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APPLICATION OF CENTERPOINT ENERGY
HOUSTON ELECTRIC, LLC FOR APPROVAL
TO AMEND ITS DISTRIBUTION COST
RECOVERY FACTOR

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APPLICATION OF CENTERPOINT	§	
ENERGY HOUSTON ELECTRIC, LLC	§	PUBLIC UTILITY COMMISSION
FOR APPROVAL TO AMEND ITS	§	OF TEXAS
DISTRIBUTION COST RECOVERY	§	
FACTOR	§	

December 14, 2023

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APPLICATION OF CENTERPOINT	§	
ENERGY HOUSTON ELECTRIC, LLC	§	PUBLIC UTILITY COMMISSION
FOR APPROVAL TO AMEND ITS	§	OF TEXAS
DISTRIBUTION COST RECOVERY	§	
FACTOR	8	

DOCKET NO.

APPLICATION OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC FOR APPROVAL TO AMEND ITS DISTRIBUTION COST RECOVERY FACTOR

CenterPoint Energy Houston Electric, LLC ("CenterPoint Houston" or the "Company") files this Application for Approval to amend its Distribution Cost Recovery Factor ("DCRF") pursuant to Section 36.210 of the Public Utility Regulatory Act ("PURA") and 16 Tex. Admin. Code ("TAC") § 25.243 and asks that the Public Utility Commission of Texas ("Commission") approve CenterPoint Houston's Rider DCRF as filed.

I. INTRODUCTION

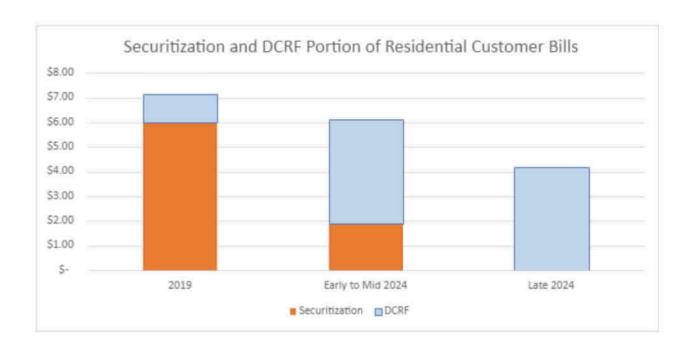
CenterPoint Houston's filing requests an update to the Company's current Rider DCRF to include additional distribution invested capital placed in service through September 30, 2023. This is the Company's first DCRF filing made after recent amendments to PURA § 36.210, which now authorizes an electric utility to file a DCRF application two times per year and requires the Commission to issue a final order not later than the 60th day after the application is filed.¹

The filing reflects distribution investments that are necessary to maintain a safe and reliable distribution system that requires ongoing investment to serve new customers, replace aging infrastructure and bolster the system to build resiliency, while maintaining reasonable rates for customers. Through efforts such as its Distribution Grid Resiliency Program, the Underground Residential Distribution Cable Life Extension Program, Infra-Red Program and Hot Fuse Program, the Company is taking proactive measures to extend the lives of distribution facilities such as poles

¹ PURA § 36.210 (d) and (i). The 60-day period may be extended for not more 15 days for good cause,

or identify and replace at-risk facilities to prevent future outages. Importantly, the Company's efforts continue to be focused on the core goals of improving customer reliability and the resiliency of the Company's distribution system. The Company's work on automating functions used to monitor outages saved customers 78 million outage minutes between January and September 2023. And, the Company is taking these proactive steps at a time when annual customer growth has been approximately 2.2% for 2019 through 2022—which equates to approximately 57,000 new customers per year. In fact, since the Commission set base rates for CenterPoint Houston in 2010 in Docket No. 38339, the Company's total metered customer base has grown from approximately 2 million to over 2.75 million metered customers. The total mileage of CenterPoint Houston's overhead and underground distribution lines has grown from 21,000 miles to over 58,000 miles over the same time period.

Importantly, the Company's filing demonstrates that even with the ongoing capital investment needs of the system, the Company's delivery rates continue to be reasonable. Since 2019, three securitization charges related to the transition to competition and hurricane restoration costs (TC2, TC3, and SRC/ADFIT) have been retired, resulting in a total reduction of \$4.48 per month for the average residential customer. A fourth securitization charge (TC5) will be retired by October 2024, resulting in a reduction in the amount of \$1.92 per month. Together, average residential customer bills will be reduced by approximately \$6.40, which is more than the Company's DCRF rates. The approved rate in Docket No. 54825 was \$2.67 per month for an average residential customer, and the proposed rate in this case is \$4.20 per month for a residential customer. A comparison of securitization and DCRF charges in 2019 and as of 2024 illustrates these rate impacts:



This is also CenterPoint Houston's third DCRF filing since the Company's last comprehensive base rate proceeding in Docket No. 49421.² The Company's prior DCRF filing in Docket No. 54825³ reflected costs for the period January 1, 2019 through December 31, 2022, and resulted in the implementation of the Company's current DCRF rates on September 1, 2023. As detailed below and in the Company's testimony, exhibits, and workpapers, CenterPoint Houston invested over \$2.5 billion in net distribution system invested capital booked to FERC Accounts 303, 352, 353, 360-374, 391 and 397 from January 1, 2019 through September 30, 2023. The total revenue requirement associated with allowed return, depreciation, income and other taxes on net distribution invested capital during that period since the Company's last base rate case is \$314,525,460 (the "Total DCRF Revenue Requirement"). Adjusted for load growth, the Total DCRF Revenue Requirement is now \$233,450,492. This represents an incremental increase of

² Application of CenterPoint Energy Houston Electric, LLC for Authority to Change Rates, Docket No. 49421, Final Order (Mar. 9, 2020).

³ Application of CenterPoint Energy Houston Electric, LLC for Approval to Amend its Distribution Cost Recovery Factor, Docket No. 54825, Final Order (Sep. 14, 2023).

\$85,901,658 to the Company's DCRF Revenue Requirement approved in the Company's last DCRF proceeding in Docket No. 54825.⁴

II. AUTHORIZED REPRESENTATIVES

The telephone number and address of CenterPoint Houston's authorized business representative is:

Denise Gaw
CenterPoint Energy Service Company, LLC
1111 Louisiana Street
Houston, Texas 77002
713.207.5956
713.207.9840 (fax)
denise.gaw@centerpointenergy.com

The telephone numbers and addresses of CenterPoint Houston's authorized legal representatives are:

Sam Chang
State Bar No. 24078333
CenterPoint Energy Service Company, LLC
1005 Congress Avenue, Suite 650
Austin, Texas 78701
512.397.3005
512.949.3050 (e-fax)
se.chang@centerpointenergy.com

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512.879.0900
512.879.0912 (fax)
kate.norman@crtxlaw.com
mark.santos@crtxlaw.com
shelley.morgan@crtxlaw.com

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⁴ *Id.*

CenterPoint Houston requests that all information and documents in this filing be served on each of the persons above at their respective addresses, emails and/or fax numbers.

III. JURISDICTION

CenterPoint Houston is an electric utility as that term is defined in PURA §§ 11.004(1) and 31.002(6) and a transmission and distribution utility as defined in PURA § 31.002(19). CenterPoint Houston operates solely within the Electric Reliability Council of Texas areas of Texas. The Company's distribution system covers approximately 5,000 square miles located in and around Houston, Texas, and is comprised of approximately 58,000 miles of overhead and underground distribution lines. The Company's electric distribution system also includes conductors and substations operating at voltages of 35-kV and less. The Commission has exclusive original jurisdiction over this proceeding pursuant to PURA § 36.210(a).

IV. AFFECTED PERSONS AND TERRITORIES

CenterPoint Houston's Application affects all retail electric providers ("REPs") serving end-use retail electric customers in CenterPoint Houston's certificated service territory and will affect the retail electric customers of those REPs to the extent that the REPs choose to pass along those charges to their customers under the Company's DCRF Tariff. If the DCRF requested in this Application is approved, CenterPoint Houston's distribution revenues will increase by approximately \$233,450,492 on an annual basis beginning on February 12, 2024, as compared to the DCRF revenues approved in its most recent rate case, Docket No. 49421.

V. PROPOSED DCRF RIDER AND EFFECTIVE DATE

CenterPoint Houston's proposed Rider DCRF is attached to this Application as Attachment B. Pursuant to PURA § 36.210(i), the Company's proposed effective date for rates under Rider DCRF is February 12, 2024, which is 60 days from the filing of this Application. The new DCRF rates would be effective for scheduled meter read dates on and after February 12, 2024.

VI. SCOPE OF THE PROCEEDING

With regard to the scope of this proceeding, CenterPoint Houston requests that issues regarding the statutory determinations required under PURA §§ 36.053 and 36.058 and the reasonableness, necessity and prudence of the distribution system investment included in this filing not be addressed in this proceeding and, instead, be deferred until the Company's next comprehensive general base rate case. CenterPoint Houston's request is made in accordance with 16 TAC § 25.243(e)(5) and (f). To the extent the presiding officer determines that these issues should be addressed in this proceeding, CenterPoint Houston expressly reserves its right to make supplemental filings to fully address those issues.

VII. OVERVIEW OF THE APPLICATION AND SUPPORTING DOCUMENTS

This Application contains the testimony of three witnesses. Company witness Deryl Tumlinson describes and sponsors the distribution system capital investment projects included in this filing. Mr. Tumlinson's exhibits include descriptions of the capital projects placed in service for the period January 1, 2019 through September 30, 2023. Company witnesses Jeff W. Garmon and Brandon L. Gillespie sponsor and support the Company's Rider DCRF revenue requirement and supporting schedules and workpapers required by the Application Form Instructions for DCRF filings. Mr. Gillespie supports the DCRF tariff. These three witnesses collectively demonstrate CenterPoint Houston's compliance with the standards for DCRF recovery set forth in PURA, 16 TAC § 25.243(e)(5), and the Commission's DCRF application form.

In addition, CenterPoint Houston includes as Attachment C to this Application the sworn statements of Deryl Tumlinson, Jeff Garmon, and Brandon Gillespie affirming that the filing complies with the requirements of PURA § 36.210(a)(6) and 16 TAC § 25.243(c)(1). CenterPoint Houston has also included as Schedule K to this Application the Company's most recent annual carnings report filed with the Commission.

VIII. NOTICE AND INTERVENTION DEADLINE

CenterPoint Houston intends to provide notice of this proceeding as required by 16 TAC § 25.243(e)(2). Specifically, CenterPoint Houston will provide notice of this filing to all parties in CenterPoint Houston's last comprehensive base-rate proceeding, and to parties in the last DCRF proceeding, no later than the day after CenterPoint Houston files this Application. CenterPoint Houston is also providing notice of this Application to each municipality in its service area. Notice shall be accomplished by serving the aforementioned parties with a copy of this Application, including all accompanying materials. Proof of notice will be filed with the Commission upon completion of notice. In addition, based upon 16 TAC § 25.243(c)(1)(A), CenterPoint Houston is filing this Application with all municipalities that have not ceded their jurisdiction over CenterPoint Houston's distribution service area to the Commission.

CenterPoint Houston is requesting an intervention deadline 21 days after the filing of this Application. Although 16 TAC § 25.243(e)(2) provides that the intervention deadline is 30 days from the date service of notice is completed, the statutory timeline for processing a DCRF filing has been shortened in PURA § 36.210. Accordingly, there is good cause to shorten the deadlines specified in 16 TAC § 25.243(e)(2), which has occurred in other DCRF proceedings filed after the amendment of PURA § 36.210.

IX. PROTECTIVE ORDER

CenterPoint Houston anticipates it may be necessary for the Company to furnish confidential material or for other parties to submit documents containing confidential material during this case. Accordingly, CenterPoint Houston has included as Attachment D of the Application a proposed protective order. The proposed protective order is similar to the protective

⁵ Application of Oncor Electric Delivery Company LLC for Approval to Amend its Distribution Cost Recovery Factor, Docket No. 55525, Order No. 1 (Sept. 18, 2023); Application of AEP Texas Inc. to Amend its Distribution Cost Recovery Factor, Docket No. 55820, Order No. 1 (Nov. 16, 2023).

order issued in Docket No. 49421, the Company's most recent comprehensive base rate case, and filed in Docket No. 54825, the Company's most recent DCRF proceeding.

The Company requests approval of the proposed protective order included in Attachment D of the Application. Until a protective order is issued in this proceeding, the Company will provide access to the confidential information submitted with this Application to parties that agree in writing to be bound by the proposed protective order as if it had been issued by the Commission.

X. PROPOSED PROCEDURAL SCHEDULE

CenterPoint Houston requests approval of the following procedural schedule that meets the newly enacted statutory requirements for processing DCRF adjustment applications. Pursuant to PURA § 36.210(i), the Commission shall enter a final order on this requested DCRF adjustment not later than the 60th day after the date the request is filed.⁶ This proposed procedural schedule reflects the Commission's current Open Meeting schedule.

DATE	DESCRIPTION
December 14, 2023	Application filed and notice provided
December 21, 2023	Deadline for CenterPoint Houston to file proof of notice
January 4, 2024	Deadline to intervene; Deadline for Staff to file
f .	recommendation on sufficiency of Application and the
	provision of notice; Deadline for motions to find the
	Application materially deficient.
January 8, 2024	Deadline for CenterPoint Houston's response to a motion to
	find the Application materially deficient
January 10, 2024	Deadline for intervenors to file recommendations on the
	Application
January 17, 2024	Deadline for Staff to file recommendation on the Application
January 19, 2024	Deadline for CenterPoint Houston to file responses to
	intervenor and Staff recommendations on Application;
	Deadline for parties to file joint motion to admit evidence
	and proposed findings of fact, corresponding conclusions of
MANAGE PROPERTY.	law, and ordering paragraphs.
February 1, 2024	Consideration of Application at Open Meeting
February 12, 2024	PURA § 36.210(i) 60-day deadline

⁶ The Commission may extend the deadline for not more than 15 days for good cause. PURA § 36.210(i).

XI. REQUEST FOR RELIEF AND INFORMAL DISPOSITION

Consistent with PURA § 36.210, CenterPoint Houston requests approval of its Application as filed. CenterPoint Houston also requests that the Commission approve the proposed protective order and the proposed procedural schedule. CenterPoint Houston further requests that the Commission defer consideration of issues involving PURA §§ 36.053 and 36.058 and the reasonableness, necessity and prudence of the distribution system investment included in this filing until the Company's next comprehensive general base rate case. CenterPoint Houston submits that its Application is eligible for informal disposition pursuant to 16 TAC § 25.243(e)(6)(D). Finally, CenterPoint Houston requests that it be granted such other relief to which it has shown itself entitled.

Respectfully submitted,

By:

Sam Chang

State Bar No. 24078333

CenterPoint Energy Service Company, LLC

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Austin, Texas 78701

512.397.3005

se.chang@centerpointenergy.com

Kate Norman

State Bar No. 24051121

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COUNSEL FOR CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

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ATTACHMENT A

LIST OF CITIES WHICH HAVE CEDED ORIGINAL JURISDICTION TO THE PUBLIC UTILITY COMMISSION OF TEXAS

Arcola

Bayou Vista

Beasley

Village of Bonney

Brookshire

Cove

Galena Park

Hillcrest Village

Hilshire Village

Hitchcock

Humble

Iowa Colony

Jacinto City

Jamaica Beach Village

Katy

Kemah

Kendleton

Liverpool

Magnolia

Mont Belvieu

Morgans Point

Nassau Bay

Needville

Old River-Winfree

Orchard

Pattison

Pine Island

Piney Point Village

Prairie View

San Felipe

Stagecoach

Tomball

Waller

Wallis

ATTACHMENT B

CenterPoint Energy Houston Electric, LLC

Applicable: Entire Service Area

6.1.1.6.13 RIDER DCRF - DISTRIBUTION COST RECOVERY FACTOR

APPLICABILITY

Each Retail Customer connected to the Company's distribution system will be assessed a nonbypassable distribution service charge adjustment pursuant to this rider. The charges derived herein, pursuant to Substantive Rule §25.243, are necessitated by incremental distribution costs not included in the Company's last general rate case proceeding before the Commission.

MONTHLY RATE

The REP, on behalf of the Retail Customer, will be assessed this distribution service charge adjustment based on the monthly per unit cost (DCRF) multiplied times the Retail Customer's appropriate monthly billing determinant (kWh, Billing kVA, or 4 CP kVA).

The DCRF shall be calculated for each rate according to the following formula:

DCRF =

$$[((DIC_C - DIC_{RC}) * ROR_{AT}) + (DEPR_C - DEPR_{RC}) + (FIT_C - FIT_{RC}) + (OT_C - OT_{RC}) - \sum (DISTREV_{RC-CLASS} * \%GROWTH_{CLASS})] * ALLOC_{CLASS} / BD_{C-CLASS}$$

Where:

DIC_C = Current Net Distribution Invested Capital.

DICRC = Net Distribution Invested Capital from the last comprehensive base-rate proceeding.

RORAT = After-Tax Rate of Return as defined in Substantive Rule §25.243(d)(2).

DEPR₆ = Current Depreciation Expense, as related to Current Gross Distribution Invested Capital, calculated using the currently approved depreciation rates.

DEPR_{RC} = Depreciation Expense, as related to Gross Distribution Invested Capital, from the last comprehensive base-rate proceeding.

FIT_C = Current Federal Income Tax, as related to Current Net Distribution Invested Capital including the change in federal income taxes related to the change in return on rate base and synchronization of interest associated with the change in rate base resulting from

Revision Number: 10th

CenterPoint Energy Houston Electric, LLC Applicable: Entire Service Area

> additions to and retirements of distribution plant as used to compute Net Distribution Invested Capital.

FIT_{RC} = Federal Income Tax, as related to Net Distribution Invested Capital from the last comprehensive base-rate proceeding.

OTc = Current Other Taxes (taxes other than income taxes and taxes associated with the return on rate base), as related to Current Net Distribution Invested Capital, calculated using current tax rates and the methodology from the last comprehensive base-rate proceeding, and not including municipal franchise fees.

OTRC = Other Taxes, as related to Net Distribution Invested Capital from the last comprehensive base-rate proceeding, and not including municipal franchise fees.

DISTREV_{RC-CLASS} (Distribution Revenues by rate class based on Net Distribution Invested Capital from the last comprehensive base-rate proceeding) = (DICRc-class * RORAT) + DEPRRC-CLASS + FITRC-CLASS + OTRC-CLASS.

%GROWTHCLASS (Growth in Billing Determinants by Class) = (BDc-class - BDRC-class) / BDrcclass

DIC_{RC-CLASS} = Net Distribution Invested Capital allocated to the rate class from the last comprehensive base-rate proceeding.

DEPRRC-CLASS = Depreciation Expense, as related to Gross Distribution Invested Capital, allocated to the rate class in the last comprehensive base-rate proceeding.

FIT_{RC-CLASS} = Federal Income Tax, as related to Net Distribution Invested Capital, allocated to the rate class in the last comprehensive base-rate proceeding.

OT_{RC-CLASS} = Other Taxes, as related to Net Distribution Invested Capital, allocated to the rate class in the last comprehensive base-rate proceeding, and not including municipal franchise fees.

ALLOC_{CLASS} = Rate Class Allocation Factor approved in the last comprehensive base-rate proceeding, calculated as: total net distribution plant allocated to rate class, divided by total net distribution plant. For situations in which data from the last comprehensive base-rate proceeding are not available to perform the described calculation, the Rate Class Allocation Factor shall be calculated as the total distribution revenue requirement allocated to the rate class (less any identifiable amounts explicitly unrelated to Distribution Invested Capital) divided by the total distribution revenue requirement (less any identifiable amounts

CenterPoint Energy Houston Electric, LLC

Applicable: Entire Service Area

Revision Number: 10th

explicitly unrelated to Distribution Invested Capital) for all classes as approved by the commission in the electric utility's last comprehensive base-rate case.

The Allocation Factor for each listed rate schedule is as follows:

Residential Service	57.4920%
Secondary Service Less Than or Equal to 10 kVA	1.5016%
Secondary Service Greater Than 10 kVA	30.4483%
Primary Service	2.3617%
Transmission Service	0.2494%
Street Lighting Service	7.9471%

BDc-class = Rate Class Billing Determinants (weather-normalized and adjusted to reflect the number of customers at the end of the period) for the 12 months ending on the date used for purposes of determining the Current Net Distribution Invested Capital. For customer classes billed primarily on the basis of kilowatt-hour billing determinants, the DCRF shall be calculated using kilowatt-hour billing determinants. For customer classes billed primarily on the basis of demand billing determinants, the DCRF shall be calculated using demand billing determinants.

BD_{RC-CLASS} = Rate Class Billing Determinants used to set rates in the last comprehensive base-rate proceeding.

DCRF EFFECTIVE FOR SCHEDULED METER READ DATES ON AND AFTER **FEBRUARY 12, 2024**

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Rate Class	DCRF Charge	Billing Units
Residential Service	\$ 0.004197	per kWh
Secondary Service Less Than or Equal to 10 kVA	\$ 0.004004	per kWh
Secondary Service Greater Than 10 kVA	\$ 0.650451	per Billing kVA
Primary Service	\$ 0.405361	per Billing kVA
Transmission Service	\$ 0.015055	per 4CP kVA
Lighting Services	\$ 0.083751	per kWh

Revision Number: 10th

CenterPoint Energy Houston Electric, LLC Applicable: Entire Service Area

DETERMINATION OF BILLING DEMAND FOR DISTRIBUTION SYSTEM CHARGES

Secondary Service Greater Than 10 kVA - Determination of Billing kVA. The Billing kVA applicable to the Distribution System Charge shall be the NCP kVA for the current billing month.

Primary Service - Determination of Billing kVA For loads whose maximum NCP kVA established in the 11 months preceding the current billing month is less than or equal to 20 kVA, the Billing kVA applicable to the Distribution System Charge shall be the NCP kVA for the current billing month. For all other loads, the Billing kVA applicable to the Distribution System Charge shall be the higher of the NCP kVA for the current billing month or 80% of the highest monthly NCP kVA established in the 11 months preceding the current billing month (80% ratchet). The 80% ratchet shall not apply to seasonal agricultural Retail Customers.

This rate schedule is subject to the Company's Tariff and Applicable Legal Authorities.

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ATTACHMENT C

STATE OF TEXAS COUNTY OF HARRIS

AFFIDAVIT OF DERYL TUMLINSON

BEFORE ME, the undersigned authority, on this day personally appeared Deryl Tumlinson, who being by me first duly sworn, on oath, deposed and said the following:

- 1. "My name is Deryl Tumlinson. I am of sound mind and capable of making this affidavit. The facts stated herein are true and correct based on my personal knowledge.
- 2. I am Vice President of Distribution Operations and Service Delivery for CenterPoint Energy Houston Electric, LLC ("CenterPoint Houston" or the "Company"). I am testifying on behalf of the applicant in this proceeding, CenterPoint Houston.
- 3. CenterPoint Houston has prepared an application for authority from the Public Utility Commission of Texas ("Commission") to amend a distribution cost recovery factor (the "Application").
- 4. The Application complies with 16 Tex. Admin. Code ("TAC") § 25.243.
- 5. The distribution invested capital in the Application includes only costs (a) for plant that has been placed into service; (b) that comply with the Public Utility Regulatory Act ("PURA"), including PURA §§ 36.053 and 36.058; and (c) that are prudent, reasonable, and necessary.

6. The Application, my testimony, exhibits, schedules, and workpapers attached thereto, are true and correct to the best of my knowledge, information, and belief."

Further affiant sayeth not.

Deryl Tumlinson

SUBSCRIBED AND SWORN TO BEFORE ME on this 4 day of December 2023.

MICHAEL BURLESON
NOTARY ID #1060675-7
My Commission Expires
March 07, 2027

fotary Public in and for the State of Texas

STATE OF TEXAS COUNTY OF HARRIS

AFFIDAVIT OF JEFF W. GARMON

BEFORE ME, the undersigned authority, on this day personally appeared Jeff W. Garmon, who being by me first duly sworn, on oath, deposed and said the following:

- 1. "My name is Jeff W. Garmon. I am of sound mind and capable of making this affidavit. The facts stated herein are true and correct based on my personal knowledge.
- 2. I am Director of Regulatory Reporting for CenterPoint Energy Service Company, LLC ("CenterPoint Energy"). I am testifying on behalf of the applicant in this proceeding, CenterPoint Energy Houston Electric, LLC ("CenterPoint Houston" or the "Company").
- 3. CenterPoint Houston has prepared an application for authority from the Public Utility Commission of Texas ("Commission") to amend a distribution cost recovery factor (the "Application").
- 4. The Application complies with 16 Tex. Admin. Code ("TAC") § 25.243.
- 5. The distribution invested capital in the Application includes only costs that comply with the Public Utility Regulatory Act ("PURA"), including PURA § 36.053 and § 36.058.
- 6. The Application, my testimony, exhibits, schedules, and workpapers attached thereto, are true and correct to the best of my knowledge, information, and belief."

Further affiant sayeth not.

SUBSCRIBED AND SWORN TO BEFORE ME on this day of December 2023.

MICHAEL BURLESON

btary Public in and for the State of Texas

STATE OF TEXAS COUNTY OF HARRIS

AFFIDAVIT OF BRANDON L. GILLESPIE

BEFORE ME, the undersigned authority, on this day personally appeared Brandon L. Gillespie, who being by me first duly sworn, on oath, deposed and said the following:

- 1. "My name is Brandon L. Gillespie. I am of sound mind and capable of making this affidavit. The facts stated herein are true and correct based on my personal knowledge.
- 2. I am Manager of Regulatory and Rates for CenterPoint Energy Service Company, LLC ("CenterPoint Energy"). I am testifying on behalf of the applicant in this proceeding, CenterPoint Energy Houston Electric, LLC ("CenterPoint Houston" or the "Company").
- 3. CenterPoint Houston has prepared an application for authority from the Public Utility Commission of Texas ("Commission") to amend a distribution cost recovery factor (the "Application").
- 4. The Application complies with 16 Tex. Admin. Code ("TAC") § 25.243.
- 5. The Application, my testimony, exhibits, schedules, and workpapers attached thereto, are true and correct to the best of my knowledge, information, and belief."

Further affiant sayeth not.

Brandon L. Gillespie

SUBSCRIBED AND SWORN TO BEFORE ME on this

day of December 2023.

Notary Public in and for the State of Texas

ATTACHMENT D

DOCKET	NO.	

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§ §

8

APPLICATION OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC FOR APPROVAL TO AMEND ITS DISTRIBUTION COST RECOVERY FACTOR

PUBLIC UTILITY COMMISSION
OF TEXAS

PROTECTIVE ORDER

This Protective Order governs the use of all information deemed confidential (Protected Materials) or highly confidential (Highly Sensitive Protected Materials) filed or produced in discovery by a party in this proceeding, including information whose confidentiality is currently under dispute.

It is ORDERED that:

- 1. Designation of Protected Materials. Upon producing or filing a document, including, but not limited to, records on a computer disk or other similar electronic storage medium in this proceeding, the producing party may designate that document, or any portion of it, as confidential pursuant to this Protective Order by typing or stamping on its face "PROTECTED PURSUANT TO PROTECTIVE ORDER ISSUED IN DOCKET NO.

 _______" (or words to this effect) and consecutively Bates Stamping each page. Protected Materials and Highly Sensitive Protected Materials include the documents so designated, as well as the substance of the information contained in the documents and any description, report, summary, or statement about the substance of the information contained in the documents.
- 2. <u>Materials Excluded from Protected Materials Designation</u>. Protected Materials must not include any information or document contained in the public files of the Commission or any other federal or state agency, court, or local governmental authority subject to the Public Information Act.¹ Protected Materials also must not include documents or information which at the time of, or prior to disclosure in, a proceeding is or was public

¹ Tex. Gov't Code § 552.001-.353.

- knowledge, or which becomes public knowledge other than through disclosure in violation of this Protective Order.
- 3. <u>Reviewing Party</u>. For the purposes of this Protective Order, a "Reviewing Party" is any party to this docket.
- 4. Procedures for Designation of Protected Materials. On or before the date the Protected Materials or Highly Sensitive Protected Materials are provided to the Commission, the producing party is required to file with the Commission and deliver to each party to the proceeding a written statement, which may be in the form of an objection, indicating:

 (a) any exemptions to the Public Information Act claimed to apply to the alleged Protected Materials; (b) the reasons supporting the producing party's claim that the responsive information is exempt from public disclosure under the Public Information Act and subject to treatment as protected materials; and (c) that counsel for the producing party has reviewed the information sufficiently to state in good faith that the information is exempt from public disclosure under the Public Information Act and merits the Protected Materials designation.
- 5. Persons Permitted Access to Protected Materials. Except as otherwise provided in this Protective Order, a Reviewing Party may access Protected Materials only through its "Reviewing Representatives" who have signed the Protective Order Certification Form (see Attachment A). Reviewing Representatives of a Reviewing Party include its counsel of record in this proceeding and associated attorneys, paralegals, economists, statisticians, accountants, consultants, or other persons employed or retained by the Reviewing Party and directly engaged in this proceeding. At the request of the PUC Commissioners, copies of Protected Materials may be produced by Commission Staff. The Commissioners and their staff must be informed of the existence and coverage of this Protective Order and will observe the restrictions of the Protective Order.
- 6. <u>Highly Sensitive Protected Material Described</u>. The term "Highly Sensitive Protected Materials" is a subset of Protected Materials and refers to documents or information that a

producing party claims is of such a highly sensitive nature that making copies of such documents or information or providing access to such documents to employees of the Reviewing Party (except as specified herein) would expose a producing party to unreasonable risk of harm. Highly Sensitive Protected Materials include but are not limited to: (a) customer-specific information protected by § 32.101(c) of the Public Utility Regulatory Act;² (b) contractual information pertaining to contracts that specify that their terms are confidential or that are confidential pursuant to an order entered in litigation to which the producing party is a party; (c) market-sensitive fuel price forecasts, wholesale transactions information and/or market-sensitive marketing plans; and (d) business operations or financial information that is commercially sensitive. Documents or information so classified by a producing party must bear the designation "HIGHLY SENSITIVE PROTECTED MATERIALS PROVIDED PURSUANT TO PROTECTIVE ORDER ISSUED IN DOCKET NO. ______" (or words to this effect) and must be consecutively Bates Stamped. The provisions of this Protective Order pertaining to Protected Materials also apply to Highly Sensitive Protected Materials, except where this Protective Order provides for additional protections for Highly Sensitive Protected Materials. In particular, the procedures herein for challenging the producing party's designation of information as Protected Materials also apply to information that a producing party designates as Highly Sensitive Protected Materials.

7. Restrictions on Copying and Inspection of Highly Sensitive Protected Material.

Except as expressly provided herein, only one copy may be made of any Highly Sensitive Protected Materials except that additional copies may be made to have sufficient copies for introduction of the material into the evidentiary record if the material is to be offered for admission into the record. The Reviewing Party is required to maintain a record of all copies made of Highly Sensitive Protected Material and must send a duplicate of the

² Public Utility Regulatory Act, Tex. Util. Code §§ 11.001-66.016 (PURA).

record to the producing party when the copy or copies are made. The record must specify the location and the person possessing the copy. Highly Sensitive Protected Material must be made available for inspection only at the location or locations provided by the producing party, except as specified by Paragraph 9. Limited notes may be made of Highly Sensitive Protected Materials, and such notes must themselves be treated as Highly Sensitive Protected Materials unless such notes are limited to a description of the document and a general characterization of its subject matter in a manner that does not state any substantive information contained in the document.

Restricting Persons Who May Have Access to Highly Sensitive Protected Material.

With the exception of Commission Staff, the Office of the Attorney General (OAG),

and the Office of Public Utility Counsel (OPC), and except as provided herein, the Reviewing Representatives for the purpose of access to Highly Sensitive Protected Materials may be persons who are (a) outside counsel for the Reviewing Party, (b) outside consultants for the Reviewing Party working under the direction of Reviewing Party's counsel, or (c) employees of the Reviewing Party working with and under the direction of Reviewing Party's counsel who have been authorized by the presiding officer to review Highly Sensitive Protected Materials. The Reviewing Party must limit the number of Reviewing Representatives that review Highly Sensitive Protected Materials

to the minimum number of persons necessary. The Reviewing Party is under a good

faith obligation to limit access to each portion of any Highly Sensitive Protected Materials

to two Reviewing Representatives whenever possible. Reviewing Representatives for

Commission Staff, OAG, and OPC, for the purpose of access to Highly Sensitive

Protected Materials, must consist of their respective counsel of record in this proceeding

and associated attorneys, paralegals, economists, statisticians, accountants, consultants,

or other persons employed or retained by them and directly engaged in these proceedings.

8.

9. <u>Copies Provided of Highly Sensitive Protected Material</u>. A producing party is required to provide one copy of Highly Sensitive Protected Materials specifically requested by

the Reviewing Party to the person designated by the Reviewing Party who must be a person authorized to review Highly Sensitive Protected Material under Paragraph 8. Representatives of the Reviewing Party who are authorized to view Highly Sensitive Protected Material may review the copy of Highly Sensitive Protected Materials at the office of the Reviewing Party's representative designated to receive the information. Any Highly Sensitive Protected Materials provided to a Reviewing Party may not be copied except as provided in Paragraph 7. The restrictions contained herein do not apply to Commission Staff, OPC, and the OAG when the OAG is a representing a party to the proceeding.

- 10. Procedures in Paragraphs 10-14 Apply to Commission Staff, OPC, and the OAG and Control in the Event of Conflict. The procedures in Paragraphs 10 through 14 apply to responses to requests for documents or information that the producing party designates as Highly Sensitive Protected Materials and provides to Commission Staff, OPC, and the OAG in recognition of their purely public functions. To the extent the requirements of Paragraphs 10 through 14 conflict with any requirements contained in other paragraphs of this Protective Order, the requirements of these Paragraphs control.
- OPC and the OAG. When, in response to a request for information by a Reviewing Party, the producing party makes available for review documents or information claimed to be Highly Sensitive Protected Materials, the producing party is required to also deliver one copy of the Highly Sensitive Protected Materials to the Commission Staff, OPC (if OPC is a party), and the OAG (if the OAG is representing a party) in Austin, Texas. Provided however, that in the event such Highly Sensitive Protected Materials are voluminous, the materials will be made available for review by Commission Staff, OPC (if OPC is a party), and the OAG (if the OAG is representing a party) at the designated office in Austin, Texas. The Commission Staff, OPC (if OPC is a party) and the OAG (if the OAG is representing a party) may request such copies as are necessary of such

voluminous material under the copying procedures specified herein.

- 12. Delivery of the Copy of Highly Sensitive Protected Material to Commission Staff and Outside Consultants. The Commission Staff, OPC (if OPC is a party), and the OAG (if the OAG is representing a party) may deliver the copy of Highly Sensitive Protected Materials received by them to the appropriate members of their staff for review, provided such staff members first sign the certification specified by Paragraph 15. After obtaining the agreement of the producing party, Commission Staff, OPC (if OPC is a party), and the OAG (if the OAG is representing a party) may deliver the copy of Highly Sensitive Protected Materials received by it to the agreed, appropriate members of their outside consultants for review, provided such outside consultants first sign the certification in Attachment A.
- 13. Restriction on Copying by Commission Staff, OPC and the OAG. Except as allowed by Paragraph 7, Commission Staff, OPC and the OAG may not make additional copies of the Highly Sensitive Protected Materials furnished to them unless the producing party agrees in writing otherwise, or, upon a showing of good cause, the presiding officer directs otherwise. Commission Staff, OPC, and the OAG may make limited notes of Highly Sensitive Protected Materials furnished to them, and all such handwritten notes will be treated as Highly Sensitive Protected Materials as are the materials from which the notes are taken.
- 14. Public Information Requests. In the event of a request for any of the Highly Sensitive Protected Materials under the Public Information Act, an authorized representative of the Commission, OPC, or the OAG may furnish a copy of the requested Highly Sensitive Protected Materials to the Open Records Division at the OAG together with a copy of this Protective Order after notifying the producing party that such documents are being furnished to the OAG. Such notification may be provided simultaneously with the delivery of the Highly Sensitive Protected Materials to the OAG.
- 15. Required Certification. Each person who inspects the Protected Materials must, before

such inspection, agree in writing to the following certification found in Attachment A to this Protective Order:

I certify my understanding that the Protected Materials are provided to me pursuant to the terms and restrictions of the Protective Order in this docket, and that I have been given a copy of it and have read the Protective Order and agree to be bound by it. I understand that the contents of the Protected Materials, any notes, memoranda, or any other form of information regarding or derived from the Protected Materials must not be disclosed to anyone other than in accordance with the Protective Order and unless I am an employee of the Commission or OPC will be used only for the purpose of the proceeding in Docket No. _____. I acknowledge that the obligations imposed by this certification are pursuant to such Protective Order. Provided, however, if the information contained in the Protected Materials is obtained from independent public sources, the understanding stated herein must not apply.

In addition, Reviewing Representatives who are permitted access to Highly Sensitive Protected Material under the terms of this Protective Order must, before inspection of such material, agree in writing to the following certification found in Attachment A to this Protective Order:

I certify that I am eligible to have access to Highly Sensitive Protected Material under the terms of the Protective Order in this docket.

The Reviewing Party is required to provide a copy of each signed certification to Counsel for the producing party and serve a copy upon all parties of record.

Pisclosures between Reviewing Representatives and Continuation of Disclosure Restrictions after a Person is no Longer Engaged in the Proceeding. Any Reviewing Representative may disclose Protected Materials, other than Highly Sensitive Protected Materials, to any other person who is a Reviewing Representative provided that, if the person to whom disclosure is to be made has not executed and provided for delivery of a signed certification to the party asserting confidentiality, that certification must be executed prior to any disclosure. A Reviewing Representative may disclose Highly Sensitive Protected Material to other Reviewing Representatives who are permitted access to such material and have executed the additional certification required for persons who receive

access to Highly Sensitive Protected Material. In the event that any Reviewing Representative to whom Protected Materials are disclosed ceases to be engaged in these proceedings, access to Protected Materials by that person must be terminated and all notes, memoranda, or other information derived from the protected material must either be destroyed or given to another Reviewing Representative of that party who is authorized pursuant to this Protective Order to receive the protected materials. Any person who has agreed to the foregoing certification is required to continue to be bound by the provisions of this Protective Order so long as it is in effect, even if no longer engaged in these proceedings.

- Producing Party to Provide One Copy of Certain Protected Material and Procedures for Making Additional Copies of Such Materials. Except for Highly Sensitive Protected Materials, which must be provided to the Reviewing Parties under Paragraph 9, and voluminous Protected Materials, the producing party is required to provide a Reviewing Party one copy of the Protected Materials upon receipt of the signed certification described in Paragraph 15. Except for Highly Sensitive Protected Materials, a Reviewing Party may make further copies of Protected Materials for use in this proceeding according to this Protective Order, but a record must be maintained as to the documents reproduced and the number of copies made, and upon request the Reviewing Party is required to provide the party asserting confidentiality with a copy of that record.
- Procedures Regarding Voluminous Protected Materials. 16 Texas Administrative Code (TAC) § 22.144(h) will govern production of voluminous Protected Materials. Voluminous Protected Materials will be made available in the producing party's voluminous room, in Austin, Texas, or at a mutually agreed upon location, Monday through Friday, 9:00 a.m. to 5:00 p.m. (except on state or Federal holidays), and at other mutually convenient times upon reasonable request.
- 19. <u>Reviewing Period Defined</u>. The Protected Materials may be reviewed only during the Reviewing Period, which will commence upon entry of this Protective Order and continue

until the expiration of the Commission's plenary jurisdiction. The Reviewing Period will reopen if the Commission regains jurisdiction due to a remand as provided by law. Protected materials that are admitted into the evidentiary record or accompanying the evidentiary record as offers of proof may be reviewed throughout the pendency of this proceeding and any appeals.

- 20. Procedures for Making Copies of Voluminous Protected Materials. Other than Highly Sensitive Protected Materials, Reviewing Parties may take notes regarding the information contained in voluminous Protected Materials made available for inspection or they may make photographic, mechanical or electronic copies of the Protected Materials, subject to the conditions in this Protective Order; provided, however, that before photographic, mechanical or electronic copies may be made, the Reviewing Party seeking photographic, mechanical or electronic copies must provide written confirmation of the receipt of copies listed on Attachment B of this Protective Order identifying each piece of Protected Materials or portions thereof the Reviewing Party will need.
- 21. Protected Materials to be Used Solely for the Purposes of These Proceedings.

 All Protected Materials must be made available to the Reviewing Parties and their Reviewing Representatives solely for the purposes of these proceedings. Access to the Protected Materials may not be used in the furtherance of any other purpose, including, without limitation: (a) any other pending or potential proceeding involving any claim, complaint, or other grievance of whatever nature, except appellate review proceedings that may arise from or be subject to these proceedings; or (b) any business or competitive endeavor of whatever nature. Because of their statutory regulatory obligations, these restrictions do not apply to Commission Staff or OPC.
- 22. Procedures for Confidential Treatment of Protected Materials and Information Derived from Those Materials. Protected Materials, as well as a Reviewing Party's notes, memoranda, or other information regarding or derived from the Protected Materials are to be treated confidentially by the Reviewing Party and must not be disclosed or used

by the Reviewing Party except as permitted and provided in this Protective Order. Information derived from or describing the Protected Materials must be maintained in a secure place and must not be placed in the public or general files of the Reviewing Party except in accordance with the provisions of this Protective Order. A Reviewing Party must take all reasonable precautions to insure that the Protected Materials including notes and analyses made from Protected Materials that disclose Protected Materials are not viewed or taken by any person other than a Reviewing Representative of a Reviewing Party.

- Procedures for Submission of Protected Materials. If a Reviewing Party tenders for 23. filing any Protected Materials, including Highly Sensitive Protected Materials, or any written testimony, exhibit, brief, motion or other type of pleading or other submission at the Commission or before any other judicial body that quotes from Protected Materials or discloses the content of Protected Materials, the confidential portion of such submission must be filed and served in sealed envelopes or other appropriate containers endorsed to the effect that they contain Protected Material or Highly Sensitive Protected Material and are sealed pursuant to this Protective Order. If filed at the Commission, such documents must be marked "PROTECTED MATERIAL" and must be filed under seal with the presiding officer and served under seal to the counsel of record for the Reviewing Parties. The presiding officer may subsequently, on his/her own motion or on motion of a party, issue a ruling respecting whether or not the inclusion, incorporation or reference to Protected Materials is such that such submission should remain under seal. If filing before a judicial body, the filing party: (a) must notify the party which provided the information within sufficient time so that the producing party may seek a temporary sealing order; and (b) must otherwise follow the procedures in Rule 76a, Texas Rules of Civil Procedure.
- 24. Maintenance of Protected Status of Materials during Pendency of Appeal of Order Holding Materials are not Protected Materials. In the event that the presiding officer at any time in the course of this proceeding finds that all or part of the Protected Materials

are not confidential or proprietary, by finding, for example, that such materials have entered the public domain or materials claimed to be Highly Sensitive Protected Materials are only Protected Materials, those materials will nevertheless be subject to the protection afforded by this Protective Order for three (3) full working days, unless otherwise ordered, from the date the party asserting confidentiality receives notice of the presiding officer's order. Such notification will be by written communication. This provision establishes a deadline for appeal of a presiding officer's order to the Commission. In the event an appeal to the Commissioners is filed within those three (3) working days from notice, the Protected Materials must be afforded the confidential treatment and status provided in this Protective Order during the pendency of such appeal. Neither the party asserting confidentiality nor any Reviewing Party waives its right to seek additional administrative or judicial remedies after the Commission's denial of any appeal.

- 25. Notice of Intent to Use Protected Materials or Change Materials Designation. Parties intending to use Protected Materials must notify the other parties prior to offering them into evidence or otherwise disclosing such information into the record of the proceeding. During the pendency of Docket No. _____ at the Commission, in the event that a Reviewing Party wishes to disclose Protected Materials to any person to whom disclosure is not authorized by this Protective Order, or wishes to have changed the designation of certain information or material as Protected Materials by alleging, for example, that such information or material has entered the public domain, such Reviewing Party must first file and serve on all parties written notice of such proposed disclosure or request for change in designation, identifying with particularity each of such Protected Materials. A Reviewing Party will at any time be able to file a written motion to challenge the designation of information as Protected Materials.
- 26. Procedures to Contest Disclosure or Change in Designation. In the event that the party asserting confidentiality wishes to contest a proposed disclosure or request for change in designation, the party asserting confidentiality must file with the appropriate presiding

officer its objection to a proposal, with supporting affidavits, if any, within five (5) working days after receiving such notice of proposed disclosure or change in designation. Failure of the party asserting confidentiality to file such an objection within this period will be deemed a waiver of objection to the proposed disclosure or request for change in designation. Within five (5) working days after the party asserting confidentiality files its objection and supporting materials, the party challenging confidentiality may respond. Any such response must include a statement by counsel for the party challenging such confidentiality that he or she has reviewed all portions of the materials in dispute and, without disclosing the Protected Materials, a statement as to why the Protected Materials should not be held to be confidential under current legal standards, or that the party asserting confidentiality for some reason did not allow such counsel to review such materials. If either party wishes to submit the material in question for in camera inspection, it must do so no later than five (5) working days after the party challenging confidentiality has made its written filing.

- 27. Procedures for Presiding Officer Determination Regarding Proposed Disclosure or Change in Designation. If the party asserting confidentiality files an objection, the appropriate presiding officer will determine whether the proposed disclosure or change in designation is appropriate. Upon the request of either the producing or Reviewing Party or upon the presiding officer's own initiative, the presiding officer may conduct a prehearing conference. The burden is on the party asserting confidentiality to show that such proposed disclosure or change in designation should not be made. If the presiding officer determines that such proposed disclosure or change in designation should be made, disclosure must not take place earlier than three (3) full working days after such determination unless otherwise ordered. No party waives any right to seek additional administrative or judicial remedies concerning such presiding officer's ruling.
- 28. <u>Maintenance of Protected Status during Periods Specified for Challenging Various</u>
 Orders. Any party electing to challenge, in the courts of this state, a Commission or

presiding officer determination allowing disclosure or a change in designation will have a period of ten (10) days from: (a) the date of an unfavorable Commission order; or (b) if the Commission does not rule on an appeal of an interim order, the date an appeal of an interim order to the Commission is overruled by operation of law, to obtain a favorable ruling in state district court. Any party challenging a state district court determination allowing disclosure or a change in designation will have an additional period of ten (10) days from the date of the order to obtain a favorable ruling from a state appeals court. Finally, any party challenging a determination of a state appeals court allowing disclosure or a change in designation will have an additional period of ten (10) days from the date of the order to obtain a favorable ruling from the state supreme court, or other appellate court. All Protected Materials must be afforded the confidential treatment and status provided for in this Protective Order during the periods for challenging the various orders referenced in this paragraph. For purposes of this paragraph, a favorable ruling of a state district court, state appeals court, Supreme Court or other appellate court includes any order extending the deadlines in this paragraph.

- 29. Other Grounds for Objection to Use of Protected Materials Remain Applicable.

 Nothing in this Protective Order precludes any party from objecting to the use of Protected Materials on grounds other than confidentiality, including the lack of required relevance. Nothing in this Protective Order constitutes a waiver of the right to argue for more disclosure, provided, however, that unless the Commission or a court orders such additional disclosure, all parties will abide by the restrictions imposed by the Protective Order.
- 30. <u>Protection of Materials from Unauthorized Disclosure</u>. All notices, applications, responses or other correspondence must be made in a manner which protects Protected Materials from unauthorized disclosure.
- 31. Return of Copies of Protected Materials and Destruction of Information Derived from Protected Materials. Following the conclusion of these proceedings, each

Reviewing Party must, no later than thirty (30) days following receipt of the notice described below, return to the party asserting confidentiality all copies of the Protected Materials provided by that party pursuant to this Protective Order and all copies reproduced by a Reviewing Party, and counsel for each Reviewing Party must provide to the party asserting confidentiality a letter by counsel that, to the best of his or her knowledge, information, and belief, all copies of notes, memoranda, and other documents regarding or derived from the Protected Materials (including copies of Protected Materials) that have not been so returned, if any, have been destroyed, other than notes, memoranda, or other documents which contain information in a form which, if made public, would not cause disclosure of the substance of Protected Materials. As used in this Protective Order, "conclusion of these proceedings" refers to the exhaustion of available appeals, or the running of the time for the making of such appeals, as provided by applicable law. If, following any appeal, the Commission conducts a remand proceeding, then the "conclusion of these proceedings" is extended by the remand to the exhaustion of available appeals of the remand, or the running of the time for making such appeals of the remand, as provided by applicable law. Promptly following the conclusion of these proceedings, counsel for the party asserting confidentiality will send a written notice to all other parties, reminding them of their obligations under this Paragraph. Nothing in this Paragraph prohibits counsel for each Reviewing Party from retaining two (2) copies of any filed testimony, brief, application for rehearing, hearing exhibit or other pleading which refers to Protected Materials provided that any such Protected Materials retained by counsel will remain subject to the provisions of this Protective Order.

32. Applicability of Other Law. This Protective Order is subject to the requirements of the Public Information Act, the Open Meetings Act,³ the Texas Securities Act⁴ and any

³ Tex. Gov't Code § 551.001-.146.

⁴ Tex. Rev. Civ. Stat. Ann. arts. 581-1 to 581-43.

other applicable law, provided that parties subject to those acts will notify the party asserting confidentiality, if possible under those acts, prior to disclosure pursuant to those acts. Such notice is not required where the Protected Materials are sought by governmental officials authorized to conduct a criminal or civil investigation that relates to or involves the Protected Materials, and those governmental officials aver in writing that such notice could compromise the investigation and that the governmental entity involved will maintain the confidentiality of the Protected Materials.

- Procedures for Release of Information under Order. If required by order of a 33. governmental or judicial body, the Reviewing Party may release to such body the confidential information required by such order; provided, however, that: (a) Reviewing Party must notify the producing party of the order requiring the release of such information within five (5) calendar days of the date the Reviewing Party has notice of the order; (b) the Reviewing Party must notify the producing party at least five (5) calendar days in advance of the release of the information to allow the producing party to contest any release of the confidential information; and (c) the Reviewing Party must use its best efforts to prevent such materials from being disclosed to the public. The terms of this Protective Order do not preclude the Reviewing Party from complying with any valid and enforceable order of a state or federal court with competent jurisdiction specifically requiring disclosure of Protected Materials earlier than contemplated herein. The notice specified in this section is not required where the Protected Materials are sought by governmental officials authorized to conduct a criminal or civil investigation that relates to or involves the Protected Materials, and those governmental officials aver in writing that such notice could compromise the investigation and that the governmental entity involved will maintain the confidentiality of the Protected Materials.
- 34. <u>Best Efforts Defined</u>. The term "best efforts" as used in the preceding paragraph requires that the Reviewing Party attempt to ensure that disclosure is not made unless such disclosure is pursuant to a final order of a Texas governmental or Texas judicial body,

the written opinion of the Texas Attorney General sought in compliance with the Public Information Act, or the request of governmental officials authorized to conduct a criminal or civil investigation that relates to or involves the Protected Materials. The Reviewing Party is not required to delay compliance with a lawful order to disclose such information but is simply required to timely notify the party asserting confidentiality, or its counsel, that it has received a challenge to the confidentiality of the information and that the Reviewing Party will either proceed under the provisions of §552.301 of the Public Information Act, or intends to comply with the final governmental or court order. Provided, however, that no notice is required where the Protected Materials are sought by governmental officials authorized to conduct a criminal or civil investigation that relates to or involves the Protected Materials, and those governmental officials aver in writing that such notice could compromise the investigation and that the governmental entity involved will maintain the confidentiality of the Protected Materials.

- 35. <u>Notify Defined</u>. "Notify" for purposes of Paragraphs 32, 33 and 34 means written notice to the party asserting confidentiality at least five (5) calendar days prior to release; including when a Reviewing Party receives a request under the Public Information Act. However, the Commission, OAG, or OPC may provide a copy of Protected Materials to the Open Records Division of the OAG as provided herein.
- 36. Requests for Non-Disclosure. If the producing party asserts that the requested information should not be disclosed at all, or should not be disclosed to certain parties under the protection afforded by this Protective Order, the producing party must tender the information for in camera review to the presiding officer within ten (10) calendar days of the request. At the same time, the producing party is required to file and serve on all parties its argument, including any supporting affidavits, in support of its position of non-disclosure. The burden is on the producing party to establish that the material should not be disclosed. The producing party must serve a copy of the information under the classification of Highly Sensitive Protected Material to all parties requesting the

information that the producing party has not alleged should be prohibited from reviewing the information.

Parties wishing to respond to the producing party's argument for non-disclosure must do so within five working days. Responding parties should explain why the information should be disclosed to them, including why disclosure is necessary for a fair adjudication of the case if the material is determined to constitute a trade secret. If the presiding officer finds that the information should be disclosed as Protected Material under the terms of this Protective Order, the presiding officer will stay the order of disclosure for such period of time as the presiding officer deems necessary to allow the producing party to appeal the ruling to the Commission.

- 37. Sanctions Available for Abuse of Designation. If the presiding officer finds that a producing party unreasonably designated material as Protected Material or as Highly Sensitive Protected Material, or unreasonably attempted to prevent disclosure pursuant to Paragraph 36, the presiding officer may sanction the producing party pursuant to 16 TAC § 22. 161.
- 38. <u>Modification of Protective Order</u>. Each party will have the right to seek changes in this Protective Order as appropriate from the presiding officer.
- Order, the producing party, if it sustains its burden of proof required to establish the right to injunctive relief, will be entitled to an injunction against such breach without any requirements to post bond as a condition of such relief. The producing party will not be relieved of proof of any element required to establish the right to injunctive relief. In addition to injunctive relief, the producing party will be entitled to pursue any other form of relief to which it is entitled.

ATTACHMENT A

Protective Order Certification

I certify my understanding that the Pr	rotected Materials are provided to me pursuant to the
terms and restrictions of the Protective Orde	er in this docket and that I have received a copy of it
and have read the Protective Order and agree	e to be bound by it. I understand that the contents of
the Protected Materials, any notes, memora	anda, or any other form of information regarding or
derived from the Protected Materials must no	t be disclosed to anyone other than in accordance with
the Protective Order and unless I am an empl	oyee of the Commission or OPC will be used only for
the purpose of the proceeding in Docket No.	I acknowledge that the obligations imposed
	tective Order. Provided, however, if the information
contained in the Protected Materials is	obtained from independent public sources, the
understanding stated here will not apply.	
Signature	Party Represented
Printed Name	Date
Timeditane	5 me
Legrify that I am eligible to have access to E	Highly Sensitive Protected Material under the terms of
the Protective Order in this docket.	11811, 201121, 01, 1000000 111001111 011001 011001 011001
the Freedrice Oxact at this doubt.	
Signature	Party Represented
Printed Name	Date

ATTACHMENT B

I request to view/copy the following documents:

Document Requested	# of Copies	Non-Confidential	Protected Materials and/or Highly Sensitive Protected Materials
Signature		Party Represented	
Printed Name		Date	

APPLICATION OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC FOR APPROVAL TO AMEND ITS	80 80 80	PUBLIC UTILITY COMMISSION OF TEXAS
DISTRIBUTION COST RECOVERY FACTOR	8 § 8	OF TEXAS

DOCKET NO.

DIRECT TESTIMONY OF DERYL TUMLINSON

FOR

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

December 14, 2023

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TABLE OF EXHIBITS AND WORKPAPERS

Exhibits	<u>Description</u>
Exhibit DT-1	Summary of Distribution Plant Investment
	January 2019-September 2023
Exhibit DT-2	Capital System Improvement Reliability
	Programs
Exhibit DT-3	January-September 2023 Distribution Plant
	Projects Greater Than \$100,000
Exhibit DT-4	2022 Distribution Plant Projects Greater Than
	\$100,000
Exhibit DT-5	2021 Distribution Plant Projects Greater Than
	\$100,000
Exhibit DT-6	2020 Distribution Plant Projects Greater Than
	\$100,000
Exhibit DT-7	2019 Distribution Plant Projects Greater Than
	\$100,000
Exhibit DT-8	Distribution Technology Asset Projects Jan
	2019- September 2023
Exhibit DT-9	SAP Basics Training for Service Consultants

Workpapers	
(as provided in DCRF-RFP	D. minden
Workpapers)	<u>Description</u>
WP comp3 trans det Sept 2023 YTD	Workpaper to Exhibit DT-3
DCRF	
WP comp3 trans det Jan-Dec 2022 DCRF	Workpaper to Exhibit DT-4
WP comp3 trans det Jan-Dec 2021 DCRF	Workpaper to Exhibit DT-5
WP comp3 trans det Jan-Dec 2020 DCRF	Workpaper to Exhibit DT-6
WP comp3 trans det Jan-Dec 2019 DCRF	Workpaper to Exhibit DT-7

1		DIRECT TESTIMONY OF DERYL TUMLINSON
2		I. <u>INTRODUCTION</u>
3	Q.	PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.
4	A,	My name is Deryl Tumlinson. I am the Vice President of Distribution Operations
5		and Service Delivery for CenterPoint Energy Houston Electric, LLC ("CenterPoint
6		Houston," "CEHE," or the "Company"). My business address is 1111 Louisiana
7		St., Houston, Texas 77002.
8	Q.	PLEASE TELL US ABOUT YOUR EDUCATIONAL BACKGROUND AND
9		WORK EXPERIENCE.
10	A.	I graduated from LeTourneau University in 2000 with a bachelor's degree in
11		business administration. I began my career with Houston Lighting & Power, a
12		CenterPoint Energy, Inc. ("CNP") predecessor company, in August 1983. Since
13		that time, I have been employed by CNP or one of its affiliates. My positions within
14		the Company have included Power Plant Operator, Service Consultant, Service
15		Area Supervisor, Service Area Director, Business Transformation Director, Major
16		Underground Operations Director, and Regional Operations Director. I was named
17		to my present position in March 2023, at which time I assumed responsibility for
18		electric distribution operations in the state of Texas.
19	Q.	WHAT ARE YOUR CURRENT RESPONSIBILITIES?
20	A.	As Vice President of Distribution Operations and Service Delivery, my
21		responsibilities include overseeing electric distribution operations for the entire
22		greater Houston area, which covers approximately 5,000 square miles and delivers
23		electricity to approximately 2.75 million metered customers.

1	Q.	ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?
2	A.	I am testifying on behalf of CenterPoint Houston.
3	Q.	HAVE YOU TESTIFIED PREVIOUSLY?
4	A.	Yes. I have filed testimony with CenterPoint Houston's Advanced Metering
5		System ("AMS") Reconciliation Filing with the Public Utility Commission of
6		Texas ("Commission") in Docket Nos. 38339, 42084, and 47364.
7	Q.	AS A RESULT OF YOUR WORK EXPERIENCE AND
8		RESPONSIBILITIES, ARE YOU FAMILIAR WITH THE VARIOUS
9		TYPES OF DISTRIBUTION-RELATED CAPITAL PROJECTS THAT THE
10		COMPANY HAS IDENTIFIED FOR RECOVERY IN THIS FILING?
11	A.	Yes, I am.
12		II. PURPOSE OF TESTIMONY
13	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
14	Λ.	The purpose of my testimony is to sponsor the distribution invested capital included
15		in the Company's Distribution Cost Recovery Factor ("DCRF") Application. In
16		addition, I affirm that the capital investment included in this filing has been placed
17		in service, is used and useful, that this investment was prudently incurred and is
18		reasonable and necessary for the Company's distribution system operations used to
19		provide service to customers. I also describe how the Company's commitment to
20		making necessary investments in its distribution system benefits customers and

supports reliability and resiliency efforts.

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1	Q.	WHAT EXHIBITS HAVE YOU INCLUDED WITH YOUR TESTIMONY?
2	A.	I have prepared or supervised the preparation of the exhibits listed in the table of
3		contents.
4	Q.	ARE ANY OTHER COMPANY WITNESSES PROVIDING DIRECT
5		TESTIMONY IN THIS DOCKET?
6	A.	Yes. Company witnesses Jeff W. Garmon and Brandon L. Gillespie sponsor the
7		various schedules, the calculation of the revenue requirement and the proposed
8		rates for the DCRF.
9		III. <u>OVERVIEW</u>
0	Q.	PLEASE PROVIDE CONTEXT FOR ISSUES FACED BY THE COMPANY
1		AS IT MAKES DISTRIBUTION CAPITAL INVESTMENT DECISIONS
2		RELATED TO THE COSTS THE COMPANY SEEKS TO RECOVER IN
13		THIS PROCEEDING.
4	A.	As the Company noted in the DCRF filing it made in April 2023, as a transmission
5		and distribution utility, CenterPoint Houston has never been busier. Each day, the
16		Company is focused on ensuring reliable electric service to customers in one of the
17		largest cities in the country, while also keeping pace with annual customer growth
8		at a rate of approximately 2.2% from 2019 through 2022, and growth is expected
19		to continue. CenterPoint Houston's metered customers have grown from
20		approximately 2.5 million residential and commercial customers in 2019 to over
21		2.75 million customers today. To put the impact of that growth in perspective, the
22		total length of the Company's overhead and underground lines was approximately

¹ Docket No. 54825, Application of CenterPoint Energy Houston Electric LLC to Amend its Distribution Cost Recovery Factor.

21,000 miles when CenterPoint Houston's rates were examined in 2010 by the Commission in Docket No. 38339. Today, the total mileage of CenterPoint Houston's overhead and underground lines is approximately 58,000 miles—meaning that the Company's system has nearly tripled in size in just 13 years.

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This growth is obviously outstanding for the state of Texas and the greater Houston area, which is an economic lynchpin in Texas. The Company is also keenly aware of the role it plays in the broader Texas economy. The service provided by the Company enriches the communities it serves throughout Texas and enables millions of homes and businesses to function. CenterPoint Houston is proud to be a partner in that growth and to this end, over the coming years, the Company expects that over one-third of its capital investment will be needed to address system growth and another one-third of its capital investment will be necessary to address reliability needs related to replacing aging infrastructure and extending the useful lives of existing assets. The Company's proactive measures to enhance its distribution system with new engineering standards also continue, which I will address further below. In making these investment decisions, the Company remains focused on achieving faster service restoration response times, better ways to serve customers during extreme outage events and enhanced security and safety.

As noted in the April 2023 DCRF filing (Docket No. 54825), CenterPoint Houston continues to make investments in its system and related operational decisions at a time of high expectations—from customers who expect reliable service and prompt restoration if there are outages; from local and statewide

regulators who count on the Company to meet its obligations to provide that service; and from policymakers who have implemented and are currently considering new requirements for utilities in terms of system hardening and reliability measures. In the midst of that environment, the Company must also deal with inflationary pressures, supply chain constraints, inventory shortages and long-lead times on equipment that used to be more readily available. Despite these circumstances, the Company must continue to attract the capital it needs to fund necessary investment in its distribution system even when interest rates are increasing. In short, many financial issues that are outside of the Company's control are also affecting the Company's capital investment needs.

Q. WHAT DISTRIBUTION PROJECTS ARE UNDERWAY THAT HELP THE

COMPANY MEET THE RELIABILITY, RESILIENCY AND SERVICE

RESTORATION GOALS?

A.

The Company continues to be engaged in a Distribution Grid Resiliency Program that focuses on new engineering standards for the design and construction of distribution poles to meet a stronger standard, reducing the impact of catastrophic weather events. The Company is using stronger structures to meet its enhanced windspeed standard, such as upgraded wood, fiberglass and iron poles, for new distribution pole installations and to replace existing facilities. So far in 2023, the Company has completed resiliency upgrades on 78 circuits and has installed nearly 29,000 poles throughout its service territory that meet the Company's enhanced windspeed standard. By following these engineering standards, the Company is proactively increasing the overall resiliency of its distribution system.

The Company also continues its Strategic Undergrounding Program, which includes converting limited access freeway crossings from overhead to underground. In most situations, these limited access freeway crossings require significantly taller structures to provide the necessary clearances above the roadway, making these facilities more susceptible to lightning strikes and inclement weather impacts. Burying these conductors below the roadway not only reduces the potential impact of severe weather on the Company's distribution system, but also eliminates the possibility of these conductors falling across the roadway and impeding traffic activity.

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Α.

CenterPoint Houston is also configuring its distribution lines using Intelligent Grid Switching Devices ("IGSDs") to facilitate load shed during future load-shed or outage events. In addition, the Company continues to implement a variety of proactive measures focused on identifying issues on the system that can be addressed now to provide greater reliability in the future, including the Underground Residential Distribution ("URD") Cable Life Extension Program, the Infra-Red Program and Hot Fuse Program, which I explain further below. Through these efforts, the Company is positioning itself to respond more efficiently to customer outages, rotate outages as needed and restore power promptly.

Q. HAVE THESE EFFORTS LED TO IMPROVEMENTS IN SERVICE TO CUSTOMERS?

Yes. The Company can estimate the time it would have taken to restore power had it not been able to use automated systems that are part of distribution capital investment such as power line monitoring equipment, remote switches and other

	equipment that will locate and isolate outages as they occur. From January 1, 2023
	to September 30, 2023, the automated systems the Company installed saved
	customers 78 million minutes of outage time. In other words, without the
	Company's automation efforts, customers would have experienced over 78 million
	more outage minutes than they actually did. Notably, in 2022, the Company's
	automation efforts saved customers over 55 million minutes of outage time, which
	means the Company's investment in these systems is improving customer service.
Q.	HOW HAVE THE COMPANY'S INVESTMENT AND OPERATIONAL
	DECISIONS AFFECTED RATES FOR CUSTOMERS IN RECENT
	YEARS?
A.	As noted in the testimony of Mr. Gillespie, the Company's rates have remained
	reasonable and will continue to be reasonable even with an incremental increase in
	the DCRF rate in February 2024. Since 2019, several securitization charges have
	terminated during the time DCRF rates have been implemented. By 2024,
	customers will experience a reduction of approximately \$6.40 per month due to the
	retirement of three securitization charges related to the transition to competition
	and one securitization charge for Hurricane Ike storm restoration costs. To put that
	in perspective, the DCRF rate that the Company is currently charging is
	approximately \$2.67 per month and the requested rate in this case is \$4.20 per
	month, for a residential customer using 1,000 kWh. Mr. Gillespie addresses these

issues in more detail in his testimony.

1	Q.	ARE THERE ASPECTS OF THE SETTLEMENT AGREEMENT THE
2		COMMISSION APPROVED IN DOCKET NO. 53442 RELATED TO THE
3		DCRF PORTION OF THE CASE THAT AFFECT THIS DCRF FILING?
4	A.	Yes. In each of the Company's prior DCRF proceedings, parties have been able to
5		compromise and reach a settlement. That is due, in large part, to the fact that the
6		distribution investment presented in a DCRF proceeding is not controversial and is
7		presented consistent with the Commission's DCRF Rule and Form Instructions.
8		There have been historically, however, discrete issues on which the parties do not
9		always agree. For this reason, the settlement agreements in prior DCRF
10		proceedings reflect the Company's commitment and willingness to compromise to
11		reduce issues in dispute. Specifically, in Docket No. 53442, the Company agreed
12		to remove capitalized costs related to certain types of incentive pay and capitalized
13		costs related to the accounting changes presented in Docket No. 53442. As
14		discussed in more detail by Mr. Garmon, the Company has complied in this case
15		with those aspects of the settlement in Docket No. 53442.
16 17		IV. <u>DISTRIBUTION-RELATED CAPITAL ADDITIONS</u> <u>INCLUDED IN THE COMPANY'S DCRF FILING</u>
18	Q.	PLEASE DESCRIBE CENTERPOINT HOUSTON'S DISTRIBUTION
19		SYSTEM.
20	A.	CenterPoint Houston is a transmission and distribution utility that operates solely
21		within the Electric Reliability Council of Texas ("ERCOT") power region. The
22		Company's distribution system covers approximately 5,000 square miles located in
23		and around Houston, Texas and is comprised of approximately 58,000 miles of
24		overhead and underground distribution lines. The Company's electric distribution

1		system includes conductors, equipment and substations operating at voltages less
2		than 35 kV.
3	Q.	HAVE ANY EVENTS IMPACTED THE COMPANY'S SYSTEM AND ITS
4		NEED FOR DISTRIBUTION CAPITAL INVESTMENT SINCE THE
5		PRIOR DCRF PROCEEDING, DOCKET NO. 54825?
6	A.	Yes, in addition to the typical factors that drive distribution capital investment,
7		significant weather events affect the Company's service area every year. On
8		January 24, 2023, an F3 tornado with estimated peak winds of 140 mph impacted
9		the South Houston and Baytown areas the Company serves and caused significant
10		damage. The Company responded quickly and opened the Pasadena Fairgrounds to
11		bring in 234 off-site contractors with distribution line skills to accelerate
12		restoration. The off-site contractors worked from January 25th to 27th, and Company
13		crews and on-site contractors performed final restoration over the weekend and
14		thereafter resumed normal activities.
15		On June 21, 2023, the Company experienced another significant weather
16		event. Sustained winds as high as 60 miles per hour were recorded and a
17		record-high 97 mph wind gust occurred at Bush Intercontinental Airport around 9
. 18		p.m., ² which tops the previous record of 82 mph during Hurricane Ike in 2008.
19		Again, the Company responded quickly and brought in 139 off-site distribution line
20		workers with specialized skills to supplement internal and on-site contract crews to
21		assist with the restoration, primarily in the Cypress, Humble and Greenspoint areas

 $^{^2}$ 97 MPH wind gust at Intercontinental as summer storm knocks out power across Houston region – Houston Public Media.

1		of the Company's service area. The external crews worked diligently from June
2		22 nd through the 25 th .
3		Most recently in August 2023, a heat wave created a significant number of
4		outages due to transformer failures. The Company experienced 452 URD failures,
5		compared to 182 in 2022 and 156 in 2021. This exponential increase in failures
6		challenged Distribution Operations and required additional capital investment to
7		make all necessary repairs.
8	Q.	WHAT FACTORS GENERALLY DRIVE THE COMPANY'S
9		DISTRIBUTION CAPITAL INVESTMENTS?
10	A.	As has been the case for a few years, the major factors necessitating distribution
11		capital investments fall into the categories of load growth, system improvements
12		for reliability, service restoration, relocations for public improvements, smart grid
13		investments, and general equipment for operations support investments associated
14		with the replacement of equipment and facilities that have either deteriorated or
15		reached the end of their useful lives. These costs by category are identified in
16		Exhibit DT-1.
17	Q.	CAN YOU PROVIDE SOME EXAMPLES OF CAPITAL INVESTMENT
18		DRIVEN BY LOAD GROWTH?
19	A.	Capital investments driven by load growth include distribution development
20		projects, such as new overhead and underground distribution circuits, line
21		extensions, the reconfiguration of existing circuits to shift load and manage
22		capacity, the installation and modification of capacitors to manage load, and the
23		installation of IGSDs on certain distribution circuits to minimize the impact of

outages. The capital additions typically occur slightly in advance of population and business growth, so the electrical infrastructure will be in place to serve the demand. The greater Houston area has experienced continued residential and commercial growth, with metered customers having grown at approximately 2.2% per year for 2019 through 2022, and growth is forecasted to continue. Also, redevelopment of these areas is frequently denser than the original development, which requires an upgrade to the electrical infrastructure. Additionally, continued home building and the construction of associated scryices that follow new residential construction, such as new retail and restaurant facilities, schools, churches, and businesses, have necessitated new overhead and underground service installations, as well as new meters and drops and street lighting. CenterPoint Houston added over 57,000 metered customers on average annually over the last three years and installed over 3,900 circuit miles of distribution lines since its last comprehensive rate case. CAN YOU PROVIDE ANY EXAMPLES OF THE TYPES OF. Q. RELIABILITY RELATED DISTRIBUTION SYSTEM IMPROVEMENT CAPITAL INVESTMENTS THAT ARE INCLUDED IN THE COMPANY'S DCRF FILING? Yes. To support system integrity, CenterPoint Houston utilizes several programs Α. to identify and proactively address probable electrical component failures and address aging infrastructure. Approximately 29,224 circuit miles of overhead distribution lines, 24,503 circuit miles of underground distribution lines, one

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million poles and numerous other electrical components are used to provide safe,

1		reliable electrical service to customers within the Company's service territory. To
2		assist in proactively pinpointing probable overhead failure locations, CenterPoint
3		Houston performs a 10-year cycle pole inspection, to identify and replace poles and
4		other overhead components that are determined to be in unsatisfactory condition.
5		The work associated with actual pole replacement and trussing as a result of the
6		inspection is capitalized, consistent with CenterPoint Houston's capitalization
7		policy.
8		Additionally, CenterPoint Houston is continuing its 18-year underground
9		Cable Life Extension Program to locate and address underground residential
10		distribution equipment deficiencies. These programs, as well as others utilized by
11		the Company, provide a more efficient and cost-effective approach for identifying
12		and addressing specific locations with higher probability of failures, to ensure a
13		more reliable electrical distribution system.
14	Q.	ARE THERE ANY OTHER PROGRAMS UNDERWAY THAT
15		CONTRIBUTE TO THE RELIABILITY OF THE COMPANY'S SYSTEM?
16	A.	Yes. The Company's Distribution Grid Resiliency Program, which I discussed
17		above, is a key part of the Company's efforts to increase the reliability of the
18		Company's distribution system.
19	Q.	CAN YOU PROVIDE A LIST OF CAPITAL SYSTEM IMPROVEMENT
20		PROGRAMS THAT ARE DESIGNED TO MAINTAIN OR IMPROVE
21		RELIABILITY?
22	A.	Yes. Programs to improve reliability often result in capital improvements. These
23		programs include the following:

- The Pole Life Extension Program allows the Company to extend the life of a pole by treating or trussing the pole, as needed.
- The Underground Residential Distribution ("URD") Cable Life Extension Program
 involves proactively identifying and addressing at-risk underground cable to
 prevent future outages.
- The URD Cable Injection Program extends the life of URD cables by injecting a solution that extends the life of the cable and restores it to like-new or better quality.

 This work is completed on cables identified in the Cable Life Extension Program.
- The Power Factor Program reduces line losses, delivers proper voltage, and enables
 more power to be delivered to customers.
- The Infra-red Program gives the Company the opportunity to proactively identify equipment that is overheating so repairs can be made before failure.
- The Root Cause Analysis Program involves analyzing outage data and initiating corrective actions to improve customer reliability.
- The Hot Fuse Program includes identifying recurring outages and then developing and executing a remediation plan to improve customer reliability.
- The Distribution Grid Resiliency Program involves building distribution poles to a higher, stronger design criterion, which accelerates restoration after a major event.
- The Intelligent Grid Switching Device Program improves customer reliability by installing equipment that reduces duration and frequency of outages.
- The TripSaver® Program installs devices on distribution lines that detect downstream faults and can trip and reclose. This automatically restores power to the customers after temporary faults without having to send personnel to the

1		location to perform restoration work. The Company has installed approximately
2		2,622 of these devices to convert a sustained outage to a momentary outage so the
3		customer's power will remain on.
4	•	The Strategic Undergrounding Program includes minimizing terminal pole clusters
5		near substations and converting existing overhead limited access freeway crossings
6		underground. This program, as described above, will reduce the distribution
7		system's exposure to weather events.
8		Additional descriptions of these programs are included in Exhibit DT-2.
9	Q.	CAN YOU PROVIDE SOME EXAMPLES OF THE TYPES OF SERVICE
10		RESTORATION CAPITAL INVESTMENTS THAT ARE INCLUDED IN
11		THE COMPANY'S DCRF FILING?
12	A.	Capital investments for service restoration have been made for URD, overhead,
13		weather related, major underground, and street lighting. Service restoration costs
14		are non-discretionary in nature and are the result of equipment damage or failure
15		caused by events beyond the Company's control, such as poles being damaged due
16		to vehicle accidents, third-party cable cuts, and inclement weather. Street light
17		restoration costs are also non-discretionary in nature and are mainly the result of

I		equipment damage to streetlight systems due to severe storms or poles being
2		damaged due to vehicle accidents.
3	Q.	WHAT TYPES OF INVESTMENT RELATED TO RELOCATIONS FOR
4		PUBLIC IMPROVEMENTS ARE INCLUDED IN THE COMPANY'S
5		DCRF FILING?
6	Α.	Capital investments related to relocations for public improvements include road
7		expansions, new roadways, right-of-way changes and changes in land use, which,
8		in turn, require relocations to overhead facilities and other changes to the existing
9		distribution infrastructure to accommodate major road, highway, and freeway
10		construction.
11	Q,	CAN YOU PROVIDE EXAMPLES OF THE TYPES OF SMART GRID
12		CAPITAL INVESTMENTS THAT ARE INCLUDED IN THE COMPANY'S
13		DCRF FILING?
14	Λ.	Smart grid capital investments support automation on the distribution system using
14 15	Λ.	
	Λ.	Smart grid capital investments support automation on the distribution system using
15	Λ.	Smart grid capital investments support automation on the distribution system using advances in technology and are designed to improve the Company's ability to
15 16	Λ.	Smart grid capital investments support automation on the distribution system using advances in technology and are designed to improve the Company's ability to operate its electrical distribution system. These projects include the installation of
15 16 17	Λ.	Smart grid capital investments support automation on the distribution system using advances in technology and are designed to improve the Company's ability to operate its electrical distribution system. These projects include the installation of IGSD to enhance the switching capability of the distribution system, power line
15 16 17 18	Λ.	Smart grid capital investments support automation on the distribution system using advances in technology and are designed to improve the Company's ability to operate its electrical distribution system. These projects include the installation of IGSD to enhance the switching capability of the distribution system, power line monitoring equipment, remote switches, and other automated equipment that
15 16 17 18	Λ.	Smart grid capital investments support automation on the distribution system using advances in technology and are designed to improve the Company's ability to operate its electrical distribution system. These projects include the installation of IGSD to enhance the switching capability of the distribution system, power line monitoring equipment, remote switches, and other automated equipment that locates and isolates power line outages or issues in near real time. The IGSD

1		communications infrastructure and systems that support our smart meters, such as
2		AMS and Advanced Distribution Management System ("ADMS").
3	Q.	WHAT TYPES OF GENERAL EQUIPMENT FOR OPERATIONS
4		SUPPORT CAPITAL INVESTMENTS ARE INCLUDED IN THE
5		COMPANY'S DCRF FILING?
6	A.	General equipment for operations support capital investments include
7		miscellaneous capital expenses for the purchase of distribution computer hardware,
8		premise equipment, tools, and test equipment, the cost of distribution materials and
9		services as provided by the Shops Department, and other capital investments such
10		as capital tools, climbing kits and salvage.
11	Q.	IS THERE CAPITAL INVESTMENT RELATED TO SOFTWARE AND
12		HARDWARE INCLUDED IN THE FILING?
13	A.	Yes. The Company's investment in technology includes software and hardware
14		necessary for the Company to track work orders and related accounting treatment,
15		financial and accounting matters, cyber security, and hardware necessary for
16		personnel in the field to track and record the status of distribution work orders,
17		among other items. Increasingly, the Company requires technology investment to
18		maintain existing hardware and software and to drive efficiencies throughout the
18 19		maintain existing hardware and software and to drive efficiencies throughout the business. Similar to Exhibits DT-3 through DT-7, Exhibit DT-8 contains a list of

1		test-year end in Docket No. 49421, including their respective in-service dates, and
2		a description of these projects greater than \$100,000.
3	Q.	HAVE THERE BEEN ANY MATERIAL CHANGES TO THE COMPANY'S
4		DISTRIBUTION CAPITAL PROGRAMS SINCE DECEMBER 31, 2022,
5		THE ENDING PERIOD OF THE COMPANY'S LAST DCRF
6		PROCEEDING, DOCKET NO. 54825?
7	A.	No.
8	Q.	WHAT IS THE TOTAL AMOUNT OF NET CAPITAL INVESTMENT FOR
9		DISTRIBUTION PROJECTS INCLUDED IN THE COMPANY'S DCRF
10		FILING?
11	Α.	The net distribution capital investment that CenterPoint Houston seeks to recover
12		through Rider DCRF represents an increase in investment of over \$2.5 billion since
13		the last rate case (Docket No. 49421). These figures can be found or derived from
14		Schedule B of CenterPoint Houston's DCRF Application Form.
15	Q.	PLEASE DESCRIBE THE INFORMATION PROVIDED ON EXHIBITS
16		DT-1 AND EXHIBITS DT-3 THROUGH DT-7.
17	A.	As required by the Commission's Distribution Cost Recovery Factor Filing
18		Package ("DCRF-RFP") General Instruction No. 2, Exhibits DT-3 through DT-7
19		provide the following information by calendar year and through September 2023
20		year-to-date:
21		A list, by project number, of all completed distribution capital projects for
22		each calendar year since the test-year end in Docket No. 49421, including
23		their respective in-service dates; and

1		• A description of all completed distribution capital projects greater than
2		\$100,000 for each calendar year since the test-year end in Docket No.
3		49421.
4		A summary of these investments is included as Exhibit DT-1. ³
5	Q.	PLEASE FURTHER DESCRIBE THE DETAILED SUMMARY PROJECT
6		REPORTS PROVIDED FOR EACH CALENDAR YEAR INCLUDED IN
7		THE COMPANY'S DCRF FILING.
8	A.	The Summary Project Reports in Exhibits DT-3 through DT-7 are organized by
9		project category and, for each project within a category, include the project number,
10		a description of the distribution project, and the associated costs. The costs
11		associated with each project are broken out by additions and salvage/removal.
12		Additionally, the project costs are provided by the year that the related facilities
13		were placed in service and used and useful.
14	Q.	PLEASE FURTHER DESCRIBE THE INFORMATION INCLUDED IN
15		EXHIBITS DT-3 THROUGH DT-7 FOR THE INDIVIDUAL
16		DISTRIBUTION CAPITAL PROJECTS INCLUDED IN THE COMPANY'S
17		FILING.
18	A.	As part of its identification of each distribution capital project included in the filing,
19		the Company has included the following information under column headers from
20		its enterprise management software system ("SAP"):

³ Information for the period of January 1, 2019 through December 31, 2022 was also provided with Mr. Tutunjian's Direct Testimony in the Company's last DCRF filing in Docket No. 54825.

1	• Company Code - The CNP company code in SAP associated with the
2	transaction. CenterPoint Houston is company code 0003.
3	• Asset Class - The Federal Energy Regulatory Commission ("FERC")
4	account the costs were placed in service.
5	Asset Number - The SAP fixed asset number assigned to the costs placed
6	in service.
7	• Asset Description – A short description of the SAP fixed asset number.
8	• Cost Center - The cost center assigned to the asset for depreciation
9	purposes.
10	• Document Number – The SAP asset transaction document number.
11	• Posting Date – Date the costs were placed in service.
12	• Text - The text associated with the document number. The text will
13	typically be the asset request number or the work order number.
14	• Work Order – Identifies the work order that costs were charged against. In
15	those instances where costs do not accompany a work order, they are
16	assigned a unique identifier.
17	• Plant in Service - The amount placed in service in the given year.
18	Accumulated Reserve – The amount of depreciation accrued while the asset
19	was in Completed Construction Not Classified ("CCNC"). This
20	depreciation is transferred to Plant-in-Scrvice upon unitization.
21	• Plant in Service Classification - Indicator of the type of Plant In Service
22	activity occurring on the transaction (Additions, Retirements, Transfers,
23	etc.).

1	• Reserve Classification – Indictor of the type of Reserve activity occurring
2	on the transaction (Retirements, Transfers, Salvage, etc.).
3	• WBS - This is the work breakdown structure that is used to "group"
4	multiple orders into a common program/project.
5	WBS Description – Description of Work Breakdown Structure.
6	• DCRF Classification - This column indicates whether costs placed in
7	service were both transmission and distribution (B) or distribution only (D
8	for purposes of including in the DCRF application or Transmission Cost of
9	Service filings.
10	• TCOS Classification - This column indicates whether costs placed in
11	service were both transmission and distribution (B) or distribution only (D
12	for purposes of including in the DCRF application or Transmission Cost of
13	Service filings.
14	• Transmission % – Percentage of total cost allocated to transmission.
15	• Distribution % - Percentage of total cost allocated to distribution.
16	 Metering % – Percentage of total cost allocated to metering.
17	Customer Service % - Percentage of total cost allocated to customer
18	service.
19	• Total Distribution % - Total percentage includes Distribution %, Meterin
20	%, and Customer Service %.
21	• Reason for Classification - Rationale for Transmission / Distribution
22	classification.

1		• Project Identifier - Identifies project/program that items were grouped into
2		for classification purposes.
3		• Total Distribution \$ (based on Plant in Service side) - Total of amounts
4		allocated to distribution, metering and customer service.
5		• Total Distribution \$ (based on Reserve side) - Total of amounts allocated
6		to distribution, metering and customer service.
7		• Transmission \$ (based on Plant in Service side) - Dollar amount allocated
8		to transmission.
9		• Transmission \$ (based on Reserve side) - Dollar amount allocated to
10		transmission.
11		• Adjusted Tab - Identifies true additions, salvage, removals/Asset Lifecycle
12		Accounting ("ALA") net salvage, retirements, and transfers.
13	Q.	HAVE ALL THE CAPITAL PROJECTS INCLUDED IN THE COMPANY'S
14		FILING BEEN PLACED IN SERVICE?
15	Λ.	Yes. As required under the DCRF Rule, 16 Tex. Admin. Code §25.243(b)(3), and
16		consistent with Public Utility Regulatory Act § 36.053, each of the projects shown
17		on Exhibits DT-1 and Exhibits DT-3 through DT-7 are distribution invested capital
18		projects that are used to provide service to retail metered customers in CenterPoint
19		Houston's service area. These projects were placed in service during the period
20		January 1, 2019 through September 30, 2023.
21	Q.	IS THIS DISTRIBUTION CAPITAL INVESTMENT REASONABLE AND
22		NECESSARY TO SYSTEM OPERATIONS?

1	Λ.	Yes. While I understand that a final prudence review of the costs associated with
2		the capital investment that the Company seeks to recover through the DCRF will
3		take place in the Company's next general base rate proceeding, these capital
4		investments were prudently incurred and are reasonable and necessary to satisfy
5		service area customer growth, reliability and resiliency improvements, service
6		restoration, and other support activities that are needed as the distribution system
7		grows and ages.
8 9 10	V	PROCEDURES FOR CLASSIFYING CAPITAL PROJECTS AND PROPERLY ALLOCATING CAPITAL COSTS FOR JOINT TRANSMISSION AND DISTRIBUTION PROJECTS
11	Q.	WHAT POLICIES OR GUIDELINES DETERMINE THE MANNER IN
12		WHICH SPECIFIC PROJECTS ARE CAPITALIZED ON THE
13		COMPANY'S BOOKS AND RECORDS?
14	A.	The three primary policies that determine how project costs are to be either
15		capitalized or expensed are: various FERC guidelines relating to capitalization and
16		expenses; CNP's Capitalization Policy; and CNP's Capitalization of Computer
17		Software Policy. CNP's Capitalization Policy and Capitalization of Computer
18		Software Policy are discussed by and attached to Mr. Garmon's testimony as
19		Exhibit JWG-01 (Capitalization Policies).
20	Q.	HOW LONG HAVE CNP'S CAPITALIZATION POLICY AND
21		CAPITALIZATION OF COMPUTER SOFTWARE POLICY BEEN IN
22		PLACE?

1	A.	The current versions of those policies have been in place since 2004, with minor
2		updates over the years to incorporate amended FERC guidelines and industry
3		practice changes.
4	Q.	HAS THE COMPANY CONSISTENTLY FOLLOWED THESE POLICIES
5		IN PREVIOUS RATE CASE PROCEEDINGS?
6	A,	Yes. CenterPoint Houston has consistently applied these policies in its prior base
7		rate proceedings in Docket Nos. 38339 and 49421, as well as in its prior DCRF and
8		Transmission Cost of Service ("TCOS") adjustment cases.
9	Q.	HOW DOES THE COMPANY ENSURE THAT THE CAPITALIZATION
10		POLICIES ARE FOLLOWED AND THAT ITS BOOKS AND RECORDS
11		ARE ACCURATE AND COMPLETE, CONSISTENT WITH THE
12		POLICIES?
13	A.	The Company uses an SAP work management software to track each project on a
14		
		work order basis. Service consultants, engineers, and contract designers are
15		work order basis. Service consultants, engineers, and contract designers are responsible for creating work orders based on design and load specifications. They
15 16		
		responsible for creating work orders based on design and load specifications. They
16		responsible for creating work orders based on design and load specifications. They are trained on work order creation, including specification of what defines capital

times throughout the work order lifecycle to ensure that the costs are accurately identified as capital.

3 Q. PLEASE DESCRIBE THE REVIEW PROCESS FOR WORK ORDERS.

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Once a service consultant, engineer, or contract designer creates a work order, a peer, supervisor, or manager reviews the order to ensure it has been properly created, including verifying if it is properly classified as capital versus expense based on the material and work planned. The order is then provided to the Operations Manager or Operations Supervisor, who performs a second review of the order before the work is performed. Once work has been completed, a third review is performed by the Service Area Assistant/Distribution Projects Coordinator to verify that the actual work completed still meets the qualifications of capital work, and the order is still properly coded. Moreover, prior to unitization of the asset, the ALA process within SAP will automatically identify and issue an exception notification for a work order that has been coded as capital but does not have capital material included on the order. This exception/error will remain until the order has been corrected. ALA will not allow the order to be unitized or closed until the proper work type is provided. Finally, prior to unitization, Property Accounting has a process in place to identify and flag completed work orders categorized as capital which do not include a retirement unit. These orders

1	are researched and will not be unitized/placed in service until the work is verified
2	and determined to be eligible for capitalization.

Q. PLEASE DESCRIBE THE PROCESS THAT WAS UNDERTAKEN TO IDENTIFY THE CAPITAL INVESTMENT ELIGIBLE FOR INCLUSION IN THIS FILING.

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The project detail workpapers illustrate the process used to identify the capital investment eligible for inclusion in this filing. Those workpapers are included as part of the DCRF workpapers and are called WP comp3 trans det Sept 2023 YTD DCRF, WP comp3 trans det Jan-Dec 2022 DCRF, WP comp3 trans det Jan-Dec 2021 DCRF, WP comp3 trans det Jan-Dec 2020 DCRF, and WP comp3 trans det Jan-Dec 2019 DCRF. The verification process starts with a listing by FERC account of all costs placed in service to the Company's property records in the time period covered by the filing. We then identified the FERC accounts that are not included in the DCRF filing and marked those items for exclusion from this filing. The next step identifies those items that were or will be recovered via other mechanisms such as TCOS adjustment filings. These items are also marked for exclusion from this filing. The remaining items were then reviewed to determine if they should be totally allocated to distribution or partially allocated to other functions such as transmission. The items that are identified as partially allocated to distribution are then compared to other filings such as Docket No. 49421 or the Company's past TCOS filings to determine the correct allocation to distribution. This process is used for Additions, Removals, Retirements, and Salvage in order to arrive at the eligible capital investment.

1	Q.	HOW DOES THE COMPANY ALLOCATE CAPITAL COSTS BETWEEN
2		DISTRIBUTION AND TRANSMISSION FUNCTIONS FOR JOINT
3		TRANSMISSION AND DISTRIBUTION CAPITAL PROJECTS?
4	A.	With respect to FERC Accounts 303, 391 and 397, the allocation percentages used
5		in this filing are the same as those used in Docket No. 49421. For FERC Accounts
6		352, 353, 361, and 362, the allocation percentage assigned to distribution is based
7		on the percentage of the value of the distribution equipment contained in the
8		substation in which the associated work was performed when the work involved
9		supported both the transmission and distribution function. This is consistent with
10		the manner in which such costs have been assigned in prior cases involving the
11		Company and is reasonable because the equipment that was installed or replaced
12		supported both transmission and distribution assets within a particular substation.
13		Importantly, each substation may contain different percentages of
14		transmission equipment and distribution equipment. By allocating the equipment
15		that supports both transmission and distribution equipment using a specific
16		percentage for each substation based on the makeup of the existing assets in that
17		specific substation, the allocation accurately reflects the distribution portion of the
18		costs related to a particular project. This is the same allocation methodology used
19		for these FERC accounts in the Company's prior base rate case in Docket No.
20		49421 and in each of the Company's post-rate case TCOS filings and DCRF filings
21		in Docket Nos. 53442 and 54825. Once assigned, the allocation percentages
22		assigned to the distribution function are verified against the assigned allocators used
23		in Docket No. 49421, as well as the Company's past TCOS and DCRF filings to

1		ensure consistency with how the Company's transmission investment has been
2		allocated and reflected in existing rates.
3	Q.	WIIY IS IT IMPORTANT TO CONSISTENTLY ALLOCATE COST
4		PERCENTAGES BETWEEN THE DISTRIBUTION AND TRANSMISSION
5		FUNCTIONS?
6	A.	The use of consistent allocation percentages ensures that the capital costs associated
7		with the plant assets serving both functions are properly recovered under the
8		various rate mechanisms that authorize the recovery of those costs. For example,
9		if the Company were to use a different allocation percentage in this case for a plant
10		asset that is also eligible for recovery under the TCOS mechanism, there would be
11		a mismatch between recovery of transmission capital costs included in the TCOS
12		and distribution capital costs being recovered through the DCRF. This would, in
13		turn, result in less or more than 100% of the capital costs being recovered. In
14		contrast, allocating costs consistently between the distribution and transmission
15		functions ensures that only the actual original cost of the capital project is recovered
16		in rates.
17		VI. <u>CONCLUSION</u>
18	Q.	PLEASE SUMMARIZE YOUR DIRECT TESTIMONY.
19	A.	My direct testimony, supporting exhibits and workpaper demonstrate that the
20		Company has complied with the capital project requirements of 16 Tex. Admin.
21		Code §25.243 and the DCRF Rate Filing Package Instructions. My testimony also
22		confirms that the distribution invested capital included in this filing has been placed
23		in service, that the capital costs associated with each capital project have been

- 1 properly allocated and recorded, and that the costs associated with these
- 2 investments were reasonable, necessary, and prudently incurred.
- 3 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
- 4 A. Yes.

Summary of Distribution Plant Investment January 2019 through September 2023

					January-	
Project Category	Calendar 2019	Calendar 2020	Calendar 2021	Calendar 2022	September 2023	<u>Total</u>
General Equipment	149,800,754	77,488,506	83,252,119	114,109,977	91,193,961	515,845,317
Load Growth	239,434,402	256,459,093	301,430,756	329,575,662	424,252,366	1,551,152,279
Public Improvements	16,511,134	28,671,759	24,181,676	24,754,846	19,130,948	113,250,362
Restoration	58,559,384	51,898,368	71,351,845	98,380,044	114,924,936	395,114,577
System Improvements	157,809,500	169,254,100	205,469,194	492,015,031	317,030,388	1,341,578,213
Smart Grid	21,196,916	10,818,795	7,175,356	29,209,586	18,698,378	87,099,032
Total Project List Greater than \$100,000	643,312,091	594,590,621	692,860,945	1,088,045,145	985,230,978	4,004,039,780
Total of Projects Less than \$100,000	1,463,003	(1,931,146)	1,440,858	(2,302,253)	(31,514,427)	(32,843,966)
Total of Ali Projects	644,775,093	592,659,475	694,301,803	1,085,742,892	953,716,551	3,971,195,814

Descriptions of Capital System Improvement Reliability Programs

Program	Description
Pole Life Extension Program	The Pole Life Extension Program ensures that a portion of the Company's distribution system poles are assessed annually by contract ground-line crews. Pole assessments include a visual and/or manual assessment. Visual pole assessments are comprised of a field observation for evidence of exterior decay or damage above the ground line. Visual upper pole inspections are also performed to identify pole decay or splitting above the ground line, as well as issues with the electrical components attached to the pole. Poles that are seven years old or older are manually excavated and assessed for decay below the ground line, as well as sounded and bored to locate internal voids. Poles of sufficient strength to remain in service until the next scheduled assessment are treated and tagged. Poles that are identified for reinforcement during these assessments are either treated (with a fumigant or preservative, as necessary) and braced, or replaced. Work orders will be created to correct issues identified with the electrical components attached to the pole. The Pole Life Extension Program also includes visual assessment of guy wires, including checking for guy wires that are damaged, broken, frayed or slack, and assessment of guy strains and anchors. As part of the Company's grid hardening initiative, pole assessment and treatment have been accelerated, so approximately 10% of the Company's poles are assessed annually, on average, on a rolling 10-year cycle. As such, pole bracings and replacements should increase accordingly. Additional foreign poles (for example AT&T poles) containing Company facilities that may merit replacement by third parties are also identified.
URD Cable Life Extension Program	The URD Cable Life Extension Program takes an innovative, proactive approach to identify potential failures in aged underground cable and other URD components that do not meet specification before they can occur. By identifying the risk of potential failures, CenterPoint Houston can make wise and prudent investments in its URD infrastructure and ultimately better serve our customers by preventing future outages where they are most likely.
URD Cable Injection Program	The URD Cable Injection Program extends the life of URD cables by Injecting a solution that extends the life of the cable and restores it to like-new or better quality. The proactive span injection (PSI) is completed on cables identified in the Cable Life Extension Program, and the dielectric strength is increased and the probability of failure is reduced. For cables that are not good candidates for injection, a proactive span replacement (PSR) order is completed under the same WBS.
Power Factor Program	The Power Factor Program was designed to maintain good power factor on the electric grid. Power factor ("PP") is the ratio of real power (kW or kilowatts) to total power (KVA or kilowatt-amperes) or PF = KW / KVA. While distribution facilities, including conductors and transformers, must transmit KVA, it is only the kW component that does the real work. Therefore, power factor is a relative measure of the amount of real power delivered. A good power factor reduces the amount of current flowing on a distribution circuit and will, as a result, reduce line losses, reduce voltage drop, and enable the circuit to carry more power. CenterPoint Houston installs capacitors and appropriate controls on distribution lines for power factor control in accordance with the planning design criteria for power factor.
Infra-red Program	The Infra-red Program utilizes infra-red technology which allows the Company to see the heat generated by deteriorating components on the overhead distribution system. These "Hot Spots" eventually result in equipment failure and a loss of service. Infra-red technology is a unique tool to find potential equipment outages before they occur, so that proactive repairs can be made prior to an outage. The Infra-red Program reduces the number of equipment failures and Improves reliability by decreasing System Average Interruption Duration Index ("SAIDI") and System Average Interruption Frequency Index ("SAIFI"). All circuits are inspected on an eight-year cycle. Seventy benchmark circuits, that are representative of the overall CenterPoint Houston system, are inspected every two years to ensure that the eight-year cycle is adequate to achieve the desired reliability results. If a circuit is identified as a repeating 10% circuit, meaning it's in the top 10% for SAIDI and SAIFI minutes for last year and this last, or a 300% circuit, meaning its SAIDI and SAIFI minutes are three times greater than the average circuit, then it is advanced on the infra-red schedule to the current year. This additional focus on the circuits with the highest SAIDI and SAIFI measurements are done to address performance issues. Also, circuits that are heavily loaded (greater than 500 amps) are inspected, as data has proven a higher failure rate of equipment when subjected to higher load.

Descriptions of Capital System Improvement Reliability Programs

Program	- Description
Root Cause Analysis Program	The Root Cause Analysis Program analyzes circuits that the Company projects will not perform as well as desired under the SAIDI and SAIFI metrics. A detailed evaluation of a circuit's outages for the current year is conducted. From this analysis, a recommendation and action plan is generated to address circuit issues. CenterPoint Houston uses outage causes, outage location, outage frequency, customer outage minutes, and the results of a field inspection to develop an action plan that can include a number of possible recommendations to address the root cause of the outages. The recommendations might include a protective coordination study, an infra-red inspection, enhanced lightning protection, reconfiguration to avoid vehicle collisions, reconfiguration of line fuses, tree trimming, and installation or relocation of automated devices. After corrective action is taken, the circuit performance is watched throughout the year to determine if the analysis was correct or if additional measures are necessary. An essential element of the program is to create a proactive response to 10% circuit outages. It is designed to identify and initiate corrective actions on circuits with issues before they become a repeating 10% circuit. In order to accomplish this, a circuit's indices are analyzed against predictive data that indicates operational issues.
Hot Fuse Program	The Hot Fuse Program identifies line and transformer fuses that have experienced recurring outages. On a daily basis, fuses are identified and within approximately four weeks, corrective action is identified. There are two hot fuse criteria: (1) recurring hot fuse — a fuse that has had a minimum of three outages within a 90 day period, and (2) ultra hot fuse — a fuse that has had a minimum of three outages within a 30-day period. Hot fuses are less likely than an ultra hot fuse to have a high impact to the Company's indices if left unaddressed after the 90-day timeframe. These fuse outages are more closely associated with wind-related events that are caused by vegetation or slack span contacts. The ultra hot fuse is more likely to have a high impact to the Company's indices if left unaddressed after the 30-day timeframe. These fuse outages are more closely associated with ongoing issues, such as overloaded devices. In addition, a third criterion applies for fuses that have large customer counts that affect the circuit's overall reliability. For those circuits with greater than four outages in 12 months, these fuses are also reviewed during the Root Cause Analysis process to verify a successful solution to the outages. CenterPoint Houston field personnel inspects all the hot fuses meeting one of these criteria and research outage records to determine the cause of the outages causing the hot fuse. The Company then issues work orders to correct the problem. Typical remedies include tree trimming, the installation of wildlife protection devices, slack span adjustment, the installation of additional fuses to limit the impact of a fault, or the installation of smart fuses that only operate on permanent faults.

Project Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Category Total
Seneral Equipme						91,193,961
		HLPD - Meter & Communications Cap -				
		This project captures labor costs incurred				
	13090056	to install meters.	1,117,336.45	-	1,117,336.45	
	13096207	2020-2021 RCCS Servers	112,075.75	-	112,075.75	
				1		
	į	The GIS (Geographic Information				
		System) upgrade will allow us to migrate				ŀ
		from our current environment nearing				
		end-of-life (Jan 2024) and standardize				
		platforms, processes, solutions, and data				ļ
		for a "One CenterPoint" initiative. Aligns				
		with GIS server relocation project (CNP	i			
		Tower to AOC), which addresses the		ĺ		
	13096913	Management Action Plan.	2,615,120.72	_	2,615,120.72	
						1
		Eliminating the custom scheduler				
	<u> </u>	process and utilize built in functionality				
	13097305	of 12c features for distribution.	506,523.09	-	506,523,09	Į
		Required to support CIS migration for	1			
		CEHE with access to 15 minute electric		-		
		meter data replacements such as		i		
		Competitive Retailer Information Portal				
	13097328	(CRIP), etc.	691,086.31		691,086.31	
	1	Datacenter Modernization using Cisco]
	ļ	Application Centric Infrastructure (ACI),				1
	•	on multiple datacenters and 150 remote		1		
		offices, to deliver an agile datacenter	1			
		with simplified operations and increased				ļ
		application responsiveness to support a				
		new generation of distributed		İ		
		applications while accommodating				
		existing virtualized and non-virtualized				
	13097334	environments.	3,374,212.53	_]	3,374,212.53	
	25357551		7,51 //			1
		Refresh storage hardware and provide	i		•	
		organic growth for Windows, Linux, AIX,				
		and VMware platforms utilizing SAN				
		storage, including distribution hardware				
	13097531	and applications.	363,178.57	-	363,178.57	_
		This is PC replacement for company 2				
		employees that support all business				
	13097534	units	153,127.38		153,127.38	4
		Development / implement tasks for new]	į		
		1 ' ' '		l]
		capabilities to the Texas Electric Market systems (SAP, EAI, SERVICE SUITE, WEB,				
		1,				1
	1	BW) for automation of manual		1		
		processes, enhancements to sync				1
		process, exception management, service order processing & automation for				
	1	foruer processing & automation for		Į.		1

				Salvage /		Project Category
Project Category	Project Number	Description	Additions	Removal	Tota!	Total
		Development / Implement tasks for new				
		capabilities to the Texas Electric Market				
	1	systems (SAP, EAI, SERVICE SUITE, WEB,				
		BW) for automation of manual				[
		processes, enhancements to sync				
		process, exception management, service				•
		order processing & automation for				
	13097546	compliance reporting.	170,681.33	-	170,681.33	-
		Implement record management				
	13097551	functionality for selected departments.	178,775.26	-	178,775,26	-
		Improve Customer Experience, Analytics,				
		Single Sign on and Self-Service				
	13097554	capabilities to Electric and Gas Customers.	527,137.31	_	527,137.31	
	X3037334	cascomars				
		Extend the existing Asset Management				
		framework with new enhancements &	1			
		additional development of new models				j
		for distribution asset types such as	1			
		Substation Transformers, Batteries,				
		Chargers, Breakers, Relays, etc. Design]
	1	and Developed additional reporting and	Į			
		analysis tool capabilities to provide a	ļ			
		more transparent view into these assets,	1	i		
		their statuses and the required				
	į	maintenance schedules. This will aid in the development of maintenance and				
		replacement strategies for these assets.				1
		This will reduce field visits for asset				
		verification and support reliability				
	13097557	initiatives related to asset performance.	143,135.32		143,135.32	_
		Extend the existing Asset Management	ĺ	1		
		framework with new enhancements & additional development of new models				
		for distribution asset types such as Voltage regulators, etc. Design and	İ			
		Develop additional reporting and				İ
	1	analysis tool capabilities to provide a				
		more transparent view into these assets,				1
		their statuses and the required	1			
		maintenance schedules. This will aid in				
	i	the development of maintenance and		ĺ		
	1	replacement strategies for these assets.				1
		This will reduce field visits for asset				
		verification and support reliability	E44 DE4 4=		E44 DE 4 C	.
	13097558	initiatives related to asset performance.	511,854.05	-	511,854.05	ני

Project Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Categor Total
			•			
		Software licenses for SAP landscape	i	٠.		İ
		management, Information lifecycle				
		management, cyber-security monitoring,				
		dynamic tiering, mobile access, data	į	ļ		
		management and data services, and				
	}	Hybris billing. These licenses support the	1			
	1	following TO initiatives/projects: SAP	1			
	ŀ	Operations Optimization initiative,				
	,	Security initiative, Data Optimization				
		initiative, SMART migration project, CIS				
	İ	migration project, and the CNP				
		Continuous Process Improvement				ŀ
	13097613	initiative.	117,985.73	-	117,985.73	
		Scope for 2021 includes: Set up FileNet				
		for supply documents, MN engineering,				
		Safety Records and Financial planning				
	13097824	group across the CNP enterprise.	135,714.16		135,714.16	
		Protocol/Compilance/Performance				
	13097844	Measures	155,588.03		1.55,588.03]
	1	Texas Electric Market - Hot List. Ongoing	1			
		enhancements to electric market	1			
	13097845	transaction systems	355,154.81		355,154.81	
	į.	Tx Electric Market Flight Tests, Mass Tr.				
		System changes and testing related to				
		onboarding new Competitive Retailers				1
		on CNP's system, and testing the systems	ļ			
		used to Mass Transition of customers				
	13097853	when a CR exits the market	105,290.85	-	105,290.85	
		ERCOT JOR LSE ENCHANCEMENT. System				
		changes to provide dally interval usage				1
	13097962	data from AMS IDR meters to ERCOT	149,016.29	.	149,016.29	
	13098027	ENTD163-BP - Insource Bill Print	176,592.99		176,592.99	1
		Investment is required for the design,				1
		development, testing and				
	1	implementation of existing systems to	1			
		improve system security controls and		Į		
		ongoing security posture for system		į		
		resiliency. Primary cost will be labor. No	ļ	ļ		
	1	software or hardware acquisitions	į			1
	13098327	planned at this time.	3,496,792.82	_ 1	3,496,792.82	
	13098340	Distribution Land Management	184,337.09		1.84,337,09	-
		Microsoft Silverlight is EOL in 2021.				
		TMAT is a heavily used application built				
		in Silverlight and will need to either be				
	40000000		707 977 70		202 002 00]
	13098353	rewritten or will need to be replaced.	203,883.89	- 1	203,883.89	_1

Dt	D-1-1-11	Door-1-12	A didiate	Salvage /	Taini	Project Categor Total
Project Category	Project Number	Description	Additions	Removal	Total	IOIAI
		Formulate a strategy that utilizes		į		
		Customer Experience (CX) and IT digital		!		
	}	capabilities to bolster the CNP				
		corporation's engoing improvement	j			
		initiatives (CI) for digital transformation.				
		The digital delivery products involved	1			
		include the Builders Portal, ClearPath +				
		CenterPay (payment platforms), and		i		
		CrewPoint (Field Capacity planning).				
		Additionally, the Dispatch (application				
		sulte, which includes Dispatch+,	ļ			
		Optimizer, Routing Solution, and				
		WorkforceHub, is set to launch in 2024				
		as a field routing solution complete with				
	13098362	a dashboard.	19,204,283.95		19,204,283.95	
		Also called Central Metering WattNet				
		Plus Central Metering WattNet Plus				
	13098454		197,496.18	ū	197,496.18	
		The GIS (Geographic Information				ļ
		System) upgrade will allow us to migrate				
		from our current environment nearing				İ
		end-of-life (Jan 2024) and standardize	ļ			
		platforms, processes, solutions, and data				
		for a "One CenterPoint" initiative. Aligns				
	1	with GIS server relocation project (CNP Tower to AOC), which addresses the				
	13104843		507,513,10	_	507,513.10	
	12404942	Management Action Plan. Capital Mobile Data Computer	2017212111	<u>-</u>	201/242/40	1
		Replacement -Replacement of computer				
		equipment for Distribution related				
	13104890	mobile data.	1,585,163.03	_	1,585,163.03	
						1
		Support packages are bundles of fixes,				
		and enhancements to existing				
		functionality. These changes are also				
		required to update SAP to the minimum				
		support level required for applying the				
		Year End Country Legal Changes that are				
	1	necessary to allow CNP to process and				
	1	distribute W-2s, 1099s and Federal and				1
	13104900	State electronic reporting media.	268,009.35	•	268,009.35	_
į	13105022	CEHE-fleet Focus Stwr 2019	138,594.07		138,594.07]

Project Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Categor Total
					-	
		Extend the existing Asset Management		İ		
		Framework with new enhancements and	ŀ	-		
		additional development of new models	[]
		for distribution asset types such as		Į		•
		Underground Residential Distribution (URD) cable, vegetation management,	[
		and Underground Residential				
		Distribution (URD) transformers. Design,	İ			
		Analyze, and Develop additional	ļ	į		
		reporting and analysis tool capabilities to				
		provide a more transparent view into	ĺ	1		
		these assets, their statuses and the	İ	-		
		required maintenance schedules. This		-		[
		will aid in the development of maintenance and replacement strategies	į			
		for these assets. This will reduce field				
		visits for asset verification and support	1			
		reliability initiatives related to asset				
	13105143	performance.	841,482,46	-	841,482.46	1
		Provides critical spares to cover reduced				
		OM maint plans for production failures.				
		in addition delivered recommended best	ŀ			
		practice spare equipment for critical		İ		
		component failures. Provides hardware				
		for required capacity, data center server hosting and organic growth. Support	i			
	13105297	was for the enterprise network.	1,231,858.09		1,231,858.09	
	474DE300	Replaces end of life network	000 000		947 00C 0R	
	131.05298	components for the enterprise network.	847,026.98	-	847,026.98	-
	1	Refresh storage hardware and provide				
		organic growth for Windows, Linux, AIX,	1			
		and VMware platforms utilizing SAN	i			
	40405000	storage, including distribution hardware	0.004.040.07	Į	2 204 246 27	
	13105299	and applications. Replacement of end of life and defective	2,301,340.27	-	2,301,340.27	4
	13105324	equipment	547,387.92		547,387.92	
		LIPPLY ON PRANCISCO PROPERTY CONTRACTOR OF THE PARTY OF T				
		HEBM015RM6-2022 TRM - Retail Market Transactions. Ongoing enhancements to	İ			
	13105325	electric market transaction systems	2,280,639,55	_ 1	2,280,639.55	
	13103323	Clacette market warranter of stema	2,200,000,00		2,200,000.00	-
		Operations work for Test Management				
	1	Office, Robotics Process Automation and		•		
		Infrastructure Production Support				1
		initiative to create solution to automate	İ			
		activities for critical applications across				
	13105331	the CNP Enterprise.	105,764.53	-	105,764.53	

Project Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Category Total
		Operations work for Test Management				
		Office, Robotics Process Automation and				1
		Infrastructure Production Support	ļ			
		initiative to create solution to automate				
		activities for critical applications across	1			
		the CNP Enterprise. This project				
	13105333	benefited CEHE.	256,036.07	-	256,036.07	ļ
		ITB099-R22 - 2022 Workforce				}
		Automation. Continued RPA use case				İ
	1	development. Ongoing labor to design				
		and develop use cases for Robotics				
		Automation as part of the overall digital				
	13105334	delivery program	374,480.98	-	374,480.98	
		Project implements SAP Landscape				
		Management system that will automate	İ			
	13105337	SAP refresh processes.	216,590.46	-	216,590.46	1
		Enhancements for Townhall meeting				
	13105338	system	166,263.53	-	166,263.53	
		Develop and implement new capabilities				[
		as needed to optimize Customer				
		Interactions - i.e. New agent processes				
		and automation, correspondence				
		enhancements, bill print enhancements, exception management automation,	i			1
	13105340	credit & collections enhancements.	162,096.17		162,096.17	
	15103540	credit & conections enhancements.	102,030,27	-	102,0301.17	1
		Replace end of life wireless equipment				
		at CNPT, ECDC, Electric and Gas Service	ļ			
	13105342	Centers, as well as rural offices.	276,857.77	_]	276,857.77	İ
					·	j
		Refresh server hardware running AIX and				
		Linux and provide organic growth to	ŀ			
		Power based systems. Refresh	i			
		infrastructure applications to stay	!			Ì
	1	current and under support for the				
		enterprise, including distribution	1	1		
		hardware and applications.	1			
	13105343		1,089,042.03		1,089,042.03	
			į			
]	Refresh server hardware running on				
	1	Windows, Linux, and VMware platforms	i	İ		1
		and provide organic growth to intel				
		based systems. Refresh infrastructure				
		applications to stay current and under				l
		support for the enterprise, including			550 000 05	i
	13105348	distribution hardware and applications.	559,989.35		559,989.35	-1
		ITB143 - Stonebond migration. Migrate				
	1	the middleware solutions using the	1	1		
		existing approved solution to Fusion		j		
	1	Middleware & DataPower features as]		
		StoneBond is on the declining list, in				
		addition to supporting the reduction of		ļ		
		Tanadan to supporting the recoverOff Of		1		1
	1	1 1	1	i		
		technology footprint. Eliminate the additional StoneBond maintenance		j		

Project Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Category Total
			ļ			
		Unicode Migration was required to bring				
		SAP up to current version and enable				
		compatibility with other SAP and non-	1			
		SAP systems in the CenterPoint			•	
		Technology landscape. Unicode is a				
	1	Character encoding scheme for (nearly)				
	1	all characters used worldwide. This				
		encoding standard provides the basis for				
		processing, storage, and interchange of				
		text data in any language in all modern				
		software and information technology				
		protocols. This migration enables new	ļ			
		business functionality in Enterprise	į			
		Resource Planning system available only as part of Unicode system.				İ
		as pare or officode systems.	İ			
		With Unicode, we can use multiple]			
		languages simultaneously at a single				
		front end computer. By using a unified	1			
		encoding system, it enables seamless				
		communication and data exchange				
		across different platforms and devices. It				1
		also promotes interoperability, as				
		software developers can rely on a single	Į			
		standard when handling text input,				
	1.31.05354	storage, and display.	417,905.15		417,905.15	1
		Middleware platform Architecture				
		enhancements to keep up with the state				
	13105362	of the art technology.	260,039.48		260,039.48	-
	1	Refresh server hardware running AIX and	į			
		Linux and provide organic growth to	j			
		Power based systems. Refresh				
		infrastructure applications to stay				
		current and under support for the				
		enterprise, including distribution				
	13105363	hardware and applications.	1,088,096,63	-	1,088,096.63	
	13105365	Mobile Device Purchases	143,354.05	-	143,354.05]
		implement record management				
	13105366	functionality for selected departments.	124,818.14		124,818.14	
	20.00000	instantial participation of the second secon	12 1,013111		<u> </u>	1
		ENTBM024-3-2022 Analytics Roadmap				
		Foundations. Develop the Business Use				
		Cases documented in the Analytics				
	1	Roadmap as approved by the business to				
		go forward. Develop new reports,				
		dashboards and database views to	1			1
		support additional Analytic development				1
		for or by the business. Develop the				1
		Analytics views required to support				
		Tableau and Power Bl access for self				
	1010000	service dashboard/reporting by the	F00 004 45	[F00 004 10	
	13105367	business.	500,221.12		500,221,12	╛

Project Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Categor Total
riojett category	Froject Manager	DESCRIPTION	MUGIEIDIIS	Veniover	IOLAI	1001
			[İ		
		Upgrading each of the Data Warehouse	Į.			
		assets with new data sources, new tables	i			1
		or views, and new or modified reporting	1			
		on top of this data. This is driven by	1			ŀ
		business needs for more accurate or				
		precise analytics, with some driven by	1			j
		regulatory or audit requirements. All of				l
		this helps enable better data driven		i		
	13105368	decision making by the business.	249,415.99		249,415.99	1
	12103200	decision making by the business.	245,413.55	-	243,413.55	
		It is for software/patent IT technology,				
		1		1		
		drone, smart meter, intelligent grid, AMI,				
		fleet management solutions, alerting/messaging technology, early				1
		1 1				1
	42405270	warning systems, outage alerts, and	442 002 57		447.003.57	
	13105370	more.	112,083.57	"	11.2,083.57	4
		HEROMA 2 2022 Advanced Date	İ			
		HEB017-3-2022 Advanced Data				
		Management Platform Migrate of				
		Hadoop to Google Cloud, new use case	}			
		development on Google Cloud such as				
		smart meter analytics enhancements,	ļ			
	1 .	load research and forecasting, and gas /				
	13105371	electric operations reporting.	1,200,085.05		1,200,085.05	4
		1				
		The S/4 HANA Advance Finance solutions	ļ	j		
		are utilized for management reporting,		1		
	-	master data governance, and is CNP's				
		primary FERC accounting ledger. The				
		current version of the S/4 HANA Central				
		Finance solution will be out of SAP				
		support by the end of 2022. The goal of				
		1				
		this effort is to upgrade the S/4 HANA				
		Central Finance solution from version		!		
	1 2100000	1709 to 2021. This will be a technical	400 040 07		400 040 00	1
	13105542	upgrade for the CNP enterprise	436,249.07	-	436,249.07	4
		SAP 2022 Support Packs upgrades -				
		Backend code fixes and individual	1			
		module enhancements will be				
	13105762	downloaded.	221,959.79	-	221,959.79	-
		3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ŀ			
		An data foundation was built to monitor				
		Telcom assets using raw messages. A				1
		dashboard will be developed to monitor	400		465 455	1
	13105854	these assets in near real-time.	105,435.94	-	105,435.94	
	13105881	UI Planner - CEHE Rate Case	784,431.25	-	784,431.25	_1

ect Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Catego Total
				- "		
		NACHA has required the implementation.				
		of systems/practices to increase the				
		safeguarding of depository accounts				
		used in ACH payment transactions. The	1			
		rules address the storage of account				
		details by originators and other parties				
		involved in the transaction. The account	1			
		number must be rendered unreadable				
		anywhere the sender has stored it	1			
		electronically while not in use. Access				
		restrictions alone do not meet the				
	43405004		705 005 00		755 605 60	
	13105884	requirements of the rule.	766,936.99		766,936.99	4
		Build out of analytics cloud data		i		
	13105892	warehouse	741,599.95	-	741,599.95	ļ
		Enhancements to GIS Outage Tracker				
	13105919	that minimizes bug issues	416,987.25	-	416,987.25	1
		Conference Room Deployment -				1
		Enhancements of conference room				
		equipment such as projectors and				
	13105932	computers across the enterprise.	368,879.95		368,879.95	
		CEHE-GIS System Administration -				1
	13105944	Software Purchase	864,471.02	-]	864,471.02	
	13106022	Computer Hardware.	667,429.15	-	667,429.15	1
		To replace ALL CEHE Toughbooks older			•	1
	13106023	than 5 years old.	379,733.20	_ 1	379,733.20	
	1010000	Conference Room Deployment -	3,3,,,33,20		3.3,,03.20	1
		Enhancements of conference room				
	10406400	equipment such as projectors and	452 705 24		450 785 84	
	13106433	computers across the enterprise.	153,795.34	-	153,795.34	-
		Equipment to support the Emergency				
	13106436	Operations Plan	206,655.84	-	206,655.84	-
		2023 ENTBFILE-RA-22 Records Auto				
	13106728	Mgmt	219,101.70	-	219,101.70	1
		General Equipment - Purchase of				1
	į	distribution computer hardware,				
		premise equipment, tools, test				
	AA20	equipment, etc.	195,106.96	-	195,106.96	
		Security equipment for distribution				
	AA81	facilities.	275,930.99	-	275,930.99	
		Field Metering - Purchase of in-service				7
	HXSF	meter equipment.	13,339,069.99	.	13,339,069.99	
		High Voltage Metering - Purchase of in-	,	İ	,,	1
	нхѕн	service meters.	147,335.98	_	147,335.98]
		Hardware/Software purchases for	X-1,000,00	-	1-11,010,000	1
	MPWO	Substation Operations	121,129.85	_ 1	121,129.85	1
	INI WO	Junioration Operations	**********	· · · · · · · · · · · · · · · · · · ·	######################################	1
		New V&D Radio System: Non production	Į.			
		1	ļ			
	Į.	Test System for the OpenSky Voice and	!	ļ		
	1	Mobile Data Radio System (VMDRS).	1	İ		1
	i	This allows version upgrades and code				1
		changes to be tested before putting into				1
	S/101392/CE/OPS	production. Also includes equipment for		+		
	KY	repair of VMDRS.	310,579.48		310,579.48	j
	S/101710/CE/CELL]
	RELAY	Deploy (Post DOE) existing cell relay-INS	217,395.36	(51,009,93)	166,385.43	1
	S/101710/CN/CEL	Capital replacement of AMS			-	7
	LRELAY	communication equipment.	159,815.31	_	159,815.31	.]
						⊣
	S/101784/CE/TO	Replace Generators where repair is no	1	i		

Duniost Catalan	Dualinat Nomboo	Donavi:-ti	a ddiel - · · -	Salvage /	Tat-1	Project Category Total
roject Category	Project Number	Description Purchase of the Video Wall Monitoring	Additions	Removal	Total	iotai
		Expansion System for the Telecom				
	- / to t	Control Center, which is used to monitor				
	S/1.01.784/CG/MIS	and manage the Telecommunications				
	C	Infrastructure.	472,203.99	-	472,203.99	
		MPIS Network - replace routers and				
		related network equipment for the				
		Telecom communications system that				
		are End of Life, damaged and/or no				
	S/101785/CE/MPL	longer functioning to the necessary		•		
	S	capacity.	1,377,561.96	_	1,377,561.96	
			4,0,7,7,0 4,1,1,1	· ·	-1017/04-100	1
		Purchase and labor to install fiber optic		1		
		cable. Expand network Infrastructure	1	1		ĺ
		regulres increase in network to	i	1		İ
) '				1
		geographically support expanding				
		backhaul infrastructure, establish fiber				
		footprint in locations microwave				1
	R	communications may limit capacity.	7,591,915.59	-	7,591,915.59]
		Replacement of Routers, Battery Plants,				
		Switches, Network Clocks, Terminal				
	S/101785/CN/MPL	Servers, etc. as they approach End of				
	5	Elfe/Support.	229,986.77	_	229,986.77	
	<u> </u>	Provide SCADA communication to new	240,000177	1		1
		electrical substations controlled,		1		1
		managed, monitored by CNP. Services				
				i		1
		provided by internal		-		
		telecommunications infrastructure or	j	ļ		
		leased carrier services to fulfill new				
	S/101785/CN/SCA	operational, business, compilance	1			
	DA	requirements.	2,847,881.94	**	2,847,881.94	
		This WBS/Cost Object is used to				
		purchase and install new Microwave				
	CHOATOLICHITAC	1.				
	S/101/85/CN/11VIS	radio and related equipment/systems for	4 0.00 0.00		4.050 707.00	
	<u> </u>	the Transport Network.	1,860,797.03	-	1,860,797.03	
oad Growth	,					424,252,36
		Planned additions/improvements to the	-			1
		12kV and 35kV overhead distribution	1			
		system feeder mains as called for in	l			
		Planning Issued Distribution				
	AF1A	Development Plans.	98,886,125.16	10,377,669.11	109,263,794.27	
		1				
	1	Overhead services to new customers or		ļ		
		adding facilities to accommodate				i
	AF1H	additional load to an existing customer.	51,536,557.77	1,671,729.45	53,208,287.22	
		Had orground residential distribution				
	A # 411	Underground residential distribution	CF CF4 F43 C4	444 000 00	CE 700 040 00	
	AF1U	services to new customers.	65,651,542.64	141,377.28	65,792,919.92	1
		Only for the installation of overhead		:		
	1	service drops and meters to a new				
	1	customer or service drop replacement to				
	i.	passessing or service drop repracement to				1
		an existing customer adding load where	1			I .

roject Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Catego Total
						:
		Unplanned additions/improvements to				
		the 12kV and 35kV overhead distribution				
		system feeder mains relating to area				
		load growth, in conjunction with				
	AF2A	providing service to customers.	41,656,573.29	2,257,532,88	43,914,106.17	ļ
		Overhead line extensions to new				
		underground residential distribution				
	AF2II	subdivisions.	5,707,675.85	175,483.21	5,883,159.06	
		Planned additions/improvements to the				
		12kV and 35kV distribution system that				
		requires underground feeder mains and				ļ
		underground dips as called for in				
		Planning Issued Distribution				
	CE1A	Development Plans.	2,727,563.26	27,980.15	2,755,543.41	
		New major underground services to				
		customers that require three-phase				1
		underground facilities to serve their				1
	CF1R	electrical load.	15,977,977.84	(101,322,54)	15,876,655.30]
	DF1U	Streetlight New Installations	16,100,975.01	-	16,100,975.01	
		Imperial Substation - Add 10th feeder at				
		Imperial Substation to support load				
	HLP/00/0760	growth.	440,266.73	-	440,266.73	
	-	Treaschwig Substation-Install 3RD]
		transformer & 6th feeder to support				
	HLP/00/0817	load growth. & 6TH FEEDER	6,970,458.04	-	6,970,458.04	
		Pearland Substation- Add 35KV facilities]
		at Pearland Substation to support load				
	HLP/00/0835	growth.	929,750.85	-	929,750.85	
		Galveston 26th Street Substation - add				
		4th transformer at Galveston 26th to				ļ
	HLP/00/0955	support load growth.	448,588.66	-	448,588.66	
		Distribution Improvements at Grant				
	HLP/00/1021	Substation	1,471,951.58	-	1,471,951.58	
		Satsuma Substation-add 14th feeder at		ĺ]
		Satsuma substation to support load				
	HLP/00/1082	growth	134,632.79	1,624.17	136,256.96	
		Galena Park Substation-add 3rd]
		transformer//8TH & 9TH feeders at				1
	HLP/00/1086	Galena Park to support load growth.	2,000,327.04		2,000,327.04	
		Green Road Substation: Substation work]
		to add three feeders at Greens Road	1			
	HLP/00/1110	substation to serve load.	2,887,629.35		2,887,629.35]
		Teleview Substation - Replace				1
	HLP/00/1161	transformer to support load growth	289,176.11	- 1	289,176.11	
						1
	1	Waller- Add transformer and feeder at	Į.			1
	HLP/00/1162	Waller substation to suport load growth	143,566.95	-	143,566.95	1
		Westheimer Substation: Add feeders to	ĺ			
	HLP/00/1173	support load growth	176,590.65	15,548.87	192,139.52	
		Freeman Substation- Convert freeman				
	HLP/00/1174	Sub to 35kv	5,503,533.15	- 1	5,503,533.15	
		Tanner Substation: Add transformer and		•		7
	HLP/00/1179	feeders to support load growth	9,029,507.29		9,029,507.29	
						1
		Crockett Substation; Ad transformers		1		
	HLP/00/1184	and feeders to support load growth	7,034,227.76	29,261.48	7,063,489.24	
		Lake Houston: Build new 35kv	,		<u> </u>	
	HLP/00/1250	distribution substation	6,320,661.21	.	6,320,661.21	

HLP/00/1286 HLP/00/1288	Britmoore - Add transformer and 2 feeders to support load growth		[
	Ifeeders to support load growth	1			
HLP/00/1288		262,203.85	74,455.14	336,658.99	
HLP/00/1288	Missouri City - Add transformer and 2		ļ		
	feeders to support load growth	195,385.91	-	195,385.91	
	Plaza Substation: Add 3rd transformer				
	and 3 feeders at Plaza substation to				
HLP/00/1289	support load growth	3,381,377.50	222,881.18	3,604,258.68	
	Land purchase for new Stone Lake				
HLP/00/1306	substation	7,465,787.19	-	7,465,787.19	
	Build new Wortham substation to				1
HLP/00/1308	1	5.182.957.58	. !	5.182,957,58	
,,	- approved a service	;			
	Fairbanks Substation- add 10th feeder at				t
HID/00/1210	1	929 509 13	_	929 589 12	
1117/00/1513	11 -	626,036.13		620,050.15	ł
₩ b <i>l</i> 00/1996		107:/10 10	26.200.40	160 005 00	
110700/1323		137,113.13	20,280.70	103,333.03	1
	1 -				
	1 ' ' ' '			040.000.40	
HLP/00/1327		313,303.12		313,303.12	{
	1		1		
HLP/00/1342		905,146,55	-	905,146,55	
		i			
HLP/00/1345		7,226,937.31	•	7,226,937.31	ļ
	Upgrade 69kV West Columbia Power				
HLP/00/1359	Transformer to 138 kV	296,287.23	62,983.39	359,270.62	
	Clodine - Add transfromer and 3 feeders	i			1
HLP/00/1407	to support load growth	260,377.61	-	260,377.61	
	Land purchase for new Twinwood				1
HLP/00/1417	substation	141,096.60	-	141,096.60	
	Property for Substation expansions				1
,	1			.,,	1
HIP/00/1460		2,550,224,29	_	2.550.224.29	1
112,70072100		2,000,000		2,000,00	1
H10/00/1457		1 226 772 66	_	1 226 772 66	İ
1111/00/11102		1,230,772.00		1,230,172,00	1
LU 15/00 /4 407	1 1	1 454 264 20		1 15 4 3 5 1 3 0	
MLP/00/1487	To support growth	1,154,351.29		1,134,361.29	1
	1				
FILP/00/1505	138KV CKT89A-1 Damon-W. Columbia	131,376,17	-	131,376.17	4
					1
	i -				
HLP/00/1506	and feeders to support load growth	5,481,969.44	223,998.55	5,705,967.99	1
	1	İ			
	Sealy Substation- Add 4th 35KV feeder at				
HLP/00/1515	Sealy to support load growth	212,420.91		212,420.91	
	Ulrich Substation - Add 8th feeder at				İ
HLP/00/1537	Ulrich to support load growth	128,902.22	-	128,902.22	
3	MYKAWA - Build new 12kv substation to				7
HEP/00/1574		595.011.97	-	595.011.97	
					1
HIP/00/1576	t i	102 204 47	_	107 204 47	
	: '				1
	Chamileiview, Aut 12171 12KV (cede)	402,0°12.70	- 1	102,042.76	19,130,
eng.	local number for Manager J. Tallean				19,130,3
12035045	1	4.00.007.05	+	150 007 25	[
	HLP/00/1308 HLP/00/1319 HLP/00/1325 HLP/00/1327 HLP/00/1342 HLP/00/1345 HLP/00/1359 HLP/00/1407 HLP/00/1407 HLP/00/1417 HLP/00/1444 HLP/00/1450 HLP/00/1460 HLP/00/1505 HLP/00/1506 HLP/00/1515	Build new Wortham substation to support load growth Fairbanks Substation- add 10th feeder at Fairbanks sub to support load growth. Deihl Substation: Install 2 additional feeders to support load growth. Fry Road Substation- Install 10th 35kV feeder at Fry Road sub to support load growth. Distribution Improvements at Jordan Substation HLP/00/1342 Substation HLP/00/1345 Upgrade 69kV West Columbia Power Transformer to 138 kV Clodine - Add transfromer and 3 feeders to support load growth. Land purchase for new Twinwood substation HLP/00/1407 to substation; Add feeder to support load growth Land purchase for new Twinwood substation HLP/00/1434 Property for Substation expansions Alrilne Substation; Add feeder to support load growth. Crosby Substation - Add 35KV substation to support growth. Crosby Substation - Add 35KV substation to support growth Distribution support for upgrade of 138KV CKT89A-1 Damon-W. Columbia Angleton substation; Add transformers and feeders to support load growth Unich Substation - Add 4th 35KV feeder at Sealy Substation - Add 8th feeder at Uhrich Substation - Add 8th feeder at Uhrich Substation - Add 8th feeder at Uhrich Substation - Add 8th feeder at Uhrich Substation - Add 8th feeder at Uhrich Substation - Add 8th feeder at Uhrich Substation - Add 8th feeder at HLP/00/1574 Support load growth MYKAWA - Build new 12kv substation to support load growth Rayford - Install 3rd transformer at HLP/00/1582 Channelview: Add 12TH 12kv feeder ents Legal support for Westpark Tollroad	Build new Wortham substation to support load growth S,182,957.58	Build new Wortham substation to support load growth S,182,957.58	Build new Worthem substation to support load growth 5,182,957.58

Project Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Category Total
	AÐ2D	The relocation of CEHE overhead distribution facilities that are generally less than five poles, due to customer request, including city, state, and federal government infrastructure improvement projects, such as road widening or roadway improvements.	6,833,939.76	541,408.78	7,375,348.54	
	AD3D	The relocation of CEHE overhead distribution facilities generally five poles or more, due to customer request, including city, state, and/or federal government infrastructure improvement projects such as road widening or roadway improvements.	7,941,413.75	1,468,115.05	9,409,528.80	
	CG1R	Relocation of major underground facilities for road widening, light rail, etc. Includes relocation of overhead to underground at customer's request.	2,647,290.38	(462,216.40)	2,185,073.98	
Restoration						114,924,936
	AD06	Reactive capitalized replacements that are made to the underground residential distribution system requiring facility replacement. Includes cable replacement, transformers, and other retirement units and their related components.	26,451,146.39	4,953,639.50	31,404,785.89	
	AD07	Reactive capitalized replacements made to the overhead distribution system requiring facility replacement.	37,191,340,59	11,376,282.79	48,567,623.38	
	AD86	Reactive capitalized replacements made to the overhead distribution system requiring facility replacement resulting from the effects of adverse weather conditions.	18,811,701.78	5,095,321.01	24,906,822.79	
		Reactive capitalized replacements made to the major underground system requiring replacement of equipment, cable or structures in response to "lights out." Also includes replacement of system neutral associated with copper				
	CD1T	theft.	8,998,791.71	1,046,912.04	10,045,703.75	
System Improver	nents					317,394,012
	AB1C	Planned capital replacement or rehabilitation of overhead distribution system associated with reliability improvement. Includes target top 10% of SAIDI circuits, outage-driven overhead rehab, recurring fuse outages, recurring transformer outages, etc. Replacement of CEHE-owned poles found defective that are not part of the	10,211,174.89	1,287,226.36	11,498,401.25	
	AB1G	Groundline Inspection Program or trouble related.	7,846,980.64	1,015,807.63	8,862,788.27	

Project Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Categor Total
		Planned underground residential	+			
		distribution cable replacement on a one-				
		span basis.				
	AB1S	Includes: spans referred from trouble	6,404,754.41	945,835,61	7,350,590,02	
		Planned underground residential				
		distribution cable replacement of 12kV				
		and 35kV partial and total loops.				
		Includes: cable relocations, transformer				
	AB1V	relocation/replacements, raising transformers, and pedestals.	5,478,576.47	513,915.00	5,992,491.47	
	71014	Capacitor banks that include the	3,474,370.47	313,313.00	2,222,122,11	-
		replacement of capital material such as				
		capacitor, vacuum switches, disconnects,	į			
	AB1X	controller, etc.	4,261,122.42	327,247.24	4,588,369.66	
		Replacement of existing CNP owned area	į			
		lighting fixtures as a result of failure or	ŀ			
	AB1Y	damage. (Does not include streetlights).	702,939.84	75,109.45	778,049.29	
		Proactive routine capital replacements				
	AB1Z	to the overhead distribution system.	44,504,010.47	7,185,472.77	51,689,483.24	
	AB2C	Distribution overhead reliability improvement projects	11,717,450.83	2,961,669.49	14,679,120.32	
	/IDEC	anproventente projecco	11,717,430.05	2,501,003.45	1-1,075,1220.52	1
		Replacement of CEHE-owned poles	1			
		based on inspections for ground rotting		1		ļ.
	AB2G	the Groundline Inspection Program.	20,349,336.95	2,640,432.13	22,989,769.08	
				1		
		Planned URD cable replacement on a				
		one-span basis. Spans identified for				
		repair/replace based on Cable Life		ļ		İ
		Extension Program.				
		includes: Spans identified as a result of Cable Life Extension Program.				
	ļ	Does not include: Multi-span				
		replacements, partial loop or total loop		1		
		replacement/rehabilitation, transformer				,
		relocation/replacement, or URD cable				
	AB2S	relocations. Proactive URD loop replacement	8,569,551,11	371,941,23	8,941,492.34	-
	AB2V	Linerane alun tooh Lebiaceuteur	612,657,80	35,465.31	648,123.11	1
	1	Capital grid hardening work that does				1
	AB2Z	not involve replacement of a rotten pole.	4,311,059.18	480,984.16	4,792,043.34	_
	AB3C	Grid Resiliency & Modernization	37,218,288.38	6,174,261.58	43,392,549.96	1
		Install C-truss or other approved brace				
	AB40	on CEHE poles identified by the	-A 000 044 00		A 000 341 9C	
	AB48	Groundline Inspection Program. Pole Treatment – Treatments that	4,002,241.86		4,002,241.86	-
		extend the life of wood poles. This				
		Includes groundline treatment, Insect				
		and internal decay treatment,				
	AB49	fumigation	2,499,907.56	-	2,499,907.56	_
		Cable Life Extension Program - Testing				
		the condition of underground cable and				
		mitigating components of good cable				
	ABCA	with a high probability of failure.	7,532,171.35		7,532,171.35	

Project Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Categor Total
		Replacement of CEHE retirement units				
	4884	when associated with the replacement	7355 855 80	220 705 74	7 5 4 5 6 5 4 5 0	
	ABP1	of a non-CEHE owned pole.	7,266,855.89	278,795.71	7,545,651.60	
	AFNC	New Capacitor Installations	1,212,432.12	-	1,212,432.12	ļ
		Proactive replacement of major				
	cean.	underground equipment, cable or	4 455 205 45	202 444 75	A 440 C4T D4	
	CE1B	structures.	4,166,206.18	282,441.76	4,448,647.94	
	DB16	Streetlight Rehabilitation/Relocations	1,176,038.82	72,088.87	1,248,127.69	
		Replacement of streetlight standards and/or luminaires as a result of failure or				
	DB17	damage. Does not include area lighting.	3,904,603.40	106,601.63	4,011,205.03	
		Streetlight LED Replacement- Program replacement of high pressure sodium, metal halide, and mercury vapor				
	DB18	streetlight luminaires with LED streetlight luminaires.	1,547,278.70	_	1,547,278.70	
	1	Replacement of streetlight standards				
	DB2H	due to cable cuts.	10,191,121.46	1,429,953.57	11,621,075.03	Į.
	,HBFD	Installation of new meter on existing service	3,292,144.01	.	3,292,144.01	
	HFFD	Install, change or removal of CT service.	2,773,799.54	_	2,773,799.54	
	Lu p (co/co/4	Unscheduled Substation Corrective Projects- unscheduled corrective type projects and unforeseen equipment failures. These projects involve replacement of equipment and or	2.025.744.05	257.524.64	2 407 276 00	
	HLP/00/0011	structures.	2,925,744.05	257,534.81	3,183,278.86	_
	HLP/00/0012	Scheduled Substation Corrective Projects, scheduled corrective projects. These projects involve replacement of equipment and or structures. Replace the logic cages in aging and/or	3,482,178.57	213,691.60	3,695,870.17	
		unrellable SCADA Remote Terminal Units				
	HLP/00/0014	(RTU's).	850,5 40 .44	176,398.39	1,026,938.83	-
	HLP/00/0072	Substation Transformer Firewall Program - Install firewalls between power transformers in a manner that reduces the risk of fire spreading from a falled transformer to adjacent units.	1,230,800.45	_	1,230,800,45	
	707,007	This project provides funding for replacement and repair of failed distribution and transmission transformers as well as replacement of failed transmission circuit breakers.	1,400,000,40		wp	
	HLP/00/0075	(Transformers may be rewound and the rewind would be capitalized).	17,700,498.83	319,456.48	18,019,965.31	

roject Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Catego Total
			İ			
		Substation Security Upgrades -				
		Installation of security equipment to	j			•
		control physical and cyber access to CNP	i			ŀ
		substations. This includes: Plant				
		separation fencing, security cameras, &	1			İ
	ŀ	cyber security equipment at various	į			1
		substations. These substations are	Į			1
		selected based on risk, vulnerability, and	1			
		impact as determined by CNP security	1			
		policies and/or future regulatory	1			
	HLP/00/0484	requirements.	1,008,941,90	88,538.93	1,097,480.83	
	HLP/00/0491/000	Flood mitigation improvements at	2)147043-12177		2,037,7400.00	†
	6	Addicks Substation	108,374.56	_	108,374.56	
	-	This program provides for various	100,574.50	-	100,374.30	1
		, · - · .				
		protection improvements on the		ļ		ļ
		substation system. Work covered with				
		these amounts was associated with				
		replacement of transformer panels at				1
	11LP/00/0672	Grant Substation.	2,758,419.91	83,098.09	2,841,518.00	Į
		Replace 35KV//12KV Breakers-This				
		project includes replacement of older		1		
		troublesome distribution breakers		1		
		(mostly oil filled) at various substations				1
		with newer technology vacuum				
	HLP/00/0909	breakers.	348,850.48	162,118.99	510,969.47	
		Distribution support for 69kV conversion		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1
	HLP/00/0914/001	of Ckt 32A: Dunlavy-Hyde Park-				
	0	Downtown	430,321.11	66,827.14	497,148.25	
		Distribution work required to maintain	100,044144	1.010,2712.7	1371210123	1
	HLP/00/0922/000	clearances for Mody-Stewart Ckt 63C-4				
		Ckt 06F-2	E22 211 EE	41 057 00	563,279.44	
	8	CKLUBP-2	522,211.55	41,067.89	303,273,44	-
	all p formand to be	J				
	1 ' ' '	Distribution work required to maintain	(0.00)	04.4.070.00	24 - 272 02	
	8	clearances from LaPorte substation taps	(0.00)	214,378.98	214,378.98	4
		Distribution work required to maintain	ł	ŀ		
	HLP/00/0922/002	clearances for Ckt 06F-2 Holmes to				
	0	Structure 11434	0.00	118,548.17	118,548.17	4
						ļ
	HLP/00/0922/002	Distribution work required to maintain	ļ			
	1	clearances from LaPorte substation taps	(913.00)	215,389.29	214,476.29	_
	1	Substation improvements include	ŀ			
		conversion at Fannin substation and new				
	HLP/00/0936	feeder panel at Needville substation.	6,089,529.23	131,379.24	6,220,908.47	
						7
		Major Underground Rehab - VLT Replace		j		
l		15KV BKRS: Replacement of 15KV				1
		Vacuum breakers with G&W Trident	•	1		1
	•		l.			i .
		1	j]		
		15KV Solid Dielectric Interrupters.				
		1				

Project Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Categor Total
		Major Underground -automation of				
		switching by adding relaying and either	1	1		
		adding motor operators to existing	}			
		switches or replacing the switches. This				
		will automatically transfer customers				
		load to an alternate circuit during an				
		outage of their normal circuit. This will				
		reduce outage duration in remote				ļ
		locations or areas with restricted access				
•	HLP/00/1010	such as airports.	196,386.11	24,602.28	220,988,39	
	HIP/00/1013	MU6 Rehab - VLT CI Interrupters	650,412.74	97,573.90	747,986.64	
		Distribution line clearance corrections				
		between transmission and distribution	1	1		
		facilities to meet National Electrical				
	LUID foo from	1.	204 004 04	250 425 02	E43 007 04	
	HLP/00/1055	Safety Code (NESC) requirements.	261,961.91	250,135.93	512,097.84	-
	HLP/00/1095	Rebuild Bringhurst Substation	2,938,825.06	- 1	2,938,825.06	-
		Substation Physical Security	ļ	1		
		Enhancement: Replacement of				
		substation facility fencing with more				
		protective fencing to ensure our critical	1			•
		assets receive a greater level of				
	HLP/00/1099	protection.	2,771,269.34	681,442.76	3,452,712.10	-
	HLP/00/1128	Rebuild Galena Park substation	565,096.57	-	565,096.57	ł
	-	SUBSTATION NETWORK MODIFICATIONS				
		- Physically isolate substation				
	HLP/00/1195	communications infrastructure	483,181.29	1,,982.85	485,164.14	
	UTL/00/1123	MUG Rehab- VLT Ventilation: Rehab of	403,101,23	3,,702,03	403,104.14	
	ļ	the ventilation system used to regulate				
		-]
	11115 500 51000	transformer temperatures in electrical	120 100 51	47.040.44	454 465 75	
	HLP/00/1230	vaults.	138,199.61	13,218.11	151,417.72	-
	HLP/00/1232	Replace underground vault switches	363,738.34	62,589.34	426,327,68	-
	III B too to and	Replace Underground network	244 000 72	93.560.00	474 461 40	
	HLP/00/1282	connectors	341,900.30	82,560.80	424,461.10	-{
	İ	Replace existing panels and cabinets				[
		containing obsolete Allen Bradley and				1
		Omron PLC's with CNP current standard				
	HLP/00/1356	PLC's	96,685.46	97,500.70	194,186.16	-
	HLP/00/1425	Mont Belvieu Reliability Project	144,850.42	-	144,850.42	4
		Replace 251 Relays in various	220 540 00	04.740.60	474 550 44	
	HLP/00/1429	substations	329,549.00	91,743.62	421,292.62	4
	111 0 /00 /2 100	Rehab Underground vault single phase	007 64 1 07		507 575 53	1
	HLP/00/1433	transformers	607,614.67	61.27	607,675.94	-
		Major Underground Control And				
	HLP/00/1458	Monitoring System	244,866.80		244,866.80	-
	HLP/00/1466	Substation router refresh	762,671.86	21,241.52	783,913.38	4
		Distribution support for conversion of		1	44= 656 ***	1
	HLP/00/1530	Garden Villas to 138kV	145,996.41	- 1	145,996.41	4
		Modernization Program in Major	1			
		Underground to convert circuit feeders				
]	crossing freeways from overhead to				
	HLP/00/1539	underground.	1,697,531.19	-	1,697,531.19	4
		Madaniantan Pagaranta 44-tan				
		Modernization Program in Major				
		Underground to replace aging cable on				1
		dedicated underground circuit feeders,				
	HLP/00/1540	substation getaways and roadway dips.	10,319,448.12	2,720,423.99	13,039,872.11	_

Project Category	Project Number	Description	Additions	Salvage / Removal	Total	Project Category Total
		Replace Underground Network				
		protectors with new protectors.		1		
		Protectors were more than 20 years old				
		and had been flooded in various storms.				
	HLP/00/1542	Electric parts are largely unavailable	(0.00)	118,400.28	118,400.28	
		Electro-Mechanical Relay Replacements-				
		Replace electromechanical relays with				
	HLP/00/1565	microprocesso relaying.	3,204,926.19	66,308.54	3,271,234.73	
		Undergrounding Substation Getaways:				
		Rebuild Circuit to the latest grld				
		resiliency circuit getaway Initiative			040 832 40	
	HLP/00/1589	guidelines.	304,050,23	14,525.95	318,576.18	
		Constant to the Poduction				
		Conservation Voltage Reduction program allows RTO to automate a	Į.			
		voltage drop of the system during high-				1
	į	loading periods to mitigate risks				
	HLP/00/1592	associated with those high load periods.	691,947.02	_	691,947.02	
	S/101388/CN/HFF	account of the cross right rost particular			44-44-4142	1
	D	Install, change or removal of CT service.	363,624.70	_	363,624.70	
		The maintenance, installation, and/or				
	TRIP	replacement of Trip Saver Devices.	5,214,969.98	1,042,694.41	6,257,664.39	
ntelligent Grid						18,698,37
	İ	Planned Upgrades or Replacements of				
		Communication Equipment supporting				
	COAF	Distribution Automation. (IGSD, DACs,	2 422 422 44	40 356 74	0.406.077.45	
	CG1E	Monitoring Systems, etc) Planned/proactive IGSD device	3,122,120.44	13,256.71	3,135,377.15	-
	tgsp	installations/replacements.	9,756,589.93	778.413.76	10,535,003.69	
	1030	Demand Response Management System	3,730,363.33	776,415.70	10,333,003.03	-
		(DRMS) - E-curtailment product was	i			
		purchased for AMS with the goal of	1	ŀ		
	S/101220/CN/HED	1.			•	İ
	070	level.	2,060,097.73	-	2,060,097.73	
	S/101392/CE/CELL					1
	RELAY	Deploy (Post DOE) existing cell relay	1,060,114.71	(19,414.48)	1,040,700.23]
		Replacement of capital				1
		telecommunications equipment at	1	1		
		Intelligent Grid sites. Replaced				
	S/101392/CE/IGFI	equipment includes radios, modems,				
	ETDDEA	enclosures and antennas	585,859.31	-	585,859.31	
		Intelligent Crid Suitakina Parisa 2: 1	į	1		ļ
		Intelligent Grid Switching Device capital	ļ			1
		replacements, each switch has a Telecom box which contains	i	1		
		communications equipment which is	!			
		used to remotely operate the switch and				}
		the equipment is replaced or repaired by				
	S/101710/CE/CG1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ļ			
	E	on this project.	177,930.67	7,171.22	185,101.89	
	-	Installation of Telecom boxes for	#11,000,01	7,171.22	103,101.03	1
		intelligent grid devices to support				
	sciG	reliability.	1,156,238.46	_ 1	1,156,238.46	1
	•					
		1	040.077.040	74 747 000	005 504 502	205 504 55
		Total Projects Greater than \$100,000	910,877,342	74,717,260	985,594,603	985,594,60

Project Category Project Number	Description	Additions	Salvage / Removal	Total	Project Category Total
	Total of All Projects	879,236,443	74,843,733	954,080,176	954,080,176