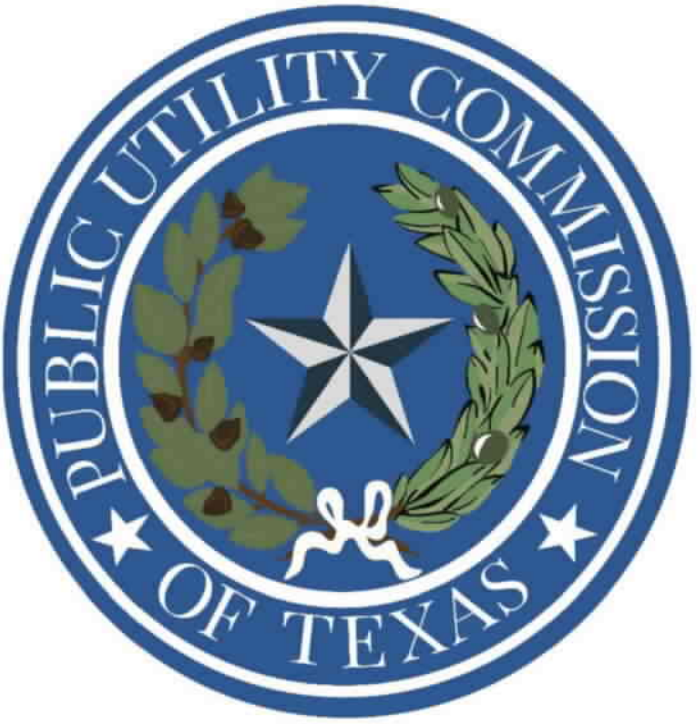

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SOAH DOCKET NO. 473-25-11558
PUC DOCKET NO. 57579

APPLICATION OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC FOR APPROVAL OF ITS 2026-2028 TRANSMISSION AND DISTRIBUTION SYSTEM RESILIENCY PLAN	**§ § § § §**	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

April 4, 2025

Contact: Stacey Murphree
CenterPoint Energy Service Company, LLC
1111 Louisiana Street
Houston, Texas 77002
Telephone No: (713) 207-6537
Fax: (713) 454-7197
stacey.murphree@centerpointenergy.com

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CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-01

QUESTION:

Please explain the major differences in CenterPoint's approach to this filing compared to the approach to the prior System Resiliency Plan (SRP) filing, Docket 56548.

ANSWER:

Please see the response to TCUC 01-09 as well as Section 2.2 and Section 5.1.2 of the Guidehouse report included in Exhibit ELS-2.

SPONSOR:
Nathan Brownell

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-02

QUESTION:

Please describe the Greater Houston Resiliency Initiative (GHRI) and explain how the GHRI complements CenterPoint's current SRP. Are there GHRI costs in the current SRP, and if so, for which measures?

ANSWER:

The first phase of CenterPoint Energy's Greater Houston Resiliency Initiative was focused on a series of immediate actions to improve resiliency, including installing more storm-resilient poles, trimming or removing higher-risk vegetation, and installing automated devices to reduce the number of storm-related outages. Phase One was completed August 27, 2024.

The second phase of the GHRI will extend from September 1, 2024, to June 1, 2025. In this near-term phase, we will focus on another suite of significant resiliency and reliability actions and programs including installing more storm-resilient poles, installing automated devices, trimming or removing higher-risk vegetation, installing intelligent grid switching devices, undergrounding powerlines and installing new weather monitoring stations.

For a list of initiatives included in GHRI Phase 1 and 2, please see the website below: http://www.centerpointenergy.com/takingaction

Please see the direct tesimony of Mr. Brownell at page 27, line 2 thru page 30, line 10 (PDF pages 371 thru 374) for further description and discusstion of the Greater Houston Resiliency Initiative. Additionally, please see the response to REP 01-31. There are no costs associated with GHRI programs included in the SRP.

SPONSOR:
Nathan Brownell

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-03

QUESTION:

Please explain how the Company will ensure that the SRP costs are incremental to the resiliency measures currently in place and will not overlap.

ANSWER:

Please see the response to HCC RFI 02-04.

SPONSOR:
Nathan Brownell

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-04

QUESTION:

Refer to Exhibit NB-6. Please discuss any changes in assumptions that caused the Benefit-Cost Analysis (BCA) and customer minutes of interruption (CMI) savings in the current SRP to be generally higher than the BCRs and CMI savings in the prior SRP for similar measures. Is it reasonable to compare the measures in the two SRPs and if not, why not?

ANSWER:

The primary reason why BCAs increased for some measures is the change in Value of Lost Load from $25,000 per MWh used in the prior SRP to $35,000 per MWh in the current SRP. Note that the composite BCA for all proposed resiliency measures where BCA ratios were derived has been reduced from 6.6 in the prior SRP to 5.0 in the current SRP. The CMI savings in the current SRP are higher because of the increase in proposed spending in the current SRP versus the prior SRP. Some resiliency measures in the current SRP have been adjusted to account for changes in unit costs and the types of projects included in proposed measures such as Strategic Undergrounding, which now includes overhead to underground conversions for distribution circuits. The prior SRP only included overhead to underground conversions for highway crossings. For these reasons, it is not reasonable to compare all resiliency measures in the current SRP to those included in the prior SRP.

SPONSOR:
Eugene Shlatz

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-05

QUESTION:

Refer to Exhibit NB-6. Please discuss the basis for the significant increase in costs between the prior and current SRP filings related to:

a. Strategic Undergrounding
b. Vegetation Management
c. Distribution Pole Replacement/Bracing
d. Transmission System Hardening

ANSWER:

a. Following Hurricane Beryl, it was determined that certain areas were significantly impacted due to tree fall-in and lack of truck accessibility resulting in outage durations to be extended. These locations are being targeted as candidates for strategic undergrounding to mitigate these risks and improve recovery timeframes during extreme weather events.

b. Following Hurricane Beryl, it was determined that tree fall-in and vegetation contact caused a number of outages and it was determined that a more robust vegetation management with aggressive trimming and cutting down of diseased and dead trees will mitigate risks during extreme weather events.

c. In Hurricane Beryl, a significant number of poles were pulled down causing outages to be extended. Following Hurricane Beryl, it was determined that a more robust pole with resiliency improvements will allow critical poles to remain standing making it faster to string wire and bring customers back online and reduce outage durations for our customers.

d. In Hurricane Beryl many transmission structures were impacted. These structures were not built to current NESC wind loading standards (Article 250 C and D). All new structures are built to this standard and able to withstand increased winds as seen more often in recent years.

SPONSOR:
Eric Easton

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-06

QUESTION:

Refer to Exhibit NB-6. Please discuss the basis for the addition of the following programs not included in the prior SRP filing:

a. Mobile Substations
b. Distribution Capacity Enhancements/Substations
c. MUG Reconductor
d. URD Cable Modernization
e. Contamination Mitigation
f. Spectrum Acquisition
g. Emergency Operations Center
h. Hardened Service Centers

ANSWER:

a. In Hurricane Beryl some substations were at risk of being or were impacted. Mobile substations allow a temporary recovery when substations are impacted allowing for the Company to get customers back online more quickly and mitigate outage durations.

b. Distribution capacity enhancements allow for improved capacity and numbers of circuits to more quickly recover from resiliency events. This is done through the addition of circuits and substations to allow for improved transition of loads. This is done through the addition/upgrade of 35 kV circuits and the removal of 12 kV islands where everything around the 12 kV circuits is 35 kV.

c. This resiliency measure will work to improve the MUG infrastructure and to allow for increased capacity improving the mitigation capabilities of the overall system in resiliency events.

d. This resiliency measure will work to improve the URD infrastructure and to allow for improving the mitigation capabilities of the overall system in resiliency events.

e. This resiliency measure will allow the Company to see in an automated fashion when contamination becomes a hazard and develop scheduling to wash the critical equipment to mitigate the risk of contamination buildup causing circuit outages in contaminated areas within the Company's territory.

f. The acquisition of radio frequency spectrum is critical for expanding the communications needs of present and future equipment additions and allows for delivery of critical data pre, during, and post resiliency events to improve situational awareness and assist in making improved critical restoration decisions post resiliency events.

g. The emergency operation center is at the heart of response during resiliency events and is critical to improving recovery efforts. This provides a central area where commands emanate from, and intelligence goes to make critical decisions to improve recovery timeframes.

h. Hardened service centers allow critical first responders and inspection crews a safe location to ride out resiliency events and be available as soon as the danger passes to assess situations and begin restoration efforts as quickly as possible. This is critical to improving recovery timeframes.

SPONSOR:
Eric Easton

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-07

QUESTION:

Refer to the Transmission and Distribution System Resiliency Plan at 4, 5 and 31 (Bates 39, 40 and 66). CenterPoint is requesting to add 1,086 Intelligent Grid Switching Devices (IGSDs) at a capital cost of $131.2 million over the next three years but has invested only $31 million over the last four years to install IGSDs. Given the claimed customer benefits of the IGSDs, please explain why CenterPoint has installed so few of them prior to its request in the SRP.

ANSWER:

The $31M investment over the last four years is for the IGSDs installed primarily to enhance reliability. The IGSDs proposed in the System Resiliency Plan ("SRP") are designed specifically to enhance restoration and reduce outage duration for resiliency events by supporting the restoration process for extreme wind events, load shed for extreme temperature (freeze), and wildfire mitigation for extreme temperature (heat). The placement location, mode of operations, and intended outcome for IGSDs proposed in the SRP differs from the IGSDs that the Company has been installing for reliability use cases. The IGSDs proposed in the SRP will be incremental to the IGSDs that will be installed for reliability over the next three years.

SPONSOR:
Eric Easton

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-08

QUESTION:

Refer to the Transmission and Distribution System Resiliency Plan at 31 (Bates 66), Figure SRP-5. For each year, please provide:

a. the number of IGSDs installed
b. the miles of transmission lines hardened
c. the number of substations elevated
d. the number of distribution poles replaced/braced
e. the number of substations secured
f. the number of S90 towers replaced
g. the miles of 69 kV to138 kV conversions
h. the miles of distribution circuits rebuilt
i. the number of Tripsavers installed

ANSWER:

Part	Description	2020	2021	2022	2023
A	Number IGSDs installed	35	58	150	132
B	Miles of transmission lines hardened (including X miles of Galloping Conductor Mitigation)	27.32 (24.98)	50.92 (18.31)	86.32 (36.89)	63.95 (23.53)
C	Number substations elevated	2	2	4	2
D	Number distribution poles replaced/braced	2,540	8,394	7,147	4,702
E	Number substations secured	2	9	11	9
F	Number S90 towers replaced	1	2	17	14
G	Change in 69 kV mileage (69 kV to138 kV conversions) Net decrease of approx. 127.68 miles from 1/1/2020 to 12/31/2023	46.26 mile decrease	2.82 mile increase	2.04 mile decrease	82.2 mile decrease
H	Miles of distribution circuits rebuilt (program started in 2022)	N/A	N/A	129	77
I	Number Tripsavers installed (program started in 2022)	N/A	N/A	1,782	849

SPONSOR:
Eric Easton and David Mercado

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-09

QUESTION:

Refer to the Transmission and Distribution System Resiliency Plan at 35 (Bates 70). Please identify and explain what CenterPoint learned from the May 2024 Storms and Hurricane Beryl that it hadn't learned from all the previous storms that have impacted its service area.

ANSWER:

As stated in the direct testimony of Company witness Nathan Brownell at page 11 of 52, line 2 through page 21 of 11, line 3 (PDF pages 355-365), CenterPoint Houston has experienced historic customer load growth over the last 15 years and anticipates that growth will continue well into the future. Prior to the adoption of the Transmission and Distribution System Resiliency Plan statute, as further described in the direct testimony of Mr. Brownell at page 11 of 52, line 2 through page 21 of 11, line 3 (PDF pages 355-365), the Company has made significant investment in and implemented various resiliency-related project. As a result of this rapid growth and significant prior investment, the system that was affected by the May 2024 storms and Hurricane Beryl was a different system than those affected by prior storms.

Since the summer of 2024, the Company has completed a system-wide LiDAR mapping initiative that now provides significantly more granular infrastructure data that has been incorporated into a predictive model. This model analysis allows the Company to determine the specific distribution circuits (or portions of distribution circuits) that have restricted access, are susceptible to fall-in risk, serve public safety infrastructure, and benefit the most customers from system resiliency investments. Additionally, the Company is able to use the model to forecast future resiliency events in our service area to better understand the potential impact to our infrastructure. Furthermore, the Company has gathered information on storm impacts in specific areas during our 19 public open houses as well with individual meetings with leaders from the 12 counties we serve. Finally, the company participated in several after action reviews and has taken into consideration the recommendations from both PA Consulting and the PUCT in their reports on Hurricane Beryl.

SPONSOR:
Nathan Brownell

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-10

QUESTION:

Refer to the Transmission and Distribution System Resiliency Plan at 192 (Bates 227). Please provide the incremental capital costs and O&M expense for each of the following components of the Data Center Modernization program, that total $12.7 million capital costs and $1.3 million O&M expense:

a. Disaster Recovery Enterprise Toolset
b. On-Premises Infrastructure Refresh
c. SAN Fabric Redesign
d. Data Protection Storage
e. Active-Active Business Resiliency
f. Smart Grid Data Resiliency

ANSWER:

Please see CITIES-RFI01-10 - Attachment.pdf

SPONSOR:
Ron Bahr

RESPONSIVE DOCUMENTS:
CITIES-RFI01-10 - Attachment.pdf

The incremental capital costs and incremental O&M expense included in the Company's Systems Resiliency Plan for each of the components of the Data Center Modernization program are as follows:

Component	2026 Capital	2027 Capital	2028 Capital	Total Capital	2026 O&M	2027 O&M	2028 O&M	Total O&M
Disaster Recovery Enterprise Toolset	$ 420,000	$ -	$ -	$ 420,000	$ 35,280	$ -	$ -	$ 35,280
On-Premises Infrastructure Refresh	$ 840,000	$ 840,000	$ 840,000	$ 2,520,000	$ 70,560	$ -	$ -	$ 70,560
SAN Fabric Redesign	$ 1,680,000	$ -	$ -	$ 1,680,000	$ 141,120	$ -	$ -	$ 141,120
Data Protection Storage	$ -	$ -	$ 1,680,000	$ 1,680,000	$ -	$ -	$ -	$ -
Active-Active Business Resiliency	$ 420,000	$ 420,000	$ -	$ 840,000	$ -	$ -	$ -	$ -
Smart Grid Data Resiliency	$2,500,000	$2,000,000	$ 1,000,000	$ 5,500,000	$ 500,000	$ 500,000	$ -	$ 1,000,000
Total	$ 5,860,000	$ 3,260,000	$ 3,520,000	$ 12,640,000	$ 746,960	$ 500,000	$ -	$ 1,246,960

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-11

QUESTION:

Refer to the T&D System Resiliency Plan at 207 (Bates 242). Regarding RM-34, Weather Stations, CenterPoint asserts the weather data collected will enable more accurate weather risk modeling and will also be used for real time situational awareness. Please explain how real-time situational awareness will be achieved. Will someone be actively monitoring the weather stations, and if so, what data will they report and what will CenterPoint do with the data?

ANSWER:

Weather stations provide critical data, some of which includes winds, precipitation, barometric pressure, and temperature. These will provide more granular and accurate information during resiliency events such as a derecho, hurricane arrival, tornadoes, heavy precipitation, and dry conditions. This data will be brought into a server and monitored by the meteorologist who is adept at determining what the data shows and alerts the executives and operational teams of potential risks. This will allow the Company to better prepare and engage the proper resources dependent on the resiliency event allowing for an efficient and timely response to these events. This data will also be used for risk modeling to understand the potential impact to the system and prepare in advance.

SPONSOR:
Eric Easton

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 57579
SOAH DOCKET NO. 473-25-11558

GULF COAST COALITION OF CITIES
REQUEST NO.: CITIES-RFI01-12

QUESTION:

Refer to the T&D System Resiliency Plan at 209 (Bates 244). Regarding RM-35, Wildfire Cameras:

a. Please explain how CenterPoint will determine if the Wildfire Camera Monitoring Resiliency Measure will reduce the risk, mitigate the spread, or mitigate the impact of a wildfire on the Company's transmission and distribution system.
b. If the cameras are installed, please explain if someone will be actively monitoring the cameras, and if so, what data will they report and what will CenterPoint do with the data?

ANSWER:

a. Wildfire cameras are not meant to reduce the risk but will potentially mitigate the spread and/or the impact of wildfire to the customers within the Company's service territory with the early alert of a potential wildfire. These cameras use artificial intelligence to locate smoke and potential ignition sources and will alert the EP&R team. This team will evaluate this risk and determine if it is a wildfire and alert the proper authorities. The Company is also proposing to work with Texas A&M Forest Service to assist in identifying wildfire risks allowing for a faster response to work to minimize impacts to its customers from wildfire within the Company's territory.

b. The cameras will be monitored by artificial intelligence as a stage 1 and when smoke is identified, the system will alert the EP&R team allowing them to investigate the risk (possibly deploying crews to further investigate). If determined to be a threat, the Company plans to alert the proper authorities to this risk to allow for improved response times (critical to bringing wildfires under control quickly). The Company also plans to work with Texas A&M Forest Service and other interested governmental, first responder, or other appropriate parties sharing this data as able and alerting in the event of potential wildfire risks.

SPONSOR:
Eric Easton

RESPONSIVE DOCUMENTS:
None

CERTIFICATE OF SERVICE

I hereby certify that on April 4, 2025, notice of the filing of this document was provided to all parties of record via electronic mail in accordance with the Second Order Suspending Rules, filed in Project No. 50664.

Terence Glenn Russell
Terence Russell