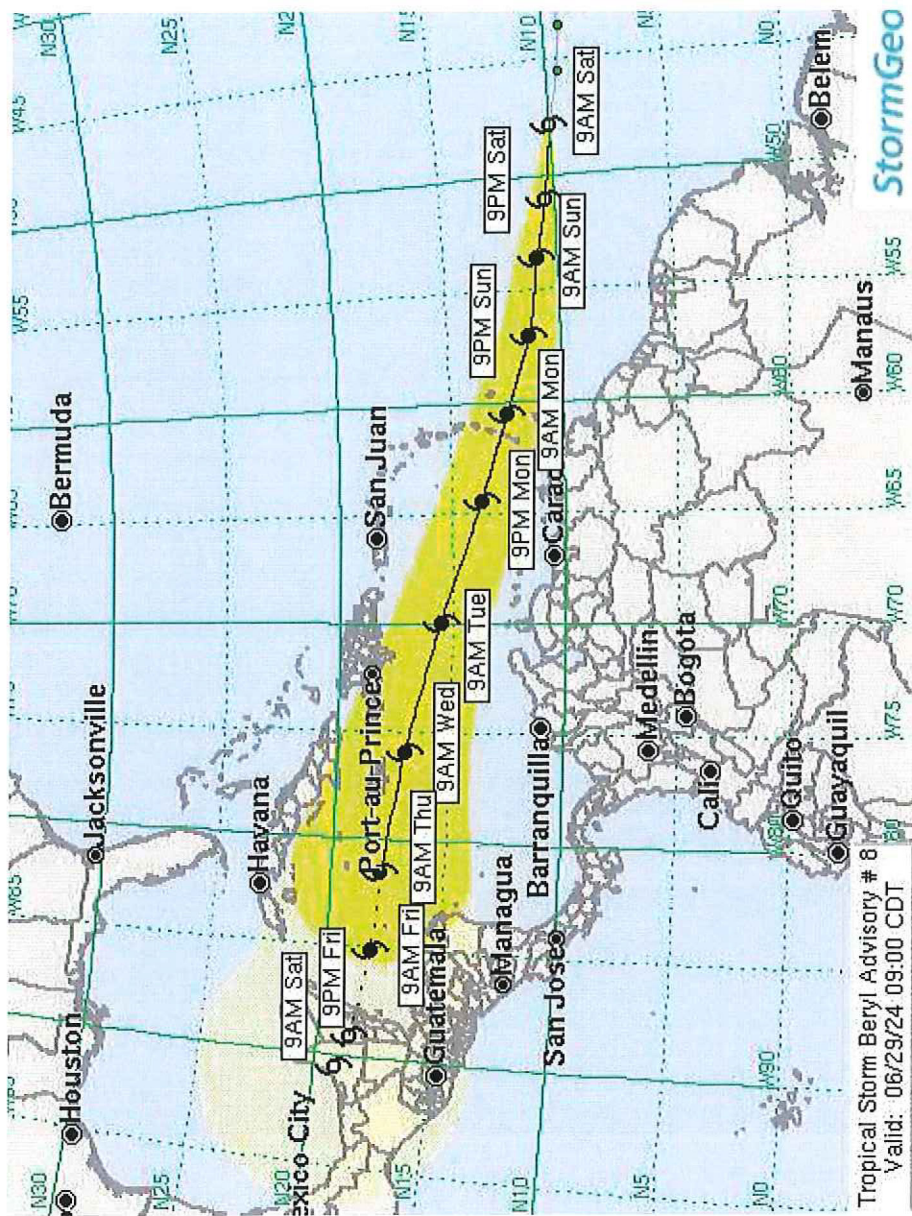
Invest 95L becomes Tropical Depression 2.



Storm Track and Shifting Forecasts

June 29

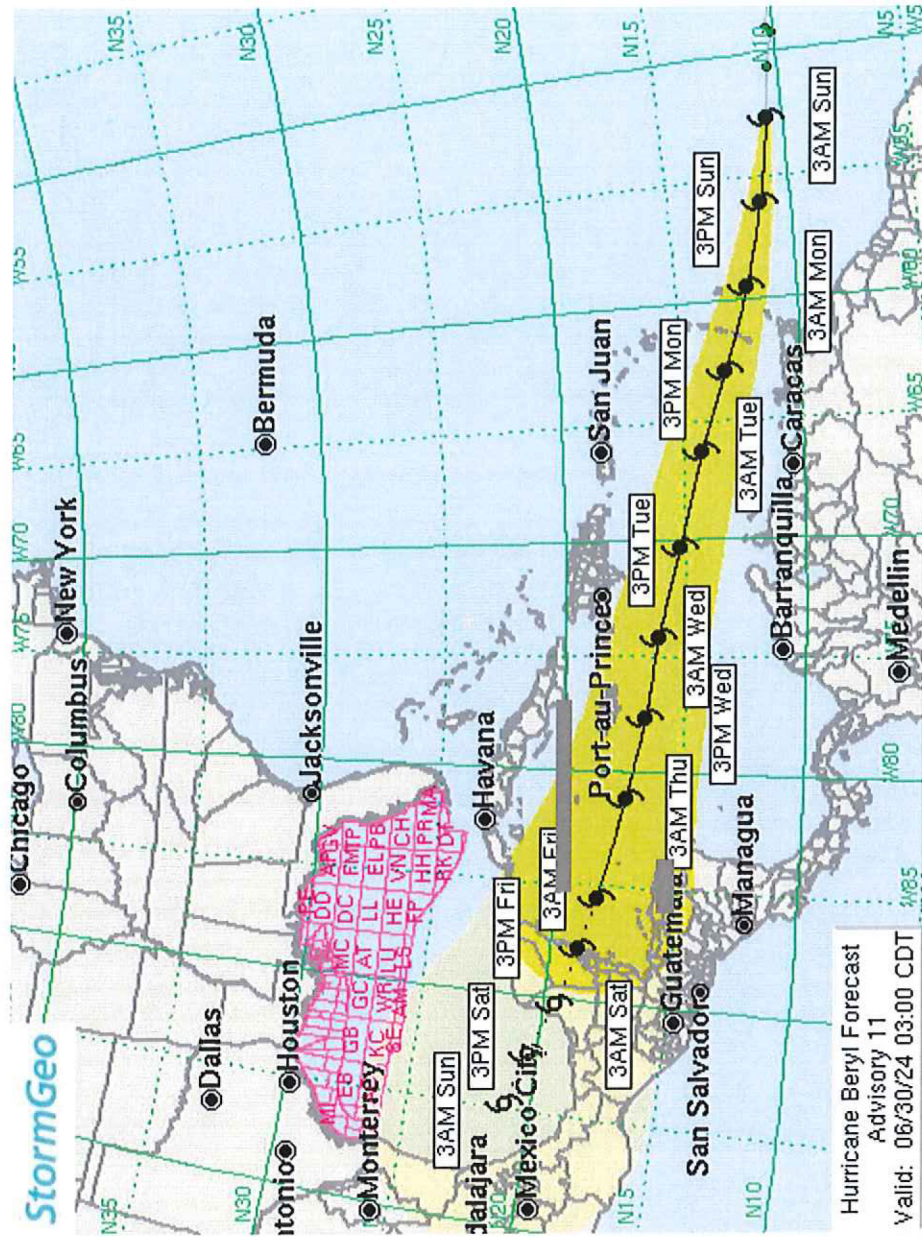
Tropical Depression 2 becomes Tropical Storm Beryl.



Storm Track and Shifting Forecasts

June 30

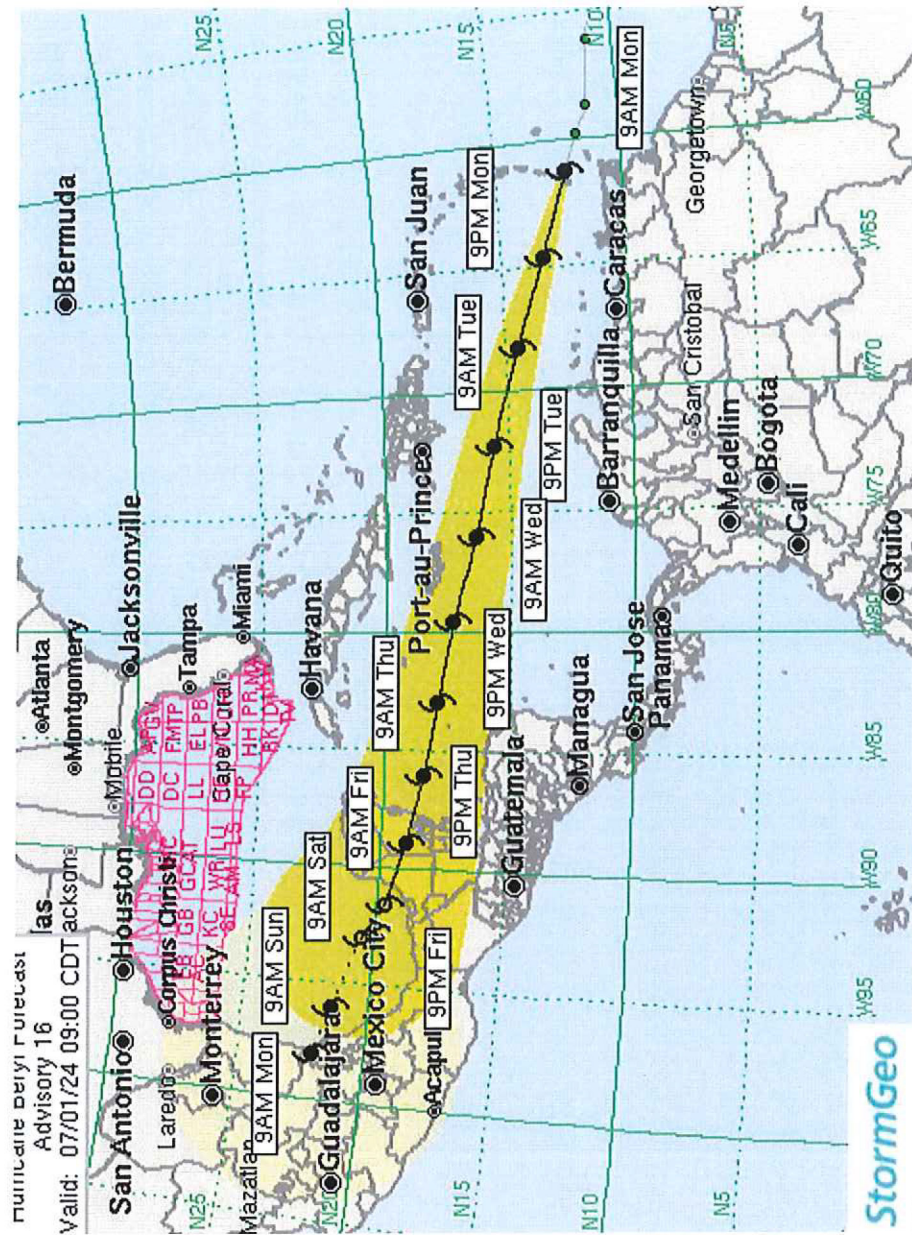
Some models predicted that Beryl would track into Mexico.



Storm Track and Shifting Forecasts

July 1

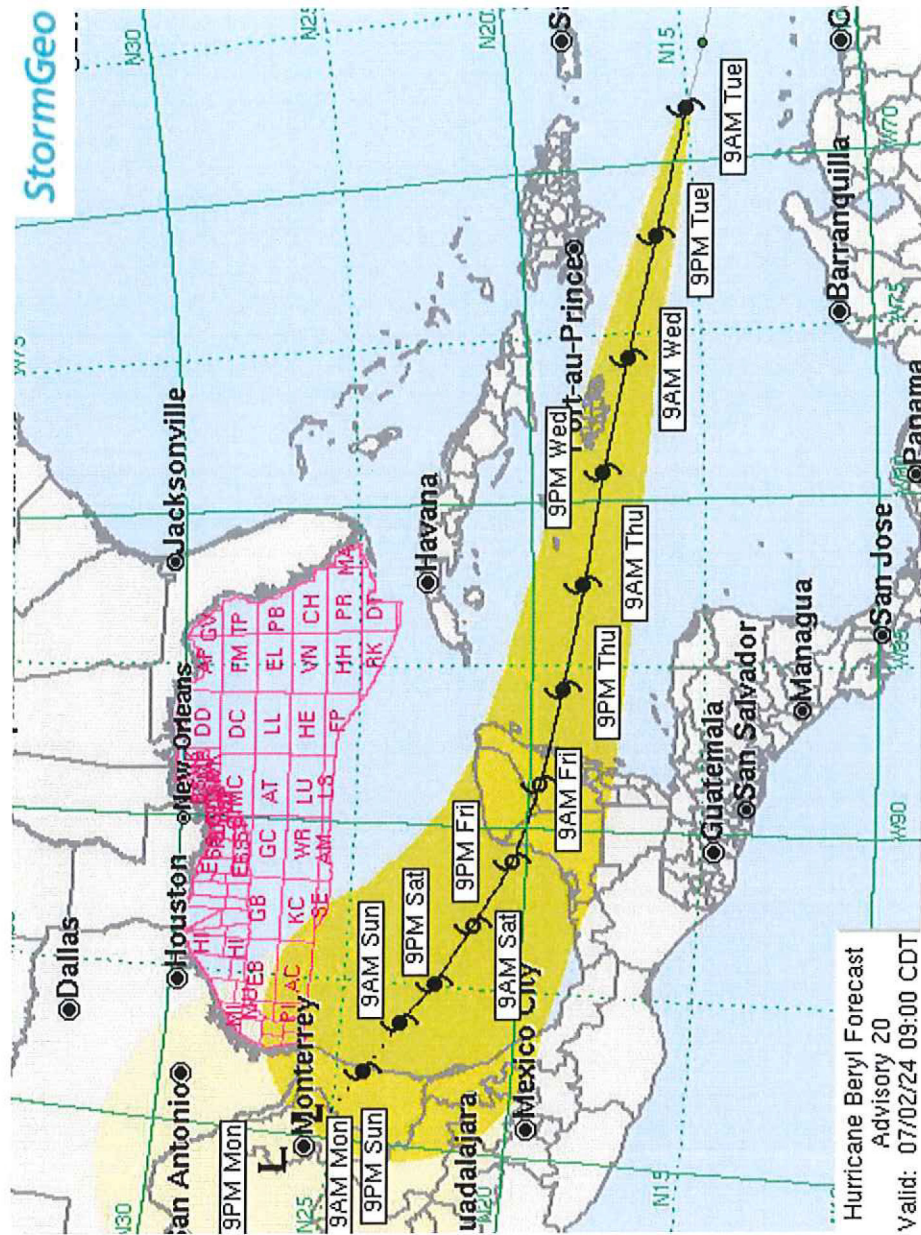
Forecasts predicted landfall in Mexico, although some forecasters noted more-than-usual uncertainty in the path as the storm crossed the Yucatan.



Storm Track and Shifting Forecasts

July 2

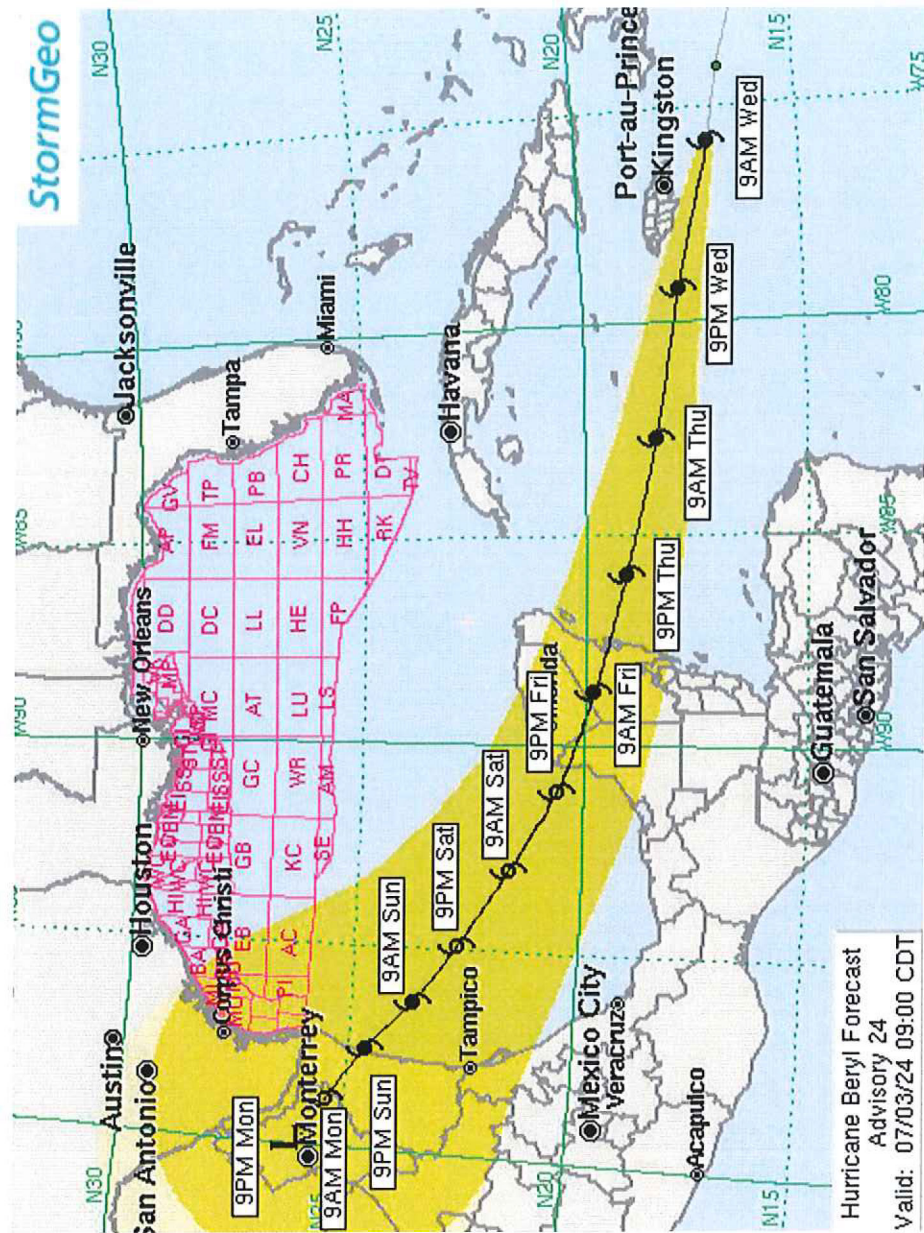
Forecasts consolidated around models taking Beryl into northeast Mexico.



Storm Track and Shifting Forecasts

July 3

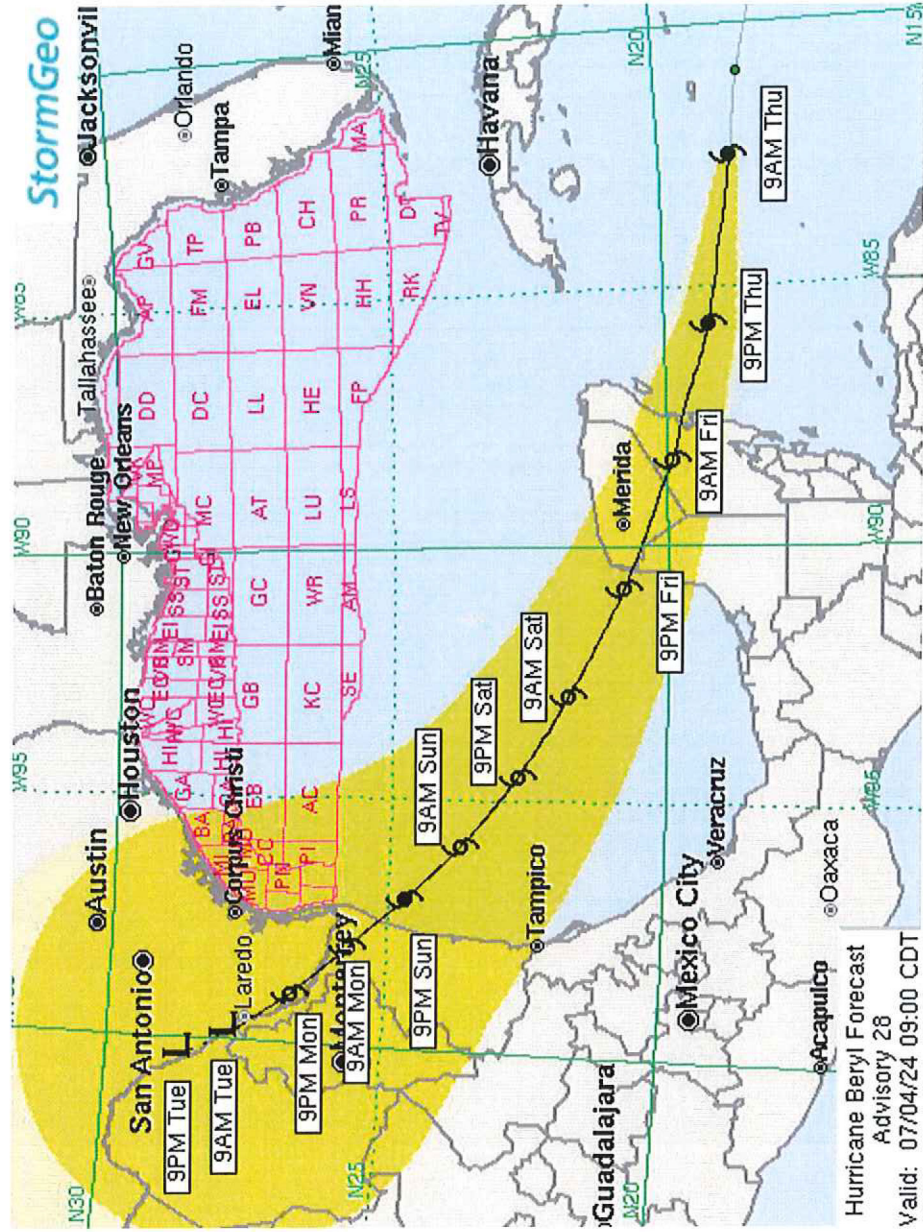
Predictions shifted to account for a possible landfall in northeast Mexico or southern Texas, south of Brownsville, as a tropical storm.



Storm Track and Shifting Forecasts

July 4

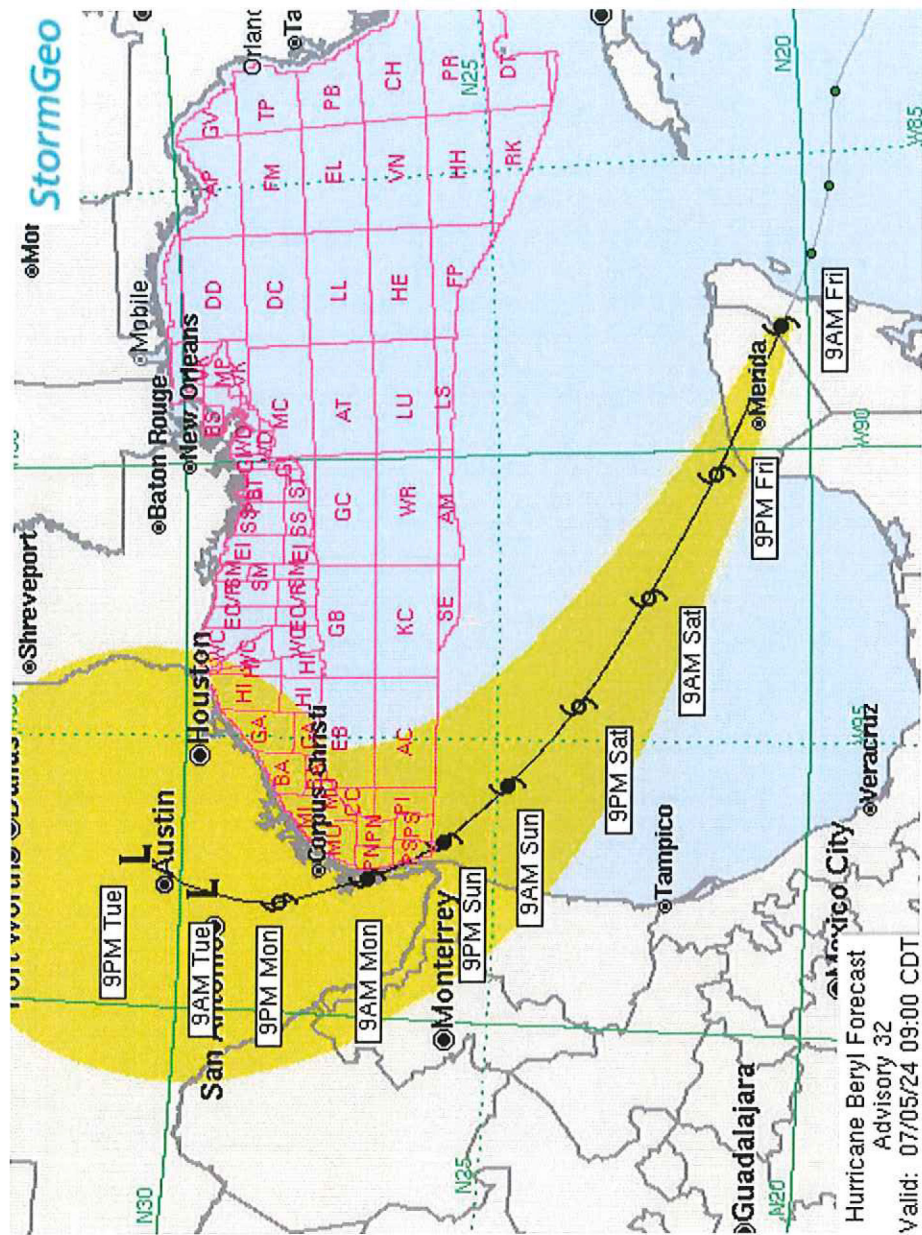
Late Sunday evening, predictions shifted to landfall as a Category 1 hurricane about 60 miles south of Brownsville.



Storm Track and Shifting Forecasts

July 5

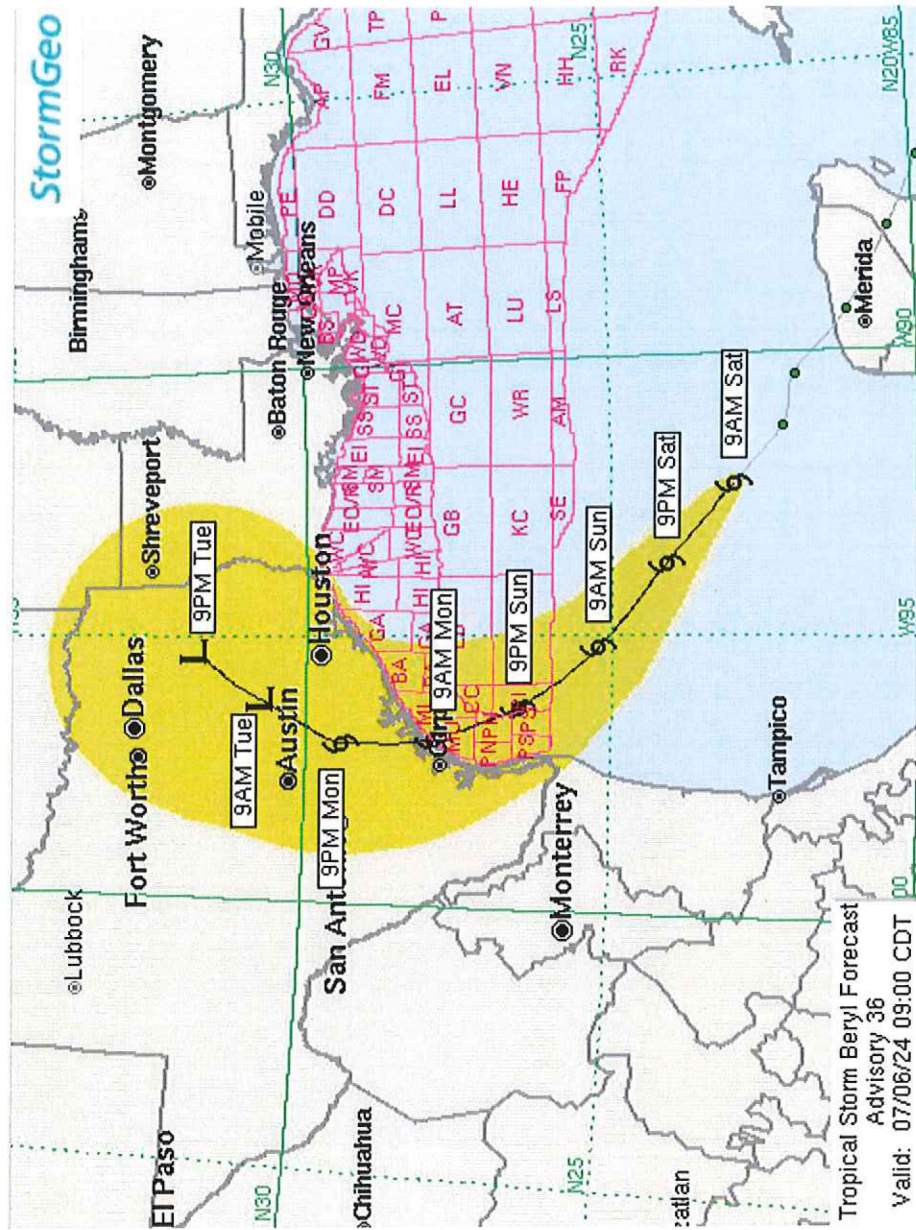
Beryl began northwestern turn with expected landfall north of Brownsville, with consensus building around a possible path even farther north.



Storm Track and Shifting Forecasts

July 6

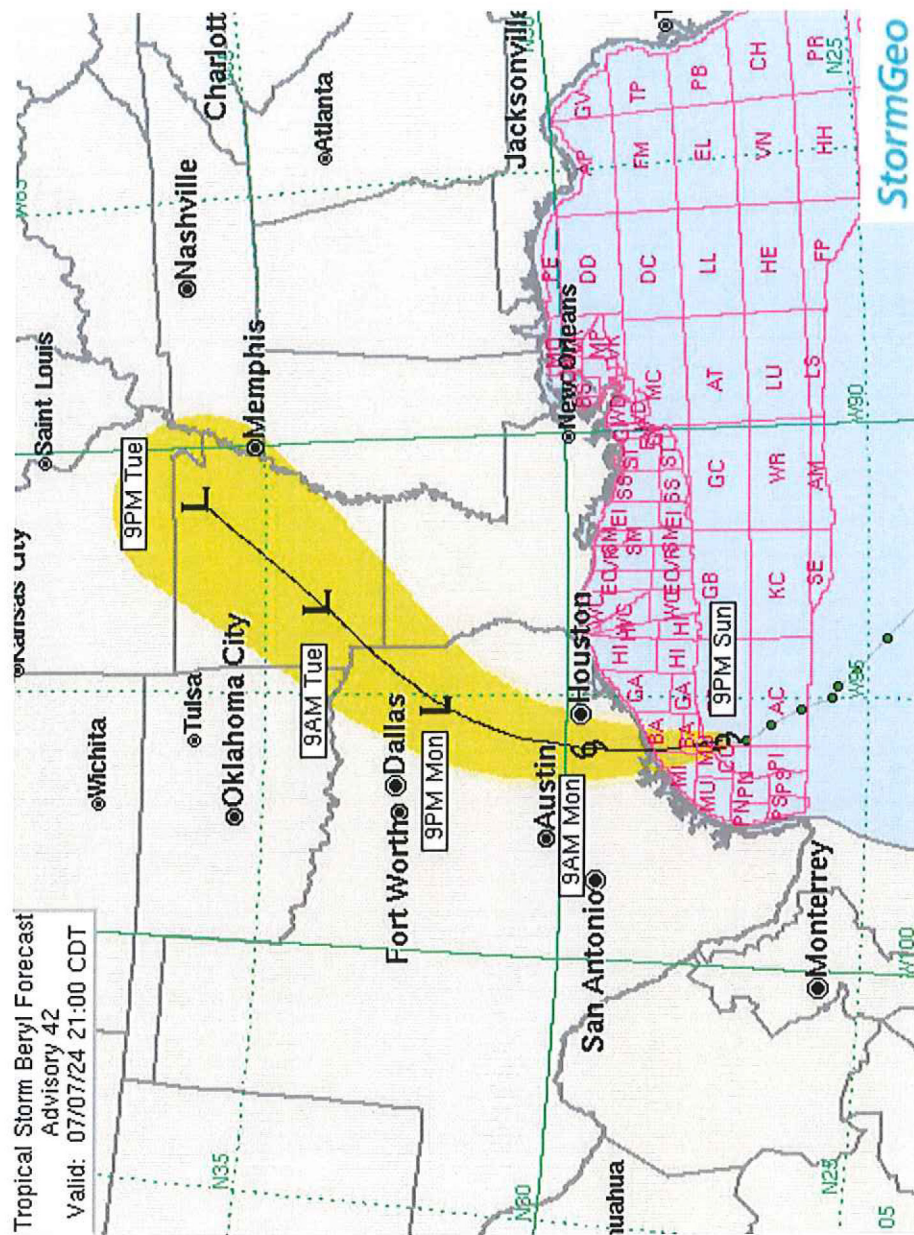
Morning predictions around Corpus Christi and Matagorda Bay, which shift and grow in confidence midday on a landfall near Matagorda. Concerns grow about the path of strong winds moving westward over Houston.



Storm Track and Shifting Forecasts

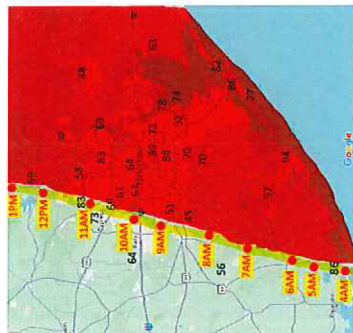
July 7

Forecasted landfall around Matagorda Bay crystallized, as did predictions of a wind field with greater damage expected over the Houston area.



Frank Billingsley: Observed Conditions in CenterPoint Service Area

Hurricane path from landfall at Matagorda Bay, across western Harris County, and north to Montgomery County.

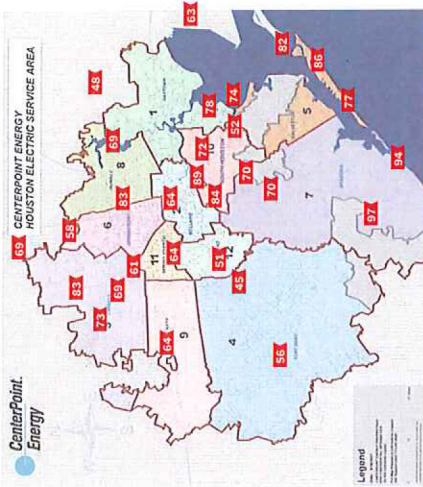


Roughly 80% of the CenterPoint service area was directly impacted by the east or "dirty" side of Hurricane Beryl.

The most dangerous part of the hurricane is the east side, known as the "dirty" side. The path of Beryl and to the east were most greatly affected by high winds, gusts, heavy rain, and storm surge.

Highest wind gusts reported.

Harris County was affected from 5 a.m. to noon, with highest winds from 9 a.m. to 10 a.m.



Hurricane paths and wind speeds:

- Alicia 1983
- Ike 2008
- Nicholas 2021
- Beryl 2024

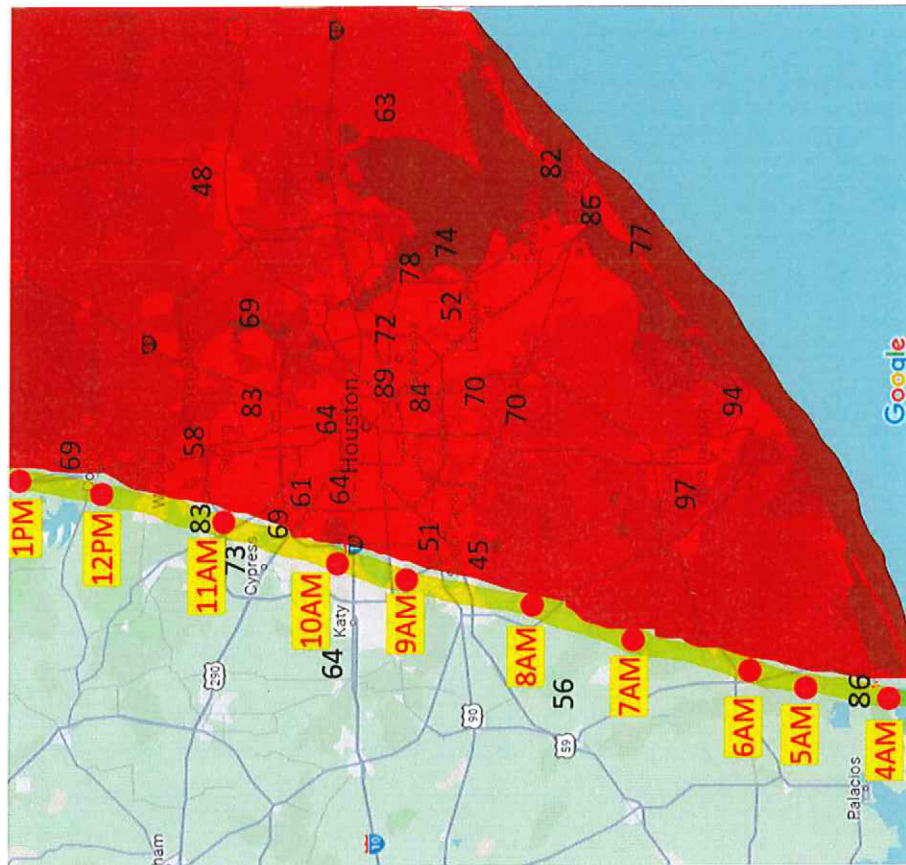
Greatest impacts in all cases were on the right side, or dirty side, of the storm.

- Hurricane Beryl made landfall at Matagorda Bay on Monday, July 8, 2024 at 4:00 a.m.
- Hurricane Beryl's eye passed at or near the Greater Houston Area on July 8, 2024, from 8:30 a.m. to 11:00 a.m.
- The eye of Hurricane Beryl cleared the CenterPoint service area at 12:00 p.m., but residual clouds and light rain with breezy conditions lasted until the mid-afternoon.
- Peak wind speed from Hurricane Beryl in the Greater Houston Area:
 - University of Houston: 89 mph
 - Hobby Airport: 84 mph
 - Bush Airport: 83 mph
 - Tomball Hooks Airport: 83 mph
 - Morgan's Point: 78 mph
 - LaPorte: 74 mph
 - Hillshire Village: 64 mph
 - Pasadena: 72 mph
 - Lake Houston at 1960: 69 mph
- These peak wind gusts occurred from 9:00 a.m. to 10:00 a.m., although wind gusts in the 60 mph range continued until 11:00 a.m.
- According to Billingsley, "the number of hours for sustained winds and gusts was extraordinary." For example, at Hobby Airport, the wind and gusts lasted from 5:00 a.m. to almost 2:00 p.m.



Frank Billingsley recently retired from his position as Chief Meteorologist at KPRC Channel 2, which he had held since 1995. He is the longest-running TV meteorologist in Houston.

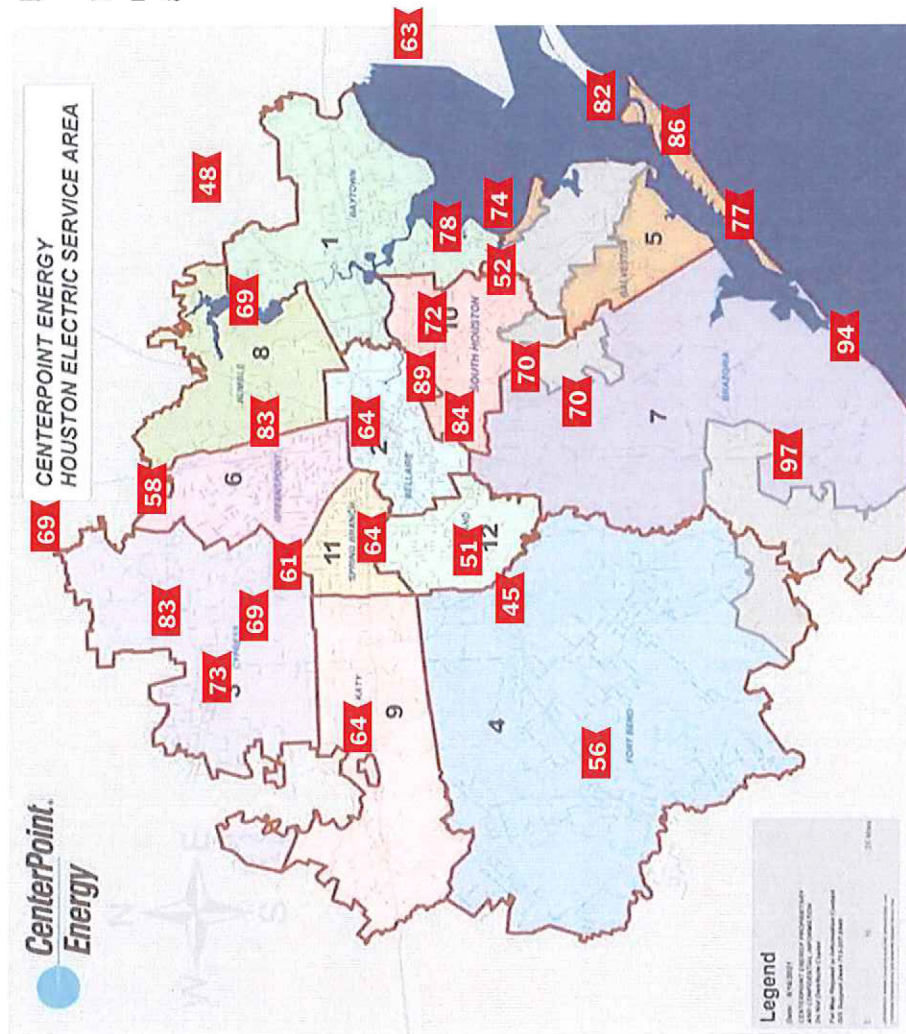
Frank Billingsley: Observed Conditions in CenterPoint Service Area



Roughly 80% of the CenterPoint service area was directly impacted by the east or "dirty" side of Hurricane Beryl.

The most dangerous part of the hurricane is the east side, known as the "dirty" side. The path of Beryl and to the east were most greatly affected by high winds, gusts, heavy rain, and storm surge.

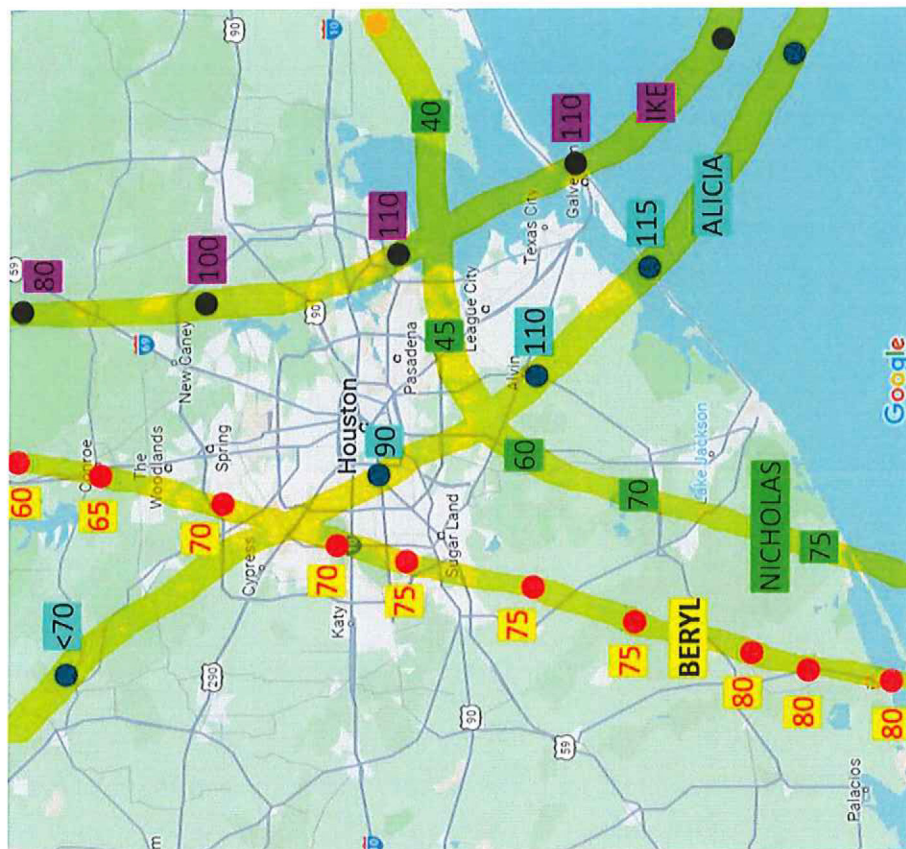
Frank Billingsley: Observed Conditions in CenterPoint Service Area



Highest wind gusts reported.

Harris County was affected from 5 a.m. to noon, with highest winds from 9 a.m. to 10 a.m.

Frank Billingsley: Observed Conditions in CenterPoint Service Area



Hurricane paths and wind speeds:

- Alicia 1983**
- Ike 2008**
- Nicholas 2021**
- Beryl 2024**

Greatest impacts in all cases were on the right side, or dirty side, of the storm.

CenterPoint Hurricane Preparedness

September 2023

- Emergency Preparedness and Response (EP&R) department formed & Jonathan Robb hired as Director
- Much of the emergency preparedness work was previously covered in each CenterPoint utility separately. The department centralized this work and allowed for scalable and flexible responses depending on size of event.

June 7, 2023

Emergency Operations Plan (EOP) drill

September through December 2023

- EP&R began enhancing and upgrading emergency preparedness plans.
- Implemented Incident Command System ("ICS") as consistent organizational response for emergencies.
 - Based on the National Incident Management System (NIMS).
 - CEHE already had an ICS structure. Structure now implemented Company-wide.
 - Aligned emergency levels (i.e., Levels 1-4) to be consistent with local, state and federal agencies.
 - Developed Situation Report (SitRep) and Incident Action Plan (IAP) documents to provide awareness to leadership.

January 2024

EP&R begins rolling out upgrades to emergency response plans and developing future goals.

March 15, 2024

Filed 2024 updated Emergency Operations Plan with PUC.

April 23, 2024

EOP Drill/Hurricane Tabletop Exercise – Test plans, develop mitigations, and implement strategies to address observations. Additional training provided to ancillary services during May 2024.

February-March 2024

Attended, helped plan, and participated in Edison Electric Institute (EEI) national response exercise in Washington, D.C. regarding nationwide mutual assistance (EP&R and Operations team members attended).

May 16, 2024

Derecho – CenterPoint After-Action Plan for Derecho event analyzed response and steps for improvement.

JUNE 2023	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY 2024	FEBRUARY	MARCH	APRIL	MAY
--------------	-----------	---------	----------	----------	-----------------	----------	-------	-------	-----

FIGURES ARE NOT FINAL AND ARE SUBJECT TO REVIEW

TAB 4

THIS PAGE INTENTIONALLY LEFT BLANK

Hurricane Beryl Report

compiled for CenterPoint Energy Houston Electric, LLC

July 23, 2024

CenterPoint Energy Houston Electric, LLC
1111 Louisiana Street
Houston, TX 77002

Dear CenterPoint,

I am meteorologist Frank Billingsley, and I hold a Journalism/Mass Communications degree from Washington and Lee University and a Broadcast Meteorologist Certification from Mississippi State University. I spent 42 years delivering television weather, the past 29 years at KPRC-TV (NBC) as Chief Meteorologist. Prior to KPRC, I was the weekend meteorologist for KTRK (ABC) in Houston 1989-1995, chief meteorologist at WLOX (ABC) in Biloxi, MS 1987-1988, and weekend meteorologist at WDBJ (CBS) in Roanoke, VA 1982-1986. I attained the television forecasting seals of approval from both the National Weather Association (1986) and the American Meteorological Society (1989). My first broadcast detailing tropical weather was for Hurricane Alicia in 1983 and my last broadcast was for Hurricane Beryl which became a tropical storm immediately before my final 10pm broadcast on June 28, 2024.

I am well-qualified to analyze Beryl and how it affected the greater Houston area. This letter summarizes the recent Hurricane Beryl, how it progressed, and how it impacted the greater Houston area.

As detailed below, Beryl was a record-setting hurricane in the Caribbean Sea reaching Category 5 strength earlier than any hurricane on record. The storm lost strength as it moved across the Yucatan Peninsula but re-energized over the Gulf of Mexico making landfall near Matagorda, Texas in the early morning hours of July 8, 2024 as an 80mph Category 1 hurricane. The hurricane continued to move north during the morning hours across the west side of Harris County, placing the Houston metro area on its "dirty" side with sustained high winds creating significant impacts to trees and power lines. The hurricane did not exit the Houston area until noon. The location of Hurricane Beryl with wind gusts to 90mph and its very slow weakening once on land contributed significantly to the widespread damage associated with the storm.

HURRICANE BERYL

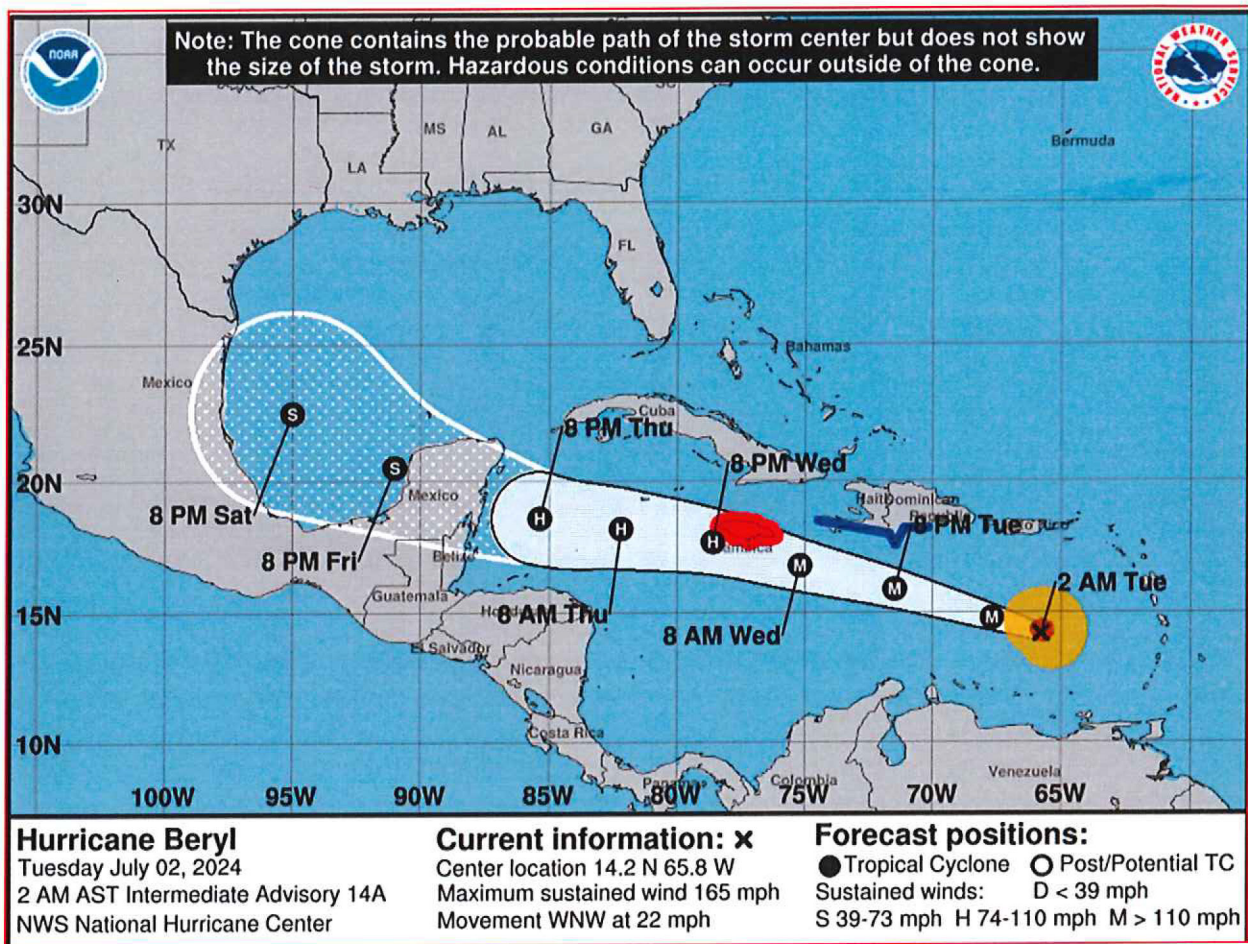
Hurricane Beryl made landfall in Matagorda, TX at 4am on July 8, 2024 with the first outer rainbands reaching Southeast Texas during the afternoon on July 7. Beryl moved northwest originally but then turned quickly to the north at 13mph to be in southwest Harris County at 9am, just north of I-10 and west of Highway 6 by 10am (when it was first downgraded to a tropical storm), then a few miles east of Tomball by 11am.

Beryl's eye passed at or near the greater Houston area from 8:30 a.m. to 11 a.m. The eye of Beryl cleared the CenterPoint Energy service area around 12 p.m. noon, but residual clouds and light rain with breezy conditions lasted until the mid-afternoon.

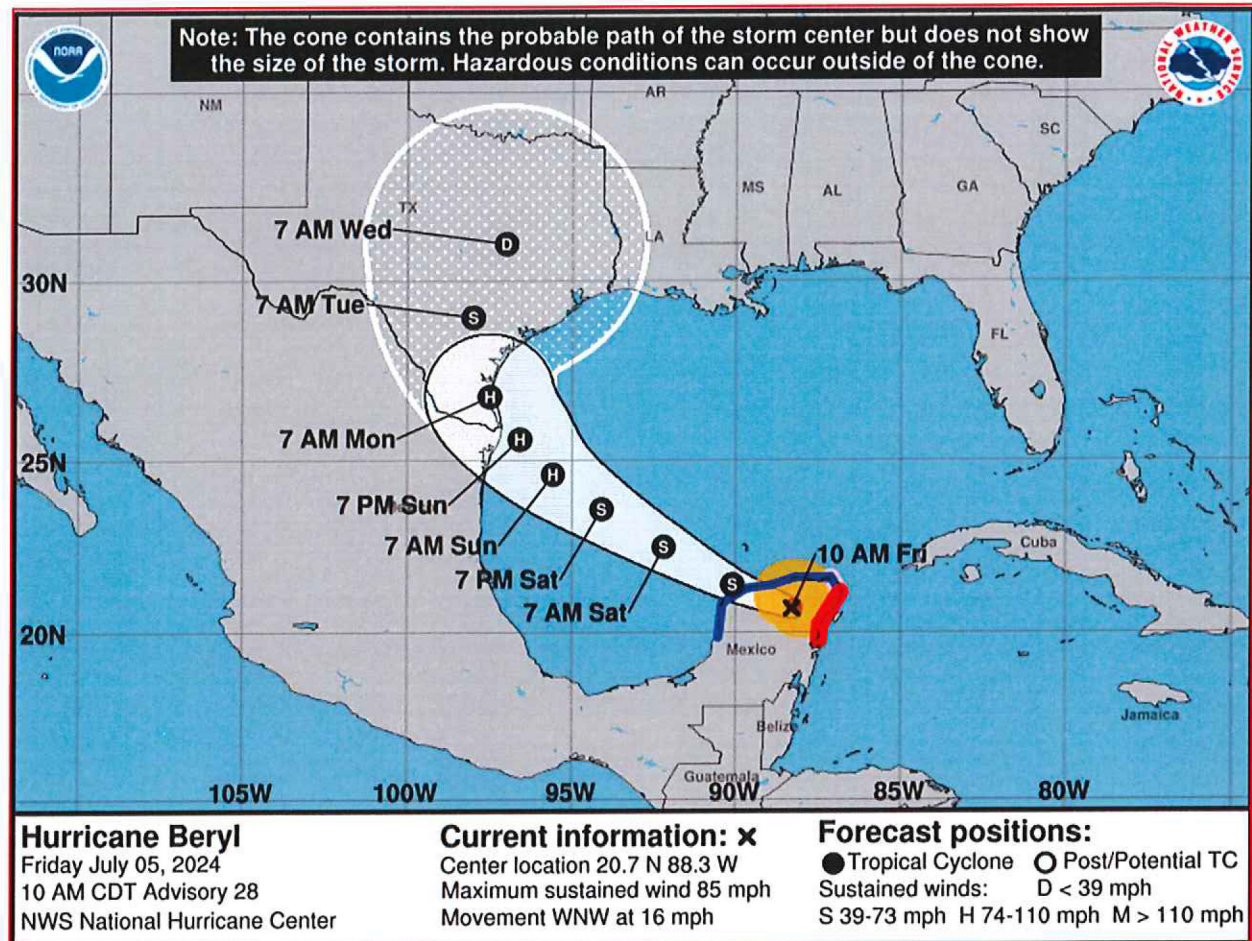
At noon, the storm moved to southwest of Conroe and at 1pm just south of New Waverly, both in Montgomery County. As it moved across the region, the storm brought coastal flooding, flash flooding, and widespread wind damage to area. The highest sustained wind was at the entrance to Galveston Bay (73mph) with the highest gust (97 mph) near State Highway 36 at the Brazos River in Brazoria County. The strong and persistent winds brought numerous trees and power lines down across the area resulting in widespread power outages. On average, Beryl produced around 4-8 inches of rainfall, but there were swaths of 10-15 inches where rainbands persisted. There has been one confirmed tornado, an EF-1 that started out as a waterspout that crossed over Galveston Island near Jamaica Beach during the early morning hours of July 8th. However, radar does not usually capture tornadoes below the height of 10,000feet and tornadoes associated with hurricanes are often below that level. The possibility of unconfirmed tornadoes exists.

BERYL PROGRESSION

A July hurricane in the Atlantic is rare. On record, only 75 North Atlantic hurricanes out of 960 have formed in July since records began in 1851. Not only did Beryl form early (June 28) but became a Category 5 hurricane (165mph) while in the Caribbean on July 2nd. This was the earliest Category 5 hurricane ever to form. At this time on July 2, the storm's future path went almost directly west toward Mexico:

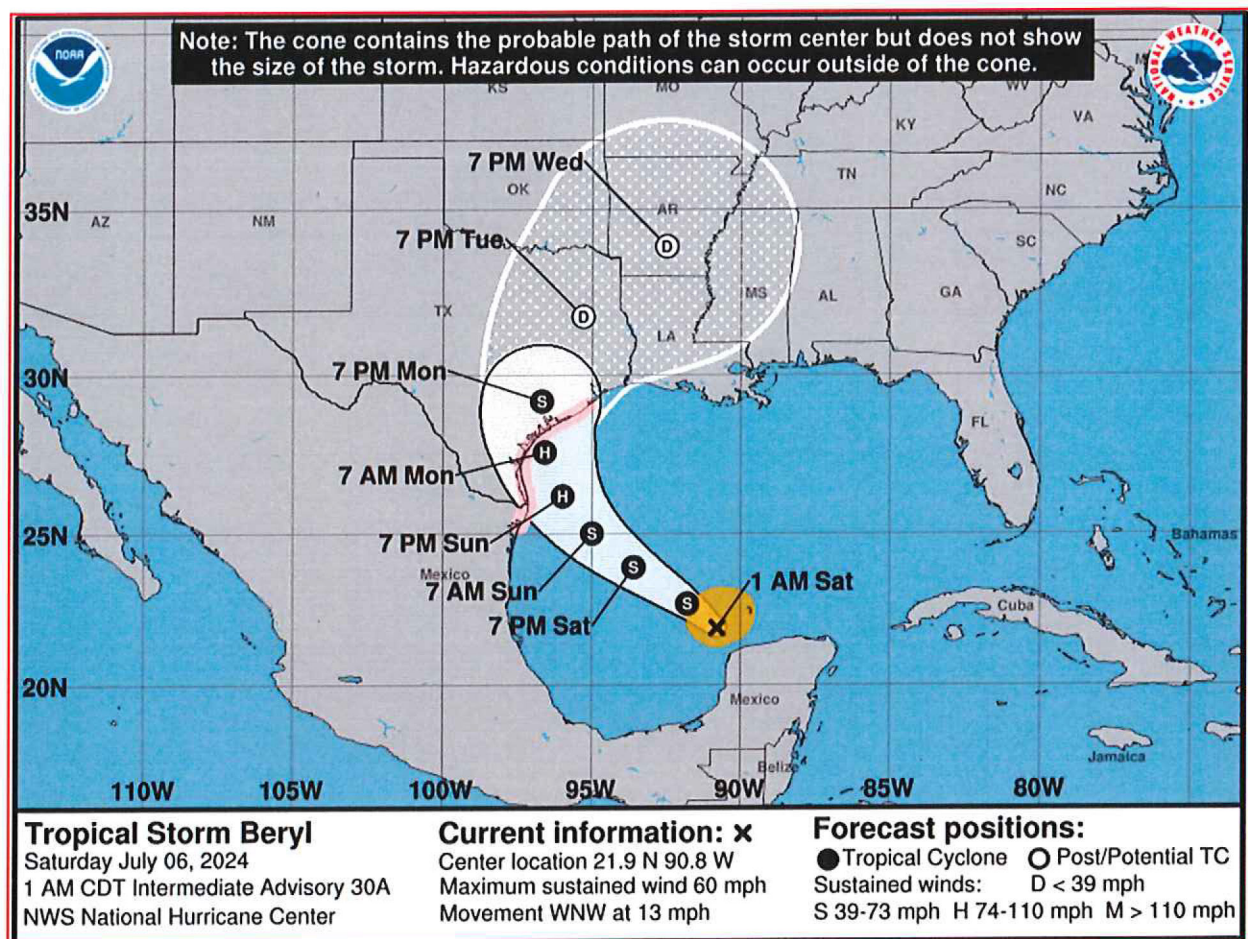


The storm lost strength (110mph winds) as it moved into the Yucatan Peninsula on July 5th. The July 5th at 10am advisory graphic that day is the first to suggest that the storm may turn and affect Southeast Texas.



Beryl emerged into the Gulf of Mexico early Saturday, July 6th at 1am with 60mph winds. Dry air and strong upper-level winds inhibited much strengthening. Beryl was forecast to become a

hurricane before making landfall and southeast Texas was clearly a target of the storm. Until landfall at 4am Monday, the track forecast indicated a landfall near Matagorda Bay.



The National Hurricane Center in advisory discussions warned that track error could be 30-50 miles off but, more importantly, that intensity error could be off by 1 Category. While suggesting that a Category 2 hurricane was possible, the Hurricane Center never forecasted a Category 2 hurricane. Its highest wind forecast was for 90mph winds. It also continually advised that the storm would weaken quickly. The Hurricane Center's Sunday, July 7th, 10pm advisory warns of 70-75mph winds at landfall, but that it would weaken rapidly, as provided below:

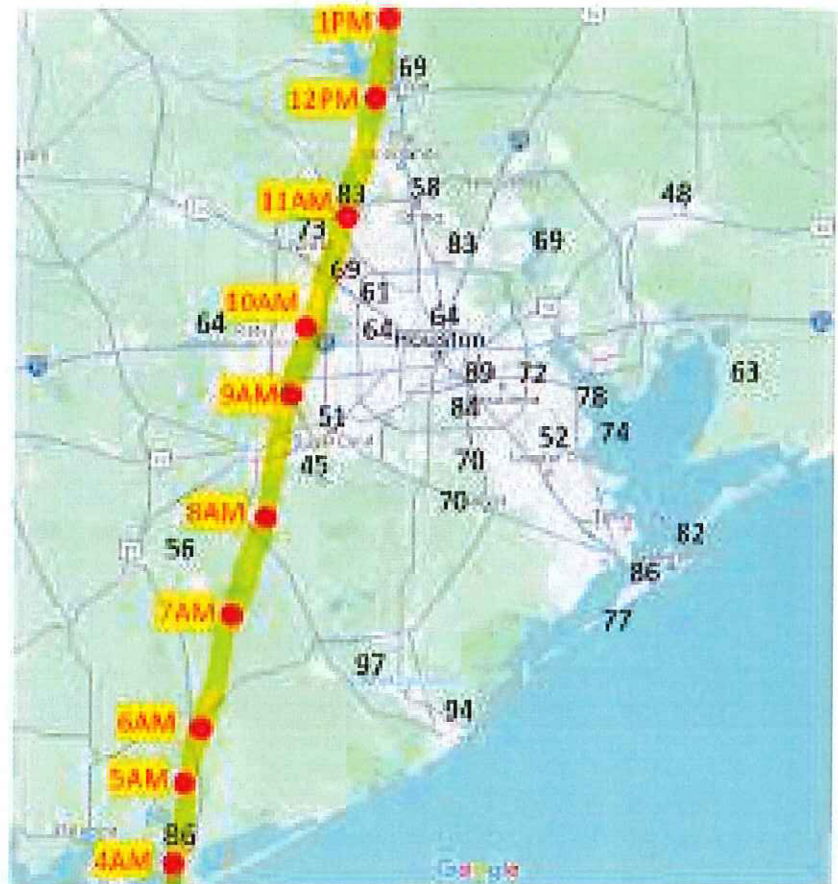
"After landfall, rapid weakening is expected while the system moves farther inland"

THE DAY OF THE STORM

In fact, Beryl arrived on July 8 with 80mph winds. Beryl did not weaken rapidly but maintained strength of 75mph winds into southwestern Harris County. From 10am-11am, July 8th, Beryl continued to be a 70mph Tropical Storm diminishing to 65mph southwest of Conroe and 60mph south of New Waverly.

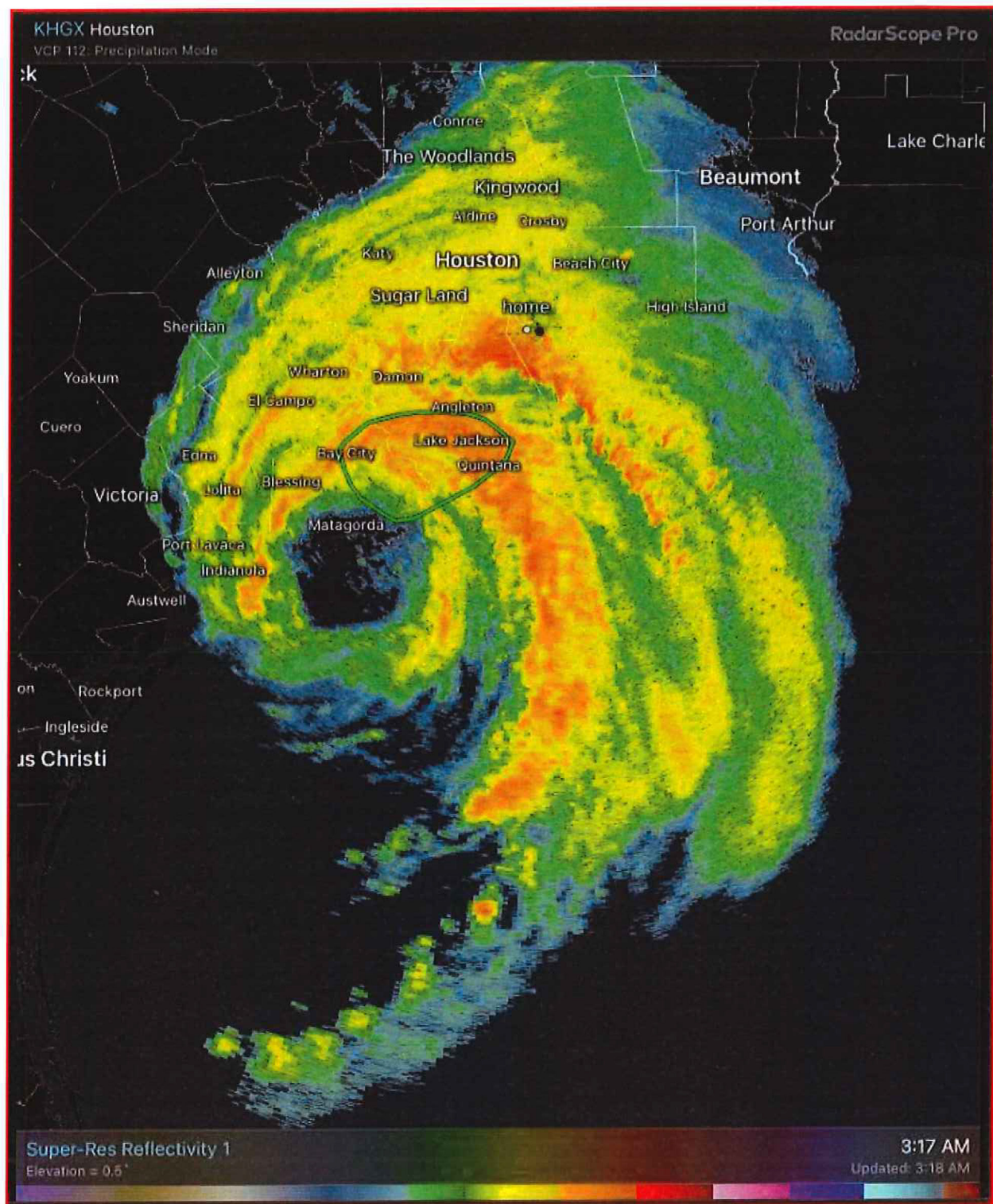
Beryl's storm path on July 8 from landfall at Matagorda, TX, across western Harris County, and north to Montgomery County is illustrated below:

Hurricane path
from landfall at
Matagorda Bay,
across western
Harris County, and
north to
Montgomery
County.

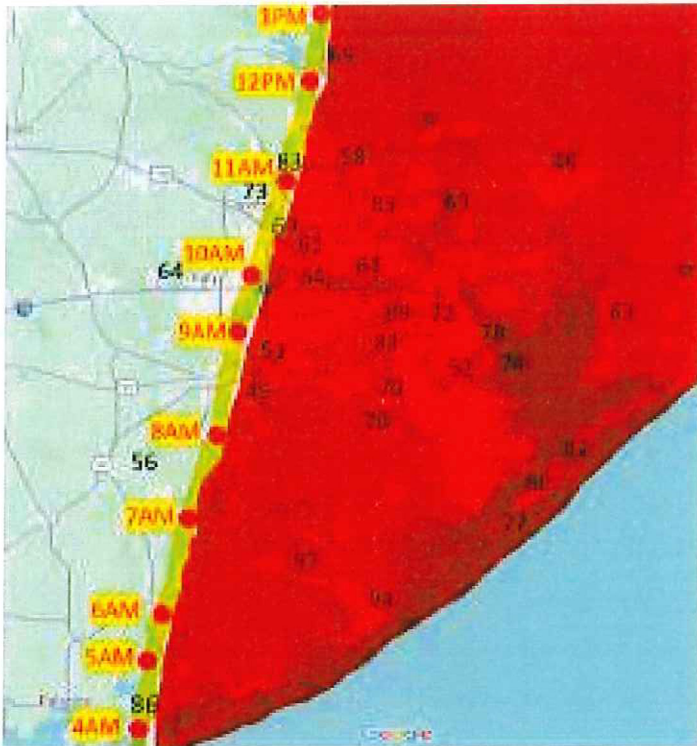


The most dangerous part of a hurricane is the east side, known as the "dirty" side where winds tend to be the strongest. The reason is that the forward movement affects the right (or east) side and that forward movement factors into a total wind speed. For instance, if the storm is moving 15 mph then on the "dirty" side a 60 mph wind can increase to 75 mph, while on the "clean" or west side, the 15 mph can be subtracted and those winds can be closer to 45 mph.

The radar picture below from the National Weather Service Houston was minutes before landfall and it reflects that the rainbands and stronger part of the hurricane is clearly on the east side:



Notably, roughly 80% of the CenterPoint Energy service area was directly impacted by the east or "dirty" side of Hurricane Beryl:

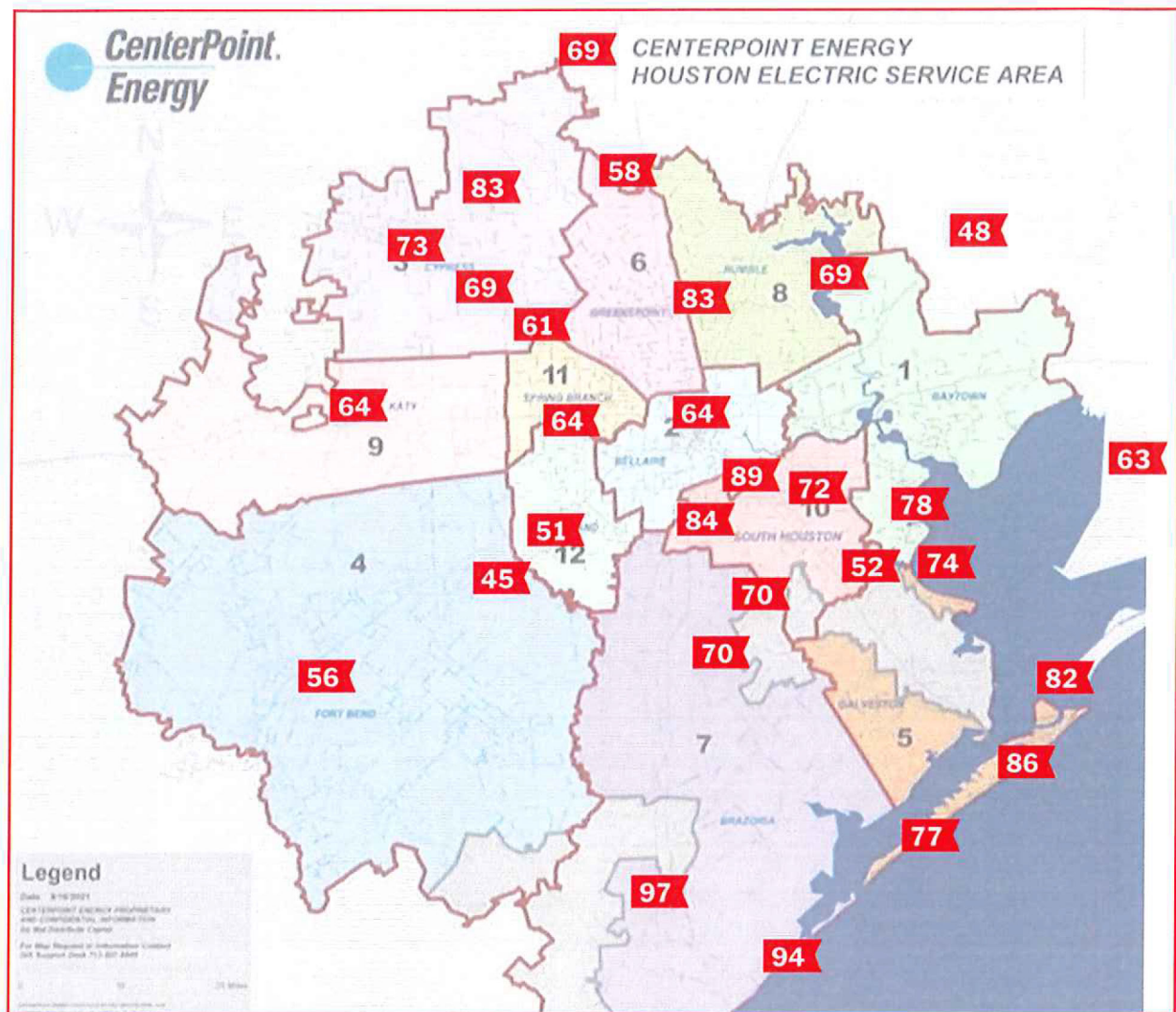


Roughly 80% of the CenterPoint Energy service area was directly impacted by the east or "dirty" side of Hurricane Beryl.

The most dangerous part of the hurricane is the east side, known as the "dirty" side. The path of Beryl and to the east were most greatly affected by high winds, gusts, heavy rain, and storm surge.

The path of Beryl and to the east were most greatly affected by high winds, gusts, heavy rain and storm surge.

During Beryl, the greater Houston area experienced high, sustained wind gusts. The map below depicts the highest wind gusts reported from Harris County from July 8 at 5 a.m. to noon, with highest winds from 9 a.m. to 10 a.m.:



Peak wind speed from Hurricane Beryl in the greater Houston area was:

University of Houston: 89 mph

Hobby Airport: 84 mph

Bush Airport: 83 mph

Tomball Hooks Airport: 83 mph

Morgan's Point: 78 mph

LaPorte: 74 mph

Hillshire Village: 64 mph

Pasadena: 72 mph

Lake Houston at 1960: 69 mph

These peak wind gusts occurred from 9 a.m. to 10 a.m., although wind gusts in the 60 mph range continued until 11 a.m.

The number of hours for sustained winds and gusts was extraordinary. The sustained winds (1 minute of wind at 30') and strong gusts continued for hours across the region. For instance, at Hobby Airport, winds and gusts lasted from 5 a.m. to almost 2 p.m. Wind gusts were in the 60-70 mph range from approximately 6 a.m. to 8 a.m.

Jul 8, 8:13 am	79	78	97	SE	44G84 1.00	Lt rain, Mist	SCT015 OVC020	29.25	29.30	0.06		
Jul 8, 8:10 am	79	77	94	SE	58G77 1.00	Rain, Mist	SCT013 OVC022	29.25	29.30	0.05		
Jul 8, 8:05 am				SE	51G80 2.00	Rain	SCT015 SCT021 OVC035	29.26	29.31	0.04		
Jul 8, 8:00 am				SE	48G69 2.00	Rain	SCT015 SCT021 OVC035	29.27	29.32			
Jul 8, 7:55 am				SE	45G56 2.00	Rain	SCT015 SCT021 OVC035	29.27	29.32	0.01		
Jul 8, 7:53 am	79	77	94	SE	49G76 2.00	Lt rain	SCT015 SCT021 OVC035 993.70	29.28	29.33	0.90		
Jul 8, 7:51 am	79	77	94	SE	44G76 2.00	Lt rain, Mist	FEW015 SCT021 OVC035	29.29	29.34	0.15		
Jul 8, 7:50 am	79	77	94	SE	45G66 2.00	Lt rain, Mist	SCT015 SCT021 OVC035	29.28	29.33	0.15		
Jul 8, 7:45 am	79	77	94	SE	44G63 2.00	Rain, Mist	FEW013 SCT019 OVC035	29.29	29.34	0.13		
Jul 8, 7:40 am	79	77	94	SE	46G87 2.00	Rain, Mist	FEW008 BKN013 OVC030	29.30	29.35	0.12		
Jul 8, 7:36 am	79	77	94	SE	43G71 2.00	Rain, Mist	FEW008 BKN013 OVC025	29.31	29.36	0.11		
Jul 8, 7:35 am	79	77	94	SE	45G71 1.75	Rain, Mist	FEW008 BKN013 OVC020	29.32	29.37	0.11		
Jul 8, 7:34 am	79	77	94	SE	45G71 1.50	Hvy rain, Mist	BKN013 OVC020	29.32	29.37	0.11		
Jul 8, 7:30 am	79	77	94	SE	38G59 1.25	Rain, Mist	FEW008 OVC014	29.33	29.38	0.09		
Jul 8, 7:25 am				ESE	49G69 1.50	Hvy rain	OVC014	29.33	29.38	0.08		
Jul 8, 7:20 am				ESE	48G67 1.50	Hvy rain	OVC014	29.31	29.36	0.07		
Jul 8, 7:15 am				ESE	48G60 1.50	Hvy rain	OVC014	29.33	29.38	0.06		
Jul 8, 7:10 am				ESE	43G49 1.75	Hvy rain	OVC012	29.33	29.38	0.04		
Jul 8, 7:05 am				ESE	48G66 1.50	Hvy rain	OVC014	29.35	29.40	0.03		
Jul 8, 7:00 am				ESE	38G59 1.75	Hvy rain	OVC014	29.35	29.40			
Jul 8, 6:55 am				ESE	41G56 1.75	Hvy rain	BKN010 OVC016	29.37	29.42	0.01		
Jul 8, 6:53 am	75	75	100	ESE	43G62 1.50	Hvy rain	BKN010 OVC016	29.37	29.42	1.04	3.76	4.45
Jul 8, 6:50 am				ESE	38G45 1.50	Hvy rain	BKN010 OVC016	29.37	29.42	0.14		
Jul 8, 6:45 am				E	43G54 1.50	Hvy rain	BKN010 OVC016	29.38	29.43	0.13		
Jul 8, 6:40 am	77	75	94	ESE	37G48 2.00	Hvy rain, Mist	OVC010	29.39	29.44	0.12		
Jul 8, 6:35 am				E	40G59 1.75	Hvy rain	OVC010	29.40	29.45	0.10		
Jul 8, 6:30 am				E	38G56 1.00	Hvy rain	VV010	29.41	29.46	0.09		
Jul 8, 6:25 am				E	48G82 1.00	Hvy rain	VV012	29.41	29.46	0.08		
Jul 8, 6:20 am				E	48G99 1.00	Hvy rain	VV012	29.41	29.46	0.07		
Jul 8, 6:15 am				E	41G51 1.50	Hvy rain, Mist	OVC014	29.40	29.45	0.06		
Jul 8, 6:10 am				E	43G62 1.50	Hvy rain, Mist	OVC014	29.41	29.46	0.05		
Jul 8, 6:09 am	77	75	94	E	38G68 1.50	Hvy rain, Mist	OVC014	29.41	29.46	0.04		
Jul 8, 6:05 am				E	38G60 1.50	Hvy rain, Mist	OVC014	29.42	29.47	0.03		
Jul 8, 6:00 am				E	41G59 2.50	Rain, Mist	OVC014	29.43	29.48			
Jul 8, 5:55 am	77	75	94	E	46G82 2.50	Hvy rain, Mist	OVC013	29.44	29.49	0.01		
Jul 8, 5:53 am	77	75	94	E	44G69 2.00	Hvy rain	OVC013 999.10	29.44	29.49	0.88		
Jul 8, 5:50 am	77	75	94	E	46G83 1.75	Hvy rain, Mist	OVC013	29.44	29.49	0.12		
Jul 8, 5:45 am	77	75	94	E	38G45 1.25	Hvy rain, Mist	OVC015	29.45	29.50	0.11		
Jul 8, 5:40 am	75	75	100	E	40G53 1.25	Hvy rain, Mist	OVC015	29.46	29.51	0.10		
Jul 8, 5:35 am	77	75	94	E	46G64 1.25	Hvy rain, Mist	OVC014	29.46	29.51	0.09		
Jul 8, 5:30 am	77	75	94	E	38G55 1.50	Hvy rain, Mist	OVC018	29.48	29.53	0.08		
Jul 8, 5:26 am	77	76	96	E	40G62 1.50	Hvy rain, Mist	OVC018	29.49	29.54	0.07		
Jul 8, 5:25 am	79	75	89	E	44G55 1.50	Hvy rain, Mist	OVC018	29.48	29.53	0.07		
Jul 8, 5:20 am	79	77	94	E	32G39 3.00	Hvy rain, Mist	OVC018	29.50	29.55	0.06		

From 8am to 11am, wind gusts at Hobby Airport averaged anywhere from 60-80mph, topping out at 84mph at 9:02am:

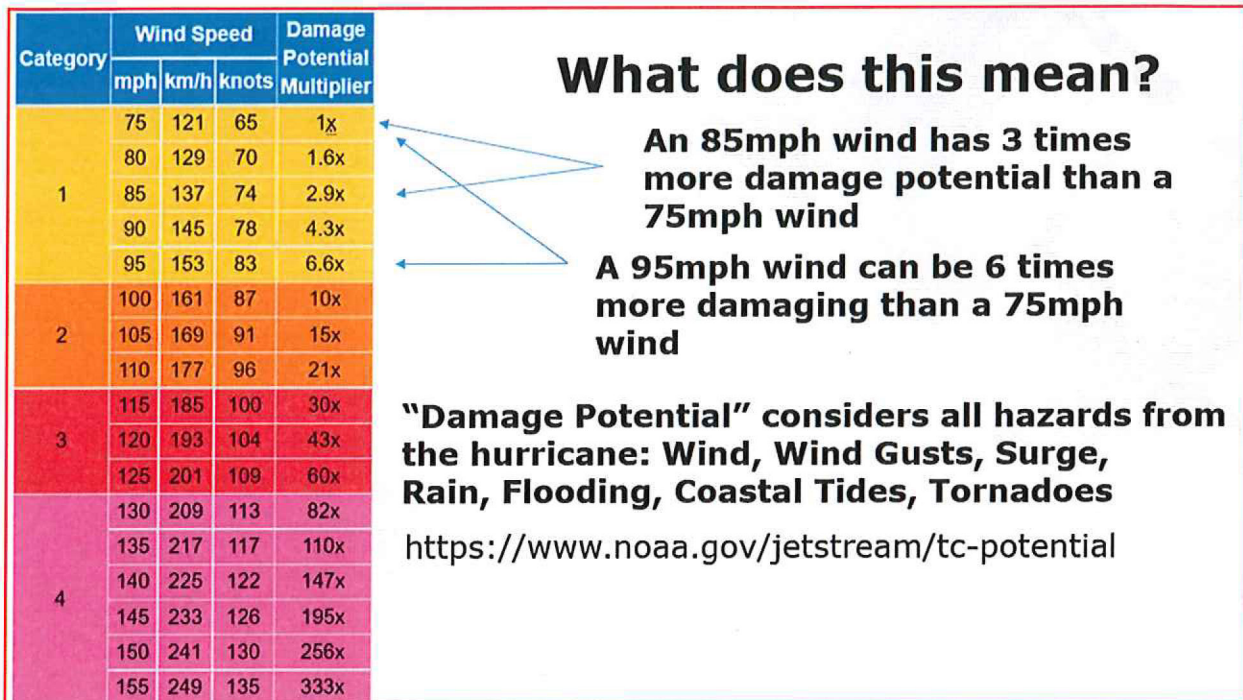
Jul 8, 11:15 am	77	72	83	SSW	43G52	10.00	Lt rain	OVC015		29.50	29.55	0.01
Jul 8, 11:10 am	77	72	83	SSW	40G47	10.00	Lt rain	OVC013		29.49	29.54	0.01
Jul 8, 11:05 am	77	72	83	S	46G74	10.00	Lt rain	OVC013		29.47	29.52	0.01
Jul 8, 11:00 am	77	72	83	SSW	46G60	10.00	Lt rain	OVC013		29.46	29.51	
Jul 8, 10:55 am	77	72	83	S	37G47	10.00	Lt rain	OVC013		29.45	29.50	
Jul 8, 10:53 am	77	72	85	SSW	41G60	10.00	Lt rain	OVC013	999.40	29.45	29.50	0.05
Jul 8, 10:50 am	77	72	83	S	41G53	10.00	Lt rain	OVC013		29.44	29.49	0.05
Jul 8, 10:45 am	75	72	89	S	41G55	10.00	Lt rain	OVC013		29.44	29.49	0.05
Jul 8, 10:40 am				S	45G59	10.00	Lt rain	OVC014		29.43	29.48	0.04
Jul 8, 10:35 am				S	44G59	10.00	Lt rain	OVC014		29.42	29.47	0.04
Jul 8, 10:30 am				S	48G61	10.00	Lt rain	OVC014		29.41	29.46	0.04
Jul 8, 10:25 am				S	44G59	10.00	Lt rain	OVC014		29.39	29.44	0.03
Jul 8, 10:20 am				S	45G61	7.00	Lt rain	OVC014		29.38	29.43	0.03
Jul 8, 10:15 am				S	44G56	5.00	Lt rain	OVC014		29.36	29.41	0.02
Jul 8, 10:10 am				S	47G61	7.00	Lt rain	OVC014		29.36	29.41	0.02
Jul 8, 10:05 am				S	47G60	10.00	Lt rain	OVC014		29.35	29.40	0.01
Jul 8, 10:00 am				S	48G63	7.00	Lt rain	OVC014		29.34	29.39	
Jul 8, 9:55 am				S	48G61	3.50	Lt rain	OVC014		29.33	29.38	
Jul 8, 9:53 am				S	48G75	3.00	Lt rain	OVC014		29.32	29.37	0.09 0.39
Jul 8, 9:50 am				S	45G53	4.00	Lt rain	OVC014		29.31	29.36	0.09
Jul 8, 9:45 am				S	51G62	7.00	Lt rain	OVC014		29.31	29.36	0.08
Jul 8, 9:40 am				S	47G63	5.00	Lt rain	OVC014		29.29	29.34	0.08
Jul 8, 9:35 am				S	45G59	4.00	Lt rain	OVC015		29.28	29.33	0.07
Jul 8, 9:30 am				SSE	47G59	3.00	Lt rain	OVC015		29.27	29.32	0.06
Jul 8, 9:25 am				SSE	54G69	1.50	Lt rain	OVC015		29.26	29.31	0.06
Jul 8, 9:20 am				SSE	45G64	1.00	Lt rain	OVC015		29.25	29.30	0.05
Jul 8, 9:15 am				SSE	46G70	1.00	Lt rain	OVC015		29.26	29.31	0.04
Jul 8, 9:10 am				SSE	48G63	1.00	Lt rain	OVC015		29.24	29.29	0.03
Jul 8, 9:05 am				SSE	52G67	1.00	Lt rain	OVC015		29.24	29.29	0.02
Jul 8, 9:02 am				SSE	47G84	1.00	Lt rain	OVC015		29.24	29.29	0.02
Jul 8, 9:00 am				SSE	51G59	1.00	Lt rain	OVC015		29.24	29.29	
Jul 8, 8:55 am				SSE	53G79	0.75	Lt rain	OVC015		29.23	29.28	
Jul 8, 8:53 am	79	78	97	SSE	54G84	0.75	Lt rain, Mist	OVC015	991.80	29.23	29.28	0.15
Jul 8, 8:50 am	79	77	94	SSE	53G71	0.50	Lt rain, Fog	OVC015		29.23	29.28	0.14
Jul 8, 8:45 am	79	77	94	SSE	49G77	0.50	Lt rain, Fog	OVC015		29.23	29.28	0.13
Jul 8, 8:40 am	79	77	94	SSE	54G78	0.75	Rain, Mist	OVC015		29.23	29.28	0.12
Jul 8, 8:38 am	79	78	97	SSE	48G75	0.75	Rain, Mist	OVC015		29.23	29.28	0.12
Jul 8, 8:35 am	79	77	94	SSE	43G60	0.75	Rain, Mist	OVC016		29.23	29.28	0.11
Jul 8, 8:30 am	79	77	94	SSE	46G67	1.00	Rain, Mist	OVC016		29.23	29.28	0.10
Jul 8, 8:25 am	79	77	94	SSE	55G73	1.75	Lt rain, Mist	OVC016		29.23	29.28	0.09
Jul 8, 8:20 am	79	77	94	SE	47G84	2.00	Lt rain, Mist	OVC015		29.23	29.28	0.07
Jul 8, 8:15 am	79	77	94	SE	45G75	1.25	Rain, Mist	SCT015 OVC020		29.24	29.29	0.06
Jul 8, 8:13 am	79	78	97	SE	44G84	1.00	Lt rain, Mist	SCT015 OVC020		29.25	29.30	0.06
Jul 8, 8:10 am	79	77	94	SE	58G77	1.00	Rain, Mist	SCT013 OVC022		29.25	29.30	0.05

Bush Airport, likewise, had 50-80mph winds from 8a.m. to 11a.m., topping out at 83mph at 9:23am:

Jul 8, 11:05 am	75	73	94	S	39G62 2.00	Lt rain, Mist	SCT005 OVC010		29.25	29.34		
Jul 8, 11:00 am	75	73	94	S	37G53 2.00	Lt rain, Mist	SCT005 OVC010		29.24	29.33		
Jul 8, 10:55 am	75	73	94	S	35G59 2.00	Rain, Mist	SCT005 OVC010		29.24	29.33		
Jul 8, 10:53 am	75	74	96	S	40G67 2.00	Lt rain, Mist	SCT005 OVC010	992.90	29.23	29.32	0.32	
Jul 8, 10:50 am	75	73	94	SSE	41G53 4.00	Lt rain, Mist	SCT005 OVC010		29.23	29.32	0.30	
Jul 8, 10:45 am	73	73	100	S	38G47 4.00	Lt rain, Mist	SCT005 OVC010		29.22	29.31	0.30	
Jul 8, 10:40 am	73	73	100	SSE	33G44 3.00	Lt rain	SCT005 OVC010		29.21	29.30	0.30	
Jul 8, 10:35 am	73	73	100	SSE	37G48 3.00	Lt rain	SCT005 OVC010		29.20	29.29	0.30	
Jul 8, 10:30 am	73	73	100	SSE	43G82 3.00	Lt rain	SCT005 OVC010		29.19	29.28	0.30	
Jul 8, 10:25 am	73	73	100	SSE	47G55 3.00	Lt rain	SCT005 OVC010		29.19	29.28	0.29	
Jul 8, 10:23 am	74	73	97	SSE	46G82 3.00	Rain	SCT005 OVC010		29.18	29.27	0.29	
Jul 8, 10:20 am	73	73	100	SSE	54G74 0.50	Hvy rain	VV008		29.18	29.27	0.29	
Jul 8, 10:15 am	73	73	100	SSE	59G82 0.50	Hvy rain	VV008		29.17	29.26	0.26	
Jul 8, 10:10 am	73	73	100	SE	55G78 0.25	Hvy rain	VV008		29.17	29.26	0.20	
Jul 8, 10:05 am	73	73	100	SE	52G70 0.25	Hvy rain	VV008		29.17	29.26	0.12	
Jul 8, 10:00 am	73	73	100	SE	58G73 0.25	Hvy rain	VV008		29.17	29.26		
Jul 8, 9:55 am	73	73	100	SE	58G81 0.25	Hvy rain	VV008		29.17	29.26	0.02	
Jul 8, 9:53 am	74	73	97	SE	55G82 0.25	Hvy rain	VV008	990.50	29.16	29.25	1.16	2.51
Jul 8, 9:50 am	73	73	100	SE	53G71 0.25	Hvy rain	VV008		29.16	29.25	1.12	
Jul 8, 9:45 am	73	73	100	SE	55G81 0.25	Hvy rain	VV008		29.17	29.26	1.03	
Jul 8, 9:40 am	75	73	94	SE	58G84 0.25	Hvy rain	VV008		29.18	29.27	0.90	
Jul 8, 9:35 am	75	73	94	SE	58G77 0.25	Hvy rain	VV008		29.19	29.28	0.76	
Jul 8, 9:30 am	75	73	94	SE	55G79 0.25	Hvy rain	VV008		29.18	29.27	0.64	
Jul 8, 9:25 am	75	73	94	ESE	58G71 0.25	Hvy rain	VV008		29.20	29.29	0.54	
Jul 8, 9:23 am	75	75	100	ESE	51G83 0.25	Hvy rain	VV008		29.20	29.29	0.51	
Jul 8, 9:20 am	75	75	100	ESE	52G71 0.50	Hvy rain	VV009		29.21	29.30	0.47	
Jul 8, 9:15 am	75	75	100	ESE	49G74 0.50	Hvy rain	VV009		29.22	29.31	0.41	
Jul 8, 9:10 am	75	75	100	ESE	47G88 0.50	Hvy rain	VV009		29.23	29.32	0.35	
Jul 8, 9:05 am	75	75	100	ESE	45G52 0.50	Hvy rain	VV009		29.23	29.32	0.26	
Jul 8, 9:00 am	75	75	100	ESE	43G73 0.50	Hvy rain	VV009		29.24	29.33		
Jul 8, 8:55 am	77	75	94	ESE	48G84 0.50	Hvy rain	VV009		29.25	29.34	0.06	
Jul 8, 8:53 am	77	76	96	SE	52G79 0.50	Hvy rain, Squalls	VV009	993.60	29.25	29.34	0.76	
Jul 8, 8:50 am	77	75	94	ESE	41G58 0.75	Hvy rain	VV009		29.25	29.34	0.68	
Jul 8, 8:45 am	77	75	94	ESE	43G84 0.75	Hvy rain	VV009		29.26	29.35	0.61	
Jul 8, 8:40 am	77	75	94	ESE	47G71 0.75	Hvy rain	VV009		29.27	29.36	0.56	
Jul 8, 8:35 am	77	75	94	ESE	40G49 0.75	Hvy rain	VV009		29.28	29.37	0.50	
Jul 8, 8:30 am	79	75	89	ESE	39G45 0.75	Hvy rain	VV009		29.30	29.39	0.42	
Jul 8, 8:25 am	79	75	89	ESE	48G67 0.75	Hvy rain	VV009		29.32	29.41	0.35	
Jul 8, 8:20 am	79	75	89	E	35G44 0.75	Hvy rain	VV009		29.31	29.40	0.30	
Jul 8, 8:15 am	79	75	89	E	36G48 0.75	Hvy rain	VV009		29.33	29.42	0.24	
Jul 8, 8:10 am	77	75	94	ESE	37G44 0.75	Hvy rain	VV009		29.35	29.44	0.18	
Jul 8, 8:05 am	75	75	100	E	33G44 0.75	Hvy rain	VV009		29.35	29.44	0.15	
Jul 8, 8:00 am	75	75	100	E	38G49 0.75	Hvy rain	VV009		29.37	29.46		
Jul 8, 7:55 am	75	75	100	E	33G47 0.75	Hvy rain	VV009		29.37	29.46	0.03	

DAMAGE POTENTIAL GOES UP QUICKLY

Important to note is that damage potential increases quickly with higher wind speeds. The National Weather Service graph below illustrates that an 85mph wind has almost 3 times more damage potential than a 75mph wind. A 95mph wind has more than 6 times the damage potential than a 75mph wind.



So, it is a mistake to think that an 85mph wind is only ten miles per hour stronger than a 75mph wind. Likewise, it is a mistake to say that a storm is only a Category 1 and therefore insignificant. Hurricane Beryl was a significant storm with high winds that sustained for long durations.

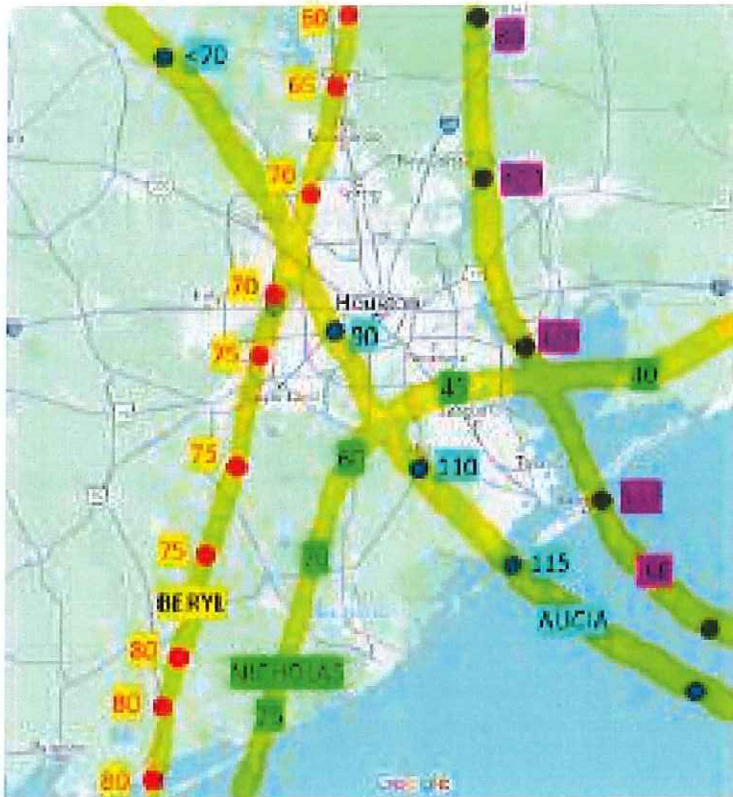
PAST STORMS

There have been comparisons between Beryl and prior hurricanes. Many people refer to Hurricane Ike (2008) as a bellwether for storms, and Ike was, technically, a Category 2 hurricane with 110mph winds. However, the 20' storm surge created by Ike was akin to a Category 4 and its barometric pressure was lower than Hurricane Alicia (1983), a Category 3 hurricane which hit Houston head on. The National Hurricane Center no longer includes pressure or surge as part of the determination for "categories" for this precise reason—every storm is different and never perfectly fits a certain category. The National Hurricane Center is, in fact, trying to be more focused on impacts of a storm and what to expect from each storm, not on categories.

A common but incorrect belief is that a Category 1 or Category 2 hurricane is not serious and will not have substantial impacts because of a lower number. As illustrated by Beryl, that simply is not true. If a hurricane overcomes any dry air intruding into it or other winds trying to tear it up, then it can become very dangerous quickly, which Beryl did. In addition, the Gulf of Mexico

waters are extremely warm and have been for three years. Beryl was over 87° water just before landfall allowing it to intensify quickly. Hurricanes need 80° water to even begin forming and the water is rarely above 90°, so conditions are at the top end of what summer water temperatures should be.

Finally, location is paramount. You can see the path of Houston hurricanes in the graphic below:



Hurricane paths and wind speeds

Alicia 1983

Ike 2008

Nicholas 2021

Beryl 2024

Greatest impacts in all cases were on the right side, or dirty side, of the storm.

Hurricane Alicia (1983) came right into downtown Houston and the tree and building damage was prolific. Hurricane Ike (2008) moved across Galveston Bay toward Lake Livingston, so Houston remained on the “clean” west side and was not nearly affected as Bolivar and counties on the east side. Recently, Nicholas (2021) impacted Matagorda County and moved across southeastern Harris County, affecting coastal communities. The storm weakened quickly over land but still produced 6-10” of flooding rainfall and knocked out power to half a million homes in the Houston area. Again, Houston was on the clean side of Nicholas so damage was minimal to Harris County.

CONCLUSION

Hurricane Beryl's path across the Houston area was forecasted by the National Hurricane Center approximately two days before landfall, and while the NHC wind forecasts remained below Category 2 strength, the potential for a Category 2 hurricane was noted 48 hours before landfall.

Hurricane Beryl, in fact, never reached Category 2 strength (96-110mph); however, the intensity of the hurricane and the hours-long event of sustained 50-60mph winds with wind gusts between 70 and 90mph created a significant impact to fences, trees, tree limbs, power lines, roof shingles, and other debris subject to strong winds.

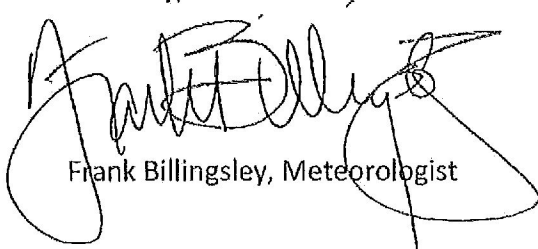
Most observers were taken aback that a Category 1 hurricane was capable of such widespread and sustained damage. However, Hurricane Beryl's path to the west of the Houston Metro squarely targeted Houston to the coast putting millions of residents on the "dirty side" of the storm where the most significant winds were found and, thus, the most widespread damage. I am also of the opinion that as Beryl moved north over land, the storm's south to north movement kept it close enough to the Gulf of Mexico's warm 87° water to sustain the storm, so rapid weakening once on land did not occur. The storm's "fuel" is warm water and, like Hurricane Harvey from 2017, there was plenty of warm water to draw from. These water temperatures are unusual for July and more akin to late August.

In addition, many observers mistakenly compared Hurricane Beryl to other storms, especially hurricanes Nicholas and Ike, thinking that this storm would be similar or even less significant. However, the paths of both those hurricanes kept the majority of southeast Texas residents on the clean, less impactful, side of the storm.

In conclusion, the location of Hurricane Beryl with wind gusts to 90mph and its very slow weakening once on land contributed significantly to the widespread damage associated with the storm.

These statements are all based on my meteorological expertise.

Cordially,



Frank Billingsley, Meteorologist

THIS PAGE INTENTIONALLY LEFT BLANK

TAB 5

THIS PAGE INTENTIONALLY LEFT BLANK

	Tuesday July 9, 2024	Wednesday July 10, 2024	Thursday July 11, 2024	Friday July 12, 2024
 Outages: 1.967M EOD (Peak 2.2M)	 Outages: 1.47M EOD	 Outages: 1.206M EOD	 Outages: 981,318 EOD	 Outages: 739,809 EOD
 Restoration(%): 12%	 Restoration (%): 36%	 Restoration(%): 53%	 Restoration (%): 61%	 Restoration (%): 70%
 Internal Crews: 1,131	 Internal Crews: 1,131	 Internal Crews: 1,131	 Internal Crews: 1,131	 Internal Crews: 1,131
 CNP Contractors + Mutual Assistance*: 12,545	 CNP Contractors + Mutual Assistance: 12,860	 CNP Contractors + Mutual Assistance: 12,879	 CNP Contractors + Mutual Assistance: 13,206	 CNP Contractors + Mutual Assistance: 13,854
 Mobile Gen: 2 energized	 Mobile Gen: 6 energized	 Mobile Gen: 10 energized	 Mobile Gen: 15 energized	 Mobile Gen: 16 energized

*CNP contractors are also referred to as native crews

Saturday, July 13, 2024



Sunday, July 14, 2024



	Tuesday July 16, 2024	Wednesday July 17, 2024	Thursday July 18, 2024	Friday July 19, 2024
	Outages: 62,816 EOD	Outages: 30,421 EOD	Outages: 6,015 EOD	Outages: 4,713 EOD
	Restoration (%) : 97%	Restoration (%) : 98%	Restoration (%) : 99.6%	Restoration (%) : Achieved 100% by EOD 7/19 (customers able to receive power)
	Internal Crews: 1,131	Internal Crews: 1,131	Internal Crews: 1,131	Internal Crews: 1,131
	CNP Contractors + Mutual Assistance* : 14,528	CNP Contractors + Mutual Assistance: 14,529	CNP Contractors + Mutual Assistance: 14,529	CNP Contractors + Mutual Assistance: 3,328 EOD
	Mobile Gen: 11 energized	Mobile Gen: 2 energized; 1 enroute	Mobile Gen: 3 energized at 8 AM 1 energized at 6 PM	Mobile Gen: All units decommissioned

*CNP contractors are also referred to as native crews

THIS PAGE INTENTIONALLY LEFT BLANK

TAB 6

THIS PAGE INTENTIONALLY LEFT BLANK



Updates to the Greater Houston Community

Community

Energy Efficiency

Innovation

Stewardship

We Are CenterPoint Energy

Updates to the Greater Houston community from Jason Wells

The past several days have been extraordinarily challenging for so many in our community who have been without power in the summer heat. The hardships that our neighbors, friends, and family members across the Greater Houston area have faced are personal to us, and we are committed to keeping them updated as we continue to make progress.

Check back here for regular updates from our CEO, Jason Wells.



Showing '4' Blogs

Monday, July 15, 2024

To our neighbors and communities: I know the past week has been a hardship for our customers – many of you have been without power for days. I want you to know that we feel your frustrations and have already identified immediate areas of focus follo...

Sunday, July 14, 2024

To our neighbors and communities: Our crews continue to make tremendous progress overnight and into this morning rebuilding our system and resolving outages in neighborhoods across the Greater Houston area. We now expect to restore 90% of impacted c...

Saturday, July 13, 2024

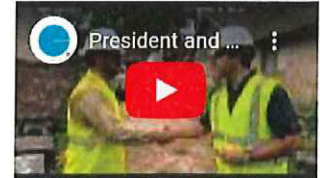
To our neighbors and communities: We know this week has been extraordinarily challenging for our customers who have had to endure hot, humid and stormy weather without power. I want to personally share my deep appreciation for your patience...

Friday, July 12, 2024

To the Greater Houston community: The past several days have been extraordinarily challenging for so many in our community who have been without power in the summer heat. The hardships that our neighbors, friends, and family members across the Gre...

 [Print](#)

Jason Wells speaks on restoration efforts



Jason Wells shows how our crews are working around-the-clock to restore power



[Company Overview](#)

[Values](#)

[Corporate Sustainability](#)

[Leadership](#)

[Energy for the Future](#)

[News](#)

[Construction Projects](#)

[Rates & Tariffs](#)

[Media Contacts](#)

[Connections](#)

[Updates to the Greater Houston Community](#)

[Community](#)

[Energy Efficiency](#)

[Innovation](#)

[Stewardship](#)

[We Are CenterPoint Energy](#)

[Mill Creek Substation Project](#)

[CCR Reporting](#)

[Print](#)

Friday, July 12, 2024

To the Greater Houston community:

The past several days have been extraordinarily challenging for so many in our community who have been without power in the summer heat. The hardships that our neighbors, friends, and family members across the Greater Houston area have faced are personal to us, and I'm writing today to provide an update on the tremendous efforts by our crews to respond to Hurricane Beryl and restore power as safely and as quickly as possible.

Significant Damage to the Electrical System from a Powerful Storm

By the time Hurricane Beryl made landfall in Texas early Monday as a powerful Category 1 hurricane, CenterPoint had been tracking its trajectory and preparing for its impact since the day the storm first appeared on forecasts nine days prior. While forecasts indicated it would miss our service territory, we recognized there is always variability in where storms make landfall and planned for that by securing and readying our crews. In total, on Saturday we tapped over 3,000 crew members and mutual assistance resources to be ready to begin restoration quickly. As the forecast trajectory changed, we quickly called on additional mutual assistance resources to increase our crews to 12,000 restoration personnel.

Most people judge the severity of a hurricane by the category. But in terms of impact on an electric grid, it's important to understand that the category of a storm is less relevant than its sustained winds. And in the case of Beryl, it packed a punch to our entire 5,000 square-mile service area, sustaining near hurricane-force winds and higher gusts for an extensive period. The greater Houston area has not been hit more directly by the "dirty side" of the hurricane since Hurricane Alicia in 1983. The powerful combination of extreme winds with weakened trees and other vegetation caused significant damage to thousands of poles, lines and other electrical equipment and more than 2.2 million CenterPoint Energy customers were impacted before the storm left our service area.

What We Have Accomplished So Far

Since Beryl exited the Houston area, our crews have been working up to 16-hour shifts to bring power online for our customers. Over the last several days, our team has walked over 8,500 miles of our electric lines to assess damage to our system, removing downed trees and branches and repairing infrastructure along the way. Since Monday afternoon, the company replaced over 2,000 poles and mitigated nearly 6,000 trees.

Thanks to their efforts, we have made incredible progress thus far and restored power to more than 1.4 million customers. As a result of the work we did to prepare in the days leading up to the storm as well as investments we have made for years to strengthen our system, we have restored power at a significantly faster rate than we were able to with the May 16 derecho and Hurricane Ike. Today, we expect to provide estimated restoration dates for substantially all impacted customers to help them plan. As work progresses, the company may be able to restore power sooner than expected.

The Path Forward

While I'm immensely grateful for our restoration crews' incredible efforts to date, there is still significant work ahead. Our crews are out in force working to restore power to 80% of impacted customers by the end of the day Sunday and are rebuilding substantial portions of the electric grid in the hardest-hit areas which were directly in the storm's path.

In areas with significant structural damage, customers could experience prolonged outages, while crews work to install thousands of new distribution poles and new overhead conductors, as well as other critical electrical equipment. Even as we advance work to get the lights back on for customers without power, we are looking for every opportunity to provide other kinds of support, including through contributions to disaster relief organizations and positioning mobile generation at cooling centers, senior living facilities, water treatment plants and hospitals.

Please know we are deeply grateful for our customers' patience in the difficult conditions we are experiencing. I know our customers are counting on us, and I am incredibly proud of the more than 12,000 men and women working tirelessly to get every last one of our customers back online.

Sincerely,

Jason Wells
President and CEO of CenterPoint Energy



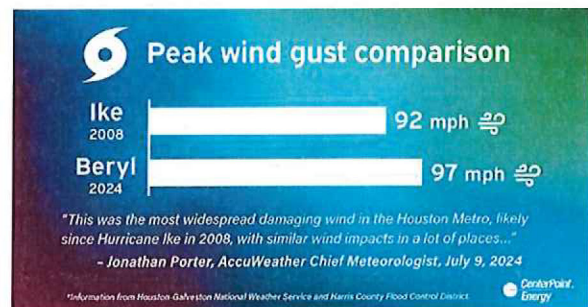


Saturday, July 13, 2024

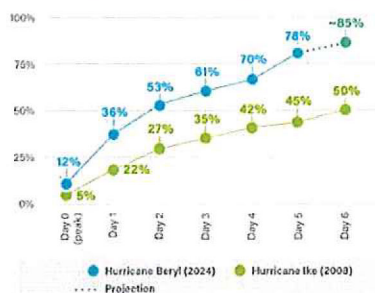
To our neighbors and communities:

We know this week has been extraordinarily challenging for our customers who have had to endure hot, humid and stormy weather without power. I want to personally share my deep appreciation for your patience and understanding as our 12,000-strong restoration crews have stepped up in force to restore power to the Greater Houston area as safely and quickly as possible. Our restoration workforce has now restored more than 1.6 million customers. Through their tremendous efforts, we have brought hundreds of thousands of customers back online faster than we expected.

Hurricane Beryl impacted our entire 5,000-square-mile service area, sustaining near hurricane-force winds and higher gusts for hours, tearing trees from the ground and launching debris into electrical lines and other equipment. The most recent hurricane to impact our community on a similar scale was Hurricane Ike in 2008. On July 9, **Jonathan Porter, AccuWeather Chief Meteorologist**, indicated that, "This was the most widespread damaging wind in the Houston Metro, likely since Hurricane Ike in 2008, with similar wind impacts in a lot of places."



Percentage of affected customers restored



ABC-13's Chief Meteorologist Travis Herzog also shared further context: "Looking at past tracks of hurricanes crossing through Harris County, the city of Houston has not been hit by the more intense eastern eyewall of a hurricane since Alicia in 1983... This is another reason why the winds felt more intense and left more significant damage than other storms... Where you are in relation to the eyewall matters, and the right side of the eyewall relative to the storm's path is usually the worst place to be located."

As a result of preparedness work and investments we have made for years to strengthen our system, we are tracking well ahead of our restoration progress in comparison to Hurricane Ike.

As we look ahead, we're working with urgency to get the lights back on for customers who are still

experiencing localized outages as well as for those in the hardest-hit areas where crews are essentially rebuilding the electric system. With power restored across a greater portion of our service territory, we are quickly deploying crews, equipment and mobile generation to support efforts in these areas and provide interim solutions for critical facilities like hospitals, senior living facilities, medicine storage facilities, water treatment plants and cooling shelters.

We know the remaining impacted customers are counting on us and our entire team is committed to being there for them. We will not stop until every last customer has been restored.

Sincerely,

Jason Wells
President and CEO of CenterPoint Energy



Sunday, July 14, 2024

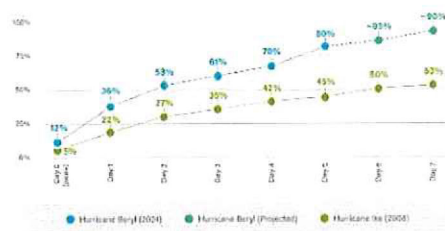
To our neighbors and communities:

Our crews continue to make tremendous progress overnight and into this morning rebuilding our system and resolving outages in neighborhoods across the Greater Houston area. We now expect to restore 90% of impacted customers by the end of the day tomorrow and are tracking ahead of our goal of approximately 85% by tonight. At this time, we have provided estimated restoration dates for substantially all customers and are working to restore customers sooner than expected, wherever possible. Crews are converging on areas with significant structural damage as well as localized outages, deploying resources, equipment and mobile generation to restore customers as safely and quickly as possible.

The progress we have made over the past week is remarkable given the scale of the damage we have seen across the region. Over 2,100 poles were damaged during the storm and over 18,600 weakened trees had to be removed from our lines, which impacted over 75% of our distribution circuits. Debris from metal roofs and billboards was carried by sustained high winds into our equipment, causing a significant portion of this damage as well.



Percentage of affected customers restored



Frontline resources mobilized for restoration activities



more than
14,000
7x CenterPoint's typical workforce

The strong pace of the restoration is a testament to our preparation, investments we have made in the system and, most importantly, the efforts of 14,000 dedicated CenterPoint and mutual assistance crews who have been working long days in tough conditions to get the power back on. I take great pride in seeing the trucks roll out throughout the day and the fact that so many people answered our calls for assistance. This response and the tireless efforts of our entire restoration workforce proves that we are stronger working shoulder-to-shoulder.

Focused on Driving Improvements for Our Customers

To our customers, thank you for your continued patience and understanding – we've seen the best of Houston come out to support one another, first responders and our crews. Neighbors have been helping neighbors through the heat, and we've so appreciated the kind words, water and Gatorade distributed to the men and women working in your neighborhoods. Our crews have seen firsthand, in addition to going without power, that customers have suffered significant damage to their homes and businesses. We want them to know that the hardships they are experiencing right now are our priority, and we will not stop until we have restored power to each and every customer. Unfortunately, there have been some instances where individuals have threatened or actually committed acts of violence against our crews, which is unacceptable and undermines our restoration efforts. We're grateful to law enforcement officers for their unwavering support in responding to these incidents and helping to keep our crews safe.

In spite of all of this progress, I want you to know that we have heard and understand your frustrations. Always working to be a better company is fundamental to everything we do, and that starts with me as CEO. We are committed to doing a thorough review of our response to support our customers and our communities, especially when they need us most. To that end, we have already identified the following areas that will be our immediate focus following this event:

- **Improving Communication with our Customers:** We are committed to communicating more and differently with our customers, including through daily press briefings. We also are resolved to do a better job helping customers plan for when they will have information about when power will be restored to their homes and businesses.
- **Launching New Outage Tracker:** We understand our customers' frustration from not having our outage tracker over the past several weeks. We are committing to launching a cloud-based solution in early August that customers can rely on as the best source of information.
- **Engaging our Community for Feedback:** We're committed to hearing you and understanding how you feel we can do better. We intend to conduct a listening tour across our communities to gather feedback so that we can implement improvements in future restoration efforts.

Over the coming days, we will continue our tireless efforts to turn the lights back on for every last customer. We know our customers are counting on us, and it's a great privilege to serve you.

Sincerely,

Jason Wells

President and CEO of CenterPoint Energy



Monday, July 15, 2024

To our neighbors and communities:

I know the past week has been a hardship for our customers – many of you have been without power for days. I want you to know that we feel your frustrations and have already identified immediate areas of focus following this event, including improving communications with customers, launching a new cloud-based outage tracker that customers can rely on as the best source of information, and engaging communities for feedback to drive improvement to future restoration efforts.

Our crews continue to make strong progress on our restoration efforts. Thanks to their tireless efforts, we have now restored power to over 2 million customers and have announced that we expect to reach approximately 98% restoration by the end of the day, Wednesday, July 17. **The pace of this restoration effort has been faster than what we have been able to do in other hurricanes in the past, including Hurricane Ike in 2008.**

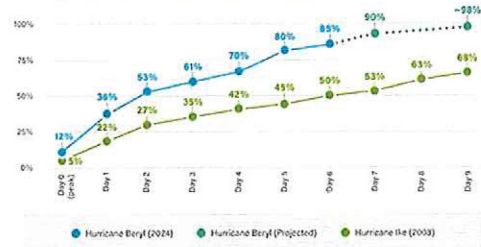
This was only possible because of our strong preparation, including by calling in thousands of mutual assistance crews and drawing on our substantial inventory of materials needed to repair the damage to the system. The crews we tapped to help get the power back on are experienced professionals who went through extensive training to qualify to serve on any restoration workforce. Similar to other utilities, we provide an additional 1 hour safety briefing to familiarize them with our system, but they come trained to work.

The rate of restoration also speaks to the substantial investments we have been making to strengthen infrastructure across the Greater Houston area.

Between 2019 and 2023, in addition to investments to support the growth of the Houston economy, we devoted roughly \$1.5 billion to grid hardening, modernization and resiliency, and what we are observing in the field shows that this work is paying off.



Percentage of affected customers restored



As a result of investment to enhance the resiliency of the transmission system, which is the backbone of CenterPoint's grid, power continued to flow into the Greater Houston area during the storm. This allowed power to be restored more quickly as crews repaired distribution poles and addressed over 23,000 trees impacting overhead lines in individual neighborhoods.

We've gotten a lot of questions over the last several days about why outages occur, particularly in the context of resiliency investments. It is important to understand that our distribution system is designed to disable power when trees, branches, and other debris carried by high winds impacts lines during a storm in order to protect public safety and prevent further damage. It's like when a plug trips in your house – the outlet's power is cut to protect the person using it and to prevent damage to your home. In this case, Beryl packed a punch across our entire service territory, resulting in outages for 2.2 million customers.

In addition to improving communications with customers, in April, we filed a \$2.7 billion plan with our regulators to invest in resiliency focused on system hardening, grid modernization, flood mitigation and vegetation management. We are committed to continue investing in the resiliency of its electric system to help us restore power more quickly for customers in the future.

In the meantime, please know that we will continue working hard until

every last customer has been restored. We appreciate your patience and the appreciation shown to our crews from so many in our communities.

Sincerely,

Jason Wells

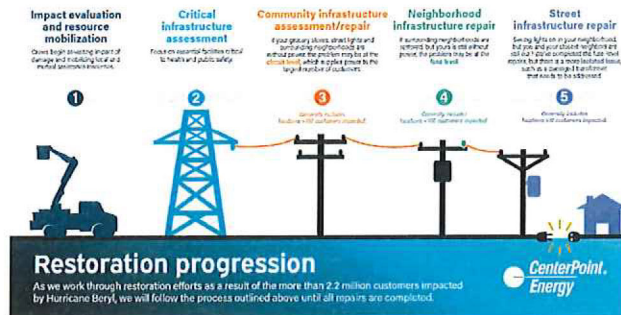
President and CEO of CenterPoint Energy



Hurricane Beryl's impact on the Greater Houston area

View the maps below to stay updated on our restoration efforts and learn more about our restoration process.

Restoration process overview



Restoration progression

View the maps below to stay updated on our efforts to restore power to more than 2.2 million impacted customers. Please note, this is an active restoration effort and we plan to update these maps as we receive more information.

Circuits supply power to the largest number of customers. If your community's grocery stores, streetlights and surrounding neighborhoods are without power, that is typically a circuit-level outage. Circuits generally include locations with more than 100 customers impacted.

Disclaimer: The information on this map provides general direction on our restoration activity. The map data is updated periodically and may be delayed. For the most updated information on your individual outage, enroll in Power Alert Service* (PAS).

If your home or the houses on your block don't have power, but others around you do, you may have a nested outage. A "nested outage" occurs when our systems indicate power was restored to equipment in your area, but your home may be impacted by a more localized issue. Localized issues could include a damaged line fuse, transformer or possibly a tree on the service line that runs directly to a customer's home.



Click on the **SEARCH** icon in the top left of the map to find your address.

Click the interactive map, enter your address in the search and click the colored outage area nearest your location to see status.

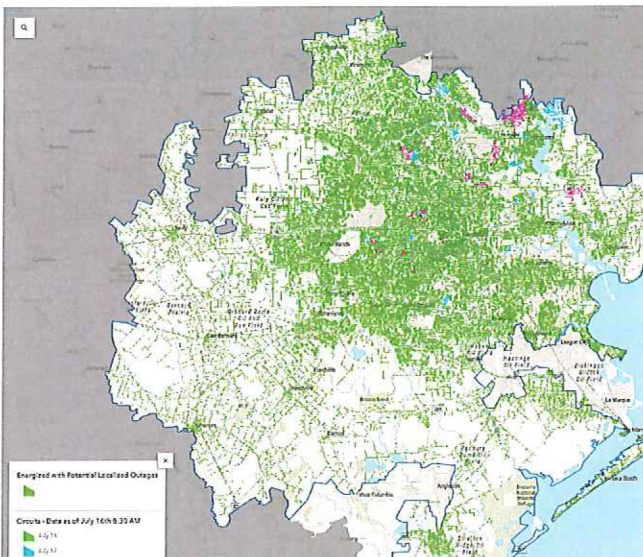


We are currently working to assess restoration needs across our territory. Please enter your address in the map to see the status of your assessment and restoration. Restoration efforts can take several days.

CenterPoint Energy expects to reach approximately 98% restoration by the end of the day on Wednesday, July 17th.

Please know restorations will be happening daily and you may be restored earlier. Thank you for your continued patience as we complete repairs and work to restore power.

With the information we have at this time, we expect all remaining impacted customers who are able to receive service to be restored by July 19, if not sooner. This includes restoration for customers experiencing "nested outages" who may appear as restored on the restoration tracker, while remaining without power. In these cases, while the circuit feeding the surrounding area has been restored, the customer is likely experiencing localized damage. CenterPoint crews are working as safely and quickly as possible to repair any damaged equipment in these neighborhoods to



Community Resources

Outage Reports by County - July 16th @ 4:00 PM

	Customers	Customer Outage	Outage Percentage
AUSTIN	10,807	12	0.11%
BAZARDA	129,810	1,992	1.53%
CHAMBERS	27,125	108	0.39%
COCHRAN	1,884	4	0.21%
FORT BEND	118,331	2,119	1.79%
GAFFNEY	75,702	409	0.54%
HARRIS	2,118,513	81,241	3.84%
LIBERTY	919	10	1.09%
MAHARAJA	202	2	0.99%
MONTGOMERY	75,297	1,504	1.99%
WALLER	18,104	31	0.17%
WISCONSIN	11,128	48	0.43%

! HURRICANE BERYL

We have now restored electricity to more than 2 million customers impacted by Hurricane Beryl and expect to restore power to 98% of all impacted customers by the end of day Wednesday, July 17. Stay informed by signing up for Power Alert Service®, visit our Storm Center for electric and natural gas safety tips and follow us on Facebook and X for the latest updates. [Visit Storm Center](#)

[My Account](#)[Residential](#)[Business](#)[Our Company](#)[Sign in](#) | [Register](#)[Explore](#) ▾[Contact](#) ▾[My Account](#) ▾Service Area : Houston
[Change](#)

Updates to the Greater Houston community from Jason Wells

[Read now](#) →

24/7 access to My Account

View or pay your bill, manage preferences and more!

[Get started!](#) →

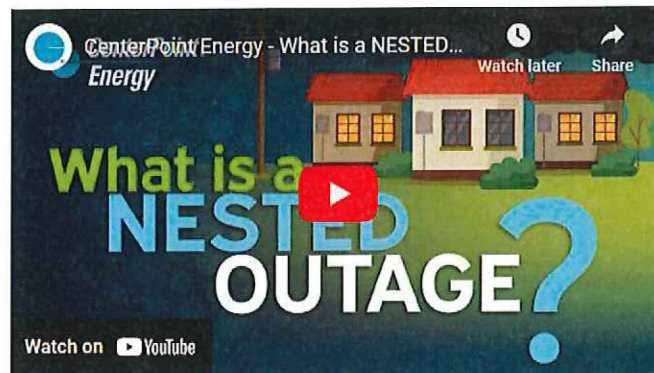
Hurricane Beryl: Restoration Update

Hurricane Beryl made landfall in Texas early Monday, July 8, as a powerful Category 1 hurricane, impacting more than 2.2 million customers in CenterPoint Energy's service territory. Now that the storm has passed, we have started restoration efforts and are mobilizing nearly 12,000 frontline resources to restore power as quickly and safely as possible. To help you better understand our restoration process take a look at the guide below.

Learn more about the restoration work crews are doing in your neighborhood.

[Service Area Updates](#) →

What is a Nested Outage?



Visit our [Storm Center](#) for additional information, outage counts and important safety tips, and [follow us on X](#) for the latest updates.

Explore these tips to stay safe after a major storm:

- If you have natural gas, do not turn off your natural gas service at the meter
- **Stay 35 feet away from downed power lines.** Be especially careful around floodwaters where power lines could be submerged.
- [Download Storm Safety Tips](#) | [Storm Safety Tips \(en Espanol\)](#)

Service Area Updates

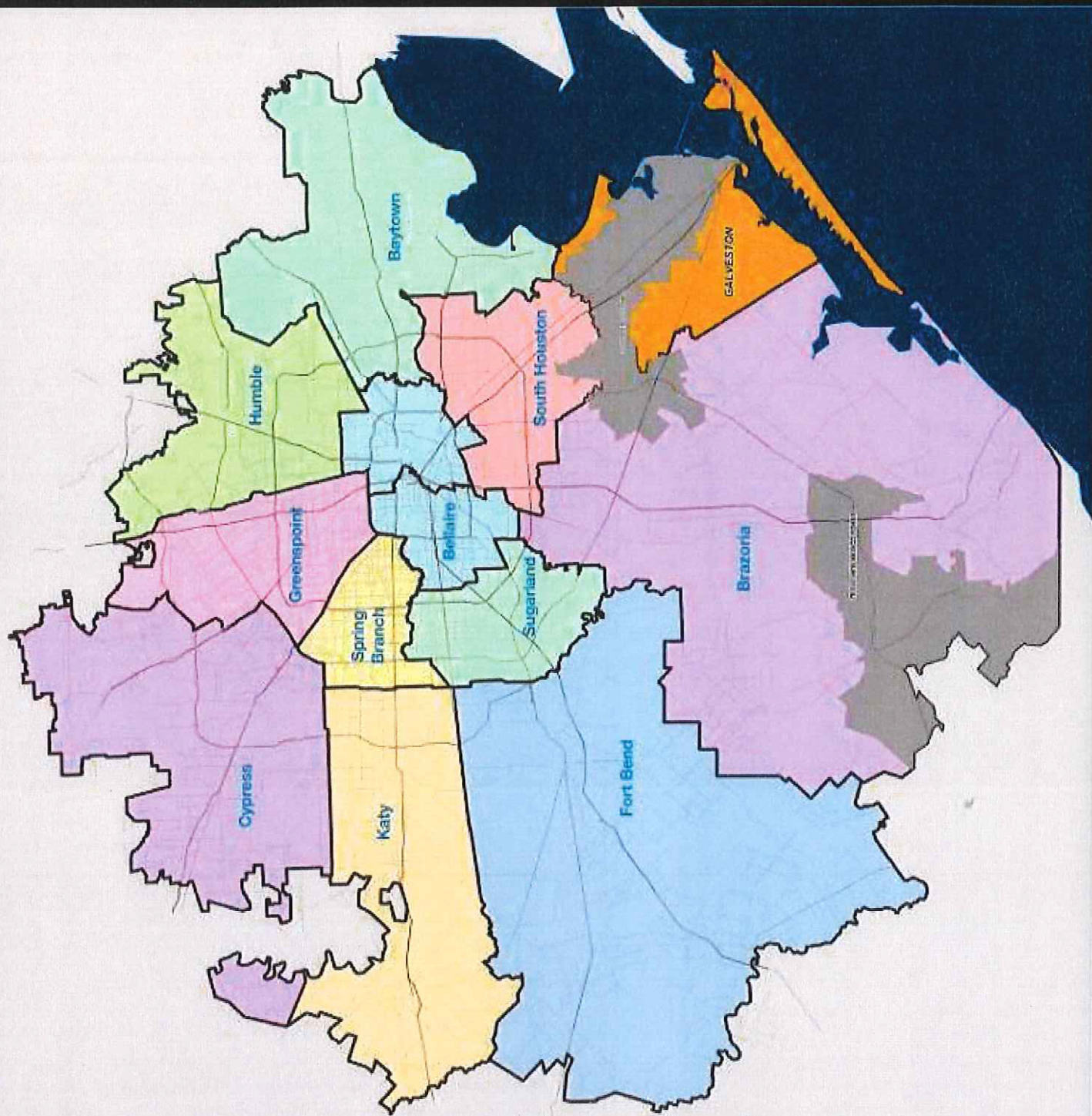
Supporting you through restoration efforts

[View outage information](#) >

We are working around-the-clock to restore power to the 2.26 million customers affected by Hurricane Beryl. The first hurricane of the 2024 Atlantic hurricane season, Beryl significantly impacted CenterPoint's service territory, with damaging winds reaching 97-miles-per-hour in Brazoria County, 89-miles-per-hour in Harris County, and 78-miles-per-hour in Galveston County, according to the Houston-Galveston National Weather Service.

[Find your service area](#) >

Select your service area to view storm updates.



Last updated: Tuesday, July 16, 2024 - 5:00 p.m.

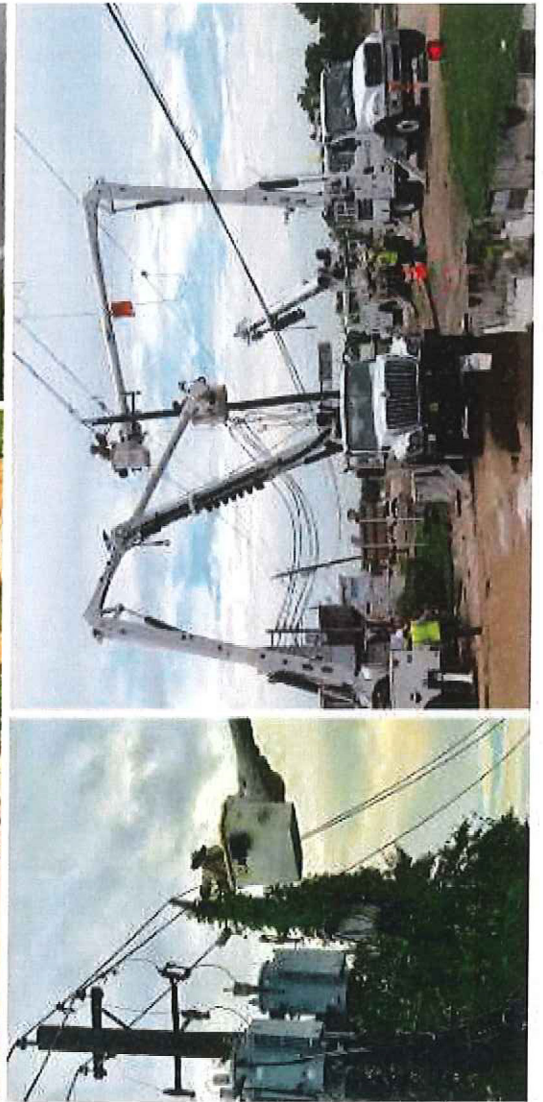
Customers out: 2,576

Customers restored in the last 24 hours: 6,662

Restoration highlights:

- Mutual assistance crews pick up a broken pole and transformer blocking the road.
- Crews also worked to de-energize lines and cut down broken wooden poles to replace six broken six new fiberglass poles.
- Crews work on repairing and stabilizing leaning wood poles and replacing a downed service line near E Cedar Bayou/Lynchburg Rd.
- Crews assessing damaged lines and tree limbs on lines on E James Ave.
- Vegetation crews remove broken tree limbs on overhead powerlines before line crews can come in and work to restore power.

Damage and Restoration



+ Baytown

— Bellaire

Last updated: Tuesday, July 16, 2024 - 5:00 p.m.

Customers out: 17,840

Customers restored in the last 24 hours: 10,020

Restoration highlights:

- Mutual assistance crews work on pole repairs to turn circuits back on in the Sharpstown area impacting up to 5,000 estimated customers.
- Crews assess downed and deenergized lines in the Heights neighborhood.
- Crews worked to replace a burned transformer in midtown.
- Crews replaced a damaged wood pole near the Westpark area and removed down wires.

Damage and Restoration



+ Baytown

+ Bellairé

— Brazoria

Last updated: Tuesday, July 16, 2024 - 5:00 p.m.

Customers out: 1,657

Customers restored in the last 24 hours: 1,235

Restoration highlights:

- Mutual assistance crews work in the Freeport area to repair damages like downed poles.
- Crews worked off SH 288 in Pearland to remove a billboard that caused a downed line and begin repairs caused by damage.

Damage and Restoration



+ Baytown

+ Baytown

+ Baytown

— Baytown

Last updated: Tuesday, July 16, 2024 - 5:00 a.m.
Customers out: 942
Customers restored in the last 24 hours: 4,533

Restoration highlights:

- Crews worked to:
- Trim trees on power lines across the service area.
- Get primary wires back up near Onalaska Dr.
- Restore downed primary lines near Adams Run Dr.
- Unhook and repair wires on Ravens Way Dr.
- Vegetation clearing, pole and wire replacement in Birchhurst

Damage and Restoration



select your service area to view storm updates.

+ Baytown

+ Bellair

+ Brazoria

+ Cypress

— Fort Bend

Last updated: Tuesday, July 16, 2024 - 5:00 p.m.

Customers out: 147

Customers restored in the last 24 hours: 3,535

Restoration highlights:

- Crews worked to:
- Replace a pole top switch outside of the local substation and two downed poles near Forest Run Dr.
- Reattach a downed line to a newly installed pole near FM 1464 and Stratford Creek Drive.
- Remove trees from downed lines and fix power lines near Wagon Rd.
- Mutual assistance crews worked to make repairs to damaged poles in Missouri City.

Damage and Restoration



+ Baytown

+ Bellair

+ Brazoria

+ Cypress

+ Fort Bend

— Galveston

Last updated: Tuesday, July 16, 2024 - 5:00 p.m.

Customers out: 264

Customers restored in the last 24 hours: 2,559

Restoration Highlights:

- Mutual assistance crews working along St. Luis Pass Rd. in Galveston repairing and replacing poles that are damaged.
- Crews work throughout the Island to replace broken poles, stabilize leaning poles, and repair downed wires.

Damage and Restoration



— Greenspoint

Last updated: Tuesday, July 16, 2024 - 5:00 p.m.

Customers out: 12,466

Customers restored in the last 24 hours: 39,329

Restoration highlights:

- Crews onsite in Greenwood Forest and Champions Forest neighborhoods.
- After downed trees and branches are cleared, crews work to repair down poles and wires.
- Crews work to restore power to neighborhoods along T.C. Jester near Beltway 8.
- Crews are working to remove and replace several burned out disconnect switches in Independence Heights.
- Crews are working across the service area to trim trees on power lines.
- Overnight, crews assessed damaged line fuses near Aldine Mill Route and Hardy Toll Road with work continuing today to bring power back to the area.
- Crews removed a damaged wood crossarm and replaced it with a new fiberglass cross arm in Independence Heights.

Damage and Restoration



Last updated: Tuesday, July 16, 2024 - 5:00 a.m.

Customers out: 28,929

Customers restored in the last 24 hours: 55,003

Restoration highlights:

- We deployed a mobile generation unit to power a water treatment facility.
- In Kingwood, crews continue making progress on clearing vegetation from heavily forested and firing broken poles and downed wires from difficult to access areas.

Damage and Restoration

