



Greater Houston Resiliency Initiative

October 5, 2024

Project No. 56822



We are determined to learn the lessons from Hurricane Beryl and build the most resilient coastal grid in the country.

Greater Houston Resiliency Initiative (GHRI)



 INVESTING APPROXIMATELY
\$5 BILLION
in our Greater Houston infrastructure
between 2026 and 2028



GHRI Phase One

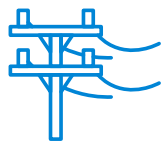


PHASE ONE Key Resiliency Actions

TAKING ACTION NOW TO REDUCE OUTAGES



Trimming or removing higher-risk vegetation



Installing stronger and more storm-resilient poles



Installing automated devices, known as trip savers

Target	Complete
2,000 POWER LINE MILES	 2,026 POWER LINE MILES
1,000 POLES	 1,133 POLES
300 DEVICES	 307 DEVICES

*Data as of 8/31/24

PHASE ONE Community Outreach and Feedback

In August and September, our Senior Leadership hosted open houses to listen and collect feedback from our customers.

19 Open houses

600 Participants



Top feedback topics:

- Vegetation management
- Improved reliability
- More resilient grid
- Accurate and timely communications
- Customer support



PHASE ONE Completed Commitments



40 out of 42
commitments completed

All commitments with an August deadline complete



Strengthening Resiliency
19 Actions

17/19 Completed



Improving Communications
17 Actions

17/17 Completed



Strengthening Partnerships
6 Actions

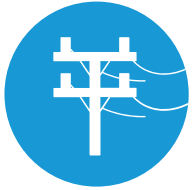
6/6 Completed

GHRI Phase Two






PHASE TWO

Goals (September 2024 – June 1, 2025)






STRENGTHENING **Resiliency**

-  **Rebuilding and hardening the grid** with system upgrades and targeted undergrounding
-  **Refining risk-based vegetation management** with predictive analytics model
-  **Installing advanced automation** to support a self-healing grid






IMPROVING **Communications**

-  **Improving outage tracker** with premise-level status, hazard reporting and Spanish translation
-  **Launching year-round community engagement** on preparedness and safety
-  **Improving direct customer communications**









STRENGTHENING **Partnerships**

-  **Conducting joint storm preparedness exercises** with emergency management offices
-  **Implementing storm management tool** to increase mutual assistance efficiency
-  **Donating backup generators** to community centers

PHASE TWO   

Grid Improvement Actions

		TARGET BY June 1, 2025
	Installing poles that can withstand extreme winds	25,000 poles
	Installing automated reliability devices to reduce outages	4,500 devices
	Installing Intelligent Grid Switching Devices (IGSDs)	350 IGSDs
	Trimming or removing higher-risk vegetation	4,000 miles
	Undergrounding power lines	400 miles
	Installing new weather monitoring stations	100 stations

It is projected that we will invest **\$550M** in our infrastructure during Phase 2

PHASE TWO

Communications and Partnerships



Year-Round Communications Campaign

- Community outreach events
- Emergency preparedness webinars
- Direct-to-customer outreach



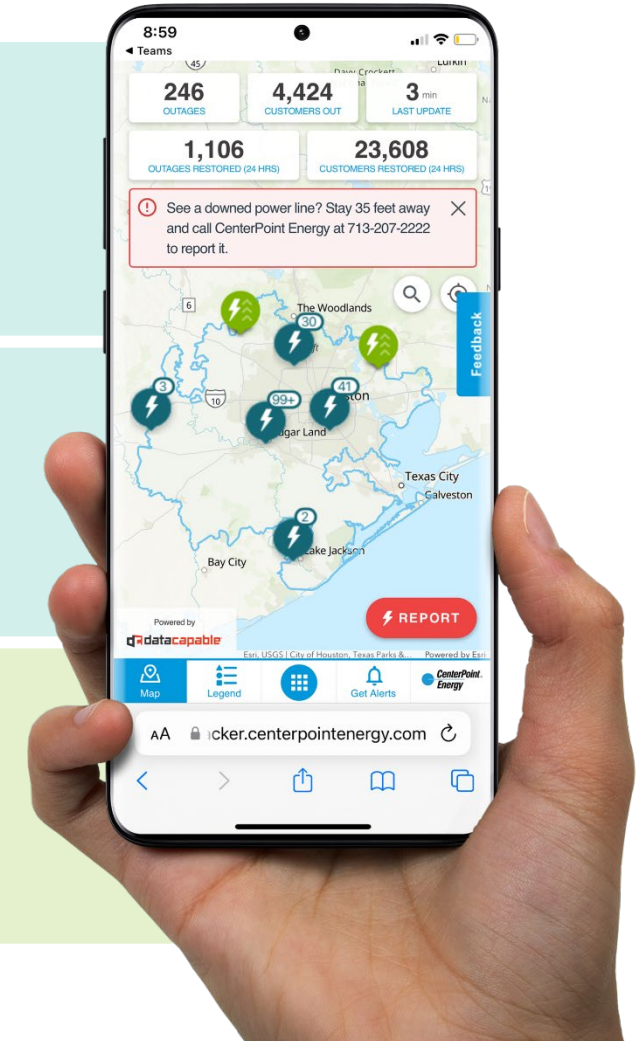
Outage Tracker Improvements

- Outage Tracker with premise-level info
- Spanish Outage Tracker
- Mobile/web-based ability to report hazards



Expanded Emergency Response

- Backup generators donated to community centers
- Emergency preparedness meetings/exercises
- Storm management tool to improve mutual aid efficiency



PHASE THREE

Future Actions (2026-2028)

Goal

We are committed to building the most resilient coastal grid in the country by:

- ✓ **Hardening key infrastructure**
- ✓ **Enhancing the security of the grid**
- ✓ **Building a smarter grid that can combat extreme weather**

Our long-term efforts will strive to design, build, and operate a more resilient electric grid

- Filing a 2026-2028 Long-Term System Resiliency Plan by no later than Jan. 31, 2025 with the PUCT
- Largest investment in Greater Houston infrastructure in our history.
- Capital investment plan includes \$21+ billion in total capital investment from 2025 through 2030.

Appendix











PHASE ONE COMMITMENTS

Strengthening Resiliency

We have completed 40 of our 42 commitments for Phase I, each of which were completed on time or ahead of schedule. You can track our real-time progress at [CenterPointEnergy.com/TakingAction](https://www.CenterPointEnergy.com/TakingAction).



Strengthening Resiliency

Action	Description	Status
Nearly double vegetation management workforce	As of July 16, there are now approximately 1,000 vegetation management workers working to immediately address higher risk vegetation issues through August 31 and beyond.	
Remove vegetation from high-risk vegetation areas	We will remove 100% of vegetation from the 2,000 incremental distribution line miles with higher risk vegetation across our system by August 31.	
Replace 100% of remaining poles with composite poles	By August 31, 100% of the remaining distribution poles planned for replacement will be replaced with composite poles (approximately 1,000 poles).	
Deploy 300+ automated devices	By August 31, we will strategically deploy at least 300 automated devices to reduce sustained interruptions in major storm events and reduce restoration time.	
Harden 350 distribution line miles	By December 31, we expect to harden nearly 350 distribution line miles to the latest extreme wind standard on a reliability-risk basis. IN PROGRESS; ON TRACK	
Use 25% resource buffer	With immediate effect, given the uncertain impacts of severe weather, we will use a 25% resource buffer as part of our response resourcing model to help ensure we request more than the number of crews we need to respond to any power outages after a major storm.	
Develop expanded staging site housing for four locations	Immediately, we will develop expanded staging site housing for four strategic locations to minimize travel time.	
Use new state-of-the art predictive modeling and AI technology to identify higher-risk vegetation	By August 1, we will begin to use new state-of-the-art predictive modeling and AI technology to identify higher risk vegetation across our system.	







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Strengthening Resiliency

Action	Description	Status
Complete visual inspections on overhead distribution circuits impacted by Beryl	By August 1, we will complete visual inspections on all overhead distribution circuits impacted by Hurricane Beryl to identify equipment or vegetation-related issues that could create future outages.	
Complete aerial imagery inspections on overhead distribution circuits impacted by Beryl	By August 15, we will complete aerial imagery on all overhead distribution circuits impacted by Hurricane Beryl to identify equipment or vegetation-related issues that could create future outages.	
Execute identified repairs based on risk as identified through visual and aerial inspection	By August 15, informed by the completion and analysis of our inspection, we will execute identified repairs based on risk. This work will be completed by August 31.	
Increase small increment mobile generation units from 4 to 13	By August 1, we will increase on a short-term lease basis small increment (up to 1MW) mobile generation from 4 to 13 units.	
Implement changes to restoration process to accelerate vegetation crew dispatch	By August 31, or 5 days before the next tropical storm hits our service area, whichever occurs first, we will implement changes to our restoration process to accelerate dispatch of vegetation crews as soon as safely practicable after a storm based on damage modeling.	
Use damage modeling to dispatch appropriate crews	By August 31, or 5 days before the next tropical storm hits our service area, whichever occurs first, based on damage modeling, we will dispatch appropriate crews as soon as safely practicable after a storm to speed restoration.	






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Strengthening Resiliency

Action	Description	Status
Use predictive modeling to inform resource planning to prepare for a major storm	By August 31, or 5 days before the next tropical storm hits our service area, whichever occurs first, we will begin using predictive modeling tools to inform resource planning to prepare for a major storm.	
Use damage modeling to identify staging sites for hardest-hit areas	By August 31, or 5 days before the next tropical storm hits our service area, whichever occurs first, we will leverage damage models to identify locations for staging sites to increase proximity to hardest-hit areas so that workers can be deployed quickly.	
Hire new senior leader for emergency preparedness and response	We will hire a new senior leader for emergency preparedness and response and will seek to have someone in place as quickly as possible. IN PROGRESS; ON TRACK	
Appoint resource commander	We will immediately appoint a resource commander whose sole responsibility will be to develop and adjust a storm resource plan to efficiently dispatch resources.	
Design new distribution structures and replacements to standards that address extreme wind and loading conditions	We will design all new distribution structures and replacements to standards that address extreme wind and loading conditions.	








PHASE ONE COMMITMENTS

Improving Communications

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Improving Communications

Action	Description	Status
Launch a new cloud-based outage tracker	We will launch a new cloud-based outage tracker by August 1, which is designed to accommodate user traffic during a major storm event.	
Make outage tracker user-friendly	The new outage tracker will allow customers to see outages by county, city and zip code and will be mobile friendly and ADA accessible.	
Use outage tracker to update customers	We will use the outage tracker to update customers on their expected restoration date soon after we are able to determine restoration expectations.	
Communicate estimated customer restoration times in timely fashion	Effective immediately, 100% of impacted customers will have an estimated time for restoration for the entire system within 24 hours of a tropical storm exiting our service area, and we will update our estimated time for restoration at least daily thereafter.	
Scale up Power Alert Service® capacity	By August 9, we will scale up the capacity for our Power Alert Service® so that it can accommodate increased use expected during a major storm event.	
Launch customer campaigns to enroll in Power Alert Service®	By August 9, we will launch campaigns to enroll our customers in Power Alert Service®, our text alert service, so that we can push out real-time updates to their mobile devices as information becomes available.	
Increase call center capacity by 165%	By August 15, we will be able to increase our call center capacity by 165% for storm events with a standard average speed of answer of 5 minutes or less.	







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Improving Communications

Action	Description	Status
Re-train call center agents	By August 9, we will re-train our call center agents so that they are equipped to address customer questions satisfactorily.	
Launch earlier and daily public communications during expected storm events	Effective immediately, we will launch initial public communications earlier in the storm cycle and establish a robust daily cadence of public communications planning, assessment and execution.	
Hold daily press briefings if storm event expected	By August 1, we will adopt a policy of holding daily press briefings to communicate our preparation efforts if a named storm is expected to hit the Gulf Coast area and provide a daily restoration update during these briefings following a major storm event.	
Develop emergency preparedness and response communications playbook	We have retained emergency response communications experts to develop an emergency preparedness and response communications playbook by August 9. This plan is focused on communicating earlier, more frequently and more widely throughout the storm cycle.	
Launch community education program	Beginning on August 1, we will launch our community education program to help explain how we are preparing for major storm events, how our restoration process works and what they can do to prepare.	
Re-emphasize "Right Tree -- Right Place" program	By August 15, we will re-emphasize our "Right Tree -- Right Place" program to further educate the public and communities about the impact of trees on powerlines.	





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Improving Communications

Action	Description	Status
Conduct large scale, open-house style community listening sessions	We are currently conducting community listening sessions, which have begun to inform elements of this plan, and will be hosting open house style listening sessions in every one of our counties in August and September.	
Launch plan to engage with community focus groups for feedback on outage tracker	By August 15, we will launch a plan to engage with community focus groups to get feedback on our outage tracker and work to incorporate this feedback to improve the customer experience.	
Continue meeting with customers to collect feedback	We will continue to meet with our customers and listen to their feedback on how we can communicate more clearly and effectively, and we will act on their recommendations.	
Hire new senior communications leader	We will hire a new senior leader with deep communications expertise to ensure that we execute on our overhaul of our communications approach effectively and will appoint someone as soon as possible.	






PHASE ONE COMMITMENTS

Strengthening Partnerships

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Strengthening Partnerships

Action	Description	Status
Bridge gap between outage and restoration at critical care facilities	Our restoration strategy already prioritizes at-risk Texans in critical care facilities, and our focus is on incremental generation to bridge the gap between outage and restoration.	
Coordinate with officials to more effectively dispatch temporary generation resources	By August 9, we will coordinate more closely with local, county, and state officials as well as emergency management personnel to align response efforts and more effectively dispatch temporary generation resources.	
Identify sites to donate 10 back-up generators at sites identified by local leadership	We will donate up to 10 back-up generator facilities across our communities in coordination with needs identified by local leadership. Sites will be selected by September 30, and back-up generators installed and operational by June 1, 2025.	
Evaluate expansion of number of temporary generation units informed by needs of critical facilities	By August 31, or 5 days before the next tropical storm hits our service area, whichever occurs first, we will evaluate the expansion of the number of temporary generation units, and temporary generation transportation assets in our fleet, informed by the needs of critical facilities.	
Brief trade associations about critical care facilities and availability of FEMA resources	By August 9, we will brief trade associations for critical care facilities and confirm contact information for their members in our territory. We will also provide information about the availability of resources provided by FEMA to ready their facilities to accept temporary generation.	
Engage with local Emergency Management Offices	By August 9, we will engage with local Emergency Management Offices (or similar) to refresh our prioritization and to confirm contact information and emergency preparedness of critical facilities and critical infrastructure.	