CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-086

QUESTION:

Distribution Infrastructure

Please provide the total number of distribution poles that failed due to Hurricane Beryl. In your response, please provide separate quantities for each pole type and NESC wind loading criteria for the poles that failed, and separately identify the number of pole failures caused by either high wind or structural loading from vegetation or debris.

ANSWER:

Please see the response to request 1-85.

SPONSOR:
Deryl Tumlinson

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-087

QUESTION:

Distribution Infrastructure

For each distribution pole that failed due to the May 2024 Derecho or Hurricane Beryl, please provide the date of the last inspection and explain the planned frequency of those inspections. Additionally, please provide the most recent inspection report for each pole that failed.

ANSWER:

CenterPoint Houston does not separately identify or track individual poles replaced during its storm restoration efforts, and thus CenterPoint Houston does not have the requested information for each individual pole.

CenterPoint Houston maintains a little over one million wooden poles and structures as part of its transmission and distribution system, including approximately 1,000,182 wooden distribution poles and structures and approximately 1,858 wooden transmission poles and structures. CenterPoint Houston's distribution and transmission poles are inspected on a 10-year cycle. Approximately 10% of CenterPoint Houston's distribution and transmission poles are inspected annually, and the poles to be inspected are identified the year before using historic data. Currently, CenterPoint Houston is in the process of identifying poles to be inspected in 2025, using data from 2015 to assist in identification of poles to be assessed. Inspections involve an 18-step process that includes a visual inspection and manual excavation to assess any decay below the ground line and boring/sounding to locate internal voids. Supporting guy wires, strains, and anchors are also inspected as part of a distribution pole inspection. For pole inspections conducted by an external vendor, CenterPoint Houston conducts a quality assurance review of vendor performance.

For distribution poles, and based on an inspection, a distribution pole's remaining strength is calculated. Using the criteria described below, distribution poles that do not offer the appropriate structure and wind loading are identified as truss candidates or as needing replacement. For distribution poles that have a remaining pole strength that falls below the NESC standard of 67%, CenterPoint Houston evaluates the possibility of trussing. A truss will be used if: (1) the remaining strength is not at or below 13%, (2) the truss can restore the remaining distribution pole strength to 75%, and (3) the distribution pole meets current loading standards. Otherwise, the distribution pole will be replaced.

The attached spreadsheet lists each circuit that experienced one or more outages in the May 2024 Derecho (tab entitled "derecho_unique") and/or Hurricane Beryl (tab entitled "beryl_unique"). For each such circuit, the spreadsheet also shows the last year in which that circuit was inspected as part of the Company's pole inspection program.

SPONSOR:
Deryl Tumlinson

RESPONSIVE DOCUMENTS:
PUC-RFI01-087 Derecho and Beryl Unique Circuit Level Outages with Pole Inspection Program Dates

FEEDERNAME	Last Major Pole Inspection
-Missing Feeder-	
AD01	2019
AD04	2019
AD08	2016
AD09	2022
ADK41	2019
ADK42	2016
ADK43	2016
ADK44	2018
ADK45	2016
ADK47	2014
ADK48	2023
ADK49	2019
AF03	2023
AI06	2021
AN01	2021
AN02	2017
AN03	2021
AN04	2020
AN05	2021
AN06	2021
AN07	2020
AN08	2021
AN09	2017
AN11	2020
AN12	
AT41	2016
BA45	2018
BA47	2021
BE01	2017
BE03	2016
BE04	2017
BG11	2020
BH04	2018
BH05	2018
BH06	2018
BH07	2023
BH08	
BH09	2019
BI41	2023
BI42	2023
BM01	2016
BM03	2016
BM04	2016
BM05	2016
BM07	2016

BM08	2016
BM10	
BR12	2017
BT05	2024
BT07	2015
BU01	2017
BV41	2018
BV42	2018
BY02	2018
BY03	2017
BY04	2014
BY05	2014
BY06	2021
BY08	2021
BY10	2018
CA08	2019
CB01	2016
CB02	2016
CB03	2016
CB04	2016
CB05	2016
CB06	2016
CB07	2016
CB08	2016
CB09	2016
CB10	2016
CB11	2016
CB12	2016
CD01	2016
CD02	2016
CD04	2016
CD05	2016
CD07	2016
CD11	2023
CD12	2016
CG02	2019
CK05	2018
CL01	2023
CL03	2017
CL05	2019
CL06	2019
CL07	2019
CL09	2019
CR01	2023
CR02	2020
CR03	2017
CR05	2020

CR06	2020
CR08	2020
CR11	
CS01	2017
CV01	2016
CV02	2018
CV03	2017
CV04	2017
CV05	2017
CV06	2016
CV07	2016
CV08	2018
CV09	2020
CV10	2017
CYF41	2018
CYF42	2018
CYF44	2018
CYF45	2018
CYF46	2018
CYF47	2022
CYF48	2022
CYF49	2022
CYF50	2017
DE08	2018
DH01	2015
DH02	2015
DH03	2015
DH04	2015
DH05	2015
DH06	2023
DH07	2019
DH08	2023
DH09	2017
DH10	2019
DH12	
DN04	2021
DN11	2021
DR01	2018
DV03	2018
DV05	2022
DV10	2017
DV11	2023
EC01	2016
EC02	2016
EC03	2016
EC04	2016
EC05	2016

EC06	2016
EC07	2016
EC08	2016
EC09	2016
EC10	2016
EC11	2016
EC13	2016
EC14	2016
EC15	2019
EL02	2019
ES02	2018
ES03	2018
EU01	2015
EU02	2015
EU03	2019
EU04	2019
EU05	2017
EU06	2015
EU07	2017
EU08	2017
EU09	2019
EU10	2015
EU11	2017
EU12	2019
FAN47	2023
FD10	2022
FM01	2017
FM02	2024
FR43	2021
FR44	2023
FR45	2018
FR46	2021
FR47	2023
FR48	2018
FR49	2020
FR50	
FRK47	
FRY41	2023
FRY42	2019
FRY43	2022
FRY44	2022
FRY45	2018
FRY46	2019
FRY47	2019
FRY48	2022
FRY49	2022
FRY50	

FT09	2018
FZ53	2023
GAR05	2024
GE41	2016
GE42	2023
GE43	2016
GE44	2021
GE45	2023
GE46	2016
GE47	2019
GE48	2015
GE49	2015
GE50	2015
GN10	2020
GP06	2017
GP08	2017
GS22	2018
GS29	2019
GT09	2021
GV06	2019
GW01	2017
GW02	2016
GW03	2019
GW06	2017
GW07	2016
GZ46	2021
HB46	2016
HB48	2016
HE01	2021
HE02	2017
HE03	2021
HE04	2021
HE05	2021
HE06	2021
HE07	2021
HE08	2021
HE09	2023
HE10	2021
HE11	2021
HE12	2021
HE14	2021
HE15	2021
HG01	2018
HG05	2019
HK41	2022
HK42	2022
HK43	2022

HK44	2017
HK45	2017
HK46	2023
HK47	2018
HL02	2017
HL03	2017
HL04	2017
HOC02	2017
HP02	2021
HR01	2021
HR02	2017
HR03	2018
HR04	2021
HT01	2021
HV08	2021
HY01	2024
HY07	2019
HY10	2023
IM42	2024
IND01	2018
IND02	2017
IND03	2018
IND04	2020
IND05	2019
IND06	2018
JN03	2017
JOR43	2019
JP04	2023
JP08	2020
KB01	2020
KDL41	2021
KDL45	2018
KDL47	2021
KI41	2021
KI42	2023
KI44	2018
KI46	2021
KI47	2023
KI48	2022
KI49	2022
KL41	2021
KL42	2017
KL43	2021
KL44	2021
KL45	2021
KL48	2017
KL49	2021

KL50	2021
KT45	2023
KT46	2023
KT47	2019
KT48	2019
KT49	2019
KT50	2019
KW41	2016
KW42	2020
KW43	2023
KW45	2016
LA02	2017
LA04	2017
LAK41	
LB01	2017
LB02	2017
LB03	2019
LB04	2017
LB06	2018
LB07	2018
LK01	2020
LK02	2017
LK03	2020
LK04	2020
LK05	2017
LK07	2020
LK08	2017
LK10	2020
LU41	2022
LU44	2021
LU45	2021
LW41	2019
LW42	2017
LY41	2019
LY45	2017
LY47	2019
LY48	2023
MC03	2022
ME01	2016
ME02	2016
ME04	2018
ME05	2016
ME06	2016
ME08	2015
ME10	2024
MID01	2019
MID02	2019

MID03	2019
MP02	2017
MP03	2019
MP04	2019
MP06	2019
MP08	2017
MP09	2019
MY01	2018
MAR42	
MAR44	
MAR46	
MAR50	
NB41	2019
NB43	2019
NM01	2018
NM02	2018
NM03	2016
NM04	2018
NM06	2016
NP41	2017
NP43	2019
NP44	2017
NS01	2021
NS02	2017
NS03	2021
NS04	2021
NS05	2021
NS06	2021
NS07	2021
NS08	2021
OA01	2017
OA02	2018
OA04	2018
OA05	2023
OA06	2016
OA07	2017
PA09	2018
PHR01	2017
PI42	2021
PI43	2022
PI44	2021
PI45	2022
PI47	2022
PI48	2022
PJ03	2017
PK48	
PO02	2018

PW01	2016
PW02	2016
PW03	2016
PW04	2017
PW05	2017
PW06	2021
PW07	2022
RA42	2016
RU01	2017
RU02	2021
RU03	2021
RU04	2021
RU05	2017
RU06	2018
SA01	2021
SA03	2021
SA41	2020
SA42	2019
SA43	2016
SA44	2022
SA45	2019
SA46	2023
SA48	2015
SA49	2019
SA50	2017
SA52	2019
SA54	2018
SB03	2022
SC04	2019
SE42	2023
SF02	2021
SF14	2017
SF41	2022
SF42	2021
SF46	2021
SF47	2022
SF48	2021
SIE47	2022
SO44	2018
SPW42	2019
SPW43	2020
SR01	2016
SR02	
SR03	2016
SR04	2016
SR05	2016
SR06	2016

SR08	2016
SR10	2016
SR12	2016
SR13	2016
SR15	2016
SR16	2016
ST07	2021
ST09	2017
ST10	2021
ST13	2023
ST15	2021
STL43	
STL44	
STL45	
SW03	2018
SW04	2018
SW06	2020
SW07	2016
SW08	2018
SW10	2016
SW41	
SW42	
TAN41	2023
TAN43	
TAN44	2023
TAN45	
TAN49	2015
TB41	2018
TB42	2019
TB46	2017
TB49	
TE08	2018
THW41	2021
THW42	2017
THW44	2021
THW45	2023
THW47	2017
THW48	2021
THW50	
TO01	2018
TO02	2017
TO03	2017
TO04	2018
TO05	2018
TO06	2017
TO07	2016
TO08	2016

TO09	2018
TO10	2016
TO11	2016
TRN01	2016
TRN04	2016
TRN07	2016
TV03	2023
TWG42	2016
TWN42	
UL03	2021
UL09	2021
UL13	2021
UL16	2021
UL45	2021
UL46	2018
UL47	2021
UL48	2021
UN01	2019
UN02	2019
UN03	2019
UN05	2019
UN10	2019
UV01	2023
UV03	2018
UV04	2018
UV05	2018
UV06	2016
UV07	2018
VCR41	2023
VCR42	2019
VCR44	2023
WF03	2021
WF44	2020
WI01	2024
WI04	2024
WI44	2023
WL02	2022
WL41	2018
WL42	2017
WL43	
WLO41	2023
WLO44	2023
WO01	2017
WO02	2020
WO03	2020
WO04	2020
WO05	2020

WO06	2023
WO07	2016
WO08	2020
WO09	2016
WO10	2023
WO11	2016
WO12	2020
WO13	2016
WO14	2018
WOR41	2015
WOR42	2015
WOR43	2023
WOR44	2015
WOR45	2023
WOR46	2023
WR11	2018
WT01	2016
WT02	2016
WT04	2016
WT05	2016
WT06	2016
WT07	2016
WT08	2016
WT09	2016
WT10	2016
WT11	2016
WT12	2016
WV01	2020

FEEDERNAME	Last Major Pole Inspection
-Missing Feeder-	
AD01	2019
AD02	2018
AD03	2016
AD04	2019
AD05	2019
AD06	2022
AD07	2018
AD08	2016
AD09	2022
AD10	2018
ADK42	2016
ADK44	2018
ADK45	2016
ADK47	2014
ADK48	2023
AE05	2017
AE06	2019
AF01	2023
AF02	2024
AF03	2023
AF04	2024
AF05	2023
AF07	2024
AF08	2024
AF09	2024
AF10	2024
AF11	2024
AF12	2024
AI05	2020
AI06	2021
AI07	2016
AI08	2017
AI10	
AL05	2024
AL06	2024
AL07	2020
AL08	2014
AL09	2015
AL10	2024
AL11	2015
AL12	2022
AM01	
AM02	2022

AM03	2023
AM05	2023
AM06	2018
AM08	2022
AM09	2022
AN01	2021
AN02	2017
AN03	2021
AN04	2020
AN05	2021
AN06	2021
AN07	2020
AN08	2021
AN09	2017
AN11	2020
AR41	2021
AR42	2021
AR43	
AR44	2021
AR45	2020
AR46	2021
AR47	2022
AT41	2016
AT42	2017
AT43	2016
AV02	2019
AV03	2017
BA02	2021
BA03	2018
BA04	2021
BA41	2019
BA42	2021
BA43	2021
BA44	2021
BA45	2018
BA46	2018
BA47	2021
BAR41	2024
BAR42	2024
BAR43	2024
BAR44	2018
BAR45	2024
BAR46	2023
BAR47	2024
BAR48	2018

BC09	2023
BE01	2017
BE02	2017
BE03	2016
BE04	2017
BG01	2019
BG02	2023
BG04	2023
BG05	2019
BG06	2018
BG08	2019
BG09	2018
BG11	2020
BH04	2018
BH05	2018
BH06	2018
BH07	2023
BH08	
BH09	2019
BI01	2020
BI03	2020
BI04	2020
BI05	2023
BI06	2020
BI07	2020
BI08	2020
BI43	2020
BI44	2020
BI45	2017
BI46	2020
BL01	2022
BL02	2017
BL03	2022
BL04	2022
BL05	2022
BL06	2022
BL07	2022
BL08	2022
BL09	2023
BL10	2022
BM01	2016
BM03	2016
BM07	2016
BM09	
BM10	

BR03	2020
BR06	2019
BR08	2022
BR09	2022
BR10	2018
BR11	2021
BR12	2017
BR13	2022
BR14	2018
BT01	2014
BT02	2023
BT03	2016
BT05	2024
BT07	2015
BU01	2017
BU04	
BV41	2018
BV42	2018
BV43	2020
BW01	2018
BW05	2018
BW06	2019
BW10	2020
BW11	2019
BW12	2018
BY02	2018
BY03	2017
BY04	2014
BY05	2014
BY06	2021
BY08	2021
BY09	2021
BY10	2018
BZ01	2019
BZ02	2019
BZ03	2020
BZ04	2018
BZ05	2019
BZ06	2019
BZ07	2018
BZ08	2017
BZ09	2017
CA01	2017
CA02	2023
CA04	2019

CA05	2023
CA06	2019
CA07	2017
CA08	2019
CA09	
CB01	2016
CB02	2016
CB03	2016
CB04	2016
CB06	2016
CB08	2016
CB09	2016
CB11	2016
CB12	2016
CC01	2017
CC02	2019
CC03	2019
CC04	2018
CD01	2016
CD02	2016
CD03	2016
CD05	2016
CD06	2023
CD07	2016
CD08	2016
CD12	2016
CE01	2024
CE02	2024
CE03	2024
CE04	2024
CE05	2024
CE06	2024
CE09	2024
CE11	2024
CE12	2024
CE13	2024
CG01	2017
CG02	2019
CG03	2018
CG04	2018
CG05	2017
CG06	2018
CG07	
CG08	2020
CK01	2017

CK02	2023
CK03	2019
CK04	2018
CK06	2018
CK07	
CK08	2021
CL01	2023
CL03	2017
CL05	2019
CL06	2019
CL09	2019
CR01	2023
CR03	2017
CR04	2020
CR11	
CRB41	2023
CRB42	2024
CRB43	2018
CRB44	2023
CRB45	2023
CRB46	2023
CRB47	2024
CRB48	2023
CS01	2017
CS02	2017
CS03	2017
CS41	
CS42	
CV01	2016
CV03	2017
CV04	2017
CV05	2017
CV06	2016
CV07	2016
CV09	2020
CV10	2017
CV11	2017
CYF41	2018
CYF42	2018
CYF44	2018
CYF45	2018
CYF46	2018
CYF47	2022
CYF48	2022
CYF49	2022

CYF50	2017
DA04	2024
DA06	2024
DE01	2018
DE02	2019
DE05	2019
DE06	2017
DH01	2015
DH02	2015
DH04	2015
DH05	2015
DH06	2023
DH07	2019
DH08	2023
DH09	2017
DH10	2019
DH11	
DH12	
DL41	2023
DL42	2023
DL43	2023
DL44	2024
DL45	2023
DL46	2018
DL47	2022
DN01	2021
DN02	2021
DN04	2021
DN05	2021
DN08	2021
DN11	2021
DN12	2021
DR01	2018
DR02	2017
DR03	2018
DR04	2017
DR05	2018
DR06	2018
DR07	2019
DR08	2019
DR09	2018
DR12	2018
DV01	2022
DV02	2022
DV05	2022

DV07	2017
DV08	2022
DV09	2022
DV10	2017
DV11	2023
EB05	2024
EB07	2022
EC01	2016
EC02	2016
EC03	2016
EC04	2016
EC06	2016
EC07	2016
EC08	2016
EC11	2016
EC13	2016
EC14	2016
ED02	2017
ED03	2019
ED06	2018
ED07	2019
ED08	2019
EL02	2019
EL04	2023
EL06	2018
EL07	2023
EL08	2017
EL09	2017
EL10	2018
ES01	2018
ES03	2018
ES04	2018
ES05	2017
ES06	2019
ES08	2017
EU01	2015
EU02	2015
EU03	2019
EU04	2019
EU05	2017
EU06	2015
EU08	2017
EU09	2019
EU11	2017
EU12	2019

FAN46	2023
FAN47	2023
FD01	2022
FD02	2021
FD03	2022
FD04	2022
FD05	2022
FD06	2021
FD07	2022
FD09	2022
FD10	2022
FD11	2021
FD13	2022
FD14	2022
FD15	2019
FD16	2022
FL41	2019
FL42	2021
FL43	2019
FL44	2019
FL45	2024
FL46	2018
FL47	2019
FL50	2015
FM01	2017
FP02	2017
FP03	2019
FP04	2019
FR41	2021
FR42	2021
FR43	2021
FR44	2023
FR45	2018
FR46	2021
FR47	2023
FR48	2018
FR49	2020
FR50	
FRK41	
FRY42	2019
FRY43	2022
FRY45	2018
FRY46	2019
FRY47	2019
FT01	2018

FT02	2019
FT03	2017
FT04	2017
FT05	2016
FT06	2017
FT07	2018
FT08	2017
FT09	2018
FT11	2023
FW01	2018
FW02	2017
FW03	2018
FW04	2018
FW06	2018
FZ41	2019
FZ42	2021
FZ45	2023
FZ46	2023
FZ48	2015
FZ53	2023
FZ54	2021
GA02	2015
GA03	2015
GA04	2015
GA05	2015
GA07	2017
GA08	2015
GA09	2015
GA10	2017
GAR01	2021
GAR04	2024
GAR05	2024
GAR06	2023
GAR08	2024
GE41	2016
GE42	2023
GE43	2016
GE44	2021
GE45	2023
GE46	2016
GE47	2019
GG02	2018
GG03	2019
GG04	2019
GG06	2021

GG07	2019
GG10	2023
GL01	2015
GL03	2015
GL05	2017
GL06	2017
GL08	2017
GL09	2020
GL10	2020
GN06	2020
GN09	2023
GN10	2020
GN11	2020
GN12	2023
GN50	
GP03	2018
GP06	2017
GP07	2016
GP08	2017
GP09	2018
GS20	2019
GT03	2021
GT04	2021
GT05	2021
GT12	2021
GV01	2019
GV02	2021
GV03	2021
GV04	2019
GV05	2018
GV06	2019
GV07	2021
GW01	2017
GW02	2016
GW03	2019
GW06	2017
GW07	2016
GZ41	2021
GZ42	2021
GZ43	2021
GZ44	2021
GZ45	2020
GZ46	2021
GZ47	2021
GZ48	2021

HA01	2018
HA02	2018
HA03	2018
HA04	2018
HA05	2018
HA06	2018
HA07	2018
HA08	2018
HA09	2018
HA11	2018
HA12	2020
HB03	2019
HB04	2019
HB43	2016
HB44	2016
HB45	2023
HB46	2016
HB47	2016
HB48	2016
HB49	2023
HB50	2017
HB51	2017
HE03	2021
HE04	2021
HE05	2021
HE08	2021
HE09	2023
HE10	2021
HE11	2021
HE13	2021
HE14	2021
HE15	2021
HG02	2018
HG04	2020
HG05	2019
HG06	2018
HK41	2022
HK47	2018
HL01	2016
HL02	2017
HL03	2017
HL04	2017
HL07	2017
HM01	2019
HM02	2019

HM03	2019
HM05	2019
HM06	2021
HM08	2019
HM10	2019
HM11	2022
HM12	2022
HNY02	2017
HNY03	2017
HNY04	2017
HNY06	2019
HOC03	2022
HOC04	2021
HOC05	2022
HOC06	2021
HOC07	2022
HOC08	2017
HOC09	2022
HOC10	2022
HP05	2023
HP06	2021
HP08	2021
HR01	2021
HR02	2017
HR04	2021
HT01	2021
HT02	2021
HT03	2022
HT06	2021
HT09	2021
HV01	2021
HV02	2021
HV03	2021
HV04	2021
HV05	2021
HV06	2021
HV07	2021
HV08	2021
HV41	2021
HV42	2021
HX01	2019
HX02	2015
HY01	2024
HY03	2018
HY04	2024

HY07	2019
HY09	2024
HY10	2023
HY11	2024
HY12	2024
HY13	2024
IM41	2023
IM42	2024
IM43	2024
IM44	2024
IM45	2019
IM46	2024
IM47	2018
IM48	2018
IM49	2024
IM50	
IND01	2018
IND02	2017
IND03	2018
IND04	2020
IND05	2019
IND06	2018
IR01	2017
IR02	2022
IR03	2017
IR04	2023
IR05	2023
IR06	2021
IT01	
IT02	
IT03	
IT04	
IT05	
IT06	
IT07	
IT41	2021
IT42	2019
JCK01	
JCK02	
JCK03	2021
JN01	2023
JN03	2017
JN04	2022
JN05	2023
JN07	2023

JN09	2022
JN10	
JN11	2019
JOR41	2018
JOR43	2019
JOR44	2018
JOR45	
JP01	2023
JP02	2018
JP07	2017
JP08	2020
KB01	2020
KB02	2020
KB07	2020
KB17	2020
KB18	2020
KB19	2020
KB20	2020
KB21	2020
KDL41	2021
KDL42	2021
KDL43	2021
KDL44	2019
KDL45	2018
KDL46	2021
KDL47	2021
KDL48	
KG41	2018
KG42	2017
KG43	2018
KG44	2018
KG45	2017
KG46	2019
KG47	
KI41	2021
KI42	2023
KI43	2021
KI44	2018
KI46	2021
KI47	2023
KI48	2022
KI49	2022
KL41	2021
KL42	2017
KL43	2021

KL45	2021
KL46	2021
KL47	2018
KL48	2017
KL49	2021
KL50	2021
KM01	2017
KM02	2018
KM03	2015
KM04	2015
KM05	2015
KM07	2017
KN01	2019
KN04	2019
KN06	2019
KT41	2023
KT42	2019
KT45	2023
KT47	2019
KT48	2019
KT49	2019
KT50	2019
KW41	2016
KW42	2020
KW43	2023
KW44	2021
KW45	2016
KW46	2020
LA01	2018
LA02	2017
LA03	2019
LA04	2017
LAK41	
LAK42	
LAK43	2022
LAK45	
LAK46	
LB01	2017
LB02	2017
LB03	2019
LB04	2017
LB05	2019
LB06	2018
LB07	2018
LC02	2023

LIM41	2015
LIM42	
LIM43	2023
LIM44	2022
LIM45	2015
LIM46	2015
LIM47	2022
LJ01	2020
LJ02	2017
LJ03	2019
LJ04	2020
LJ05	2020
LJ06	2017
LJ07	2020
LJ08	2020
LJ09	2020
LK01	2020
LK02	2017
LK03	2020
LK04	2020
LK05	2017
LK06	2020
LK07	2020
LK08	2017
LK09	2017
LK10	2020
LM02	2017
LM03	2024
LM04	2023
LP01	2016
LP02	2016
LP03	2016
LP05	2016
LP06	2018
LP08	2016
LU01	2017
LU02	2022
LU03	2022
LU04	2017
LU41	2022
LU42	2022
LU43	2021
LU44	2021
LU45	2021
LV01	2017

LV02	2022
LV03	2020
LW41	2019
LW42	2017
LW43	2016
LW44	2016
LW45	2016
LW46	2018
LW47	2019
LY41	2019
LY42	2023
LY43	2018
LY44	2014
LY45	2017
LY46	2023
LY47	2019
LY49	2023
MB02	2024
MB03	2018
MB05	2018
MB06	2018
MB08	2018
MB09	2018
MC01	2024
MC02	2020
MC03	2022
MC04	2023
MC05	2023
MC06	2019
MC07	2022
MC08	2020
MC09	
MC10	
MDY01	2017
MDY02	2017
MDY03	2017
ME01	2016
ME02	2016
ME03	2016
ME05	2016
ME07	2016
ME08	2015
ME10	2024
ME11	2016
MID02	2019

MID03	2019
MP01	2023
MP02	2017
MP04	2019
MP07	2019
MP09	2019
MU02	2019
MU03	2024
MU04	
MV01	2023
MV02	2020
MV03	2020
MY01	2018
MY02	2017
MY03	2018
MY04	2018
MY05	2018
MY06	2018
MY07	2018
MY08	2018
MY09	2019
MY10	2019
MY11	2018
MY12	2019
MYK01	
MYK03	
MYK42	
MAR41	
MAR42	
MAR43	
MAR44	
MAR45	
MAR46	
MAR47	
MAR48	
MAR49	
MAR50	
MAR51	
NB41	2019
NB42	2023
NB43	2019
NB44	2016
NB45	2018
NB46	2021
NEW01	2023

NEW03	2023
NM02	2018
NM03	2016
NM04	2018
NM05	2018
NM06	2016
NP41	2017
NP43	2019
NP44	2017
NS01	2021
NS03	2021
NS04	2021
NS05	2021
NS06	2021
NS07	2021
NSH03	2020
NV01	2022
NV03	2022
NV05	2022
OA01	2017
OA02	2018
OA03	2021
OA05	2023
OA06	2016
OA07	2017
OB41	2023
OB42	2024
OB43	2023
OB44	2023
OB45	2022
OB46	2022
OB47	2024
OB48	2019
OB49	2019
OR03	2022
OR41	2022
PA01	2017
PA02	2018
PA03	2018
PA04	2018
PA06	2018
PA07	2017
PA09	2018
PA10	2022
PA11	2022

PE01	2018
PE02	2018
PE03	2017
PE04	2018
PE05	2018
PE06	2018
PE07	2021
PHR01	2017
PHR02	2015
PHR03	2015
PHR04	2024
PI41	2017
PI42	2021
PI43	2022
PI44	2021
PI45	2022
PI46	2022
PI47	2022
PI48	2022
PJ01	2019
PJ02	2018
PJ03	2017
PJ04	2018
PJ05	2023
PJ06	2018
PJ07	2018
PK41	
PK42	
PK49	
PO01	2017
PO02	2018
PO03	2019
PO04	2018
PO05	2019
PO06	2017
PO07	2018
PO08	2017
PO09	2018
PW01	2016
PW02	2016
PW03	2016
PW04	2017
PW05	2017
PW06	2021
PW07	2022

PW08	2018
PZ42	2023
PZ44	2023
PZ45	2023
PZ46	2023
QV01	2023
QV02	2019
QV03	2019
QV04	2019
QV05	2023
QV06	2023
QV07	2022
QV08	2023
QV09	2023
QV10	2022
RA41	2019
RA42	2016
RA44	2016
RA45	2023
RA46	2020
RE02	2023
RE03	2024
RE04	2023
RE05	2024
RE06	2023
RE07	2023
RE08	2024
RE43	2023
RED05	2020
RED06	2022
RED09	
RED10	
RO01	2024
RO02	2024
RO03	2024
RO04	2024
RO05	2024
RO06	2024
RO08	2024
RO41	2023
RO42	2024
RS01	2023
RS05	2022
RS07	2023
RT01	2019

RT02	2019
RU01	2017
RU02	2021
RU03	2021
RU04	2021
RU05	2017
RU06	2018
RZ01	2020
RZ02	2020
RZ03	2018
SA01	2021
SA03	2021
SA43	2016
SA45	2019
SA46	2023
SA49	2019
SA50	2017
SA52	2019
SA54	2018
SB01	2018
SB02	2018
SB03	2022
SB05	2017
SB06	2019
SB07	2018
SB08	2017
SC01	2019
SC03	2019
SCW01	2017
SCW02	2017
SDY04	2020
SDY05	
SE41	2020
SF02	2021
SF03	2021
SF05	2021
SF12	2023
SF13	2021
SF14	2017
SF15	2021
SF42	2021
SF43	2021
SF46	2021
SF47	2022
SF48	2021

SH01	2017
SH02	2023
SH03	2023
SH04	2023
SH05	2023
SH07	2018
SH09	2018
SH10	2023
SH11	2018
SH12	2018
SIE41	2024
SIE42	2024
SIE44	2024
SIE45	2024
SIE46	2024
SIE47	2022
SO41	2023
SO42	2023
SO43	2023
SO44	2018
SO45	2017
SO46	2018
SO47	2017
SO48	2023
SO49	2022
SO50	2018
SP01	2019
SP02	2017
SP05	2018
SP06	2019
SP07	2019
SP08	2019
SP09	2017
SP10	2019
SP11	2018
SP12	2022
SPW42	2019
SPW43	2020
SPW44	2022
SPW45	2021
SPW47	
SPW48	2022
SPW49	2020
SPW50	2019
SPW51	2021

SPW52	2019
SR03	2016
SR05	2016
SR06	2016
SR08	2016
SR10	2016
SR12	2016
SR13	2016
SR15	2016
SR16	2016
ST01	2021
ST03	2021
ST05	2021
ST06	2021
ST07	2021
ST09	2017
ST10	2021
ST12	2021
ST13	2023
ST14	2021
ST15	2021
ST16	2021
STF01	2024
STF02	2024
STF04	2024
STF05	2024
STF06	2019
STF41	2024
STF42	2023
STL41	
STL43	
STL44	
STL45	
STL46	
STW01	2015
STW02	2015
STW03	2017
STW04	2015
STW05	2024
SW03	2018
SW04	2018
SW05	2016
SW06	2020
SW07	2016
SW08	2018

SW09	2017
SW10	2016
SW41	
SW42	
TAN41	2023
TB02	2022
TB06	2022
TB41	2018
TB42	2019
TB43	2022
TB46	2017
TB47	2021
TB48	2017
TB49	
TE01	2018
TE03	2018
TE04	2017
TE05	2017
TE06	2017
TE07	2018
TE08	2018
TE09	2018
TE10	2018
THW41	2021
THW42	2017
THW43	2021
THW44	2021
THW45	2023
THW46	2017
THW47	2017
THW48	2021
THW49	2021
TIK01	2017
TM04	2023
TM05	2024
TO01	2018
TO02	2017
TO03	2017
TO04	2018
TO05	2018
TO06	2017
TO07	2016
TO08	2016
TO09	2018
TO11	2016

TRN01	2016
TRN02	2016
TRN03	2016
TRN04	2016
TRN07	2016
TRN44	
TRN45	2024
TV01	2022
TV02	2017
TV03	2023
TV04	2023
TV05	2023
TWG41	2016
TWG42	2016
TWG43	2016
TWG44	2019
TWG45	2016
TWG46	
TWN41	
TWN42	
TWN43	
UL02	2021
UL03	2021
UL13	2021
UL14	2021
UL16	2021
UL45	2021
UL46	2018
UL48	2021
UL49	2021
UN01	2019
UN02	2019
UN03	2019
UN04	2019
UN05	2019
UN08	2019
UN10	2019
UN11	2019
UV01	2023
UV02	2018
UV03	2018
UV04	2018
UV05	2018
UV06	2016
UV07	2018

UV08	2018
UW04	2017
UW05	2017
UW06	2018
UW07	2019
VCR41	2023
VCR42	2019
VCR43	2019
VL01	2020
VL02	2017
VL03	2020
VL04	2019
VL05	2018
VL06	2019
VL07	2019
WA41	2023
WA42	2019
WA43	2023
WA44	2023
WBY01	2024
WBY02	2024
WBY03	2024
WC01	2024
WD44	2019
WD46	2023
WE02	2018
WE04	2018
WE06	2018
WE08	2018
WEB01	2018
WEB02	2017
WEB03	2018
WEB05	2018
WEB08	2023
WEB09	2018
WEB10	2018
WEB12	2018
WF01	2021
WF03	2021
WF05	2017
WF41	2020
WF42	2023
WF43	2022
WF44	2020
WF45	2021

WF46	2023
WF47	2020
WF48	2020
WF49	2019
WI01	2024
WI02	2024
WI03	2024
WI04	2024
WI05	2024
WI06	2023
WI07	2024
WI42	2023
WI43	2023
WI45	2024
WI46	2024
WL41	2018
WL42	2017
WL43	
WLO41	2023
WLO42	2021
WLO43	2021
WLO44	2023
WO01	2017
WO02	2020
WO04	2020
WO05	2020
WO07	2016
WO09	2016
WO12	2020
WO13	2016
WO14	2018
WOR41	2015
WOR42	2015
WOR43	2023
WOR44	2015
WOR45	2023
WOR46	2023
WR10	2023
WR11	2018
WR12	2018
WR13	2019
WR14	2023
WT01	2016
WT02	2016
WT03	2016

WT04	2016
WT05	2016
WT06	2016
WT07	2016
WT08	2016
WT09	2016
WT10	2016
WT12	2016
WV02	2020
WV03	2020
WW01	2023
WW02	2022
WW03	2024
WW04	2024
WW05	2024
WW06	2019
WW07	2024
WW09	2023
WZ41	2024
WZ42	2018
WZ45	2024
WZ46	2024
WZ47	2023
WZ48	2023

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-088

QUESTION:

Distribution Infrastructure

Should the PUCT require utilities to construct and maintain distribution feeder equipment located in a hurricane prone area to a certain NESC standard? If so, which ones? If no, why not?

ANSWER:

CenterPoint Houston believes there are advantages in considering an improved set of design criteria for enhancing system resiliency and the ability to recover faster in the event of extreme weather. As each individual utility service area is different, unique conditions may dictate the best method(s) and criteria appropriate to establish and maintain a more resilient grid. NESC standards may provide useful minimum standards for some utilities, but additional standards may be warranted based on a utility-by-utility review, such as utility transmission and distribution system resiliency plans filed pursuant to PURA § 38.078.

SPONSOR:
Mandie Shook

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-089

QUESTION:

Transmission Infrastructure

Please explain your process for evaluating the hardening of transmission lines. If you file an annual storm hardening report under 16 TAC § 25.95, do not merely recite information provided in those filings. In your response, please include an explanation for the following:

a. How frequently this evaluation is conducted?

b. What criteria is utilized for this evaluation?

c. When do you decide to harden transmission lines?

ANSWER:

a. CenterPoint Houston evaluates the hardening of transmission lines on an annual basis in preparation for the submittal of the annual storm hardening report to the PUCT under 16 TAC s. 25.95.

b. CenterPoint Houston transmission system hardening activities are defined in the annual storm hardening report submittals: 25.94 INFRASTRUCTURE IMPROVEMENT AND MAINTENANCE (Project 38068) and 25.95 REPORTS OF STORM HARDENING (Project 39339).

   Historically, CenterPoint Houston's general prioritization of these activities is based on several factors. Hardening facilities that may be compromised due to the current/forecasted rate of erosion receive the highest priority. Following the mitigation of facilities due to erosion, CenterPoint Houston has prioritized retrofitting transmission lines with anti-galloping devices to avoid damage from icing conditions and the replacement of wooden transmission structures on circuits at high risk of causing extended substation outages due to storm damage.

   Since 2007, CenterPoint Houston has reduced transmission wood structure exposure by approximately 75% through an initiative to utilize engineered materials, such as concrete and steel, for building new and upgrading existing transmission lines. Following these targeted wood structure replacements on energized circuits, the priority will shift to targeting the rebuild of existing transmission circuits already utilizing engineered materials to meet the most recent NESC extreme wind loading requirements.

c. CenterPoint Houston has an ongoing resiliency/hardening program with annual targets that are updated/tracked monthly. The resiliency/hardening program is included in our 5-year budget plan with the level of hardening efforts fluctuating from year to year depending on growth/demand needs of the electric system.

SPONSOR:
Mandie Shook

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-090

QUESTION:

Transmission Infrastructure

Please provide the number of transmission structures that were in service before the May 2024 Derecho In your response, please provide quantities by structure type and NESC wind loading criteria of the structure.

ANSWER:

The number of transmission structures by structure type on March 20, 2024 are as follows (Note: March 20th is the latest data point we have available before the May 2024 Derecho.):

Concrete Structures = 5,572
Steel Structures = 18,339
Wood Structures = 1,938

CenterPoint Houston designs its transmission circuits to the latest edition of the National Electric Safety Code (NESC), which is the industry standard for ice and wind loading design for coastal and inland areas. As the NESC is updated every five years, CenterPoint Houston adopts the latest revisions into its current design standards. CenterPoint Houston's practice of designing all new transmission lines to utilize Grade B loading requirements applies the highest geographically applicable NESC values for wind and ice loading as well as the highest safety overload factors.

SPONSOR:
David Mercado

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-091

QUESTION:

Transmission Infrastructure

Please provide the total number of transmission structures that failed due to the May 2024 Derecho. In your response, please provide separate quantities for each structure type and NESC wind loading criteria of the structure, and separately identify the number of structure failures caused by either high wind or structural loading from vegetation or debris.

ANSWER:

The total number of transmission structures that failed due to the May 2024 Derecho is 21.

The National Electric Safety Code (NESC) standards for ice and wind loading design for coastal and inland areas apply to circuits, including structures. Circuits are designed for a given structure span length, wire size, and line angle, among other factors. Actual ratings achieved are dependent on overall circuit design and will, at a minimum, adhere to the latest applicable NESC standards at the time of design. CenterPoint Houston has consistently designed its transmission circuits to the latest applicable NESC standards for ice and wind loading design for coastal and inland areas which are updated every five years. CenterPoint Houston's practice of designing all new transmission lines to utilize Grade B loading requirements applies the highest geographically applicable NESC values for wind and ice loading as well as the highest safety overload factors. However, CenterPoint Houston does not have the original records reflecting the combined CenterPoint Houston and NESC wind loading criteria that was used at the time the circuits with the failed structures were constructed.

Please refer to Attachment PUC-RFI01-091 - Attachment.xlsx for a list of transmission structures and the reasons they failed during the Derecho event.

SPONSOR:
David Mercado

RESPONSIVE DOCUMENTS:
PUC-RFI01-091 - Attachment.xlsx

CenterPoint Energy Houston Electric (CEHE) May 2024 Derecho
Failed Structures

Structure ID	Structure Type	Failure Cause
01393	Steel Tower	High Wind
01395	Steel Tower	High Wind
01396	Steel Tower	High Wind
01397	Steel Tower	High Wind
01403	Steel Tower	High Wind
18752	Steel Tower	High Wind
18753	Steel Tower	High Wind
18754	Steel Tower	High Wind
18755	Steel Tower	High Wind
18756	Steel Tower	High Wind
18757	Steel Tower	High Wind
18758	Steel Tower	High Wind
18759	Steel Tower	High Wind
18760	Steel Tower	High Wind
18761	Steel Tower	High Wind
18762	Steel Tower	High Wind
18763	Steel Tower	High Wind
22688	Wood Pole	High Wind
27580	Steel Tower	Structural Loading from Debris
27581	Steel Tower	Structural Loading from Debris
27582	Steel Tower	Structural Loading from Debris

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-092

QUESTION:

Transmission Infrastructure

Please provide the total number of transmission structures that failed due to Hurricane Beryl. In your response, please provide separate quantities for each structure type and NESC wind loading criteria of the structure, and separately identify the number of structure failures caused by either high wind or structural loading from vegetation or debris.

ANSWER:

The total number of transmission structures that failed and resulted in an outage due to Hurricane Beryl is 16. Four (4) additional structures failed but did not result in an outage.

The National Electric Safety Code (NESC) standards for ice and wind loading design for coastal and inland areas apply to circuits, including structures. Circuits are designed for a given structure span length, wire size, and line angle, among other factors. Actual ratings achieved are dependent on overall circuit design and will, at a minimum, adhere to the latest applicable NESC standards at the time of design. CenterPoint Energy Houston Electric (CenterPoint Houston) has consistently designed its transmission circuits to the latest applicable NESC standards for ice and wind loading design for coastal and inland areas which are updated every five years. CenterPoint Houston's practice of designing all new transmission lines to utilize Grade B loading requirements applies the highest geographically applicable NESC values for wind and ice loading as well as the highest safety overload factors. However, CenterPoint Houston does not have the original records reflecting the combined CenterPoint Houston and NESC wind loading criteria that was used at the time the circuits with the failed structures were constructed.

Please refer to Attachment PUC-RFI01-092 - Attachment.xlsx for a list of transmission structures and the reasons they failed during Hurricane Beryl.

SPONSOR:
David Mercado

RESPONSIVE DOCUMENTS:
PUC-RFI01-092 - Attachment.xlsx

CenterPoint Energy Houston Electric (CEHE)
Hurricane Beryl Failed Structures

Structure ID	Structure Type	Failure Cause
04598	Wood Pole	High Wind
04599	Wood Pole	High Wind
04600	Wood Pole	High Wind
04601	Wood Pole	High Wind
04602	Wood Pole	High Wind
04603	Wood Pole	High Wind
04604	Wood Pole	High Wind
04605	Wood Pole	High Wind
04606	Wood Pole	High Wind
04607	Wood Pole	High Wind
04608	Wood Pole	High Wind
04609	Wood Pole	High Wind
04610	Wood Pole	High Wind
04611	Wood Pole	High Wind
17120	Wood Pole	High Wind
17555	Wood Pole	High Wind
19804	Wood Pole	High Wind
19956	Wood Pole	High Wind
20000	Wood Pole	High Wind
23564	Wood Pole	High Wind

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-093

QUESTION:

Transmission Infrastructure

For each transmission structure that failed due to the May 2024 Derecho or Hurricane Beryl, please provide the date of the last inspection and explain the planned frequency of those inspections. Additionally, please provide the most recent inspection report for each structure that failed.

ANSWER:

Please refer to attachment PUC-RFI01-093 - Attachment 1.xlsx for a list of the transmission structures that failed during the May 2024 Derecho and Hurrican Beryl, the dates of their last inspection by CenterPoint Houston internal personnel, and the inspection report. CenterPoint Houston has a comprehensive five-year cycle transmission line inspection and rehabilitation program that is coordinated with the transmission vegetation management program to ensure that the integrity of existing transmission structures, wires, and rights-of-way are maintained. Approximately twenty percent of CenterPoint Houston's transmission system is ground inspected and maintained each year within the cycle.

In addition, CenterPoint Houston performs an annual aerial patrol of its transmission system for identifying any imminent transmission line maintenance issues. If CenterPoint Houston identifies any component of a transmission line or vegetation conditions that will likely cause an imminent failure or a circuit outage, those conditions are immediately mitigated. CenterPoint Houston was in the process of performing the annual aerial patrol to identify any imminent transmission line maintenance issues when the May 2024 Derecho impacted the CenterPoint Houston's service territory.

Finally, CenterPoint Houston also performs ground line treating of wood poles with specialized chemicals as a preventive measure to extend wood pole life and is scheduled on a coordinated 10-year cycle with the circuit inspections.

Please refer to PUC-RFI01-093 - Attachment 2.pdf which is the latest inspection report performed prepared by a third-party vendor for each transmission structure that failed in the May 2024 Derecho or Hurricane Beryl (note that the report is redacted to remove information not relevant to this request.)

SPONSOR:
David Mercado

RESPONSIVE DOCUMENTS:
PUC-RFI01-093 - Attachment 1.xlsx
PUC-RFI01-093 - Attachment 2.pdf

ID	Storm	INSP_DATE	Next_Inspection
01393	Derecho	10/11/2021	10/10/2026
01395	Derecho	10/11/2021	10/10/2026
01396	Derecho	10/11/2021	10/10/2026
01397	Derecho	10/11/2021	10/10/2026
01403	Derecho	10/11/2021	10/10/2026
18752	Derecho	9/8/2020	9/7/2025
18752	Derecho	9/8/2020	9/7/2025
18753	Derecho	9/8/2020	9/7/2025
18753	Derecho	9/8/2020	9/7/2025
18754	Derecho	9/8/2020	9/7/2025
18754	Derecho	9/8/2020	9/7/2025
18754	Derecho	9/8/2020	9/7/2025
18754	Derecho	9/8/2020	9/7/2025
18754	Derecho	9/8/2020	9/7/2025
18755	Derecho	9/8/2020	9/7/2025
18755	Derecho	9/8/2020	9/7/2025
18756	Derecho	9/8/2020	9/7/2025
18756	Derecho	9/8/2020	9/7/2025
18756	Derecho	9/8/2020	9/7/2025
18757	Derecho	9/8/2020	9/7/2025
18757	Derecho	9/8/2020	9/7/2025
18758	Derecho	9/8/2020	9/7/2025
18758	Derecho	9/8/2020	9/7/2025
18759	Derecho	9/8/2020	9/7/2025
18759	Derecho	9/8/2020	9/7/2025
18760	Derecho	9/8/2020	9/7/2025
18760	Derecho	9/8/2020	9/7/2025
18761	Derecho	9/8/2020	9/7/2025
18761	Derecho	9/8/2020	9/7/2025
18762	Derecho	9/8/2020	9/7/2025
18762	Derecho	9/8/2020	9/7/2025
18763	Derecho	9/8/2020	9/7/2025
18763	Derecho	9/8/2020	9/7/2025
22688	Derecho	4/15/2020	4/14/2025
27580	Derecho	11/18/2021	11/17/2026
27580	Derecho	11/18/2021	11/17/2026
27581	Derecho	11/18/2021	11/17/2026
27581	Derecho	11/18/2021	11/17/2026
27582	Derecho	11/18/2021	11/17/2026
27582	Derecho	11/18/2021	11/17/2026
04598	Beryl	2/22/2024	2/20/2029
04599	Beryl	2/22/2024	2/20/2029
04600	Beryl	2/22/2024	2/20/2029
04601	Beryl	2/22/2024	2/20/2029
04602	Beryl	2/22/2024	2/20/2029
04603	Beryl	2/22/2024	2/20/2029

04604	Beryl	2/22/2024	2/20/2029
04605	Beryl	2/22/2024	2/20/2029
04606	Beryl	2/22/2024	2/20/2029
04607	Beryl	2/22/2024	2/20/2029
04608	Beryl	2/22/2024	2/20/2029
04609	Beryl	2/22/2024	2/20/2029
04610	Beryl	2/22/2024	2/20/2029
04611	Beryl	2/22/2024	2/20/2029
17120	Beryl	2/15/2023	2/14/2028
17555	Beryl	4/26/2022	4/25/2027
19804	Beryl	3/9/2021	3/8/2026
19804	Beryl	3/9/2021	3/8/2026
19956	Beryl	1/18/2021	1/17/2026
20000	Beryl	4/16/2024	4/15/2029
23564	Beryl	11/15/2023	11/13/2028

COMMENT
NO PROBLEMS FOUND (STRUCTURE DATA ONLY)
NONE
NARROWSIDES
NONE
REPLACE INS. RETIRE 6 OF 20 (109190) 120
NO PROBLEMS FOUND (STRUCTURE DATA ONLY)
REPLACE BROADSIDE DANGER SIGNS
REPLACE TOP PHASE CONDUCTOR DAMPER ON EAST SIDE OF TOWER
REPLACE ALL DANGER SIGNS
REPAIR STATIC BOND, (CHANGE WIRE TO 243914)
REPLACE BROADSIDE DANGER SIGNS
REPLACE TOP & BOTTOM VEE-STRING INS. RETIRE 4 OF 20 (109190) 80
REPAIR STATIC BOND, (CHANGE WIRE TO 243914)
REPLACE VEE-STRING INS. RETIRE 6 OF 20 (109190) 120
NO PROBLEMS FOUND (STRUCTURE DATA ONLY)
NO PROBLEMS FOUND (STRUCTURE DATA ONLY)
REPLACE BROADSIDE DANGER SIGNS
REPLACE VEE-STRING INS. RETIRE 6 OF 20 (109190) 120
REPLACE VEE-STRING INS. RETIRE 6 OF 20 (109190) 120
NO PROBLEMS FOUND (STRUCTURE DATA ONLY)
REPLACE EAST SIDE DANGER SIGN
NO PROBLEMS FOUND (STRUCTURE DATA ONLY)
REPLACE BROADSIDE DANGER SIGNS
NO PROBLEMS FOUND (STRUCTURE DATA ONLY)
REPLACE BROADSIDE DANGER SIGNS
NO PROBLEMS FOUND (STRUCTURE DATA ONLY)
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Osmose
Utilities Services, Inc.

Poles Inspected_

CenterPoint Energy Houston Electric, LLC

Job Number: 1026064

Circuit Name : 45A

Structure Number	Year	Length Class	Species Treat	Orig Circ	Eff Circ	Insp Type	Reject Status	Rem Strength	Reported Items	Additional Information
4598	1985	85/H3	DF/P	67.00	67.00	T	**Non Reject**			
4599	1985	85/H3	DF/P	66.00	66.00	T	**Non Reject**			
4600	1985	85/H3	DF/P	65.00	65.00	T	**Non Reject**			
4601	1985	85/H3	DF/P	63.00	63.00	T	**Non Reject**			

Osmose Utilities Services, Inc.

Poles Inspected_

CenterPoint Energy Houston Electric, LLC

Job Number: 1026064

Circuit Name : 45A

Structure Number	Year	Length Class	Species Treat	Orig Circ	Eff Circ	Insp Type	Reject Status	Rem Strength	Reported Items	Additional Information
4602	1985	85/H3	DF/P	68.00	68.00	T	Non Reject			
4603	1985	85/H3	DF/P	67.00	67.00	T	Non Reject			
4604	1985	85/H3	DF/P	64.00	64.00	TD	Non Reject			
4605	1985	85/H3	DF/P	65.00	65.00	T	Non Reject			
4606	1985	85/H3	DF/P	68.00	68.00	T	Non Reject			
4607	1985	85/H3	DF/P	66.00	66.00	T	Non Reject			
4608	1985	85/H3	DF/P	65.00	65.00	T	Non Reject			
4609	1985	85/H3	DF/P	64.00	64.00	T	Non Reject			
4610	1985	85/H3	DF/P	65.00	65.00	T	Non Reject			
4611	1985	90/H3	DF/C	70.00	70.00	T	Non Reject			

Osmose Utilities Services, Inc.

Poles Inspected_

CenterPoint Energy Houston Electric, LLC

Job Number: 1035837

Circuit Name : BELLAIRE

Structure Number	Year	Length Class	Species Treat	Orig Circ	Eff Circ	Insp Type	Reject Status	Rem Strength	Reported Items	Additional Information
17120	1983 x: -95.484405 y: 29.734830	85/H3	DF/P	65.00	65.00	B	**Non Reject**			**Work Completed:** *WoodFume 6*

Osmose Utilities Services, Inc.

Poles Inspected_

CenterPoint Energy Houston Electric, LLC

Job Number: 1035837

Circuit Name : CHAMON

Structure Number	Year	Length Class	Species Treat	Orig Circ	Eff Circ	Insp Type	Reject Status	Rem Strength	Reported Items	Additional Information
17555	1980	80/2	DF/C	51.00	51.00	T	**Non Reject**			**Work Completed:** *Underground Cable Excavate 1 WoodFume 6*
	x: -95.138870 y: 29.863186									

Osmose Utilities Services, Inc.

Poles Inspected_

CenterPoint Energy Houston Electric, LLC

Job Number: 1042936

Circuit Name : STEWART

Structure Number	Year	Length Class	Species Treat	Orig Circ	Eff Circ	Insp Type	Reject Status	Rem Strength	Reported Items	Additional Information
19804 1	1980	90/H6	DF/C	80.00	80.00	TD	**Non Reject**		Mechanical Damage Below 5ft 1	**Work Completed:** *Boat Access Lake Poles 1*
	x: -94.961032 y: 29.193076									

Osmose

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
POLE INSPECTION DETAIL REPORT

Circuit Name: CKT 1323 - WEST GALVESTON SUB TO DEAD

Contractor: Osmose Utilities Services, Inc.
Week Ending: 09/01/2012
Date: 08/27/2012
Job Number: 1009272

Reference #: 370JJ351
Crew ID: 370JJ
Foreman: JAMES JACOBS
Supervisor: STEWART,JEROLD L

County: GALVESTON
State: TX

POLE ID	MFR	YEAR	LENGTH/ CLASS	SPECIES/ TREAT	GRND CIRC	DEF CIRC	INSP TYPE	WOODFUME HOLES QTY	MITC-FUME QTY	HOLLOW HEART CF	REMARKS AND NOTES
									0		
19956 X: -94.864992 , Y: 29.289693	JCT	E1986	E75/2	DF/C	50.5	50.5	TD	0	5		Shell Rot Shave, U/G Cable Excavate. Previous Cycle Info: Full Excavate, WoodFume. Year Last Inspected: 2000. Last Inspected By: ASP. Transmission Pole.
									5		

Osmose Utilities Services, Inc.

Poles Inspected_

CenterPoint Energy Houston Electric, LLC

Job Number: 1026064

Circuit Name : 63C

Structure Number	Year	Length Class	Species Treat	Orig Circ	Eff Circ	Insp Type	Reject Status	Rem Strength	Reported Items	Additional Information
20000	1970	90/H4	DF/P	67.00	65.00	TD	Non Reject	91.00		Decay: Shell Rot Depth:*0.32* Work Completed: *WoodFume 6*
	x: -94.834668 y: 29.278199									

Osmose

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
POLE INSPECTION DETAIL REPORT

Circuit Name: 12B

Contractor: Osmose Utilities Services, Inc. Reference #: 697SS32B
Week Ending: 08/09/2014 Crew ID: 697SS
Date: 08/07/2014 Foreman: SCHEIBLE, PAUL
Job Number: 1014601 Supervisor: STEWART,JEROLD L

County: HARRIS
State: TX

POLE ID	MFR	YEAR	LENGTH/ CLASS	SPECIES/ TREAT	ORIG CIRC	EFF CIRC	INSP TYPE	WOODFUME HOLES QTY	HOLLOW HEART CF	REMARKS AND NOTES
22688 X: -95.312055 , Y: 29.742773	UNK	E1980	E80/CL2	DF/C	47	47	TD	6		Shell Rot Shave. Previous Cycle Info: Full Excavate, WoodFume. Year Last Inspected: 2004. Last Inspected By: QPI. Transmission Pole.

Osmose
Utilities Services, Inc.

Poles Inspected_

CenterPoint Energy Houston Electric, LLC

Job Number: 1026064

Circuit Name : 20Z1

Structure Number	Year	Length Class	Species Treat	Orig Circ	Eff Circ	Insp Type	Reject Status	Rem Strength	Reported Items	Additional Information
23564	1960	75/2	DF/C	47.00	45.00	TD	**Non Reject**	**87.00**	Decayed Top 1	**Decay: Shell Rot Depth:** *0.32* **Work Completed:** *Hollow Heart CB 1*
	x: -95.241574 y: 29.730175									

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-094

QUESTION:

Vegetation Management

Provide the following information concerning your vegetation management staff:

a. Provide the current size of your vegetation management staff. Your response should include a separate figure for full-time staff and independent contractors.

b. Provide the average size of your vegetation management staff over the last 5 years. Your response should include a separate figure for full-time staff and independent contractors

c. Please explain how you determined the appropriate level of full-time vegetation management staff for each of the last 5 years.

d. Provide the cost difference per circuit-mile between using contractors versus in-house vegetation management crews.

e. Whether you retain an arborist as part of your permanent vegetation management staff or have an arborist consult with your vegetation management crews.

ANSWER:

a. CenterPoint Houston's current internal vegetation management staff consists of 1 manager, 2 supervisors, 6 distribution foresters, 2 transmission foresters, and 1 business analyst. CenterPoint Houston's current vegetation management contractor staff consists of 8 contract foresters and 608 contract tree crew personnel. This includes supervision and inspectors/permitters.

b. The average internal vegetation management staff over the last 5 years included 1 manager, 1-2 supervision roles, 10-12 forester roles, and 1 business analyst. The average vegetation management independent contractor staff over the last 5 years included 4 contract foresters and 470 contract tree crew personnel, which includes supervision and inspectors/permitters.

c. The current ratio used to effectively match foresters to crews is 1 forester to every 21 crews (1:21). The independent contractor handles the supervision of the individual contract crews, so the forester is monitoring work quality, quantity, and customer interactions and not the daily management of individuals.

d. CenterPoint Houston currently does not use internal vegetation management crews, nor have we utilized internal crews in our recent history as a forestry staffing model.

e. CenterPoint Houston has internal foresters that are certified arborists through the International Society of Arboriculture.

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-095

QUESTION:

Vegetation Management

Please describe the minimum clearance standard for vegetation along transmission and distribution power lines at various voltage levels and how these clearances were derived based on your service territory.

ANSWER:

Distribution clearances:

CenterPoint Houston's vegetation clearance standards along distribution lines are as follows:

35 kV - 10' lateral and 15' below
12kV - 7' lateral and 15' below.

These standards were developed internally by CenterPoint Houston relying on its experience and set to maximize reliability while still considering the Company's ROW widths and impacts on Customer vegetation.

Transmission clearances:

As a general matter, CenterPoint Houston clears its ROWs from edge to edge. This approach helps ensure that CenterPoint Houston maintains the North American Electric Reliability Corporation ("NERC") and National Electrical Safety Code ("NESC") standards. The table below, taken from CenterPoint Energy Houston Electric Transmission Vegetation Management Program, summarizes and references NERC and NESC standards.

Table 5.1 Targeted Pruning Clearance: Horizontal Clearance from Conductor, feet

	Nominal Voltage p-p		
Horizontal Clearance Component	**69kV**	**138kV**	**345kV**
Electrical Clearance (MVCD) (1)	1.10	2.30	4.30
Average 5 - Year Horizontal Tree Growth	12.00	12.00	12.00
Average Mid-Span Conductor Sway (2)	5.98	8.13	10.04
Total	19.08	22.43	26.34
Nominal Horizontal Value	20	23	27
(1) Based on FAC-003-Table 2-Minimum Vegetation Clearance Distances (MVCD) for Alternating Current Voltages (feet) for applicable transmission voltages commonly utilized by CNP.			
(2) Based on NESC C2-2023 Rule 233A (1).			

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-096

QUESTION:

Vegetation Management

Does your company incorporate any inspection of high customer count circuit segments to proactively identify problematic vegetation for circuits that may be outside their normal cycle period?

ANSWER:

Yes. CenterPoint Houston prioritizes distribution circuits for proactive vegetation management based on the customer minutes of interruptions caused by vegetation, number of critical customers (hospitals, police/fire stations, water/wastewater plants, emergency operations facilities, etc.), time since last trim, and projected worst performing reliability circuits. The customer count is considered in the vegetation caused customer minutes of interruptions calculation, which is the sum of customer interruption durations caused by vegetation or strong wind multiplied by the total number of customers affected on that circuit.

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-097

QUESTION:

Vegetation Management

Please provide inspection logs and field reports from workers who performed VM services in the Impacted Area for the past five years.

ANSWER:

PUC staff has agreed to an extension for the response to this request. CenterPoint Houston will provide a response on September 6, 2024.

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-098

QUESTION:

Vegetation Management

Does your company conduct proactive vegetation management on feeders located in hurricane prone areas? If so, how far in advance of hurricane season do you send out vegetation management crews?

ANSWER:

Yes. Crews proactively trim year-round in preparation for hurricane season. CenterPoint Houston targets roughly 65% of its annual plan for completion in the first two quarters of each calendar year to both maximize the amount trimmed in advance of when a hurricane might hit and to reduce the chance that the Company's reactive trimming efforts will prevent it from reaching its proactive trimming goals.

Please refer to the Company's response to PUC-RFI01-27 for additional discussion.

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-099

QUESTION:

Vegetation Management

Please provide a list of the circuits that experienced a vegetation-related outage during the May 2024 Derecho and Hurricane Beryl, and provide the following information pertaining to the circuits identified:

a. The name of the circuit(s);

b. The date, time, and duration of the outage;

c. The voltage of the circuit(s);

d. A description of the cause of the outage; and

e. The NERC category (Grow-In, Fall-In, Blow-In) associated with the outage.

ANSWER:

Distribution:

Please see attached PUC-RFI01-099 - a-d_Distribution.xlsx for a. through d. The attached file lists all outages experienced during Derecho and Hurricane Beryl, not just vegetation-related outages (refer to CenterPoint's response to Request No. PUC-01-100 for explanation).

e. NERC category does not apply to distribution outages.

Transmission:

Please see attached PUC-RFI01-099 - a-d_Transmission.xlsx for a. through d.

e. All transmission line outages identified in PUC-RFI01-099 - a-d_Transmission.xlsx were caused by trees falling on the lines from outside of the ROW; however, the NERC categorization of these outages is not applicable in these instances. NERC Standard FAC-003-5 Transmission Vegetation Management specifically excludes outages caused by natural disasters such as tornadoes, hurricanes, wind sheer, etc. Additionally, NERC Standard FAC-003-5 is only applicable to 345kV transmissions lines for CenterPoint Houston.

The attachments are voluminous and will be submitted in electriic format only.

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
PUC-RFI01-099 - a-d_Distribution.xlsx
PUC-RFI01-099 - a-d_Transmission.xlsx

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-100

QUESTION:

Vegetation Management

Please provide aerial maps of circuits and their easements that experienced a vegetation-related outage during the May 2024 Derecho and Hurricane Beryl. Overlay the map with the circuits that received vegetation management treatment for the past 5 years, using a distinct color code for each year. Provide any additional information or details to show clarity.

ANSWER:

Following both the May 2024 Derecho and Hurricane Beryl, CenterPoint Houston's focus was on rapid restoration of power to our customers. The Company does provide its crews with an application to track the cause of a particular outage, and the causes that can be chosen include fallen trees inside the easement and fallen trees outside the easement. However, the application also includes the following options, among others: strong wind, falling dead tree (with no reference to location), and hurricane.

Following Hurricane Beryl, crews tagged 9,829 outages as having been caused by "hurricane," and another 1,319 outages as having been caused by "strong wind." Many of those outages may also have involved vegetation from inside or outside of the easement causing damage; however, many may also have been caused by something other than damaged vegetation. Therefore, the Company cannot identify how many distribution circuits experienced a vegetation-related outage during the May 2024 Derecho and Hurricane Beryl.

In the interest of transparency, CenterPoint is providing the raw data (attached) collected by its crews, which classifies the cause of distribution outages during the May 2024 Derecho and Hurricane Beryl, but the Company does not believe this source of information can be used to answer the question posed above.

In an attempt to gain a better understanding of the cause of outages following Hurricane Beryl, CenterPoint Houston requested that its vegetation management contractors provide information at the end of each day regarding whether damage was caused by trees inside or outside the Company's right-of-way. Again, given the focus of those crews on restoring service, the quality of the data received was inconsistent. The most complete data was provided by one of the Company's largest vegetation management providers, Lewis Services. Lewis Services reported that 57% of the trees "worked" were outside of the easement (defined as greater than 5 feet from the centerline). Of these, 70%-90% were removals. Lewis Services described its work inside of the easement as trimming to enable new conductor to be raised and to permit access to the poles.

For the attached maps, showing all outages sustained during Derecho and Hurricane Beryl, overlayed with our circuits trimmed over the last 5 years:

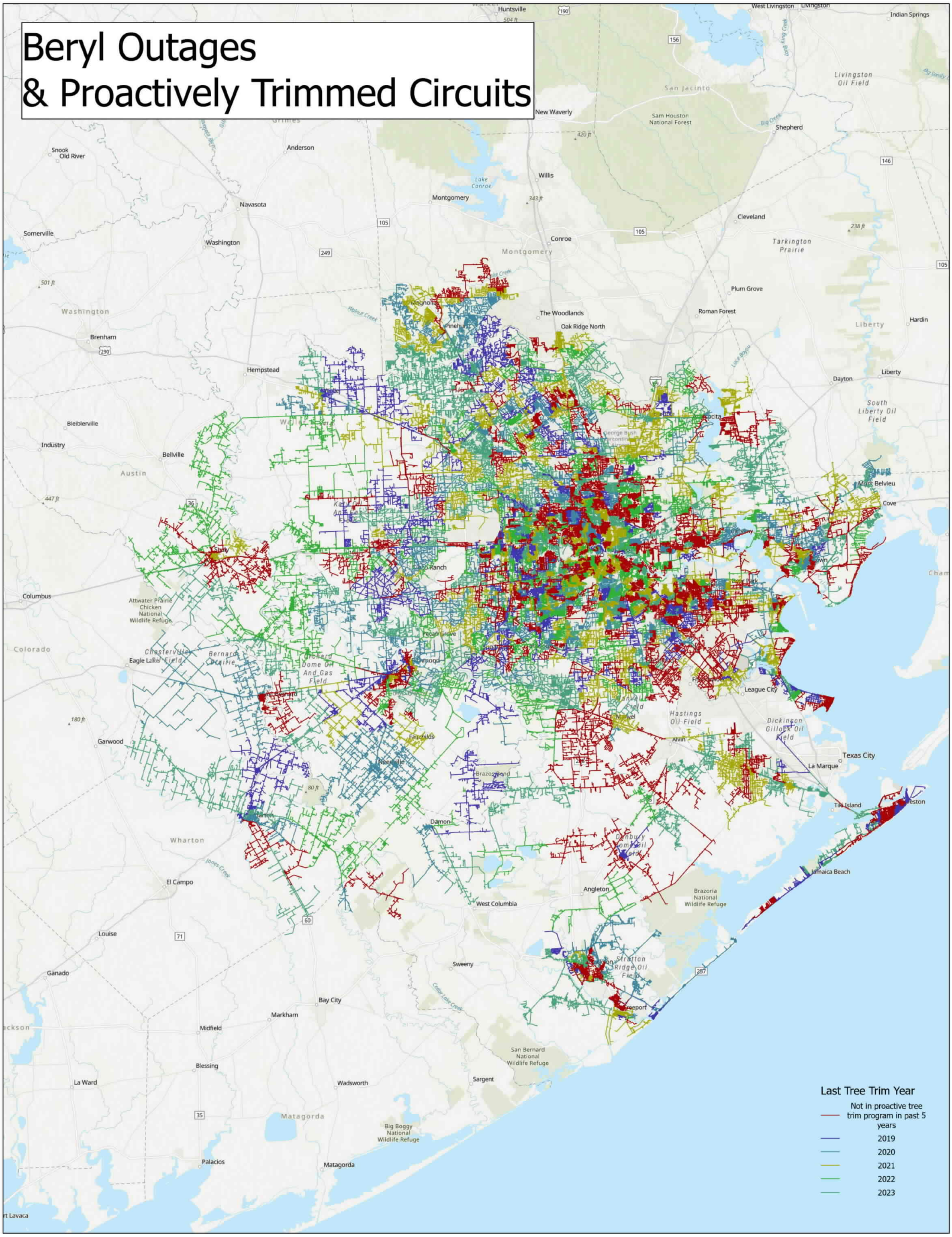
- Trim Data_BerylOutages – OH Conductor shown for circuits experiencing an outage colored by proactive tree trim year, circuits with outages + not in the Tree Trimming program indicated in red
- Trim Data_DerechoOutages – OH Conductor shown for circuits experiencing an outage colored by proactive tree trim year, circuits with outages + not in the Tree Trimming program indicated in red
- Note: The maps for each event only show circuits that experienced an outage.

SPONSOR:
Randy Pryor

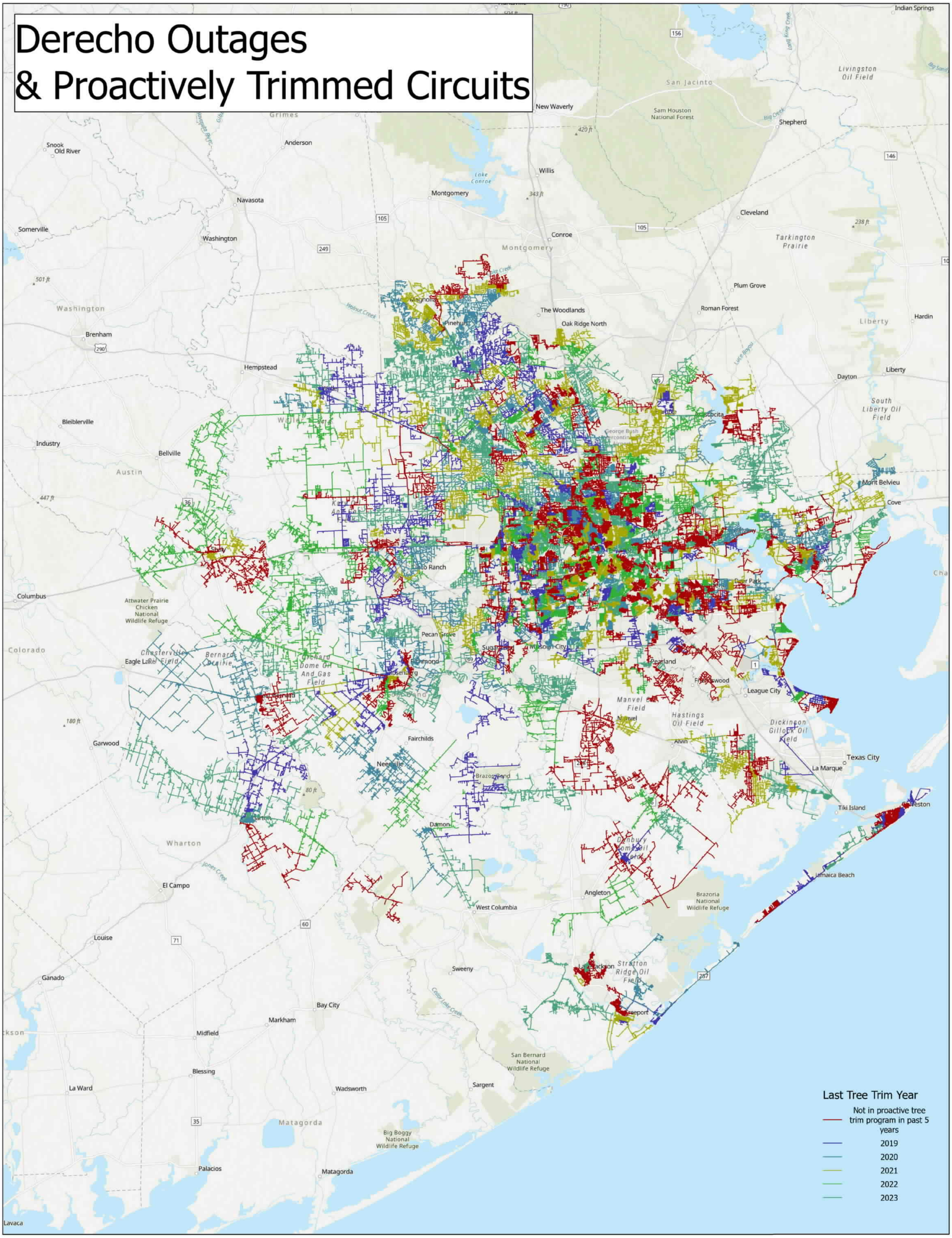
RESPONSIVE DOCUMENTS:
PUC-RFI01-100 - Derecho Storm Event Cause Summary
PUC-RFI01-100 - Hurricane Beryl Event Cause Summary
PUC-RFI01-100 - Trim Data_BerylOutages
PUC-RFI01-100 - Trim Data_DerechoOutages

CAUSE	TOTAL
HURRICANE	9829
STRONG WIND	1319
FLLNG TREE IN EASE	800
TREE CLEARANCE	649
FLLNG TREE OUT EAS	636
UNKNOWN	563
LIGHTNING	503
FALLING DEAD TREE	426
TRANSFORMER	368
CREW-INS/RPR/CHANG	274
OTHER	247
CREW-RESTR SVC OTH	225
SEC COND OR DROPS	201
OH SEC/DR CL HOT L	125
CREW-SYS EMERGENCY	124
OTHER EQUIPMENT	123
PRIMARY CONDUCTOR	123
BU DISC OR BARREL	114
VINES	96
LIGHTNING ARRESTER	70
METER EQUIPMENT	67
ROTTEN POLE	46
CUST EQP RELATED	44
OH SEC/DR CL NEUTR	41
URD XFMR SEC BUS	35
HUMAN ERROR	34
OVERLOAD	33
SQUIRREL	22
POLE TOP SWITCH	20
URD DROPS (CUST)	19
PRIMARY CABLE FAIL	17
CROSSARM	13
FOREIGN MATERIAL	12
O/H PRIMARY CLAMP	12
RECLOSER	11
CREW-CUST REQUEST	11
URD SEC PDSTL TRML	10
COLLISION	9
VANDALISM	8
TERMINATOR	7
URD ELBOW	5
TORNADO	5
RELAY	5
SLACK SPANS	5
URD BUSHING	5
O/H SPLICE	3
ICE	3
REGULATOR	3
SNAKE	3
INSULATOR	3
TRANSMISSION	3
SPLICE	3
URD DROPS (HL&P)	2
SECTIONALIZER	2
SUBSTATION	2
CONTRACTOR (HL&P)	1
OTHER CIRCUIT	1
OTHER WILDLIFE	1
BIRD	1
ANTS	1
FIRE	1
WORK TAG	1
3 PHASE UG CABLE	1

Beryl Outages
& Proactively Trimmed Circuits



Derecho Outages & Proactively Trimmed Circuits



CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-101

QUESTION:

Vegetation Management

For the May 2024 Derecho and Hurricane Beryl, please provide the percentage of forced interruptions that were related to vegetation issues.

ANSWER:

Please refer to CenterPoint's response to Request No. PUC-RFI01-100.

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-102

QUESTION:

Vegetation Management

What steps are being taken to address vegetation management and infrastructure issues that contributed to outages or were identified during restoration after the May 2024 Derecho and Hurricane Beryl?

ANSWER:

After the derecho on May 16, 2024, CenterPoint Houston increased the number of full-time vegetation management resources from 583 to 616. Following Hurricane Beryl, CenterPoint Houston increased the number of full-time vegetation management resources to 2,774 to address post-storm cricuit sweep vegetation locations and trimming of an additional incremental 2,000 distribution line miles with higher risk vegetation, which are further discussed below.

In addition, following Hurricane Beryl, CenterPoint Houston made certain immediate, near-term, and long-term commitments (i.e., the Greater Houston Resiliency Initiative) related to communication to customers and the communities that CenterPoint Houston has the privilege to serve, storm preparation and restoration, and the resiliency of CenterPoint Houston's infrastructure. After conferring with the Governor, CenterPoint Energy agreed to accelerate the implementation of certain commitments.

With regard to the resiliency of CenterPoint Houston's infrastructure, CenterPoint Houston has already implemented the following commitments, among others:

- Completion of visual inspections of all overhead distribution circuits impacted by Hurricane Beryl to identify equipment or vegetation-related issues.
- Retention of vegetation management personnel that are working to immediately address higher risk vegetation issues. The vegetation management personnel will be addressing the 2,000 miles of vegetation issues through August 31st.
- Use of state-of-the-art predictive modeling and artificial intelligence technology to identify higher risk vegetation across the CenterPoint Energy's transmission and distribution system.
- Replaced over 1,000 distribution poles that were planned for replacement with composite poles.
- Installed over 300 automated devices (i.e., TripSavers).
- Used the results of the completed visual inspections of all overhead distribution circuits impacted by Hurricane Beryl to execute identified repairs based on risk.

On August 28, CenterPoint Energy announced the next phase of its resiliency actions and investments of approximately $5 billion in our Greater Houston infrastructure between 2026 and 2028.

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
None.

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-103

QUESTION:

Vegetation Management

When did you last substantively review, augment, or modify your vegetation management plan before July 8, 2024?

ANSWER:

In January 2020, CenterPoint Houston transitioned from a cycle-based proactive distribution vegetation management plan to using an analytics model to prioritize circuits based on several factors, including last trim date, vegetation caused outages, potential impact on critical loads, and overall customer count impacted.

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-104

QUESTION:

Vegetation Management

What percentage of vegetation-related outages were caused by trees or branches outside of the easement or right of way? In responding to this question, please provide both an overall percentage and a breakdown for each county within your service territory that was affected by the May 2024 Derecho or within the Impacted Area for Hurricane Beryl.

ANSWER:

Please refer to CenterPoint's response to Request No. PUC-RFI01-100.

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-105

QUESTION:

Vegetation Management

Describe your programs or initiatives that are designed to work with property owners to address potentially hazardous vegetation management issues that are outside of the utility easement or right of way.

ANSWER:

CenterPoint Houston currently performs two forms of hazard tree identification. The first is an inspection performed while crews are proactively trimming planned circuits. If a hazard tree is identified while doing this trimming, the contract foreman will perform an inspection on the tree, and if it is deemed a threat to our equipment, the property owner will be notified. Once the property owner has been verbally communicated with and the proper removal documentation signed to give consent of removal of the identified hazard, the tree will be cut and stacked on the property. The second hazard tree identification process is a proactive hazard tree patrol. This patrol is an assessment looking for dead or dying trees that could impact CenterPoint Houston facilities. A projection of high impact areas of potential trees weakened from drought, flood, or fire produces the identified circuits that are reviewed in the field by vegetation personnel. CenterPoint Houston also has internal processes for line crews traversing CenterPoint Houston's system daily to report potential hazard trees for formal investigation by a vegetation crew. Upon review, if the tree is deemed potentially hazardous to CenterPoint Houston facilities, CenterPoint Houston works with the property owner(s) to secure the needed authorization to safely cut and stack the customers tree on their property, at no cost to the customer.

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-106

QUESTION:

Vegetation Management

Identify the number of staff that participate in any program or initiative designed to address vegetation management hazards outside of the utility easement or right of way.

ANSWER:

CenterPoint's Tree Risk Management Program, which identifies hazardous trees outside of the Company's easments, is not separately staffed but is instead handled by the Company's vegatation managment team identified in response PUC-RFI-01-94. CenterPoint's 8 foresters regularly patrol high risk areas and areas known to have high tree mortality. The remainder of the Company's vegetation staff watches for hazardous trees (and removes them if permission can be obtained) as they perform their regular duties. Additionally, CenterPoint's vegetation managment crews respond to hazardous trees reported by customers and other CenterPoint Personnel as well.

SPONSOR:
Randy Pryor

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-107

QUESTION:

Staffing and Mutual Assistance

Please state whether you participated in or were a member of any mutual assistance programs on or before July 8, 2024. If yes:

a. Please identify all mutual assistance programs you participated in or were a member of on that date;

b. Please provide copies of any agreements entered as part of your membership or participation in those mutual assistance programs; and

c. Please provide a list of members or participants for each mutual assistance program you are a member or participant in.

ANSWER:

a. CenterPoint Houston participates in and is a member of the following mutual assistance groups: Texas Mutual Assistance Group, Southeastern Electric Exchange, and the Midwest Mutual Assistance Group.

b. CenterPoint Houston provides or receives mutual assistance under the terms and conditions in the following agreements:

   PUC-RFI01-107(b) - Southeastern Electric Exchange Mutual Assistance Guidelines - CONFIDENTIAL
   PUC-RFI01-107(b) - EEI Mutual Assistance Short Form Agreement - CONFIDENTIAL (1 of 3)
   PUC-RFI01-107(b) - EEI Mutual Assistance Short Form Agreement - CONFIDENTIAL (2 of 3)
   PUC-RFI01-107(b) - EEI Mutual Assistance Short Form Agreement - CONFIDENTIAL (3 of 3)

c. The members of the mutual assistance groups that CenterPoint Houston participates in are listed in the following documents:

   RFI 1-107(c) - Texas Mutual Assistance Group, Southeastern Electric Exchange
   RFI 1-107(c) - Midwest Mutual Assistance Group - CONFIDENTIAL

SPONSOR:
Deryl Tumlinson

RESPONSIVE DOCUMENTS:
PUC-RFI01-107(c) - Texas Mutual Assistance Group, Southeastern Electric Exchange
PUC-RFI01-107(c) - Midwest Mutual Assistance Group - CONFIDENTIAL
PUC-RFI01-107(b) - Southeastern Electric Exchange Mutual Assistance Guidelines - CONFIDENTIAL
PUC-RFI01-107(b) - EEI Mutual Assistance Short Form Agreement - CONFIDENTIAL (1 of 3)
PUC-RFI01-107(b) - EEI Mutual Assistance Short Form Agreement - CONFIDENTIAL (2 of 3)
PUC-RFI01-107(b) - EEI Mutual Assistance Short Form Agreement - CONFIDENTIAL (3 of 3)

Response to PUC RFI 1-107(c) - PUBLIC

Texas Mutual Assistance Group Members:

AEP Texas, Inc.

Austin Energy

Brownsville Public Utilities Board

CenterPoint Energy Houston Electric, LLC

Cleco Power LLC

CPS Energy

Cross Texas Transmission, LLC

El Paso Electric Company

Entergy Texas, Inc.

Lone Star Transmission, LLC

LCRA Transmission Services Corporation

Mississippi Power Company

Oklahoma Gas and Electric

Oncor Electric Delivery Company LLC

Texas-New Mexico Power Company

Wind Energy Transmission Texas, LLC

Xcel Energy

Asplundh Tree Expert, LLC

Can-fer Utility Services, LLC

Davey Tree Surgery

Front Line Power Construction

Hargrave Electric Co.

Southeastern Electric Exchange Members:

American Electric Power:
- AEP Texas, Inc.
- Appalachian Power Company
- Indiana Michigan Power Co.
- Ohio Power Company
- Public Service of Oklahoma
- Southwestern Electric Power Company

AES Ohio

Duke Energy
- Duke Energy Carolinas, Inc.
- Duke Energy Indiana, Inc.
- Duke Energy Kentucky, Inc.
- Duke Energy Ohio, Inc.
- Duke Energy Progress, Inc.
- Duke Energy Florida, Inc.

CenterPoint Energy Houston Electric

Cleco Power LLC

Dominion Energy
- Virginia Electric and Power Company
- Dominion Energy South Carolina

Entergy
- Entergy Arkansas, Inc.
- Entergy Gulf States Louisiana, LLC
- Entergy Louisiana, LLC
- Entergy Mississippi, Inc.
- Entergy New Orleans, Inc.
- Entergy Texas, Inc.
- Entergy Services
- Entergy Operations

Exelon
- Atlantic City Electric Company
- Baltimore Gas and Electric
- Commonwealth Edison
- Delmarva Power and Light Company
- PECO
- Potomac Electric Power Company

Response to PUC RFI 1-107(c) - PUBLIC

Texas Mutual Assistance Group Members: (continued)

Mesa Line Services

MP Technologies Texas, LLC

North Houston Pole Line

NorthStar Energy Solutions

Pike Corporation

Primoris T&D Services

Quanta Services, Inc.

Tempest Energy LLC

The L.E. Meyers Co.

Trees Inc.

Willbros T&D Services

Wright Tree Service

Southeastern Electric Exchange Members: (continued)

FirstEnergy
- Cleveland Electric Illuminating Co.
- Jersey Central Power and Light Co.
- Metropolitan Edison Company
- Monongahela Power Company
- Ohio Edison Company
- Pennsylvania Electric Company
- Pennsylvania Power Company
- The Potomac Edison Company
- The Toledo Edison Company
- West Penn Power Company
- FirstEnergy Service Corp.
- FirstEnergy Corporate Services

Florida Power and Light

Florida Public Utilities

Oklahoma Gas and Electric

Oncor Electric Delivery Company LLC

PPL Corporation
- Kentucky Utilities Company
- Louisville Gas and Electric Companies
- PPL Electric Utilities

Southern Company
- Alabama Power Company
- Georgia Power Company
- Mississippi Power Company
- Southern Nuclear Operating Company Inc.
- Southern Company Services

Tampa Electric Company

Texas-New Mexico Power Company

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-108

QUESTION:

Staffing and Mutual Assistance

Please describe, prior to, during, or in the aftermath of Hurricane Beryl how you integrated mutual assistance crews into your existing emergency preparedness and response processes, any coordination challenges you faced in doing so, and how you addressed any such challenges prior to, during, or in the aftermath of Hurricane Beryl.

ANSWER:

CenterPoint Houston is, and has been, a member of three mutual assistance groups: (1) Southeastern Electric Exchange ("S.E.E."), the home regional mutual assistance group; (2) Texas Mutual Assistance Group ("TxMAG"); and (3) Midwest Mutual Assistance Group ("MMAG"). CenterPoint Houston also has business relationships with numerous distribution-line and vegetation contractor companies and aggregators.

Days before Hurricane Beryl made landfall, CenterPoint Houston contacted multiple aggregators to identify available resources and their proximity to CenterPoint Houston's service territory. In addition, CenterPoint Houston contacted S.E.E. to create an event within their system (a prerequisite to request mutual aid) and request resources through the mutual assistance process. The S.E.E. Executive Director sent an email and text message notifying member utilities of CenterPoint Houston's request and requested that they provide available resources in the RAMP-UP tool. A joint mobilization conference call was held on July 8, 2024, to review and match responding resources to requesting utilities.

CenterPoint Houston also notified TxMAG of activation and that the Company would be requesting resources through S.E.E. and asked that if no other TxMAG members needed resources, the Company would like to be able to contact TxMAG members directly for assistance. CenterPoint Houston notified mutual assistance contractors and aggregators to pre-stage crews to be available to work at 6:00 a.m. on July 9, 2024. CenterPoint Houston also informed all internal distribution-line day crews to arrive at work at 6:00 a.m. on Monday, July 8, 2024, as well as informed native line and vegetation contractors to arrive at 6:00 am on Monday, July 8. CenterPoint Houston also notified the external damage assessor contractors to report to work at 6:00 a.m. on July 9, 2024. A company email was sent to all other internal employees to report to work as quickly as possible after the storm passed and conditions were safe for travel.

During the Company's restoration efforts after Hurricane Beryl, the Company coordinated with contractors and mutual assistance groups to obtain additional line-skill, vegetation resources, and damage assessment inspectors. Much of that work is discussed in more detail in response to request 1-111. The Company also coordinated with other impacted utilities on the release of their acquired response resources for vegetation and distribution-line assistance to ensure that all Texas service restoration needs were met before releasing crews.

The Company did not have any coordinating challenges with peer utility resource releases. The mutual assistance responders were managed daily by an operations manager, multiple operations supervisors, and in the field by internal foreign crew coordinators ("FCCs").

SPONSOR:
Deryl Tumlinson

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-109

QUESTION:

Staffing and Mutual Assistance

Please describe the command structure and communication protocols used to manage and direct resources from mutual assistance program(s) you received assistance from prior to, during, and in the aftermath of Hurricane Beryl.

ANSWER:

The process and timeline for requesting or activating assistance through Mutual Assistance partners prior to Hurricane Beryl's impact to the CenterPoint Energy electric system was a review of the current scenario and overall leadership expectations of the impact of the event. CenterPoint Energy utilized our "damage prediction model" to verify the expected impacts and to justify the request and amount of assistance needed prior to landfall. As the track of the storm continued to change, we continued to run the damage prediction model to verify the amount of pre-stagged resource needs. Numerous conference calls took place with Distribution Operations leadership days before Hurricane Beryl's impact to our region to discuss the model runs and resource availability and proximity to the CenterPoint Energy service area. Utilizing the model, leadership experience, resource availability and proximity to the CenterPoint Energy service area, we pre-determined our timeline for requesting resources with our mutual assistance partners. During the event, the number of customers impacted and the number of outage cases were used to make additional decisions to continue activation and requests for resources from our mutual assistance partners. In the aftermath of the storm, CenterPoint Energy worked closely with other utilities that were impacted by Hurricane Beryl to coordinate the release of their acquired resources with the intentions of securing those resources as needs arose from restoration needs and damage assessment.

Please see the responses to request nos. PUC-RFI01-13, PUC-RFI01-108 and PUC-RFI01-111.

SPONSOR:
Deryl Tumlinson

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-110

QUESTION:

Staffing and Mutual Assistance

Please describe the process and timeline for requesting or activating assistance as part of your membership or participation in any mutual assistance program(s) prior to, during, or in the aftermath of Hurricane Beryl.

ANSWER:

Please see the responses to request nos. PUC-RFI01-108 and PUC-RFI01-111.

SPONSOR:
Deryl Tumlinson

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-111

QUESTION:

Staffing and Mutual Assistance

Once you learned of the Hurricane Beryl's potential to affect your ability to provide service to your customers, what specific actions were taken to begin coordinating with and staging mutual assistance resources to respond to service issues resulting from the hurricane?

ANSWER:

Beginning July 2, CenterPoint Houston personnel contacted multiple local and off-site line-skill contract companies (e.g., North Houston Pole Line, LE Meyers, Front Line Power, Line Pro, Heart Utilities, Quanta), 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 Hurricane Beryl.

Hurricane Beryl made landfall at 4:00 a.m. on July 8. Between July 6 and July 14, CenterPoint Houston requested 9,388 line-skills resources, 2,837 vegetation management resources, and 1,000 damage assessment resources from external contractors. CenterPoint Houston requested over 94% of these resources by July 8.

Staging sites were also developed to quickly deploy this work force. Before landfall, CenterPoint Houston maintained permanent agreements with landowners for 16 staging sites and 2 man-camp sites. It also maintained agreements with 7 turnkey providers for staging site support. By July 7, four staging sites were activated with landowner and turnkey providers. Six additional staging sites were on standby.

By July 8—the day of landfall—CenterPoint Houston began loading staging site materials at approximately 10:20 a.m. and departed for the first 4 staging sites in approximately one hour. By the evening, the first four staging sites were "check-in and dispatch" ready. By July 9, fourteen more staging sites were "check-in and dispatch" ready. By July 11, one additional staging site was ready. By July 12, three additional staging sites were ready. By that same day, CenterPoint Houston had 22 total staging sites to allow for strategic deployment of crews and materials.

CenterPoint Houston also dispatched other resources for restoration. CenterPoint Houston reserved approximately 5,600 to 12,000 hotel beds nightly. By July 9, CenterPoint Houston also had estimated bed capacity of 5,900 nightly at man camps.

CenterPoint Houston also worked hard to deliver materials to the staging sites, including approximately 2,222 poles, 2,718 transformers, 225,751 conductor/wire ft., 479,466 conductor/wire lbs., 10,649 splices, and 37,755 insulators.

For the dispatch of crews, CenterPoint Houston generally followed its plans, previously discussed in the response to request no. PUC-RFI01-10. It used the following process:

- The Planning Section Chief reviews/prioritizes referred work orders;
- The Internal Foreign Crew Coordinator ("FCC") who works with mutual assistance and aggregator crews, communicates referred work to their assigned contractor's General Foreman;
- The FCC receives tickets through Service Suite and assigns work orders and service center locations to contractors in the Service Suite – Dispatch Application;
- Each contractor's General Foreman assigns specific work orders to each contractor crew;

- The contractor crew works the assigned work order to completion; and
- The contractor's General Foreman communicates to the FCC that the work order has been completed, and the FCC marks the work order as complete with completion notes in the Services Suite – Mobile Application.

By July 19, CenterPoint Houston reached 100% restoration.

SPONSOR:
Deryl Tumlinson

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-112

QUESTION:

Staffing and Mutual Assistance

Provide the following information concerning mutual assistance received in response to either the May 2024 Derecho or Hurricane Beryl:

a. Identify all mutual assistance programs from which you requested assistance;

b. Describe the specific assistance, including but not limited to the number of damage assessors, vegetation management crews, linesmen, generators, and materials, requested from the mutual assistance program(s); and

c. Provide all documentation of requests made to mutual assistance programs and their responses to your requests.

d. If it is not evident from the documentation provided in response to Staff 1-112(c), please provide the date the request was made, the date the specific assistance requested began arriving in the Impacted Area, and the date by when the specific assistance requested was fully received.

ANSWER:

a. CenterPoint Houston requested mutual assistance from both Texas Mutual Assistance Group (TXMAG) and Southeastern Electric Exchange (SEE).
b. See attached spreadsheets

- PUC - RFI01-112 - Derecho - CONFIDENTIAL
- PUC - RFI01-112 -Beryl - CONFIDENTIAL

c. See attached documents
d. See attached documents in response to RFI 1-112(c).

SPONSOR:
Deryl Tumlinson

RESPONSIVE DOCUMENTS:
PUC - RFI01-112 - Derecho - CONFIDENTIAL.xlsx
PUC - RFI01-112 - Beryl - CONFIDENTIAL.xlsx
PUC - RFI01-112 - SEE Request Call Match Log - CONFIDENTIAL.xlsx
PUC - RFI01-112 - VM Call Dates - CONFIDENTIAL.xlsx
PUC - RFI01-112 - RE_ _External Email_ FW_ NTS Resource Acquisition Forms _pdf_ MARC-Roster NTS CONSOLIDATED_xlsx - CONFIDENTIAL.pdf
PUC - RFI01-112 - Re_ _External Email_ Trees LLC Hurricane Beryl Response - CONFIDENTIAL.pdf
PUC - RFI01-112 - Re_ _External Email_ Storm - CONFIDENTIAL.pdf
PUC - RFI01-112 - RE_ _External Email_ Communications - CONFIDENTIAL.pdf
PUC - RFI01-112 - Re_ _External Email_ CSR Veg Headcounts - CONFIDENTIAL.pdf
PUC - RFI01-112 - RE_ _External Email_ FW_ Beryl - Updated Veg_ Numbers - CONFIDENTIAL.pdf
PUC - RFI01-112 - RE_ _External Email_ FW_ Emailing_ Nelson Crews CenterPoint - CONFIDENTIAL.pdf
PUC - RFI01-112 - RE_ _External Email_ FW_ Hurricane Beryl - CONFIDENTIAL.pdf

PUC - RFI01-112 - RAT- blank - CONFIDENTIAL.pdf
PUC - RFI01-112 - MARC-RosterTemplate_The Arbor Experts_7-8-24 - CONFIDENTIAL.xlsx
PUC - RFI01-112 - Michael Hernandez MARC-RosterTemplate - CONFIDENTIAL.xlsx
PUC - RFI01-112 - Michael Hernandez RAT- blank - CONFIDENTIAL.pdf
PUC - RFI01-112 - FW_ Mutual Assistance template - CONFIDENTIA.pdf
PUC - RFI01-112 - Jose Lindero MARC-RosterTemplate - CONFIDENTIAL.xlsx
PUC - RFI01-112 - Jose Lindero RAT- blank - CONFIDENTIAL.pdf
PUC - RFI01-112 - MARC-RosterTemplate - CONFIDENTIAL.xlsx
PUC - RFI01-112 - Book1 - CONFIDENTIAL.xlsx
PUC - RFI01-112 - EOP Resource Acquisition Group sheet (Contractor-Mutual Assistance Cmpy Info) w training notes -06.07.2023 - CONFIDENTIAL.pdf
PUC - RFI01-112 - FW_ _External Email_ CSR Veg Headcounts - CONFIDENTIAL.pdf
PUC - RFI01-112 - _External Email_ Oncor Manual Crews - CONFIDENTIAL.pdf
PUC - RFI01-112 - _External Email_ RE_ CSR Addition Vegetation Resources - Arrivals 7_9 -7_10 - CONFIDENTIAL.pdf
PUC - RFI01-112 - _External Email_ RE_ Mutual Assistance template - CONFIDENTIAL.pdf
PUC - RFI01-112 - 2024.07.08 MatchLog - CONFIDENTIAL.xlsx
PUC - RFI01-112 - _External Email_ ABC 80 Additional FTE - CONFIDENTIAL.pdf
PUC - RFI01-112 - _External Email_ Fwd_ UCS MARC-Roster Template - CONFIDENTIAL.pdf
PUC - RFI01-112 EOP Resource Acquisition Group sheet w training
PUC - RFI01-112 - RAT- blank
PUC-RFI01-112 MARC-RosterTemplate_The Arb0or Experts_7-8-24
PUC-RFI01-112 Book
PUC-RFI01-112 - 2024.07.08 MatchLog
PUC-RFI01-112 - Michael Hernandez MARC-RosterTemplate
PUC-RFI01-112 -Michael Hernandez RAT- blank
PUC-RFI01-112 -Jose Lindero MARC-RosterTemplate
PUC-RFI01-112 -Jose Lindero RAT- blank
PUC-RFI01-112 -Storm Beryl ABC Roster

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-113

QUESTION:

Staffing and Mutual Assistance

When you receive responses to requests for assistance from other mutual assistance program participants that confirm their ability to provide the requested assistance, are you able to accept or decline resources being offered as needed, or must you accept all assistance provided in response to a request?

ANSWER:

CenterPoint Houston is able to accept or decline assistance offered through its mutual assistance programs. CenterPoint Houston is not required to accept all assistance offered in response to a request.

SPONSOR:
Deryl Tumlinson

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-114

QUESTION:

Staffing and Mutual Assistance

What considerations did you give to reimbursement of costs and expenses incurred by participants of mutual assistance programs when making requests for assistance during the events of Hurricane Beryl?

ANSWER:

CenterPoint Houston did not consider costs and expenses incurred by participants of mutual assistance programs when making requests for assistance in connection with Hurricane Beryl because most mutual assistance is provided pursuant to pre-existing agreements. The Company's sole consideration in requesting mutual assistance was what assistance and resources were needed for its restoration efforts. Pursuant to its agreements, CenterPoint Houston reviews invoices submitted for costs and expenses to ensure that they comply with the contract's terms and are reasonably and prudently incurred.

SPONSOR:
Deryl Tumlinson

RESPONSIVE DOCUMENTS:
None

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PROJECT NO. 56822
INVESTIGATION OF EMERGENCY PREPAREDNESS AND RESPONSE

PUBLIC UTILITY COMMISON OF TEXAS
REQUEST NO.: PUC-RFI01-115

QUESTION:

Staffing and Mutual Assistance

Please provide a list of any hurricane response staging area you established in the lead up to and in the aftermath of Hurricane Beryl. Please include the date the center(s) was established, the location of the center(s), the day-to-day staffing levels at the center, and types of equipment and personnel staged at the center(s).

ANSWER:

Staging sites were set up and ready as shown in the attached file: PUC-RFI01-115 attachment.xlsx.

The attachement lists all twenty-two (22) sites and describes the Staging Site Name, Address, Dispatch Ready Date, Crew Counts, and Crew Types by skillsets. It also includes information on the Damage Assessor counts that CenterPoint Houston used to accelerate restoration. Damage assessment is worked from service centers. Local damage assessment leadership is physically located at the service center. Physical interactions between damage assessors and damage assessment leadership occurs at the service centers. That said, the work product created from the damage assessment effort is delivered and worked from staging sites. Each service center's damage assessment effort supports multiple staging sites. There is no one to one correlation between service center and staging site in this context. A service center can feed work to multiple staging sites, and a staging site can receive work from multiple service centers. All of this is fluid, and changes over time depending on staging site work load and resource availability.

*Due to safety concerns, Barnett staging site was deactivated and relocated to Berry Center Staging Site. Barnett continued to be used for materials pickup through July 12, 2024

In addition to the staging sites listed above, there were four man camps established to provide lodging to crews and had telecommunications provided.

- Pasadena
- Tomball
- Lake Jackson Rec Center
- Freedom Field

To support a staging site, the following roles are needed on either a permanent or rotational basis:

- Operations Manager
- Foreign Crew Coordinators
- Check-in personnel
- Safety Coordinators
- Staging Site Manager
- Fuel Coordinators
- Logistics Coordinators
- Warehousemen
- Lodging and Bussing coordinators
- Cooking crews
- Security
- Maintenance crews
- Environmental coordinators
- Materials drivers

- Janitorial staff
- IT staff - Telecommunications and field end user support

Types of Staging Site support equipment:

Staging sites are established to support the mutual assistance line construction and vegetation management crews visiting to support our restoration efforts. As such, the sites are established to support the feeding of the crews (served breakfast and dinner and box lunches), provision of ice and drinks (water, Gatorade, Powerade), collection of materials, vehicle/equipment/trailers refueling, overnight vehicle and equipment storage, laundry services, and transportation for offsite lodging.

Equipment utilized to support a staging site includes the following:

- Water/Gatorade/ice pallets
- Dining/Prep Tents/Tables/Chairs – enclosed with HVAC
- Food storage trucks
- Hotshot trucks
- Semi-trucks
- Refrigeration trucks
- Light Towers
- Restroom trailer and portlets
- Hand wash stations
- Dumpsters and trash cans
- Telecommunication equipment
- Hardware equipment – monitors, desktop docking stations, keyboards/mice, printers
- Satellite communication solutions
- Command trailers
- Forklifts
- Material tent 40x100 or 50x100
- Golf carts or UTVs
- Tents for check ins and security personnel
- Generators for equipment
- Bobtail wet-hosing and Tankers
- Fencing
- Traffic signage and cones
- Waste bins for poles and construction debris
- Spill kits for minor spills or releases
- Laundry facilities if restoration is longer than 7 days
- Sleeper trailers with linen kits (for man camps)
- Showers with shower kits (for man camps)

Types of Crew Equipment:

Examples of equipment brought by crews includes the following. Note that at night, the equipment is fueled and safeguarded at the staging site.

- Bucket Trucks
- Digger Derricks
- Digger Derricks - Rear Lots
- Pickups
- Equipment Trailers
- Pole Trailers
- Hydrovac Trucks

SPONSOR:
Carla Kneipp

RESPONSIVE DOCUMENTS:
PUC-RFI01-115 attachment.xlsx

Hurricane Beryl Staging Site Master Record

	Staging Site Name	Address	Check in & Dispatch Ready	Crew Checked In	Distribution Line Skills	Transmission Line Skills	Vegetation Management	Field Support Skills
1	Brazoria Country Fairgrounds	901 S. Downing Road, Angleton, TX 77516	7/8/2024	1,066	796	73	192	5
2	Fort Bend County Fairgrounds	4310 Hwy 36 South, Rosenberg, TX 77471	7/8/2024	850	682		156	12
3	Reed Road	2600 Reed Road, Houston, TX 77051	7/8/2024	1,202	875	55	204	68
4	Sam Houston Race Park	7575 N. Sam Houston Pkwy W, Houston, TX 77064	7/8/2024	704	594		103	7
5	Freedom Field	10855 County Rd 65, Rosharon, TX 77583	7/9/2024	806	581	51	174	
6	Galveston County Fair and Rodeo Grounds	10 Jack Brooks Rd, Hitchcock, TX 77563	7/9/2024	517	431	32	54	
7	NRG Yellow Lot	1 Reliant Park, Houston, TX 77054	7/9/2024	437	185		252	
8 & 9	Legacy/Rhodes Stadium	1830 Katyland Dr, Katy, TX 77493	7/9/2024	2,174	1,633		486	55
10	Tomball ISD Stadium	20235 Cypress Rosehill, Tomball, TX 77377	7/9/2024	551	397		154	
11	AMC Theater - Gulf Point 30	11801 S Sam Houston Pkwy E, Houston, TX 77089	7/9/2024	720	565		155	
12	Humble Civic Center	8233 Will Clayton Parkway, Humble, TX 77338	7/9/2024	501	329		155	17
13	Lonestar College Tomball	30555 Tomball Parkway, Tomball, TX 77375-4036	7/9/2024	453	359		94	
14	BASF Property	1502 FM 1495, Freeport, TX 77541	7/9/2024	892	612		255	25
15	Pearland ISD Stadium	3775 S Main St, Pearland, TX 77581	7/9/2024	419	239		180	
16	Manvel ISD Stadium	19601 Hwy 6, Manvel, TX 77578	7/9/2024	230	208	22		
17	Moody Gardens	1 Hope Blvd, Galveston, TX 77554	7/9/2024	570	570			
18	Barnett Stadium*	6800 Fairway Dr, Houston TX 77087	7/9/24*	0				
19	Berry Stadium	8877 Barker Cypress Rd, Cypress, TX 77433	7/11/2024	534	534			
20	George Turner Stadium	1700 Wilson Rd, Humble, TX 77396	7/12/2024	357	345	12		
21	2920 Spring - Klein Multi Purpose Center	7801 Farm to Market 2920, Spring, TX 77379 (N side)	7/12/2024	415	245		170	
22	Stallworth Stadium	2102 E Archer Rd, Baytown, TX 77521	7/12/2024	214	181		33	
			Total Staging Site Headcount	**13,612**	**10,361**	**245**	**2,817**	**189**

*Due to safety concerns, Barnett staging site was deactivated and relocated to Berry Center Staging Site. Barnet continued to be used for materials pickup through July 12, 2024

CEHE Damage Assessor Count for Hurricane Beryl (2024)	
Type	Count
Internal	209
External	1,019
Total	**1,228**