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Filing Date - 2024-03-06 11:07:56 AM

Control Number - 56211

Item Number - 21

PUC DOCKET NO. 56211

APPLICATION OF CENTERPOINT	§	PUBLIC UTILITY COMMISSION
ENERGY HOUSTON ELECTRIC, LLC	§	
FOR AUTHORITY TO CHANGE RATES	§	OF TEXAS

DIRECT TESTIMONY

OF

STEPHANIE BUNDAGE JUVANE

ON BEHALF OF

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

MARCH 2024

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EXECUTIVE SUMMARY – INTERNAL AUDIT**(STEPHANIE BUNDAGE JUVANE)**

With its staff of highly qualified personnel, the Internal Audit Department provides the Audit Committee and Management with risk-based, independent and objective assurance on internal controls and governance processes within CenterPoint Energy, Inc. (“CNP”) and its subsidiaries and affiliates, including CenterPoint Energy Houston Electric, LLC (“CenterPoint Houston”). Internal Audit provides auditing and advisory services, including financial, compliance, operational, and information technology activity to CenterPoint Houston at reasonable costs. The services provided by Internal Audit create a more efficient organization through the identification of process improvements, which ultimately lead to lower costs for customers. My testimony:

- describes the structure of the Internal Audit Department and the types of services it provides to ensure that CenterPoint Houston complies with legal and regulatory requirements;
- describes how Internal Audit costs are controlled and monitored through the budgeting process;
- addresses how the costs of Internal Audit are assigned and allocated; and
- supports the reasonableness of the Internal Audit costs charged to CenterPoint Houston during the test year.

My testimony will demonstrate that the Internal Audit affiliate costs are reasonable and necessary and are not priced higher to CenterPoint Houston than the prices charged for the same services to other affiliates, which is articulated in the testimony of L. Darren Storey.

- 1 Thus, CenterPoint Houston's Internal Audit affiliate costs should be recovered in full
- 2 through rates.

DIRECT TESTIMONY OF STEPHANIE BUNDAGE JUVANE

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND CURRENT POSITION.

A. My name is Stephanie Bundage Juvane, and I am the Vice President, Internal Audit for CenterPoint Energy Service Company, LLC (“Service Company”).

Q. PLEASE SUMMARIZE YOUR BACKGROUND AND CURRENT POSITION.

A. Prior to my current role as Vice President, Internal Audit, I served as Director, Internal Audit for CNP from November 2022 to January 2023. In my 16-year career with CenterPoint Energy, I have served as Associate General Counsel of Data Privacy and Records Management Counsel for CNP from October 2020 to October 2022. In this role, I was responsible for leading the corporate response to cybersecurity incident investigations and managing a team that counseled the enterprise in data security and privacy, while facilitating compliance across various corporate functions. Prior to this, I completed a two-year regulatory and local relations rotation following several years representing CenterPoint Houston and CNP’s gas utility subsidiary as Senior Counsel in a variety of administrative matters before the Public Utility Commission of Texas and the Railroad Commission of Texas. I hold a bachelor’s degree from Florida State University and a law degree from Thurgood Marshall School of Law. I am an active member of the State Bar of Texas.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I describe the services provided by the Internal Audit function (“Internal Audit”) to CenterPoint Houston, the necessity for providing such services, and the reasonableness of

1 the associated charges to CenterPoint Houston. I will discuss the requirements for Internal
2 Audit, and the structure, authority, and responsibilities of Internal Audit.

3 **Q. HOW DOES YOUR TESTIMONY RELATE TO THAT OF OTHER WITNESSES?**

4 A. I serve as CenterPoint Houston's witness supporting the recovery of reasonable and
5 necessary test year costs for Internal Audit. These are all affiliate costs that CenterPoint
6 Houston seeks to recover as part of its cost of service. Mr. Storey provides direct testimony
7 that supports CenterPoint Houston's recovery of its affiliate costs, including affiliate
8 billings and methodologies, budgeting, cost controls, and the use of Service Level
9 Agreements.

10 **Q. WHAT RATE FILING SCHEDULES ARE YOU SPONSORING?**

11 A. I sponsor Schedule II-C-3: Internal Audits, and my testimony supports the reasonableness
12 and necessity of various costs included in Schedules V-K-7 and V-K-12 sponsored by Mr.
13 Storey as they relate to Internal Audit.

14 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

15 A. Internal Audit provides internal auditing services to CenterPoint Houston, as required to
16 comply with laws, regulations, and rules addressing corporate governance. For the test
17 year, Internal Audit costs to CenterPoint Houston are reasonable for the services provided.
18 Internal Audit expects to maintain the same level of expenditures to continue to provide
19 the appropriate level of audit coverage. The amount of the charges to CenterPoint Houston
20 is based on the composite ratio allocation method discussed by Mr. Storey.

II. ORGANIZATION AND RESPONSIBILITIES OF INTERNAL AUDIT

Q. HOW IS INTERNAL AUDIT ORGANIZED?

A. Internal Audit is within Corporate Services. For further discussion on Corporate Services and its role in Service Company, please refer to Mr. Storey's testimony.

Q. PLEASE DESCRIBE THE SERVICES WHICH INTERNAL AUDIT PROVIDES.

A. The table shown in Figure 1 below lists the typical audit activities performed by Internal Audit.

Figure 1

Financial Audit	Review and testing of selected financial accounts, supporting records for the general ledger, sub-ledgers, reconciliations, and any management adjustments.
Integrated Audits	Review and testing of controls related to financial, operational, technology, and compliance activity.
Operational Audits	Process driven audits concentrating on the effectiveness of operations and/or internal controls for a function, business, location, and/or department.
Information Technology	Audits focused on information systems, technology, and related processes.
Compliance Audits	Review of compliance with established CenterPoint Energy, Inc. policies and procedures, regulatory, statutory, contract compliance, or other defined requirements.
Advisory Audits	Review of processes and controls and provision of recommendations regarding industry insights and best practices.

Q. ARE THERE BENEFITS TO HAVING A CENTRALIZED INTERNAL AUDIT DEPARTMENT?

A. Yes. Having a centralized Internal Audit department is important for efficiency, cost containment, and consistency in audit practices and protocols. If each subsidiary of CNP maintained a separate Internal Audit function, redundancy of people and increased cost

1 would be likely.

2 **Q. HOW DO THESE SERVICES BENEFIT CENTERPOINT HOUSTON AND ITS**
3 **CUSTOMERS?**

4 A. Internal Audit is responsible for performing the internal audit function for the entire CNP
5 organization, including CenterPoint Houston, as required by various charters and internal
6 policies. These services benefit CNP and its subsidiaries and affiliates, including
7 CenterPoint Houston, by monitoring and assessing CNP's operational, financial,
8 information systems, and administrative controls. Additionally, Internal Audit evaluates
9 compliance with applicable policies, procedures, contracts, and laws and regulations.
10 These services help to ensure an efficient organization through the identification of process
11 improvements, which ultimately leads to reduced costs paid by CenterPoint Houston's
12 customers. For example, Internal Audit performed a review of the CenterPoint Energy
13 Houston Electric, LLC Bond Companies to assess CenterPoint Houston's annual
14 compliance with requirements set forth in the servicing agreements relating to the issued
15 bonds. By ensuring that the Company complies with the servicing agreements, Internal
16 Audit helps prevent the Company from incurring additional costs that could be borne by
17 customers. Please refer to Mr. Storey's testimony for a discussion of the benefits of
18 corporate governance activities, including the Internal Audit function, to customers.

19 **Q. HOW DOES INTERNAL AUDIT CARRY OUT ITS RESPONSIBILITY FOR**
20 **PERFORMING THE INTERNAL AUDIT FUNCTION?**

21 A. Internal Audit serves as an independent and objective compliance and monitoring function
22 as follows.

- 1 • Internal Audit has been granted specific authority by the Audit Committee of the Board
2 of Directors (“Audit Committee”) through the Internal Audit Charter to monitor and
3 assess the adequacy and effectiveness of CNP’s operational, financial, information
4 systems, and administrative controls, as well as compliance with all applicable policies,
5 procedures, and regulations. It also supports investigations under the Ethics and
6 Compliance Code. In addition, where contractually authorized, Internal Audit may
7 review accounting and other relevant records of contractors, joint ventures, suppliers,
8 and other third-party business associates.
- 9 • Internal Audit operates independently of the management of CNP and its subsidiaries
10 and affiliates, and it reports functionally to the Audit Committee, thereby ensuring its
11 ability to independently monitor and review all activities within the CNP organization.
12 The Audit Committee consists of five independent directors of CNP’s Board of
13 Directors. I meet with the Audit Committee at formal Audit Committee meetings at
14 least five times per year to discuss the results of Internal Audit activities. I typically
15 have the same number of meetings with the Audit Committee chairperson.
- 16 • Internal Audit has assembled a team of experienced and qualified internal and external
17 professionals, described later in my testimony, to perform the internal audit function.
- 18 • Internal Audit utilizes a risk-based approach in the six-month planning process to
19 identify auditable areas. A six-month audit plan, modified as needed to incorporate
20 new risk areas, is prepared and presented to the Audit Committee twice a year for
21 review and approval.
- 22 • Internal Audit follows a defined internal audit process for each individual audit project
23 through the performance of planning, fieldwork, and reporting. The client responses

to recommendations from each audit are monitored through the Management Action Plan (“MAP”) follow-up process.

Q. WHAT AUTHORITY HAS THE AUDIT COMMITTEE CONFERRED UPON INTERNAL AUDIT?

A. Through the Internal Audit Charter, which is reviewed and annually approved by the Audit Committee, Internal Audit is granted authority to review all aspects of CNP’s functions, including the business and operations of its subsidiaries and affiliates. Internal Audit has free and complete access to all records, property, and personnel relevant to the subject under review. Also, my staff and I have full and independent access to all levels of management and the Audit Committee. Internal Audit exercises complete discretion to assure confidentiality of all matters.

Additionally, Internal Audit is authorized to:

- select processes and activities to review, determine scope of work, allocate resources, establish frequency of audit/review activity, and apply the techniques required to accomplish audit objectives;
- obtain the necessary assistance of CNP personnel in areas where audits are performed, as well as other specialized services from inside or outside of CNP and its subsidiaries and affiliates; and
- maintain its objectivity and independence by not having an operating role or direct authority over the activities that it reviews.

Q. WHAT RESPONSIBILITIES DOES THE AUDIT COMMITTEE HAVE FOR OVERSEEING INTERNAL AUDIT?

A. At least annually, the Audit Committee reviews the Internal Audit organizational structure,

1 qualifications, and the Internal Audit Charter. The Audit Committee, governed by its own
2 charter, reviews the budget and staffing of the Internal Audit function. It also reviews and
3 approves the six-month audit plan twice a year and modifications to the approved plans,
4 including changes to the annual budget as needed based on requested changes to specified
5 audit projects.

6 **Q. HOW DOES INTERNAL AUDIT MAINTAIN ITS INDEPENDENCE FROM**
7 **CORPORATE MANAGEMENT?**

8 A. In order to preserve its independence, Internal Audit personnel are not allowed to do the
9 following except for storm restoration duties:

- 10 • perform any operational duties for CNP or its subsidiaries and affiliates, and, in this
11 regard, Internal Audit personnel are not to be used as auxiliary line accounting or
12 finance staff;
- 13 • initiate or approve accounting transactions, implement internal controls, develop
14 procedures, install systems, prepare records, or engage in any other activity other than
15 those directly related to Internal Audit activities; and
- 16 • direct the activities of any employee not employed by Internal Audit, except to the
17 extent such employees have been appropriately assigned to auditing teams or to
18 otherwise assist the auditors.

19 **Q. WHAT GUIDELINES DOES INTERNAL AUDIT FOLLOW IN PERFORMING**
20 **ITS FUNCTION?**

21 A. Internal Audit follows the guidelines established by The International Professional
22 Practices Framework (“IPPF”), which are issued by The Institute of Internal Auditors
23 (“The IIA”). In September 2019, to be compliant with IPPF—Standard 1312, which states

1 that an “External Assessment must be conducted at least once every five years by a
2 qualified, independent reviewer or review team from outside the organization,” Internal
3 Audit completed an external assessment. The review was performed by The IIA, and
4 Internal Audit received a rating of “Generally Conforms,” the highest rating possible.

5 **Q. PLEASE DESCRIBE THE INTERNAL AUDIT ORGANIZATION DURING THE**
6 **TWELVE MONTHS ENDED DECEMBER 31, 2023.**

7 A. Internal Audit is part of Service Company. I lead Internal Audit and serve as Vice
8 President. I functionally report directly to the Audit Committee, and I administratively
9 report to Christopher Foster, Executive Vice President and Chief Financial Officer of CNP.
10 In addition, Internal Audit has a co-source partnership with KPMG LLP for staff
11 augmentation as well as to leverage certain subject matter expertise when necessary for a
12 specific audit.

13 **Q. PLEASE DISCUSS THE PROFESSIONAL QUALIFICATIONS OF THE**
14 **MEMBERS OF THE INTERNAL AUDIT DEPARTMENT.**

15 A. Internal Audit has assembled a team of highly qualified and experienced personnel to
16 provide audit services for its clients. Many members of Internal Audit, including the
17 external KPMG LLP team, have obtained one or more professional certifications. The
18 predominant certification obtained by our audit professionals includes one or more of the
19 following: Certified Public Accountant (“CPA”), Certified Internal Auditor (“CIA”),
20 Certified Information Systems Auditor (“CISA”), Certified Information Systems Security
21 Professional (“CISSP”), and/or Certified Fraud Examiner (“CFE”). Continuing
22 Professional Education (“CPE”) is required to maintain the various certifications
23 mentioned above to ensure that members of the Internal Audit team stay abreast of current

1 trends, best practices and emerging risks. Additionally, all audit professionals within
2 Internal Audit have an undergraduate degree.

3 **Q. WHAT IS THE INTERNAL AUDIT DEPARTMENTAL PLANNING PROCESS?**

4 A. Internal Audit designs and executes a six-month audit plan twice a year that covers
5 operations and functions of CNP and its subsidiaries and affiliates to examine and evaluate
6 the adequacy and effectiveness of control systems, business processes, and compliance
7 with internal policies and procedures and governmental regulations. The six-month audit
8 plans are developed using a risk-based methodology and includes risks or control concerns
9 identified by various members of management and the Audit Committee. The Audit
10 Committee reviews and approves the six-month audit plans. Senior and executive
11 management also review the audit plans.

12 **Q. HOW ARE AREAS SELECTED FOR AUDIT REVIEW EACH YEAR?**

13 A. At the beginning of each six-month planning process, Internal Audit reviews the
14 appropriateness of the defined "Audit Universe," which is the grouping of auditable areas
15 based on business and functional units from prior audit planning cycles. Next, we gather
16 data from multiple sources, including meetings with business and functional unit
17 management, to validate, add, and/or delete possible auditable areas. We also review
18 Enterprise Risk Management risk events for each area. Please refer to company witness M.
19 Shane Kimzey for a description of the Enterprise Risk Management Team and its functions
20 and processes. We then evaluate and prioritize each auditable area by integrating risk
21 information with professional judgment. Factors affecting the evaluation of risk in each
22 auditable area include, but are not limited to, factors unique to the universe or auditable
23 area, materiality, geographic location, recent and/or planned organizational or technology

1 changes, prior audit results, known inherent or control risks, fraud risks, and the length of
2 time that has passed since an area was last audited. Utilizing risk analysis results and
3 department resources, Internal Audit determines the timing of each individual audit project.
4 As risks that could impact CNP may change throughout an audit plan cycle, Internal Audit
5 continually monitors emerging risks. If new risks are identified, Internal Audit follows the
6 same process described above, to determine if changes to the approved six-month audit
7 plans are needed. The resulting changes are reviewed and approved by the Audit
8 Committee.

9 **Q. WHY ARE SOME AREAS NOT AUDITED EVERY YEAR?**

10 A. As noted above, we evaluate and prioritize auditable areas by integrating risk information
11 with professional judgment to determine risks that could impact business objectives for
12 each auditable area. Those auditable areas with higher risk are audited more frequently
13 than those with lower risk. In addition, risk assessments are performed throughout the year
14 as circumstances change. Risk assessments are driven by activity in the auditable area,
15 externally and internally, and can change from period to period. However, as stated earlier,
16 modifications to the approved six-month audit plans are reviewed with and approved by
17 the Audit Committee as needed.

18 **Q. WHAT IS THE SCOPE OF THE INTERNAL AUDIT FUNCTION?**

19 A. The Internal Audit scope of work includes determining whether CNP's system of risk
20 management, control, internal processes, and governance processes, as designed and
21 represented by management, are adequate and functioning in order to ensure that:

- 22 • exposures to risk are appropriately identified, evaluated, and managed;
- 23 • interaction with the various governance groups occurs as needed;

- significant financial, managerial, and operating information is accurate, reliable, and timely;
- employees' actions comply with policies, standards, procedures, contracts, and applicable laws and regulations;
- resources are acquired economically and used appropriately, and assets are properly safeguarded;
- programs, plans, and objectives are achieved;
- quality and continuous improvement are fostered in the control process; and
- significant legislative or regulatory issues which may impact CNP are recognized and addressed appropriately.

III. INTERNAL AUDIT COSTS ASSIGNED TO CENTERPOINT HOUSTON

Q. HOW ARE THE COSTS OF THE INTERNAL AUDIT ORGANIZATION ASSIGNED TO CENTERPOINT HOUSTON?

A. Internal Audit costs are considered governance activities, which are assigned based on the composite ratio allocation methodology. This methodology, along with an overview of all CenterPoint Houston affiliate costs, is discussed in Mr. Storey's testimony.

IV. REASONABLENESS AND NECESSITY OF CHARGES

Q. ARE THE INTERNAL AUDIT COSTS ASSIGNED TO CENTERPOINT HOUSTON REASONABLE AND NECESSARY?

A. Yes, as previously described, Internal Audit provides reasonable and necessary services to CenterPoint Houston. In addition, the composite allocation methodology, described in Mr.

Storey's testimony, ensures that CenterPoint Houston is not charged a rate higher for Internal Audit than its affiliates.

Q. WHAT ESTABLISHED PROCESS DOES INTERNAL AUDIT FOLLOW TO ENSURE THAT COSTS ARE CONTROLLED?

A. Internal Audit follows an established process to ensure that its overall costs are controlled. Internal Audit participates in CNP's budget process, which includes a formal budget review process and an ongoing management approval process for actual dollars spent. As costs are incurred, variances from the annual budget must be explained to and approved by CNP management and the Audit Committee periodically. The budget process is further described in Mr. Storey's testimony.

Q. DOES CENTERPOINT HOUSTON PAY HIGHER RATES FOR INTERNAL AUDIT SERVICES THAN OTHER BUSINESS UNITS OR AFFILIATES?

A. No.

Q. WAS IT REASONABLE AND NECESSARY FOR CENTERPOINT HOUSTON TO USE INTERNAL AUDIT SERVICES DURING THE TEST YEAR?

A. Yes. Internal audit services are reasonable and necessary to the Company's operation. As Mr. Storey explains in his direct testimony, CenterPoint Houston received the benefit of sharing staff that could perform internal audits without having to hire a full-time staff.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

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APPLICATION OF CENTERPOINT	§	PUBLIC UTILITY COMMISSION
ENERGY HOUSTON ELECTRIC, LLC	§	
FOR AUTHORITY TO CHANGE RATES	§	OF TEXAS

DIRECT TESTIMONY

OF

CARLA KNEIPP

ON BEHALF OF

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

MARCH 2024

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LIST OF EXHIBITS

Exhibit CAK-1	Critical Infrastructure Supply Chain Constraints
Exhibit CAK-2	Peer Utility Financial Disclosure Extracts Related to Supply Chain
Exhibit CAK-3	Executive Perspectives on Top Risks for 2023 & 2032 Report
Exhibit CAK-4	DOE Actions to Unlock Transformer and Grid Component Production Statement
Exhibit CAK-5	EEI 9.2023 Capital Expenditure Comparison
Exhibit CAK-6	SDI 2023 EOY KPI

GLOSSARY OF ACRONYMS AND DEFINED TERMS

<u>Acronym</u>	<u>Definition</u>
CenterPoint Houston or Company	CenterPoint Energy Houston Electric, LLC
CNP	CenterPoint Energy, Inc.
Commission	Public Utility Commission of Texas
FS&R	Fleet, Shop Services & Radio Communications
LLTF	Long Lead Time Facilities
MM	Materials Management
PURA	Public Utility Regulatory Act
S2P	Source-to-Pay
SCS	Supply Chain Sustainability
SD&I	Supplier Diversity & Inclusion and
Service Company	CenterPoint Energy Service Company, LLC
WH	Warehouse &Logistics

EXECUTIVE SUMMARY - SUPPLY CHAIN**(CARLA KNEIPP)**

Supply Chain is a centrally managed support organization that provides both operations and corporate support services and management oversight to CenterPoint Energy Houston Electric, LLC (“CenterPoint Houston” or the “Company”). My testimony:

- describes the structure of the organization, function, and responsibilities of the Supply Chain organization;
- describes the changes in the Supply Chain organization and operations that have occurred since CenterPoint Houston’s most recent rate case in 2019 including its approach taken regarding Long Lead Time Facilities (“LLTF”);
- describes the Supply Chain organization’s programs;
- describes how Supply Chain service costs are budgeted, monitored, and controlled;
- addresses how the costs of Supply Chain are assigned; and
- supports the reasonableness and necessity of the Supply Chain costs incurred by CenterPoint Houston.

My testimony demonstrates that the affiliate and direct costs for Supply Chain services, as set out in the direct testimony of Company witness L. Darren Storey, are reasonable and necessary and, as explained in the direct testimony of Company witness Mr. Storey, are not priced higher to CenterPoint Houston than the prices charged for the same services to other affiliates. Thus, CenterPoint Houston’s Supply Chain service costs should be fully recovered in the cost of service approved by the Public Utility Commission of Texas (“Commission”) in this proceeding.

Additionally, direct costs for the Supply Chain organization originate in CenterPoint Houston. The predominance of these costs are distributed within the business unit and are reflected

- 1 in the testimony sponsored by other witnesses. Finally, the Company proposes to recover the
- 2 LLTF costs I discuss in my testimony through a regulatory asset as supported by Company witness
- 3 Kristie L. Colvin.

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, EMPLOYER, POSITION, AND BUSINESS ADDRESS.

A. My name is Carla A. Kneipp. I am the Senior Vice President Supply Chain for CenterPoint Energy Service Company, LLC ("Service Company"). My business address is 1111 Louisiana St., Houston, Texas 77002.

Q. WHAT ARE YOUR RESPONSIBILITIES AS SENIOR VICE PRESIDENT SUPPLY CHAIN?

A. My duties include overseeing and managing Procurement; Materials Management; Warehouse & Logistics; Fleet, Shop Services & Radio Communications; and Supplier Diversity & Inclusion and Supply Chain Sustainability as it relates to supply chain needs for the business units that Service Company serves.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND, PROFESSIONAL QUALIFICATIONS, AND PREVIOUS WORK EXPERIENCE.

A. I graduated from Rice University with a Bachelor of Arts in 1994. Upon graduation, I joined Price Waterhouse, LLP and worked in both the external audit and tax departments. In 1995, I entered graduate school at Rice University and obtained a Masters of Accountancy in 1996. Upon graduation, I joined Coopers and Lybrand, LLP as a Tax Associate. I left Coopers & Lybrand in 1997 and joined BMC Software, Inc. as a Senior Tax Professional. I became the Assistant European Controller for BMC Software's European organization based in The Netherlands in April 1998. At the conclusion of this assignment, I returned to the United States in January 2000 and established the audit services function at BMC Software, Inc., performing various positions of increasing

1 responsibility, ultimately in the capacity of Vice-President - Internal Audit and Controls. I
2 became a Certified Public Accountant in 1999 and a Certified Internal Auditor in 2002.

3 I began my career with CNP in May 2007 as the Vice President of Internal Audit.
4 My positions with CNP have included: Vice President of Internal Audit, Vice President of
5 Investor Relations, and Vice President and Treasurer. I became a Certified Treasury
6 Professional in 2016. I was named to my present position, Senior Vice President of Supply
7 Chain in 2020 with a primary focus to support the company's natural gas and electric
8 businesses.

9 **Q. DO YOU HOLD ANY PROFESSIONAL LICENSES OR CERTIFICATES?**

10 A. I am a licensed Certified Public Accountant. I have also been a licensed as a Certified
11 Treasury Professional and Certified Internal Auditor; however, I have not maintained these
12 licenses as they are not required in my current position.

13 **Q. HAVE YOU PREVIOUSLY SPONSORED TESTIMONY BEFORE THE**
14 **COMMISSION OR OTHER REGULATORY AUTHORITIES?**

15 A. Yes. I presented testimony before the Commission on behalf of CenterPoint Houston in
16 Docket No. 38339, the Company's 2010 base rate case.

17 **Q. HAVE YOU PREPARED ANY EXHIBITS IN CONNECTION WITH YOUR**
18 **TESTIMONY?**

19 A. I have prepared or supervised the preparation of the exhibits:

20	Exhibit CAK-1	Critical Infrastructure Supply Chain Constraints
21	Exhibit CAK-2	Peer Utility Financial Disclosure Extracts Related to Supply Chain
22	Exhibit CAK-3	Executive Perspectives on Top Risks for 2023 & 2032 Report
23	Exhibit CAK-4	DOE Actions to Unlock Transformer and Grid Component
24		Production Statement
25	Exhibit CAK-5	EEI 9.2023 Capital Expenditure Comparison

1 Exhibit CAK-6 SDI 2023 EOY KPI

2 **Q. DO YOU SPONSOR OR CO-SPONSOR ANY SCHEDULES IN THIS**
3 **PROCEEDING?**

4 A. No.

5 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS**
6 **PROCEEDING?**

7 A. The purpose of my direct testimony is to provide an overview of the purpose and function
8 of the Supply Chain organization. I describe the structure of the Supply Chain organization
9 and discuss its role in providing corporate services and operations support services to
10 various CenterPoint Energy, Inc. ("CNP") business units. I further describe the services
11 provided by Supply Chain to CenterPoint Houston as part of supply chain support services,
12 and the supply chain challenges that have arisen since the last rate case. In addition, I
13 provide an overview of the process that CenterPoint Houston followed to determine which
14 of its transmission and distribution facilities meet the requirements of Public Utility
15 Regulatory Act ("PURA") §39.918(b)(2) as LLTF. My testimony explains why
16 CenterPoint Houston's direct and affiliate Supply Chain service expenses are reasonable
17 and necessary, and discusses the processes to monitor and control incurred costs for
18 business units using the services, including CenterPoint Houston.

19 **Q. HOW DOES YOUR TESTIMONY RELATE TO THE TESTIMONY OF OTHER**
20 **WITNESSES IN THIS PROCEEDING?**

21 A. I serve as CenterPoint Houston's witness supporting the recovery of reasonable and
22 necessary test year costs for the Supply Chain organization. These are both direct and
23 affiliate costs that CenterPoint Houston seeks to recover as part of its cost of service.

1 Additionally, I support the reasonableness and necessity of the Supply Chain
2 organization's capital expenditures.

3 Mr. Greenley provides direct testimony that supports CenterPoint Houston's recovery of
4 the Utility Operations Support organization which in 2019 was part of the Business &
5 Operations Support organization as was the Supply Chain organization.

6 Mr. Storey provides direct testimony that supports CenterPoint Houston's recovery of its
7 affiliate costs, including the Supply Chain organization expenses assigned to CenterPoint
8 Houston. Mr. Storey specifically addresses affiliate billings and methodologies, budgeting,
9 and cost controls associated with these expenses.

10 Ms. Colvin provides direct testimony that supports CenterPoint Houston's request to
11 recover LLTF costs through a regulatory asset.

12 **II. OVERVIEW OF SUPPLY CHAIN ORGANIZATIONAL STRUCTURE**

13 **Q. CAN YOU PROVIDE A BRIEF EXPLANATION OF THE "SUPPLY CHAIN" AND**
14 **ITS IMPORTANCE TO CENTERPOINT HOUSTON?**

15 A. Yes. At its most basic level, the term "supply chain" refers to a network of individuals and
16 companies that are involved in creating a product or service and delivering it to a consumer.
17 CenterPoint Houston's supply chain begins with the procurement of raw materials and ends
18 when the finished product or service reaches CenterPoint Houston for use in providing
19 electric utility service. Suppliers involved in the supply chain include producers,
20 manufacturers, suppliers, vendors, warehouses, transportation companies, distribution
21 centers, and retailers. Generally speaking, the supply chain begins when a business
22 receives an order from a customer and its functions include product development,
23 marketing, operations, distribution networks, finance, and customer service. An efficient
24 supply chain also requires reliable suppliers, which means that the suppliers produce a

1 product that meets the customer's specifications and requirements, deliver it when
2 requested and without damage or defect. A well-managed supply chain is important to
3 CenterPoint Houston to ensure that it has the products, materials and services necessary to
4 safely, reliably, and cost-effectively serve customers.

5 **Q. WHAT IS THE SUPPLY CHAIN ORGANIZATION?**

6 A. CenterPoint Energy's Supply Chain Organization is an organization within CNP that is
7 responsible for securing and delivering the services, materials, and tools to support CNP
8 and CNP's business units, including CenterPoint Energy Houston Electric, to perform their
9 daily work activities. Within the supply chain organization, there are team members that
10 primarily support CenterPoint Houston activities and their costs are directly incurred by
11 CenterPoint Houston. Additionally, there are supply chain team members that support
12 CNP and CNP's business units their costs are considered affiliate costs and these costs are
13 allocated to CNP business units, including CenterPoint Houston.

14 **Q. ARE THERE BENEFITS TO HAVING A CENTRALIZED SUPPLY CHAIN**
15 **SUPPORT ORGANIZATION?**

16 A. Yes. A centralized supply chain organization enables CenterPoint Houston to benefit from
17 CNPs larger size and scale. Supply Chain can leverage expertise by providing common
18 and shared business strategies, practices, infrastructures and systems across CNP. This in
19 turn facilitates use of shared resources, achieves economies of scale through workload
20 leveling and consolidated purchasing, provides workforce flexibility, and reduces the need
21 for redundant supervisory and management costs throughout CNP while giving CNP and
22 CNP's business units access to specialized skills and resources in an efficient and cost-

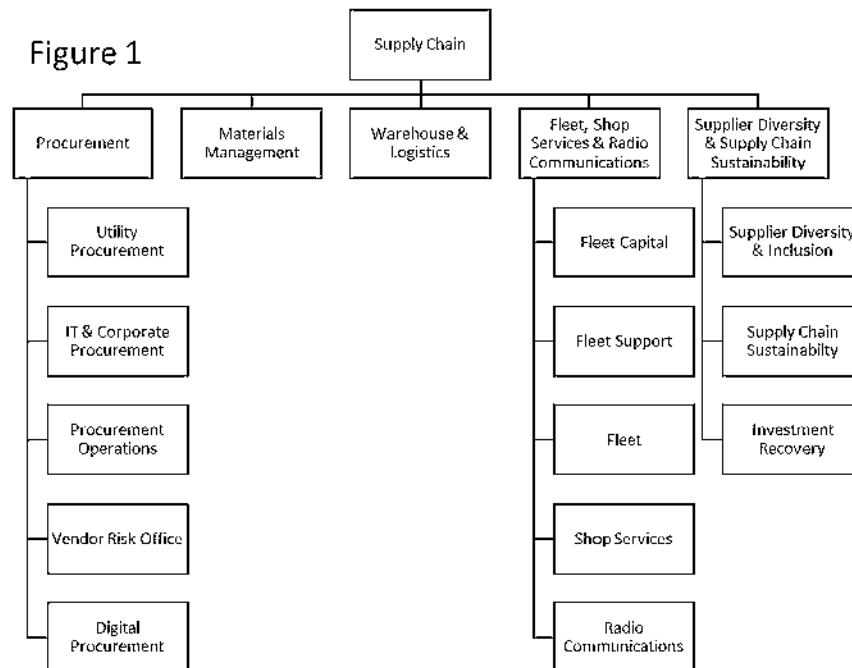
1 effective manner. Supply Chain is not a profit center. Rather, services are provided at its
 2 cost to meet the needs of the client.

3 **Q. WHERE DOES THE SUPPLY CHAIN ORGANIZATION FALL WITHIN CNP?**

4 A. The Supply Chain organization reports to the Executive Vice President and General
 5 Counsel.

6 **Q. HOW IS THE SUPPLY CHAIN ORGANIZATION ORGANIZED?**

7 Q. The organization is comprised of five departments: Procurement; Materials Management
 8 (“MM”), Warehouse & Logistics (“WH”); Fleet, Shop Services & Radio Communications
 9 (“FS&R”); and Supplier Diversity & Inclusion (“SD&I”) and Supply Chain Sustainability
 10 (“SCS”). An organizational chart is shown in Figure 1.
 11



1 **A. The Procurement Department**

2 **Q. PLEASE DESCRIBE THE PROCUREMENT DEPARTMENT**

3 A. The Procurement Department is responsible for purchasing products, materials, and
4 services for CNP and CNP's business units using a timely, cost-effective, risk-appropriate,
5 ethical, and fair approach in compliance with the CNP's Procurement Policy.

6 **Q. PLEASE DESCRIBE THE PROCUREMENT DEPARTMENT'S APPROACH TO**
7 **PROCUREMENT.**

8 A. The Procurement Department uses a "Category Management" approach to procure
9 materials, goods and/or services, which means it segments spending into categories that
10 contain similar products and analyze these categories in order to identify opportunities to
11 consolidate spending, drive efficiency, and reduce risk related to sourcing materials or
12 services of a specific spend category. The Category Management structure provides
13 enhanced procurement practices by segmenting spend into areas that contain similar
14 products and services, while leveraging market and spend intelligence to maximize value
15 for the company. The Procurement policy is intended to ensure CNP procures quality
16 materials and services in a manner that is timely, cost-effective, risk-appropriate, ethical
17 and fair, as well as satisfies all Company controls and business objectives.

18 **Q. PLEASE DESCRIBE THE ORGANIZATIONAL STRUCTURE OF THE**
19 **PROCUREMENT DEPARTMENT.**

20 A. The Procurement Department is comprised of five teams: three sourcing teams (the Utility
21 Procurement Team, the Corporate & IT Procurement Team, and the Procurement
22 Operations Team) as well as the Vendor Risk Management Team and the Digital
23 Procurement Team.

24 **Q. PLEASE DESCRIBE THE UTILITY PROCUREMENT TEAM.**

1 A. The Utility Procurement team is responsible for purchases such as construction services,
2 engineering services, and materials directly for utilities. The team identifies vendors,
3 negotiates and establishes contracts to procure products and services, manages vendor
4 relationships, assesses markets, and performs risk management assessments. To
5 accomplish these tasks, the Utility Procurement team collaborates with CenterPoint
6 Houston business team members and departments within the Supply Chain organization.
7 Unlike the rest of the Procurement Team, some members are employees of CenterPoint
8 Houston rather than CNP and their costs are a direct expense to CenterPoint Houston.

9 **Q. PLEASE DESCRIBE THE CORPORATE & IT PROCUREMENT TEAM.**

10 A. The Corporate & IT Procurement team is responsible for procuring corporate services and
11 information technology related purchases. Examples include but are not limited to
12 facilities, accounting, human resources, call center services, and technology related
13 software & hardware. The team identifies vendors, negotiates and establishes contracts to
14 procure products and services, manages vendor relationships, assesses markets, and
15 performs risk management assessments. To accomplish these tasks, the Corporate & IT
16 Procurement team collaborates with Corporate & IT business team members and
17 departments within the Supply Chain organization.

18 **Q. PLEASE DESCRIBE THE PROCUREMENT OPERATIONS TEAM.**

19 A. Procurement Operations is responsible for fulfilling the transactional execution needs
20 arising from sourcing activities, such as purchase order execution, resolving invoicing
21 holds, and contract extensions/amendments as well as procurement help desk support.

1 **Q. PLEASE DESCRIBE THE VENDOR RISK MANAGEMENT TEAM.**

2 A. The Company's Vendor Risk Management program was established in 2020 and is
3 responsible for three components: Vendor Risk Assessments, Vendor Contract Compliance
4 Reviews and Contract Management Office activities.

5 **Q. WHAT ARE VENDOR RISK ASSESSMENTS?**

6 A. Vendor Risk Assessments assess the level and type of risks introduced to CNP and CNP's
7 business units via its third-party providers of goods and services. The goal of the Vendor
8 Risk Assessment Program is to identify and mitigate vendor risks. Vendor Risk
9 Assessments include a review of risk areas such as Safety, Cyber Security, Data Privacy,
10 Credit, Environmental, Ethics and Compliance, Operational Compliance, Regulatory, and
11 Supply Chain. The evaluation of these risk areas is performed in collaboration with
12 associated risk subject matter experts. In some instances, it is determined that the risk
13 introduced by a vendor is too high and CenterPoint Houston will discontinue doing
14 business with the vendor.

15 **Q. WHAT ARE VENDOR CONTRACT COMPLIANCE REVIEWS?**

16 A. CNP instituted Vendor Contract Compliance Reviews Program across CNP and CNP's
17 business units ensures that vendors are adhering to the terms, conditions, and requirements
18 within the applicable agreements. This helps ensure that CenterPoint Houston is receiving
19 the agreed upon value negotiated in the contract and managing vendor risk, e.g. correct
20 billing, adherence to terms and conditions. A sample of vendor agreements are selected
21 for detail review based on various factors such as but not limited to the amount of spend,
22 the number of transactions, complexity of transactions, and level of non-compliance risk.

1 **Q. WHAT ARE CONTRACT MANAGEMENT OFFICE ACTIVITIES?**

2 A. Contract Management office activities include ensuring consistency, appropriateness and
3 uniformity in terms and conditions in procurement contracts with vendors. The Vendor
4 Risk Management Team works closely with the Commercial Legal team to accomplish this
5 task.

6 **Q. PLEASE DESCRIBE THE DIGITAL PROCUREMENT TEAM.**

7 A. The Digital Procurement team oversees our procurement systems, systems help desk,
8 systems training, and testing related to the Sarbanes-Oxley Act of 2002. As part of this
9 role, the team is responsible for enterprise business software management and
10 implementation.

11 **B. The Materials Management Department**

12 **Q. PLEASE DESCRIBE THE MATERIALS MANAGEMENT TEAM.**

13 A. The CenterPoint Houston MM team is responsible for ordering and tracking delivery of
14 materials. They are also responsible for ensuring compliance with policies and procedures
15 related to the ordering and management of materials; as well as developing policies,
16 practices, and controls to enhance the administration ordering practices. MM engages in
17 and implements continuous improvement activities to ensure that business practices are in
18 line with industry standards and are as efficient as possible in managing costs. Continuous
19 improvement activities include modernization of practices and systems used in the
20 management, transport, and tracking of materials from order to destination.

C. The Warehousing Department

Q. PLEASE DESCRIBE THE WH DEPARTMENT.

A. The CenterPoint Houston WH department is responsible for receiving, transporting, issuing and maintaining accountability for materials as well as reverse logistics at two distribution centers and 12 service centers. These materials can be issued directly from warehouses, delivered to contractor sites, and delivered directly to the field work site to minimize overall costs to the execution of work. WH is also responsible for developing policies, practices, and controls to enhance the administration and safekeeping of inventory and materials. WH engages in and implements continuous improvement activities to ensure that business practices are in line with industry standards and are as efficient as possible in managing costs and safekeeping inventory and materials. Continuous improvement activities include modernization of practices and systems used in the management, transport, and tracking of materials from order to implementation.

D. The Fleet, Shop Services & Radio Communications Department

Q. PLEASE DESCRIBE THE FS&R DEPARTMENT.

A. The FS&R department provides services related to the acquisition and maintenance of fleet vehicles as well as shop and radio support activities for CenterPoint Houston. The FS&R function is made up of three different teams that support the operations of CenterPoint Houston: The Fleet team, the Shop Services team, and the Radio Communications team.

Q. WHAT ARE THE RESPONSIBILITIES OF THE FLEET TEAM?

A. The Fleet team is responsible for the procurement and maintenance of the vehicles used by CNP and CNP's business units, including CenterPoint Houston as well as the management of 13 garages. The Fleet team is comprised of two groups: the Maintenance group and the Capital & Support group.

- 1 • The Maintenance group is responsible for commercial vehicle and motor vehicle
2 inspections as well as preventative maintenance requirements, while also facilitating
3 repairs and capital upfitting of new vehicles.
- 4 • The Capital & Support group is responsible for the procurement of fleet capital vehicles
5 and equipment, replacing vehicles and equipment, creating and updating vehicle
6 specifications, maintaining records on vehicles and equipment, establishing
7 maintenance plans to ensure compliance with state and federal requirements, tracking
8 recalls and warranties, overseeing the onsite fuel activities, and administering the
9 external fuel card program.

10 **Q. WHAT ARE THE RESPONSIBILITIES OF THE SHOP SERVICES TEAM?**

11 A. The Shop Services team is responsible for testing, refurbishing, and repairing CenterPoint
12 Houston equipment including Intelligent Grid Switching Devices, substation circuit
13 switches, trip savers, reclosers, regulators, hot sticks, ground cables, and other specialty
14 tools. Shop Services also fabricates new switches, substation platforms, and other
15 fabricated items needed by operations.

16 **Q. WHAT ARE THE RESPONSIBILITIES OF THE RADIO COMMUNICATIONS**
17 **TEAM?**

18 A. The Radio Communications team installs, maintains, and supports four vital
19 communication systems used by CenterPoint Houston. The team is also responsible for
20 investigating and addressing radio frequency interference that may hinder the functionality
21 of these systems and addressing trouble tickets reported by internal clients in operations
22 regarding any of the radio systems. The four communication systems used by CenterPoint
23 Houston are:

- 1 • Voice and Mobile Data Radio System, which is the voice communication system
- 2 installed in trucks as well as handheld portable radios used by field personnel;
- 3 • Mobile Radio Data System, which provides data service for laptops used in vehicles in
- 4 the field;
- 5 • Remote Control Cap Bank System, which controls the distribution cap banks; and
- 6 • Intelligent Grid Switching Devices Communication System, which allows Intelligent
- 7 Grid Switching Devices to communicate back to the control center.

8 **E. The Supplier Diversity & Inclusion and Supply Chain Sustainability Department**

9 **Q. PLEASE DESCRIBE THE SD&I AND SCS DEPARTMENT.**

10 A. SD&I and SCS department works to ensure that CenterPoint has a positive social and
11 environmental impact without compromising CenterPoint's commitment to the affordable
12 and reliable delivery of electricity. The SD&I and SCS department is made up of three
13 different teams that support the operations of CenterPoint Houston: Supplier Diversity,
14 Supply Chain Sustainability and Investment Recovery. The objective of this department is
15 twofold. It drives actions to further enhance the competitiveness of sourcing events via the
16 inclusion of small, local and diverse vendors that are representatives of the communities
17 we serve. Secondly, it drives actions within our supplier base to reduce carbon emissions
18 related to the goods and services being procured.

19 **Q. PLEASE DESCRIBE THE SD&I TEAM?**

20 A. The SD&I team collaborates with the Supply Chain organization, internal business units,
21 suppliers and external community partners to identify and develop procurement
22 opportunities for small, local and diverse-owned businesses (i.e., owned by veterans,
23 minorities, women, LGBTQ persons, and persons with disabilities).

- 1 • In support of the procurement process, the SD&I team searches for and provides
- 2 support to prospective suppliers within local communities to compete for sourcing
- 3 opportunities.
- 4 • In partnering with community organizations, the SD&I team supports the pipeline of
- 5 small, local and diverse businesses via providing access to corporate-ready
- 6 entrepreneurs and coaching to those in need of further development to reach scale.
- 7 • Further, the SD&I team ensures compliance with annual reporting requirements per the
- 8 federal Small Business Administration and the Commission.

9 **Q. WHAT ARE THE RESPONSIBILITIES OF THE SCS TEAM?**

10 A. The SCS team was formalized in 2023. This effort aims to further strengthen CNP's long-

11 term Supply Chain strategy and to reduce carbon emissions related to the goods and

12 services that are procured. The Supply Chain Sustainability team collaborates across

13 business units, with industry peers and with suppliers to align strategic priorities, measure

14 performance, support improvements and raise sustainability awareness/education.

15 Additionally, the supply chain sustainability program aims to drive cost savings and

16 operational efficiency by optimizing resource usage (recycling/refurbishing), minimizing

17 waste and improving energy efficiency. Further, the program directly engages suppliers to

18 assess and build the necessary capacity in areas critical to safeguard our reputation and

19 underpin our commitment to responsible business practices.

1 **Q. WHAT ARE INVESTMENT RECOVERY'S RESPONSIBILITIES?**

2 A. The Investment Recovery team coordinates the sales of scrap metals and disposal of
3 unusable materials and equipment, including retired fleet and fleet equipment. Investment
4 recovery is also responsible for establishing and managing long-term contracts for the sale
5 and disposal of scrap metals and unusable materials and equipment. The Investment
6 Recovery team strives to maximize value while managing the sale or disposal of
7 CenterPoint Houston's fleet, materials and equipment. Materials are evaluated to determine
8 if they can be used by other areas within the Company, by other utilities or industrial
9 entities or if sales to outside vendors or employees is the appropriate course of action.

10 ***SUPPLY CHAIN OPERATIONS SINCE DOCKET NO. 49421***

11 **F. Changes to Supply Chain Organization Structure**

12 **Q. WHAT CHANGES HAVE BEEN MADE TO THE SUPPLY CHAIN SUPPORT**
13 **ORGANIZATION STRUCTURE SINCE THE LAST CENTERPOINT HOUSTON**
14 **RATE CASE IN 2019?**

15 A. In 2019, Supply Chain was part of an organization called Business & Operations Support
16 that provided both operations and corporate support services. At the time, Business &
17 Operations Support was comprised of Facilities Management; Purchasing & Logistics;
18 Corporate Security; Land & Field Services; and Fleet, Shop and Radio Communication.
19 The current structure has Purchasing & Logistics and Fleet, Shop and Radio
20 Communication as part of the Supply Chain Organization and the Facilities Management,
21 Corporate Security; and Land & Field Services as part of the Utility Operations Support
22 organization led by Mr. Steve Greenley.

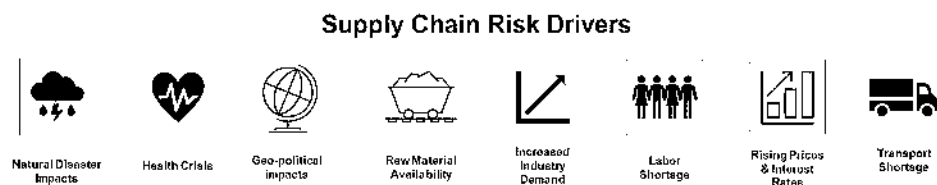
23 In addition to the above changes, Supply Chain established the previously
24 discussed Vendor Risk Management and Digital Procurement Teams. These recently

established teams help CNP effectively manage its increasingly complex supply chain by insuring there are team members whose responsibility is to evaluate and mitigate vendor risks and to keep Supply Chain digitally equipped.

G. External Supply Chain Impacts

Q. WHAT CHANGES HAVE BEEN EXPERIENCED IN SUPPLY CHAIN SINCE THE LAST CENTERPOINT HOUSTON RATE CASE IN 2019?

A. Beginning in 2020, CenterPoint Houston began experiencing unprecedented supply chain disruption. These disruptions were initially caused by public health responses to the COVID-19 pandemic. Supply Chain Risk Drivers detailed in the graph below illustrates the various risk drivers that CenterPoint Houston faced, sometimes in confluence with one another which exacerbated the disruption.



Nearly every sector of the economy was impacted, and supplies of products of all kinds were delayed due to changing restrictions domestically and globally, limited labor pools, and availability of raw materials as well as transportation limitations with long backups in ports, railways and trucking. At the same time, demand for products changed abruptly.

Q. HOW HAS CENTERPOINT HOUSTON BEEN IMPACTED BY THE SUPPLY CHAIN DISRUPTION?

A. CenterPoint Houston has experienced extended lead times, manufacturer allocation limitations, an inability to obtain sufficient levels of materials, and higher prices for

1 materials, services, vehicles, and equipment. These difficulties are further exacerbated due
2 to extreme weather events which become particularly constrained during hurricane season.

3 **Q. WHAT SHORTAGES HAVE BEEN EXPERIENCED BY CENTERPOINT**
4 **HOUSTON?**

5 A. Although numerous materials would fluctuate between having shortages and being at
6 normal levels, CenterPoint Houston experienced the disruption more significantly in areas that
7 required the manufacturing of materials like transformers and component parts, wires, cables,
8 and meters as well as raw materials such as resins and wood poles.

9 **Q. WHAT STEPS DID SUPPLY CHAIN TAKE TO ADDRESS THESE IMPACTS TO**
10 **THE SUPPLY CHAIN?**

11 A. Supply Chain took several measures to minimize the impacts of supply chain disruption,
12 including but not limited to:

- 13 • Affirmed long-standing relationships with key suppliers and service providers and
14 periodically confirmed demand needs to ensure certainty of supply by providing longer
15 term demand visibility.
- 16 • Collaborated with CenterPoint Houston engineering standards team to obtain approval
17 of additional manufacturers, as well as alternative material with different
18 specifications, i.e. wood pole treatment types.
- 19 • Accelerated purchases in critical categories; seeking to secure production space in '23
20 and beyond.
- 21 • Utilized multi-year and quantity commitment agreements to provide visibility and
22 support material availability.
- 23 • Utilized data analytics to proactively identify material needs/challenges.

- 1 • Increased inventory to support reliability and to enhance certainty of supply.
- 2 • Incorporated LLTF assets into inventory management strategies.
- 3 • Refurbished materials for future redeployment.
- 4 • Strengthened the Vendor Risk Management program to monitor supplier base for risk
- 5 of bankruptcy as well as other risk factors.

6 To combat these challenges, Service Company's Supply Chain group, in collaboration with
7 numerous other stakeholders at CenterPoint Houston, took measures intended to minimize
8 the supply chain impacts and to prepare to promptly restore service through certainty of
9 supply--all of which will contribute to the Company's ability to provide safe and reliable
10 service to customers. Examples of these measures included enhancing planning and
11 analytics, augmenting supply, identifying alternative supply, strengthening risk
12 monitoring, ordering into future years, and changing contracting strategies.

13 **Q. IS CENTERPOINT HOUSTON CONTINUING TO EXPERIENCE SUPPLY**
14 **CHAIN DISRUPTIONS?**

15 A. Yes. Although supply chain concerns have started to dissipate, CenterPoint Houston
16 periodically experiences supply chain disruption. Supply Chain risk drivers detailed above
17 continue to be applicable today.

18 **Q. HAVE RECENT SUPPLY CHAIN CHALLENGES BEEN UNIQUE TO**
19 **CENTERPOINT HOUSTON?**

20 A. No, as recognized in a November 2022, Edison Electric Institute (EEI) whitepaper, *Critical*
21 *Infrastructure Supply Chain Constraints*: "The electric power industry is experiencing
22 shortages...[S]upply of critical equipment and materials has decreased while demand
23 continues to grow, widening the gap between what is available and what is needed." The

1 whitepaper is attached as Exhibit CAK-1. As attached in Exhibit CAK-2 Peer Utility
2 Financial Disclosure Extracts Related to Supply Chain, financial disclosures by peer
3 utilities also demonstrate that utilities have consistently been impacted by domestic and
4 global supply chain upheaval that has impacted the delivery of materials, component parts,
5 fleet, and equipment and availability of labor. Virtually anyone working in and around the
6 utility industry is aware of the shortage of certain materials.

7 An additional pressure to the supply chain disruption is the elevated capital investment
8 anticipated by electric utilities. EEI's Industry Capital Expenditures report reflects that
9 total projected company spending as of July 2023 by US Investor-Owned Electric Utilities
10 was projected to be \$167.8 B for 2023 and \$166.9 B for 2024 as compared to an actual in
11 2022 of \$150.8 B (see Exhibit CAK-5). Although only a portion of that projected
12 investment is materials related, the need for these materials will result in pressure on the
13 availability of materials.

14 Supply Chain challenges have been in the top risks results for each of the 2022 and 2023
15 ERM annual survey of boards of directors and C-suite executives about risks on the
16 horizon, performed by the Poole College of Management at North Carolina State
17 University in conjunction with Protiviti. The survey highlights top risks of immediate
18 concerns for the current year and longer 10-year term view. As part of the Exhibit CAK-
19 3 Executive Perspectives on Top Risks for 2023 & 2032 Report, there are two top risks the
20 Energy & Utilities Industry faces that could significantly impact inventory availability to
21 restore service following a widespread power outage. Both risks are anticipated to remain
22 in the Top 10 risks for 2032.

o The rising threat associated with catastrophic natural disasters and weather phenomena may create significant operational challenges (ranked #1)

o Uncertainty surrounding core supply chain ecosystem (ranked #2)

Q. HOW DID THE COMPANY EVALUATE ITS INVENTORY IN THE CONTEXT OF PURA § 39.918's LANGUAGE RELATING TO LONG LEAD-TIME FACILITIES?

A. In line with PURA §39.918's authorization for a transmission and distribution utility in Texas to: lease and operate facilities that provide temporary emergency electric energy to aid in restoring power to the utility's distribution customers during a significant widespread power outage; and procure, own, and operate, or enter into a cooperative agreement with other transmission and distribution utilities to procure, own, and operate jointly, transmission and distribution facilities that have a lead time of at least six months and would aid in restoring power to the utility's distribution customers following a significant power outage, CenterPoint Houston's evaluation identified those facilities that were needed to restore power following significant power outages with a lead time of at least six months.

Q. CAN YOU PROVIDE EXAMPLES OF THE TYPES OF EVENTS THAT MIGHT RESULT IN SIGNIFICANT POWER OUTAGES UNDER THE STATUTE?

A. Yes. We evaluated past extreme weather events and the materials used for restoration efforts to identify types of whether events that could result in significant power outages. The weather events evaluated included tornadic events, hurricanes, microbursts, flooding, extreme heat/cold. This analysis aided in the determination of LLTF and/or emergency operations procedures (EOP) restoration material needs. However, although not included

1 in our analysis, types of events that might result in a significant power outage could include
2 fire events, intentional attacks on the grid (e.g., terrorist events), or cyber-attacks.

3 **Q WHAT STEPS DID THE COMPANY TAKE TO ENSURE ITS ABILITY TO**
4 **MAINTAIN A NECESSARY LEVEL OF MATERIALS AND SUPPLIES**
5 **FOLLOWING THE PASSAGE OF PURA § 39.918 or EOP?**

6 A. Operations performed a review of materials to identify which materials may be used in a
7 significant power outage. Supply Chain then took the results for both criteria evaluations
8 (lead time for each material item and which facilities could aid in restoring service after a
9 significant power outage) and performed an analysis to determine the needed LLTF
10 material population. If the material items were determined to meet the long lead time
11 requirement and to meet the significant power outage requirement, the material item was
12 determined to be a qualifying LLTF material item. The Supply Chain Organization then
13 took measures to secure additional LLTF material for CenterPoint Houston.

14 **Q. HOW DID THE COMPANY DETERMINE WHICH INVENTORY LEVELS**
15 **REQUIRED ADJUSTMENT DUE TO THEIR NATURE AS LLTF ASSETS?**

16 A. The Company undertook a methodical review that analyzed its inventory levels at month
17 end and assessed lead time for each material item and then determined which facilities
18 could aid in restoring service after a significant outage.

1 **Q. HOW DID THE COMPANY DETERMINE THE MATERIALS LEAD TIME?**

2 A. To determine the material lead time, Supply Chain performed two steps. The first step was
3 to use the lead time available in SAP for active material items based on the time between
4 the order request and the fulfillment date. This produced a range of 0 to 97 weeks. The
5 second step was to perform analysis of the materials ordered based on a manufacturer
6 production schedule. CenterPoint Houston created a dashboard program that served as the
7 primary analytical tool in assessing the materials that were classified as LLTF and/or EOP.

8 **Q. DESCRIBE WHAT MANUFACTURER PRODUCTION SCHEDULE**
9 **MATERIALS ARE.**

10 A. Manufacturer production schedule materials are materials that CenterPoint Houston orders
11 based on a manufacturer's production capacity in advance of a six month period, to help
12 ensure surety of supply. In these cases, a forecasted quantity of specific materials is
13 determined by the Supply Chain department and communicated to the manufacturer so that
14 production capacity and delivery schedules are formalized for CenterPoint Houston.
15 Clearly communicating the needed demand helped secure capacity in the production line
16 and also provided a steady supply of materials, barring supply chain issues that could be
17 experienced, as well as helped identify supply shortfalls so that alternative manufacturers
18 could be found when necessary. CenterPoint Houston has contractual relationships with
19 manufacturers of transformers, fiberglass poles, and wire & cable.
20 This contracting approach has helped partially minimize the shortage of materials that
21 CenterPoint Houston experienced in recent years as compared to the severe shortage of
22 materials that some of our peer utilities experienced. The contracting approach also helped
23 to insulate CenterPoint Energy Houston Electric from manufacturer capacity constraints

1 resulting from extreme weather events. Said another way, when an extreme weather event
2 occurs, manufacturers had no or limited ability to immediately increase production to the
3 level needed to support the high level of materials needed for a restoration effort.

4 **Q. DO MANUFACTURER PRODUCTION SCHEDULE MATERIALS MEET THE**
5 **LLTF CRITERIA?**

6 A. Yes, due to the manufacturer capacity constraints and CenterPoint Houston demand needs,
7 the requirement of long lead time assets is met due to the orders being placed well in
8 advance of the six-month required lead time.

9 **Q. HAVE MANUFACTURER PRODUCTION SCHEDULE ARRANGEMENTS**
10 **INSULATED THE COMPANY FROM SUPPLY CONSTRAINTS?**

11 A. Overall, securing production capacity through contractual arrangements has helped
12 CenterPoint Houston withstand the volatility and uncertainty associated with the numerous
13 supply constraints experienced broadly in the Utility industry in the last three years.
14 However, these arrangements have not prevented us from experiencing very challenging
15 times.

16 **Q. HOW DOES THE COMPANY PROPOSE TO RECOVER THE LLTF COSTS?**

17 A. As discussed by Ms. Colvin in her direct testimony, CenterPoint Houston has deferred the
18 LLTF costs since the effective date of PURA §39.918 and proposes to recover these costs
19 through a regulatory asset.

20 **Q. WILL THE COMPANY CONTINUE TO HAVE QUALIFYING LLTF?**

21 A. We are not currently aware of any specific assets that will qualify as LLTF. However,
22 given the Company's experience over the last four years and the ongoing global economic
23 and geopolitical issues, we expect that additional assets will become LLTF. CenterPoint

1 Houston is requesting the Commission approve the Company's ability to make ongoing
2 assessments regarding the need to incorporate additional LLTF in the future and to add the
3 associated costs to the LLTF regulatory asset.

4 **Q. WHAT IS THE BALANCE OF QUALIFYING LLTF AS OF DECEMBER 31, 2023?**

5 A. The Qualifying LLTF Balance as of December 31, 2023, is \$31,161,482.

6 **III. PROGRAMS AND INITIATIVES**

7 **Q. HAS THE SUPPLY CHAIN ORGANIZATION UNDERTAKEN ANY SIGNIFICANT**
8 **PROGRAMS AND INITIATIVES SINCE THE LAST RATE CASE?**

9 A. Yes. Digital Procurement program is in the midst of a significant enterprise software
10 rollout.

11 **Q. PLEASE DESCRIBE THE SOFTWARE ROLLOUT THAT IS CURRENTLY**
12 **TAKING PLACE?**

13 A. The Digital Procurement team is currently implementing an enterprise Source-to-Pay
14 ("S2P") solution and has implemented a Vendor Risk Management solution to move CNP
15 and its businesses to a more cohesive and modern system that leverages industry best
16 practices and will be integrated with our enterprise resource planning system, SAP. As of
17 Q4 2023, the team has rolled out the sourcing, contracting, vendor risk, and supplier
18 information management modules. This project replaces three disparate procurement
19 systems in SAP with Coupa's business spend management platform. The first portions of
20 this rollout occurred during the test year and has been added to rate base as the software
21 was placed in rate base. The final portion occurred in 2024, after the close of the test year.

1 **IV. CAPITAL AND O&M EXPENSE PLANNING AND COST CONTROL**

2 **Q. HOW DOES SUPPLY CHAIN PLAN FOR COSTS AND MONITOR ACTUAL**
3 **COSTS INCURRED?**

4 A. Supply Chain uses both the CNP budget process and financial system controls, as described
5 in Mr. Storey's direct testimony, to determine its annual budget and expenditures as well
6 as to monitor performance results during the course of the year. In concert with its clients,
7 Supply Chain carefully plans capital and operations and maintenance activities during the
8 annual budget process and monitors them throughout the year.

9 The costs associated with the Supply Chain Organization are monitored by Supply Chain
10 leadership including myself through the review and approval of individual expenses as well
11 as through monthly forecasting and financial reporting at the team, department and
12 organizational level. Throughout the year, actual costs are compared to the budget
13 prepared as part of the annual business planning process on a periodic basis (monthly,
14 quarterly and annually) to affirm that costs are reasonable and appropriately charged to the
15 client taking the service.

16 **Q. WHAT TYPES OF COSTS ARE INCURRED BY SUPPLY CHAIN OPERATIONS**
17 **IN SUPPORT OF CENTERPOINT HOUSTON?**

18 A. **Procurement** typically incurs labor costs, benefits, employee travel expenses and
19 materials needed to effectively manage the procurement of services and materials in
20 support of CenterPoint Houston's business. They also incur expenditures related to data
21 acquisition, analytic tools, office supplies, and industry association memberships.
22 Procurement also incurs costs associated with market intelligence and cost modeling tools

1 to support an increasingly complex supply chain environment. Periodically, certain capital
2 costs are incurred for system enhancements/implementations.

3 **Materials Management and Warehouse** typically incurs labor resources related costs to
4 order, receive, tracking, transport, issue, and maintain accountability of Inventory
5 Materials for CenterPoint Houston. Transportation related expenditures are incurred for
6 delivering materials to warehouses, contractor sites, and directly to the field work site.
7 Costs are also incurred to maintain specialized equipment to meet Federal, State, and
8 Local requirements for handling, transportation, and disposal of hazardous materials.
9 They also incur costs for analytic tools, office supplies, and industry association
10 memberships.

11 **Fleet, Shop Services, & Radio** typically incurs labor, benefits, employee travel
12 expenses, industry association memberships, and materials related costs. Costs are also
13 incurred to maintain specialized equipment and tools to meet Federal, State, and Local
14 requirements for handling, transportation, and disposal of hazardous materials. They also
15 incur costs for analytic tools, office supplies, and industry association memberships.

16 **SD&I and Supply Chain Sustainability** typically incurs labor, benefits, employee travel,
17 analytic tools, industry association memberships, and office supply related costs.

18 **V. SUPPLY CHAIN OPERATIONS & MAINTENANCE EXPENSES**

19 **Q. WHAT WITNESSES SUPPORT THE AMOUNT OF SUPPLY CHAIN EXPENSES**
20 **DURING THE TEST YEAR?**

21 A. During the Test Year, CenterPoint Houston incurred affiliate and directly incurred supply
22 chain costs. Company witness Mr. Storey provides testimony that supports CenterPoint
23 Houston's recovery of its affiliate costs, including the Supply Chain organization expenses
24 assigned to CenterPoint Houston. The costs for the Supply Chain organization directly

1 incurred by CenterPoint Houston are predominantly charged as overhead costs and are
2 reflected in the testimony sponsored by other witnesses.

3 **Q. DOES SUPPLY CHAIN SUPPORT INCUR DIRECT COSTS THAT ORIGINATE**
4 **WITHIN CENTERPOINT HOUSTON?**

5 A. Yes, certain costs incurred by fleet, shops and radio originate within CenterPoint Houston
6 and are not further distributed within the business unit. These costs are related to work
7 performed directly in support of the supply chain organization. Total O&M related to this
8 activity totaled \$3.6 million.

9 **VI. SUPPLY CHAIN CAPITAL EXPENDITURES**

10 **Q. WHICH GROUPS WITHIN THE SUPPLY CHAIN ORGANIZATION HAVE**
11 **GENERATED CAPITAL EXPENSES FOR WHICH THE COMPANY SEEKS**
12 **RECOVERY IN THIS BASE RATE CASE?**

13 A. Each Supply Chain department generated capital expenses that should be recovered in this
14 base rate case. The capital costs for the Supply Chain organization are predominantly
15 charged as overhead costs and are reflected in the testimony sponsored by other witnesses.

16 **Q. HOW ARE FLEET CAPITAL PLANS DEVELOPED?**

17 A. Fleet capital plans are developed each year based on which vehicles in the fleet are up for
18 replacement according to the life cycle of that vehicle class, plus known workforce
19 additions at the time of capital planning. The Fleet Capital team orders vehicles and
20 equipment based on fleet standards. Upon receipt, each unit is inspected, documented, upfit
21 with specified bodies, aerial units, storage, equipment, and safety features specified and
22 put in service at the appropriate location and user group.

23 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

24 A. Yes.

Critical Infrastructure Supply Chain Constraints

The U.S. economy, including the electric power industry, has been impacted by supply chain constraints. Because the ability to provide reliable power to homes, businesses, and critical facilities is foundational for the country's national security and economic advancement, prioritization of electric infrastructure and the electric power industry's critical functions during this period of material shortages and delays is essential.

Decreasing Supply and Increasing Demand for Distribution Transformers

The electric power industry is experiencing shortages of distribution transformers, smart meters, conductor, poles, and other critical equipment. Supply of critical equipment and materials has decreased while demand continues to grow, widening the gap between what is available and what is needed.

Decreasing Supply

The COVID-19 pandemic has had a catastrophic impact on global manufacturing capabilities since 2020, causing supply chain constraints that have affected many industries, including electricity. Global labor shortages and limited supplies of raw materials have significantly extended lead times to procure new equipment. The historic damage caused by unusually strong hurricane seasons in 2020 and 2021, in addition to the recent impacts of Hurricanes Fiona and Ian, have left electric companies with depleted and low transformer inventories. Meanwhile, a shrinking pool of domestic manufacturers and new geopolitical and economic challenges affecting imports have resulted in manufacturing capacity that cannot meet the needs of the electric power industry.

Increasing Demand

Additional capacity to generate, transmit, and distribute electricity is needed to power new residential and commercial development, new manufacturing facilities, expanded electric vehicle charging capabilities, and other advanced technologies. Electric companies are investing heavily in clean energy technologies to meet carbon reduction and clean energy goals, and the Infrastructure Investment and Jobs Act (IIJA), the Inflation Reduction Act (IRA), and the CHIPS and Science Act provide new funding for even more critical infrastructure capital projects. Simultaneously, the industry is preparing for extreme weather events to be more frequent and more severe, often requiring more resource-intensive restoration. Consequently, the industry is entering a period of sustained growth as demand for critical energy grid equipment continues to increase.

Distribution Transformer Shortages

Distribution transformers are necessary for electric companies to expand capacity and restore service when existing infrastructure is damaged. In the spring of 2022, EEI conducted a survey of investor-owned electric companies to assess the urgency of critical equipment shortages. Seventy-five percent reported having lower inventories of either pad-mounted or pole-mounted distribution transformers this year than in 2018. Some companies reported having only half the number of distribution transformers that they had in 2018. Importantly, comparing the current availability of distribution transformers against availability in 2018 does not account for the added pressure of rising demand. In the summer of 2022, a survey conducted through the Electricity Subsector Coordinating Council (ESCC) found that 90 percent of investor-owned electric companies reported a "high" or "medium" risk of running out completely of at least one distribution transformer voltage class. With extraordinary lead times that have grown more than 400 percent since 2020, now taking 24 months or longer to procure new transformers, replenishing declining inventories has not been possible.

Electric companies already are taking extraordinary measures to meet current demand with the limited supply of equipment that is available, including refurbishing older equipment. These are last-resort efforts to protect the safety of electric customers and sustain other sectors that depend on electricity.

In a summer 2022 survey of distribution transformer manufacturers conducted by the Department of Energy (DOE), manufacturers consistently reported that labor shortages were the most significant factor limiting the amount of distribution transformers that they could produce.

Potential Impacts of Prolonged Shortages

Critical equipment shortages can impact national security, challenge grid resilience and restoration capabilities, hinder economic growth and recovery, and slow the nation's clean energy transition.

The ability to respond to and recover from natural disasters is essential to protect the life and safety of customers who depend on electricity, as well as protecting the grid against heightened threats of malicious cyber and physical security attacks when the nation is most vulnerable. Depleted inventories of critical equipment and the inability to purchase new equipment raise concerns about the feasibility of responding to and recovering from another potentially catastrophic hurricane or wildfire in the near-term, even with robust mutual assistance and equipment sharing programs in place.

Many new infrastructure projects, including projects that advance the industry's clean energy objectives, have been delayed or canceled because supplies are not available. The ESCC found that 60 percent of investor-owned electric companies have had to cancel or defer scheduled projects because of the distribution transformer shortage. With billions of dollars in clean energy investments planned, building new energy infrastructure on schedule is essential to meet the country's clean energy goals. New energy infrastructure also provides power to new residential and commercial developments. Delayed or canceled projects can have a ripple effect on the economy, impacting development and economic growth across many sectors, not just energy. For example, a delay in providing electricity to a new residential development will impact the housing market in the affected area, the construction workers for the development, the water and telecommunications utilities, and business development in the surrounding region – each of which trigger a subsequent series of negative impacts. Additionally, demand for delayed projects is continuing to compound over time, creating a sharp spike in demand in the next few years that will be increasingly harder to solve for.

Critical Partnerships Across the Sector

U.S. electric companies are working together to understand the scope and urgency of the industry's supply chain constraints and identify effective solutions. Supply chain leaders have come together to identify near-term and long-term solutions to this challenge. EEI has established a Chief Procurement Officers Executive Advisory Committee to provide strategic guidance and expertise on policy and operational issues. Additionally, investor-owned electric companies, public power utilities, and electric cooperatives are coordinating through the ESCC to partner directly with the White House, the Department of Energy, and other federal agencies to ensure strategic alignment and unity of effort across the entire sector as we work to address supply chain threats.

What can the federal government do to help alleviate the industry's supply chain constraints?

- **Prioritize the electric power industry and critical electric equipment manufacturers for available federal resources.** Funding made available through the IIJA, the IRA, the CHIPS and Science Act, and the Defense Production Act should be used to bolster domestic manufacturing capabilities for critical equipment, like distribution transformers. Financial incentives, loan and purchase guarantees, and labor subsidies can enable and encourage manufacturers to meet the industry's demand.
- **Reduce barriers to entry for top-priority critical manufacturing jobs.** Expanding the size of the labor pool for critical manufacturing jobs that do not require an advanced skillset can quickly increase domestic production capacity. Subsidizing wages, establishing paid relocation programs, and lowering the bar for workforce eligibility can draw more employees to urgently needed manufacturing jobs.

November 2022



Edison Electric Institute
701 Pennsylvania Avenue, NW
Washington, D.C. 20004-2696
202-508-5000 | www.eei.org

Peer Utility Financial Disclosure Extracts related to Supply Chain disclosures

Related to 2022 and 2021 10-K filings

Prepared March 2023

American Electric Power

American Electric Power - For the fiscal year ended **December 31, 2022**: [Inline XBRL Viewer \(sec.gov\)](#)

American Electric Power - For the fiscal year ended **December 31, 2021**: [Inline XBRL Viewer \(sec.gov\)](#)

American Electric Power – 2021 10-k

In 2021, the Registrants have experienced certain supply chain disruptions driven by several factors including staffing and travel issues caused by the COVID-19 pandemic, increased demand due to the economic recovery from the pandemic, labor shortages in certain trades and shortages in the availability of **certain raw materials**. These supply chain disruptions have not had a material impact on the Registrants net income, cash flows and financial condition, but have **extended lead times** for certain goods and services. Management has implemented risk mitigation strategies in an attempt to mitigate the impacts of these supply chain disruptions. However, a prolonged continuation or a future increase in **the severity of supply chain disruptions could impact the cost of certain goods and services and extend lead times** which could reduce future net income and cash flows and impact financial condition.

American Electric Power – 2022 10-k

Supply chain disruptions and inflation could negatively impact our operations and corporate strategy. (Applies to all Registrants) AEP's operations and business plans depend on the global supply chain to procure the equipment, materials and other resources necessary to build and provide services in a safe and reliable manner. **The delivery of components, materials, equipment and other resources that are critical to AEP's business operations and corporate strategy has been restricted by domestic and global supply chain upheaval. This has resulted in the shortage of critical items. International tensions, including the ramifications of regional conflict, could further exacerbate the global supply chain upheaval. These disruptions and shortages could adversely impact business operations and corporate strategy. The constraints in the supply chain could restrict the availability and delay the construction, maintenance or repair of items that are needed to support normal operations or are required to execute**

on AEP's corporate strategy for continued capital investment in utility equipment. These disruptions and constraints could reduce future net income and cash flows and possibly harm AEP's financial condition. Supply chain disruptions have contributed to higher prices of components, materials, equipment and other needed commodities and these inflationary increases may continue in the future. The economy in the United States has encountered a material level of inflation compared to the recent past and that has contributed to increased uncertainty in the outlook of near-term economic activity, including the level of future inflation and the possibility of a recession. AEP typically recovers increases in capital expenses from customers through rates in regulated jurisdictions. Failure to recover increased capital costs could reduce future net income and cash flows and possibly harm AEP's financial condition. Increases in inflation raises our costs for labor, materials and services, and failure to secure these on reasonable terms may adversely impact our financial condition.

Entergy Corp

ENTERGY CORP - For the Fiscal Year Ended December 31, 2022: [Inline XBRL Viewer \(sec.gov\)](#)

ENTERGY CORP - For the Fiscal Year Ended December 31, 2021: [Inline XBRL Viewer \(sec.gov\)](#)

Entergy 2022 10-k

The completion of capital projects, including the construction of power generation facilities, and other capital improvements, involve substantial risks. Should such efforts be unsuccessful, the financial condition, results of operations, or liquidity of Entergy and the Utility operating companies could be materially affected. Entergy's and the Utility operating companies' ability to complete capital projects, including the construction of power generation facilities, or make other capital improvements, such as transmission and distribution infrastructure replacements or upgrades, in a timely manner and within budget is contingent upon many variables and subject to substantial risks. These variables include, but are not limited to, project management expertise, escalating costs for materials, labor, and environmental compliance, reliance on suppliers for timely and satisfactory performance, continued pandemic-related delays and cost increases, and supply chains and material constraints, including those that may result from major storm events, both within and outside of Entergy's service area. Delays in obtaining permits, challenges in securing sufficient land for the siting of solar panels, shortages in materials and qualified labor, levels of public support or opposition, suppliers and contractors not performing as expected or required under their contracts and/or experiencing financial problems that inhibit their ability to fulfill their obligations under contracts, changes in the scope and timing of projects, poor quality initial cost estimates from contractors, the inability to raise capital on favorable terms, changes in commodity prices affecting revenue, fuel costs, or materials costs, downward changes in the economy, changes in law or regulation, including environmental compliance requirements, further direct and indirect trade and tariff issues, including those associated with imported solar panels, supply chain delays or disruptions, and other events beyond the control of the Utility operating companies may occur that may materially affect the schedule, cost, and performance of these projects. If these projects or other capital improvements are significantly delayed or become subject to cost overruns or cancellation, Entergy and the Utility operating companies could incur additional costs and

termination payments or face increased risk of potential write-off of the investment in the project. In addition, the Utility operating companies could be exposed to higher costs and market volatility, which could affect cash flow and cost recovery, should their respective regulators decline to approve the construction of the project or new generation needed to meet the reliability needs of customers at the lowest reasonable cost.

the effects of a global or geopolitical event or pandemic, such as the ongoing COVID-19 global pandemic and the military activities between Russia and Ukraine, including economic and societal disruptions; volatility in the capital markets (and any related increased cost of capital or any inability to access the capital markets or draw on available bank credit facilities); reduced demand for electricity, particularly from commercial and industrial customers; increased or unrecoverable costs; supply chain, vendor, and contractor disruptions, including as a result of trade-related sanctions; delays in completion of capital or other construction projects, maintenance, and other operations activities, including prolonged or delayed outages; impacts to Entergy's workforce availability, health, or safety; increased cybersecurity risks as a result of many employees telecommuting; increased late or uncollectible customer payments; regulatory delays; executive orders affecting, or increased regulation of, Entergy's business; changes in credit ratings or outlooks as a result of any of the foregoing; or other adverse impacts on Entergy's ability to execute on its business strategies and initiatives or, more generally, on Entergy's results of operations, financial condition, and liquidity;

Entergy and its Registrant Subsidiaries also could experience, and in some cases have experienced, among other challenges that originated during or have been exacerbated by the COVID-19 pandemic: supply chain, vendor, and contractor disruptions, including shortages or delays in the availability of key components, parts, and supplies such as electronic components and solar panels; delays in completion of capital or other construction projects, maintenance, and other operations activities, including prolonged or delayed refueling and maintenance outages; delays in regulatory proceedings; workforce availability challenges, including from COVID-19 infections, health, or safety issues; increased storm recovery costs; increased cybersecurity risks as a result of many employees

CONSUMERS ENERGY CO

CMS - For the Fiscal Year Ended **December 31, 2022**: [Inline XBRL Viewer \(sec.gov\)](#)

CMS - For the Fiscal Year Ended **December 31, 2021**: [Inline XBRL Viewer \(sec.gov\)](#)

CMS 2021 10-k

the impact and effect of the COVID-19 pandemic, the response to the COVID-19 pandemic, and related economic disruptions including, but not limited to, labor shortages, inflation, and supply chain disruptions, all of which could impact CMS Energy's and Consumers' workforce, operations, revenues,

expenses, uncollectible accounts, energy efficiency programs, pension funding, PSCR and GCR costs, capital investment programs, cash flows, liquidity, maintenance of existing assets, and other operating expenses

There are risks associated with Consumers' substantial capital investment program planned for the next ten years. Consumers' planned investments include the construction or acquisition of electric generation, electric and gas infrastructure, conversions and expansions, environmental controls, electric grid modernization technology, and other electric and gas investments to upgrade delivery systems, as well as decommissioning of older facilities. The success of these capital investments depends on or could be affected by a variety of factors that include, but are not limited to: • effective pre-acquisition evaluation of asset values, future operating costs, potential environmental and other liabilities, and other factors beyond Consumers' control • effective cost and schedule management of new capital projects • availability of qualified construction personnel, both internal and contracted • changes in commodity and other prices, applicable tariffs, and/or material and equipment availability • governmental approvals and permitting Table of Contents 42 • operational performance • changes in environmental, legislative, and regulatory requirements • regulatory cost recovery • inflation of labor rates • increases in lead times and disruptions in supply chain distribution • barriers to accessing key materials for renewable projects (solar, battery, and o

. Consumers' ability to implement the 2021 IRP may be affected by global supply chain disruptions and changes in the cost, availability, and supply of generation capacity.

In addition, while CMS Energy and Consumers have not yet experienced significant labor or supply chain disruption as a result of the COVID-19 pandemic, they continue to monitor minor disruptions and take steps to mitigate against future impacts in order to continue to provide safe and reliable service to customers

CMS 2022 10-k

Central to Consumers' commitment to its customers are the initiatives it has undertaken to keep electricity and natural gas affordable, including: • replacement of coal-fueled generation and PPAs with a cost-efficient mix of renewable energy, less-costly dispatchable generation sources, and energy waste reduction and demand response programs • targeted infrastructure investment to reduce maintenance costs and improve reliability and safety • supply chain optimization • economic development to increase sales and reduce overall rates • information and control system efficiencies • employee and retiree health care cost sharing • workforce productivity enhancements While CMS Energy and Consumers have experienced some supply chain disruptions and inflationary pressures, they have taken steps to mitigate the impact on their ability to provide safe and reliable service to customers.

the success of these capital investments depends on or could be affected by a variety of factors that include, but are not limited to: • effective pre-acquisition evaluation of asset values, future operating costs, potential environmental and other liabilities, and other factors beyond Consumers' control • effective cost and schedule management of new capital projects • availability of qualified construction personnel, both internal and contracted • changes in commodity and other prices, applicable tariffs, and/or material and equipment availability • governmental approvals and permitting • operational performance • changes in environmental, legislative, and regulatory requirements • regulatory cost recovery • inflation of labor rates • increases in lead times and disruptions in supply chain distribution • barriers to accessing key materials for renewable projects (solar, battery, and other key equipment) created by geopolitical relations and U.S. relations with China

Duke Energy CORP

Duke - For the Fiscal Year Ended December 31, 2022: [Inline XBRL Viewer \(sec.gov\)](#)

Duke - For the Fiscal Year Ended December 31, 2021: [Inline XBRL Viewer \(sec.gov\)](#)

Duke 2021-10K

In addition to achieving financial results in the upper half of our original guidance, we have continued our cost-management journey - focused on driving productivity, increasing flexibility and prioritizing spend based on risk and strategic value to our customers and investors. In 2021, we maintained approximately \$200 million of O&M savings identified during the earliest days of the pandemic. We also have successfully navigated supply chain challenges and the impacts of inflation. Our procurement teams have created action plans to enhance planning, augment supply, amend operations and leverage our scale to mitigate these risks to the extent possible.

Duke Energy is also monitoring supply chain disruptions, including the cost and availability of key components of planned generating facilities, which could impact the timing of in-service or economics of commercial renewables projects and may result in adverse impacts on operating results.

Duke 2022-10K (Mentions Supply chain finance program to help increase payment terms)

Response to Macroeconomic Headwinds. In addition to achieving financial results in the upper half of our revised guidance, we continued our cost-management journey with a focus on driving productivity, increasing flexibility and prioritizing spend based on risk and strategic value to our customers and investors. In 2022, to address rising interest rates, increased commodity prices, labor and material inflation, and supply chain constraints, we launched the Workload Reduction Initiative, building on our culture of continuous improvement to identify more ways to reduce operating costs. Including cost reductions from supply chain, we identified approximately \$300 million of savings opportunities focused

on organization simplification, elimination of work, automation, reducing service levels provided to internal customers, and outsourcing.

We successfully navigated supply chain challenges including inflation, longer lead times, and shortages of solar panels and other equipment. We've executed longer supply agreements and proactively secured equipment in early 2022 for hurricane season while placing orders for key needs for our customer delivery organization for 2023. Our procurement teams continue to execute on action plans to enhance planning, augment supply, amend operations and leverage our scale to continue to mitigate these risks to the extent possible.

Our ability to effectively handle all facets of the 2022 storm response efforts, including navigating ongoing macroeconomic challenges and supply chain constraints, is a testament to our teams extensive preparation and coordination, applying lessons learned from previous storms, and to on-the-ground management throughout the restoration efforts. Duke Energy has received over 20 Emergency Response Awards since EEI began recognizing storm response in 1998 (including nine for assisting other utilities). We received EEI's Emergency Assistance Award for our support to other electric companies following Hurricane Ian, as well as EEI's Emergency Recovery Award for multiple events that include our own recovery from Hurricane Ian, Winter Storm Izzy, and the July storms in the Midwest.

Duke Energy is monitoring supply chain disruptions, which could impact the timing of in-service dates and may result in adverse impacts on operating results. The company is also monitoring the potential impacts on future financial results and clean energy goals due to supply chain challenges regarding the availability of transformers and renewable components like solar panels and batteries.

CONSOLIDATED EDISON INC

ConEd- For the Fiscal Year Ended December 31, 2022: [Inline XBRL Viewer \(sec.gov\)](#)

ConEd - For the Fiscal Year Ended December 31, 2021: [Inline XBRL Viewer \(sec.gov\)](#)

ConEd 2021 10K

As a result of the COVID-19 pandemic, the Utilities have been impacted, and may continue to be impacted by, global and U.S. supply chain disruptions causing shortages of, and increased pricing pressure on, among other things, certain raw materials, labor, microprocessors and microchips.

An inflationary economy could increase certain operating and capital costs and employee and retiree benefit costs in excess of the costs reflected in the Utilities' rate plans and could also increase the amount of capital that needs to be raised by the Companies and the costs of such capital. Supply chain disruptions can cause shortages of materials needed by the Companies in their business activities and can result in increased prices and lead times.

ConEd 2022 10K

The COVID-19 pandemic has impacted, and continues to impact, countries, communities, supply chains and markets.

The Companies Face Risks Related to Supply Chain Disruptions And Inflation. The Companies have been impacted, and expect to continue to be impacted by, global and U.S. supply chain disruptions and shortages of materials, equipment, labor and other resources that are critical to the Companies' business operations, primarily the Utilities' electric and central operations. Such disruptions and shortages have resulted in increased prices and lead times for critical orders of materials and equipment needed by the Companies in their operations, such as certain raw materials, microprocessors, semiconductors, microchips, vehicles and transformers. Long lead times for replacement parts could restrict the availability and delay the construction, maintenance or repair of items that are needed to support the Utilities' normal operations and may result in prolonged customer outages, which could in turn lead to unrecovered costs for such service interruptions. Demand for electric equipment is increasing due to utilities' efforts to meet clean energy goals and in order to prepare for more frequent extreme weather events at a time when manufacturing capacity and supply are decreasing. Prices of materials, equipment, transportation and other resources have increased as a result of these supply chain disruptions and shortages and may continue to increase as a result of inflation. Increases in inflation raise the Companies' costs for operating and capital costs and employee and retiree benefit costs in excess of the costs reflected in the Utilities' rate plans and could also increase the amount of capital that needs to be raised by the Companies and the costs of such capital.

EVERSOURCE ENERGY

Eversource - For the Fiscal Year Ended December 31, 2022: [Inline XBRL Viewer \(sec.gov\)](#)

Eversource - For the Fiscal Year Ended December 31, 2021: [Inline XBRL Viewer \(sec.gov\)](#)

Eversource 2021 10K

Due to the COVID-19 pandemic and current state of the global economy as a whole, we may experience supply chain issues with obtaining key materials, equipment or services timely and at a reasonable price across all business lines. We also continue to pursue enhancements to standardize our systems and processes. If any difficulties in the global supply chain cycle or operation of these systems were to occur, they could adversely affect our results of operations, or adversely affect our ability to work with regulators, unions, customers or employees.

Our transmission and distribution businesses face several operational risks, including the breakdown, failure of, or damage to operating equipment, information technology systems, or processes, especially due to age; labor disputes; disruptions in the delivery of electricity, natural gas and water; increased capital expenditure requirements, including those due to environmental regulation; catastrophic events such as fires, explosions, a solar event, an electromagnetic event, or other similar occurrences; extreme weather conditions beyond equipment and plant design capacity; human error; global supply chain

disruptions; and potential claims for property damage or personal injuries beyond the scope of our insurance coverage. Many of our transmission projects are expected to alleviate identified reliability issues and reduce customers' costs.

The COVID-19 pandemic, including any new or emerging variants, continues to evolve, and the extent of the impact to us in the future will vary and depend in large part on the duration, scope and severity of the pandemic and the timing and extent of COVID-19 relief legislation, and the resulting impact on economic, health care and capital market conditions. The continuing effects of the COVID-19 pandemic could lead to an increased risk of cybersecurity attacks, interruptions in the global supply chain that impact us and our vendors, and the loss of key personnel, among other effects. The future impact will also depend on the outcome of future proceedings before our state regulatory commissions to recover our incremental costs associated with COVID-19, which include uncollectible customer receivable expenses, and our financial condition may be adversely affected depending on the outcome of those proceedings. As a result, we are currently unable to estimate the potential impact of COVID-19 to our financial position, results of operations and cash flows. See the accompanying Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations for additional information.

Eversource 2022 10K

We outsource certain services to third parties in areas including information technology, transaction processing, human resources, payroll and payroll processing and certain operational areas. Outsourcing of services to third parties could expose us to substandard quality of service delivery or substandard deliverables, which may result in missed deadlines or other timeliness issues, non-compliance (including with applicable legal requirements and industry standards) or reputational harm, which could negatively impact our results of operations. Our contractual arrangements with these contractors typically include performance standards, progress payments, insurance requirements and security for performance. We also continue to pursue enhancements to standardize our systems and processes. The global supply chain of goods and services is currently being negatively impacted by several factors, including the geopolitical climate, labor shortages, domestic and international shipping constraints, increased demand, and shortages of raw materials. As a result, we are seeing delivery delays of certain goods. Additionally, the prices for equipment, materials, and contractor services have increased, and may continue to increase. If significant difficulties in the global supply chain cycle or inflationary impacts were to continue or worsen, they could adversely affect our results of operations, or adversely affect our ability to work with regulators, unions, customers or employees.

Our transmission and distribution businesses face several operational risks, including the breakdown, failure of, or damage to operating equipment, information technology systems, or processes, especially due to age; labor disputes; disruptions in the delivery of electricity, natural gas and water; increased capital expenditure requirements, including those due to environmental regulation; catastrophic events such as fires, explosions, a solar event, an electromagnetic event, or other similar occurrences; increasingly severe weather conditions due to climate change beyond equipment and plant design capacity; human error; global supply chain disruptions; and potential claims for property damage or

personal injuries beyond the scope of our insurance coverage. Many of our transmission projects are expected to alleviate identified reliability issues and reduce customers' costs.

These types of weather events risk interruption of the supply chain and could disrupt the delivery of goods and services required for our operations.

Eversource was able to achieve this goal through effective management of the 2022 Operating Plan on a day-by-day basis, including execution of its \$3.8 billion utility capital plan, and by overcoming several challenges to plan achievement, including higher than plan interest costs due to the number and scale of federal interest rate increases; higher O&M expenses caused primarily by the significant number and severity of storm events; higher employee-related costs; higher COVID-related bad debt expense; an unplanned contribution to help customers in Connecticut with the high cost of energy; and the financial and operational impacts of supply chain challenges.

Mr. Nolan's performance in leading Eversource to another very successful year financially, operationally, in Eversource's continuing successful efforts in all areas of ESG, and in overcoming several challenges resulting from substantial storm expenses and interest rate hikes along with the impacts of inflation and supply chain issues.

PG&E Corp

PG&E - For the Fiscal Year Ended December 31, 2022: [Inline XBRL Viewer \(sec.gov\)](#)

PG&E- For the Fiscal Year Ended December 31, 2021: [Inline XBRL Viewer \(sec.gov\)](#)

PGE 2021 10K

whether PG&E Corporation's and the Utility's counterparties are available and able to meet their financial and performance obligations with respect to contracts, credit agreements, and financial instruments, which could be affected by disruptions in the global supply chain caused by the COVID-19 pandemic or otherwise.

The Utility has experienced shortages in certain materials, longer lead times and delivery delays as a result of domestic and international raw material and labor shortages. If these disruptions to the supply chain persist or worsen, the Utility may be delayed or prevented from completing planned maintenance and capital projects work.

PGE 2022 10K

The Utility has experienced shortages in certain materials, longer lead times and delivery delays as a result of domestic and international raw material and labor shortages. If these disruptions to the supply chain persist or worsen, the Utility may be delayed or prevented from completing planned maintenance and capital projects work.

SOUTHERN CALIFORNIA EDISON Co

So Cal Ed - For the Fiscal Year Ended December 31, 2022: [Inline XBRL Viewer \(sec.gov\)](#)

So Cal Ed - For the Fiscal Year Ended December 31, 2021: [Inline XBRL Viewer \(sec.gov\)](#)

Southern Cal Edison _ Edison International 2021 10K

Ability of SCE to recover its costs through regulated rates, including uninsured wildfire-related and debris flow-related costs, costs incurred to mitigate the risk of utility equipment causing future wildfires, costs incurred to implement SCE's new customer service system, costs incurred as a result of the COVID-19 pandemic, and increased labor and materials costs due to supply chain constraints and inflation.

Cost and availability of labor, equipment and materials, including as a result of supply chain constraints.

The COVID-19 pandemic is having a significant impact on global society and economies. As a result of the pandemic, Edison International and SCE have experienced increased costs and SCE's supply chain has faced constraints, but the pandemic has not had a pervasive impact on SCE's or Edison International's ability to operate their businesses (see "Risk Factors" for further information). However, the total impacts of the COVID-19 pandemic on Edison International and SCE will depend on numerous factors that continue to evolve and which Edison International and SCE are unable to accurately predict at this time, including the impact of any legal requirements or company policies for mandatory COVID-19 vaccination, or testing, on SCE's ability to retain its workforce.

Edison International and SCE could be materially and adversely impacted by events, such as the widespread outbreak of a communicable disease, that result in, among other things, significant disruption to supply chains, economies, societies or workforces on a regional, statewide, national or global basis. The global spread of COVID-19, which was declared a pandemic by the World Health Organization in March 2020, has created significant uncertainty, volatility and disruption globally and has impacted the operations of Edison International and SCE.

The total impacts of the COVID-19 pandemic on Edison International and SCE are still evolving, and the extent to which the pandemic affects Edison International's and SCE's business, operations, cash flows, liquidity and financial results will depend on numerous evolving factors that Edison International and SCE are unable to accurately predict at this time, including, without limitation: the duration and scope of the pandemic; the availability, efficacy and use of vaccinations, governmental, business and individual actions that have been and continue to be taken in response to the pandemic, including vaccine and testing requirements; the impact of the pandemic on economic activity; and the impact of the pandemic on Edison International's and SCE's employees, customers, contractors, insurers and service providers.

Many of the risks and uncertainties identified in this Form 10-K are, and will be, exacerbated by the impacts of the COVID-19 pandemic and the actions being taken by governmental entities, businesses, individuals and others in response to the pandemic. Some examples follow. Similar to other companies, a large portion of Edison International's and SCE's workforce, including employees of their contractors, may be unable to perform their job functions effectively due to illness, family illness, quarantine

requirements, and other impacts of the COVID-19 pandemic. In addition, as a result of actions being taken in response to the pandemic, SCE's supply chain has faced constraints and SCE anticipates additional disruptions and delays may occur in 2022. SCE has also faced challenges from local permitting authorities. If a significant portion of SCE's workforce cannot effectively perform their job functions, SCE is unable to attract and retain qualified talent due to vaccine or test requirements, SCE is unable to procure required materials, SCE does not timely obtain any required permits and/or local authorities prohibit SCE from conducting previously permitted work, SCE will likely be unable to effectively and timely complete planned work and projects, including its WMP, utility owned storage, and other capital projects.

Southern Cal Edison _ Edison International 2022 10K

Ability of SCE to recover its costs through regulated rates, including uninsured wildfire-related and debris flow-related costs, costs incurred to mitigate the risk of utility equipment causing future wildfires, costs incurred as a result of the COVID-19 pandemic, and increased costs due to supply chain constraints, inflation and rising interest rates.

Cost and availability of labor, equipment and materials, including as a result of supply chain constraints and inflation.

Edison International and SCE could be materially and adversely impacted by events, such as the widespread outbreak of a communicable disease, that result in, among other things, significant disruption to supply chains, economies, societies or workforces on a regional, statewide, national or global basis.

BERKSHIRE HATHAWAY ENERGY COMPANY

Each registrant Berkshire- For the Fiscal Year Ended December 31, 2022: [Inline XBRL Viewer \(sec.gov\)](#)

Each registrant Berkshire - For the Fiscal Year Ended December 31, 2021: [Inline XBRL Viewer \(sec.gov\)](#)

Berkshire - 2021 10K

Impact of supply chain disruptions and workforce availability on the respective Registrant's ongoing operations and its ability to timely complete construction projects.

Further, epidemics, pandemics or other outbreaks could disrupt supply chains (including supply chains for energy generation, steel or transmission wire) relating to the markets each Registrant serves, which could adversely impact such Registrant's ability to generate or supply power. In addition, such disruptions to the supply chain could delay certain construction and other capital expenditure projects, including construction and repowering of the Registrants' renewable generation projects. Such disruptions could adversely affect the impacted Registrant's future financial results.

Development and construction of major facilities are subject to substantial risks, including fluctuations in the price and availability of commodities, manufactured goods, equipment, and the imposition of tariffs thereon when sourced by foreign providers, labor, siting and permitting and changes in environmental and operational compliance matters, load forecasts and other items over a multi-year construction period, as well as counterparty risk and the economic viability of the Registrants' suppliers, customers and contractors.

Berkshire - 2022 10K

The impact of supply chain disruptions and workforce availability on the respective Registrant's ongoing operations and its ability to timely complete construction projects.

Further, epidemics, pandemics or other outbreaks could disrupt supply chains (including supply chains for energy generation, steel or transmission [wire](#)) relating to the markets each Registrant serves, which could adversely impact such Registrant's ability to generate or supply power. In addition, such disruptions to the supply chain could delay certain construction and other capital expenditure projects, including construction and repowering of the Registrants' renewable generation projects. Such disruptions could adversely affect the impacted Registrant's future financial results.

Development and construction of major facilities are subject to substantial risks, including fluctuations in the price and availability of commodities, manufactured goods, equipment, and the imposition of tariffs thereon when sourced by foreign providers, labor, siting and permitting and changes in environmental and operational compliance matters, load forecasts and other items over a multi-year construction period, as well as counterparty risk and the economic viability of the Registrants' suppliers, customers and contractors. Certain of the Registrants' construction projects are substantially dependent upon a single supplier or contractor and replacement of such supplier or contractor may be difficult and cannot be assured. These risks may result in the inability to timely complete a project or higher than expected costs to complete an asset and place it in-service and, in extreme cases, the loss of the power purchase agreements or other long-term off-take contracts underlying such projects. Such costs may not be recoverable in the regulated rates or market or contract prices each Registrant is able to charge its customers. Delays in construction of renewable projects may result in delayed in-service dates which may result in the loss of anticipated revenue or income tax benefits. It is also possible that additional generation needs may be obtained through power purchase agreements, which could increase long-term purchase obligations and force reliance on the operating performance of a third party. The inability to successfully and timely complete a project, avoid unexpected costs or recover any such costs could adversely affect such Registrant's financial results.

NEXTERA ENERGY INC

NextEra - For the Fiscal Year Ended December 31, 2022: [Inline XBRL Viewer \(sec.gov\)](#)

NextEra - For the Fiscal Year Ended December 31, 2021: [Inline XBRL Viewer \(sec.gov\)](#)

Florida Power and Light (NextEra Energy) 2021 10K

NEE's and FPL's ability to proceed with projects under development and to complete construction of, and capital improvement projects for, their electric generation, transmission and distribution facilities, gas infrastructure facilities and other facilities on schedule and within budget may be adversely affected

by escalating costs for materials and labor and regulatory compliance, inability to obtain or renew necessary licenses, rights-of-way, permits or other approvals on acceptable terms or on schedule, disputes involving contractors, labor organizations, land owners, governmental entities, environmental groups, Native American and aboriginal groups, lessors, joint venture partners and other third parties, negative publicity, transmission interconnection issues, supply chain disruptions and other factors. For example, the ability of NEE and FPL to develop solar generation facilities is dependent on the international supply chain for solar panels and associated equipment, and regulatory actions have caused minor, and could in the future cause material, disruptions in the ability of NEE and FPL to acquire solar panels on time and at acceptable costs. If any development project or construction or capital improvement project is not completed, is delayed or is subject to cost overruns, certain associated costs may not be approved for recovery or otherwise be recoverable through regulatory mechanisms that may be available, and NEE and FPL could become obligated to make delay or termination payments or become obligated for other damages under contracts, could experience the loss of tax credits or tax incentives, or delayed or diminished returns, and could be required to write off all or a portion of their investment in the project. Any of these events could have a material adverse effect on NEE's and FPL's business, financial condition, results of operations and prospects.

Florida Power and Light (NextEra Energy) 2022 10K

NEE's and FPL's ability to proceed with projects under development and to complete construction of, and capital improvement projects for, their electric generation, transmission and distribution facilities, gas infrastructure facilities and other facilities on schedule and within budget have been, in limited instances, and in the future may be, adversely affected by escalating costs for materials and labor and regulatory compliance, inability to obtain or renew necessary licenses, rights-of-way, permits or other approvals on acceptable terms or on schedule, disputes involving contractors, labor organizations, land owners, governmental entities, environmental groups, Native American and aboriginal groups, lessors, joint venture partners and other third parties, negative publicity, transmission interconnection issues, geopolitical factors, supply chain disruptions, inflation, rising interest rates and other factors. For example, the ability of NEE and FPL to develop solar generation facilities is dependent on the international supply chain for solar panels and associated equipment, and governmental or regulatory actions have caused minor, and could in the future cause material, disruptions in the ability of NEE and FPL to acquire solar panels on time and at acceptable costs. If any development project or construction or capital improvement project is not completed, is delayed or is subject to cost overruns, certain associated costs may not be approved for recovery or otherwise be recoverable through regulatory mechanisms that may be available, and NEE and FPL could become obligated to make delay or termination payments or become obligated for other damages under contracts, could experience the loss of tax credits or tax incentives, or delayed or diminished returns, and could be required to write off all or a portion of their investment in the project. Any of these events could have a material adverse effect on NEE's and FPL's business, financial condition, results of operations and prospects.

NEE, including FPL, is monitoring solar supply chain disruptions from Southeast Asian locations and is taking steps intended to mitigate potential risks to their solar project development and construction activities. To date, there has been no material impact on NEE's or FPL's operations or financial performance as a result of these activities.

The above estimates are subject to continuing review and adjustment and actual capital expenditures may vary significantly from these estimates. For example, the timing and ultimate cost associated with solar capital expenditures may vary due to supply chain disruptions from Southeast Asian locations.

SOUTHERN CO

Southern - For the Fiscal Year Ended December 31, 2022: [Inline XBRL Viewer \(sec.gov\)](#)

Southern - For the Fiscal Year Ended December 31, 2021: [Inline XBRL Viewer \(sec.gov\)](#)

Georgia Power (Southern) 2021 10K

The effects of the continued COVID-19 pandemic and related global, federal, state, and local responses could include new or extended disruptions to supply chains and capital markets, further reduced labor availability and productivity, and new or prolonged reductions in economic activity. These effects could have a variety of adverse impacts on the Registrants, including, but not limited to, new or prolonged reductions in demand for energy, particularly from commercial and industrial customers, impairment of goodwill or long-lived assets, reductions in investments recorded at fair value, further increases in costs of necessary equipment, and further challenges to the development, construction, and/or operation of the Registrants' facilities, including electric generation, transmission, and distribution assets, the performance of necessary corporate and customer service functions, and access to funds from financial institutions and capital markets.

Global and U.S. economic conditions have been significantly affected by a series of demand and supply shocks that caused a global and national economic recession in 2020. Most prominently, the COVID-19 pandemic has negatively impacted global supply chains and business operations as suppliers continue to experience difficulties keeping up with strong demand for factory goods, which is being driven by low business inventories. In addition, rising inflation in 2021 and 2022 has resulted in increasing costs for many goods and services.

The COVID-19 pandemic and the related impacts on the worldwide economy have disrupted supply chains, reduced labor availability and productivity, and reduced economic activity in the United States. These effects have had a variety of adverse impacts on Southern Company and its subsidiaries, including PowerSecure. If these factors continue to negatively affect the operating results of PowerSecure and its businesses, a portion of the associated goodwill of \$263 million may become impaired. The ultimate outcome of this matter cannot be determined at this time.

Georgia Power (Southern) 2022 10K

The financial performance of Southern Company and its subsidiaries depends on the successful operation of the electric generation, transmission, and distribution facilities, natural gas distribution facilities, and distributed generation storage technologies and the successful performance of necessary corporate functions. There are many risks that could affect these matters, including operator error or failure of equipment or processes, accidents, operating limitations that may be imposed by environmental or other regulatory requirements or in connection with joint owner arrangements, labor disputes, physical attacks, fuel or material supply interruptions and/or shortages, transmission disruption or capacity constraints, including with respect to the Southern Company system's and third

parties' transmission, storage, and transportation facilities, inability to maintain reliability consistent with customer expectations as the traditional electric operating companies and Southern Power transition their generating fleets in support of the Southern Company system's net zero goal, compliance with mandatory reliability standards, including mandatory cyber security standards, implementation of new technologies, technology system failures, cyber intrusions, environmental events, such as spills or releases, supply chain disruptions, inflation, and catastrophic events such as fires, earthquakes, explosions, floods, tornadoes, hurricanes and other storms, droughts, pandemic health events, political unrest, or other similar occurrences.

Whereas fuel oil directly provides only a small portion of the Southern Company system's annual generation, its importance to the reliability of the Southern Company system's generation portfolio continues to grow. Over the last few years, related cost increases and supply chain challenges have become more common and may increase the risk of reliability challenges.

The Southern Company system's operations and business plans depend on the global supply chain to procure equipment, materials, and other resources. The delivery of components, materials, equipment, and other resources that are critical to the Southern Company system's operations has been impacted by ongoing domestic and global supply chain disruptions. International tensions, including the ramifications of regional conflict, could further exacerbate global supply chain disruptions. These disruptions and shortages could adversely impact business operations. The constraints in the supply chain also could restrict availability and delay construction, maintenance, or repair of items needed to support normal operations or to continue planned capital investments. Supply chain disruptions have contributed to higher prices of components, materials, equipment, and other needed commodities, and these inflationary increases may continue. While inflation in the United States had been relatively low in recent years, its impact became more significant during 2021 and continued in 2022. Uncertainty around inflationary impacts continues to increase in the near-term outlook for economic activity. Rapid inflation or other economic factors may negatively affect the timely recovery of costs.

Additionally, inflation remains elevated in part due to continued supply chain constraints and labor markets remaining tight.

Earnings for both the electricity and natural gas businesses are subject to a variety of other factors. These factors include weather; competition; developing new and maintaining existing energy contracts and associated load requirements with wholesale customers; customer energy conservation practices; the use of alternative energy sources by customers; government incentives to reduce overall energy usage; fuel, labor, and material prices in an environment of heightened inflation and material and labor supply chain disruptions; and the price elasticity of demand. Demand for electricity and natural gas in the Registrants' service territories is primarily driven by the pace of economic growth or decline that may be affected by changes in regional and global economic conditions, which may impact future earnings.

The worldwide disruptions in supply chain, reduced labor availability and productivity, and reduced economic activity in the United States have had a variety of adverse impacts on Southern Company and its subsidiaries, including PowerSecure.

DOMINION ENERGY, INC

Dominion - For the Fiscal Year Ended December 31, 2022: [Inline XBRL Viewer \(sec.gov\)](#)

Dominion - For the Fiscal Year Ended December 31, 2021: [Inline XBRL Viewer \(sec.gov\)](#)

Dominion 2021 10K

The Companies are dependent on their contractors for the successful and timely completion of large-scale infrastructure projects. The construction of such projects is expected to take several years, is typically confined within a limited geographic area or difficult environments and could be subject to delays, supply chain disruption, cost overruns, inflation, labor disputes or shortages and other factors that could cause the total cost of the project to exceed the anticipated amount and adversely affect the Companies' financial performance and/or impair the Companies' ability to execute the business plan for the project as scheduled.

The Companies' operations are subject to operational hazards, equipment failures, supply chain disruptions and personnel issues which could negatively affect the Companies.

The effects of the continued outbreak of the COVID-19 pandemic and related government responses could include extended disruptions to supply chains and capital markets, reduced labor availability and productivity and a prolonged reduction in economic activity.

The impact of extraordinary external events, such as the current pandemic health event resulting from COVID-19, and their collateral consequences, including extended disruption of economic activity in our markets and global supply chains.

The Committee may at any time, in its sole discretion, make any adjustments to the performance goals set forth in this award, or to the calculation of the Company's Cumulative Operating EPS or other results for the Performance Period or any portion thereof, or may reduce or increase the associated Percentage Payout, in order to reflect any unusual or infrequent events, such as or related to new legislation, regulatory orders/outcomes, asset write-offs, weather, storms, supply chain disruptions, commodity prices, or mergers, acquisitions or dispositions involving the Company, that were not contemplated at the time of grant.

Dominion 2022 10K

The Companies are dependent on their contractors for the successful and timely completion of large-scale infrastructure projects. The construction of such projects is expected to take several years, is typically confined within a limited geographic area or difficult environments and could be subject to delays, supply chain disruption, cost overruns, inflation, labor disputes or shortages and other factors that could cause the total cost of the project to exceed the anticipated amount and adversely affect the Companies' financial performance and/or impair the Companies' ability to execute the business plan for the project as scheduled.

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The impact of extraordinary external events, such as the current pandemic health event resulting from COVID-19, and their collateral consequences, including extended disruption of economic activity in our markets and global supply chains.

The Committee may at any time, in its sole discretion, make any adjustments to the performance goals set forth in this award or in Exhibit A, or to the calculation of the Company's financial or other results for the Performance Period or any portion thereof, or may reduce or increase any applicable Percentage Payouts, in order to reflect any unusual or infrequent events, such as or related to new legislation, regulatory orders/outcomes, asset write-offs, weather, storms, supply chain disruptions, commodity prices, or mergers, acquisitions or dispositions involving the Company, that were not contemplated at the time of grant.

Cleco Corporate Holdings LLC

Cleco - For the Fiscal Year Ended December 31, 2022: [Inline XBRL Viewer \(sec.gov\)](#)

Cleco - For the Fiscal Year Ended December 31, 2021: [Inline XBRL Viewer \(sec.gov\)](#)

CLECO 2021 10K

The following list identifies some of the factors that could cause the Registrants' actual results to differ materially from those contemplated in any of the Registrants' forward-looking statements:

Growth or decline of Cleco's customer base, or decline in existing services, including the effect of the trend toward distributed generation at customer sites, the loss of key suppliers for fuel, materials, or services, or other disruptions to the supply chain.

Cleco is also working with its suppliers to understand the potential impacts to its supply chain. Cleco will continue to monitor developments affecting its workforce, customers, and suppliers and take additional precautions as warranted.

Cleco has entered into service agreements with affiliates to receive and to provide goods and professional services. Goods and services received by Cleco primarily involve services provided by Support Group. Support Group provides joint and common administrative support services in the areas of information technology; finance, cash management, accounting, tax, and auditing; human resources; public relations; project consulting; risk management; strategic and corporate development; legal, ethics, and regulatory compliance; facilities management; supply chain and inventory management; and other administrative services.

CLECO 2022 10K

The following list identifies some of the factors that could cause the Registrants' actual results to differ materially from those contemplated in any of the Registrants' forward-looking statements:

Growth or decline of Cleco's customer base, or decline in existing services, including the loss of key suppliers for fuel, materials, or services, or other disruptions to the supply chain.

Cleco has implemented certain measures that it believes will provide financial flexibility and help maintain its liquidity. Cleco is working with its suppliers to mitigate the pandemic stimulated impacts to its supply chain. Cleco will continue to monitor developments affecting its workforce, customers, and suppliers and take additional precautions as warranted. Cleco continues to assess the COVID-19 situation and cannot predict the full impact that COVID-19, or any significant related disruptions, will have on its business, cash flows, liquidity, financial condition, and results of operations. For additional discussion regarding certain risks associated with the COVID-19 pandemic, see Part I, Item 1A, "Risk Factors — Operational Risks — Pandemics, Epidemics, and Other Outbreaks."

Cleco has entered into service agreements with affiliates to receive and to provide goods and professional services. Goods and services received by Cleco primarily involve services provided by Support Group. Support Group provides joint and common administrative support services in the areas of information technology; finance, cash management, accounting, tax, and auditing; human resources; public relations; project consulting; risk management; strategic and corporate development; legal, ethics, and regulatory compliance; facilities management; supply chain and inventory management; and other administrative services.

Executive Perspectives on Top Risks for the Energy & Utilities Industry

2023 & 2032

Key issues being discussed in the boardroom and C-suite, according to results from the latest Protiviti-NC State global survey

TOP 10 RISKS FOR 2023*	YOY change	TOP 10 RISKS FOR 2032*	YOY change
 1. The rising threat associated with catastrophic natural disasters and weather phenomena may create significant operational challenges	New	 1. The rising threat associated with catastrophic natural disasters and weather phenomena may create significant operational challenges	New
 2. Uncertainty surrounding core supply chain ecosystem	↑	 2. Resistance to change may restrict the organization from making necessary adjustments to the business model and core operations	↑
 3. Organization's succession challenges and ability to attract and retain top talent in a tightening talent market may limit ability to achieve operational targets	↓	 3. Adoption of digital technologies may require new skills in short supply, requiring significant efforts to reskill/upskill employees	↑
 4. Changes in the overall work environment may lead to challenges in sustaining culture and the conduct of the business	↑	 4. Inability to utilize data analytics and "big data" to achieve market intelligence and increase productivity and efficiency	↑
 5. Approach to managing demands on or expectations of a significant portion of workforce to work remotely or as part of a hybrid work environment	↑	 5. Rapid speed of disruptive innovations enabled by new and emerging technologies and/or other market forces may outpace ability to compete	↑
 6. Resistance to change may restrict the organization from making necessary adjustments to the business model and core operations	↓	 6. Organization's succession challenges and ability to attract and retain top talent in a tightening talent market may limit ability to achieve operational targets	↑
 7. Economic conditions in markets we currently serve may significantly restrict growth opportunities, impact margins or require new skill sets	↑	 7. Regulatory changes and regulatory scrutiny may heighten, noticeably affecting how products or services will be produced or delivered	↓
 8. The current interest rate environment may have a significant effect on the organization's capital costs and operations	↑	 8. Growing focus on climate change and related ESG policies, regulations and expanding disclosure requirements, as well as related issues, may require significantly altering the strategy and business model	↓
 9. Adoption of digital technologies may require new skills in short supply, requiring significant efforts to reskill/upskill employees	↑	 9. Organization's culture may not sufficiently encourage the timely identification and escalation of risk issues	↑
 10. Anticipated increases in labor costs may affect ability to meet profitability targets	↑	 10. Uncertainty surrounding core supply chain ecosystem	↑

*Scores are based on a 10-point scale, with "10" representing that the risk issue will have an extensive impact on the organization.

KEY HIGHLIGHTS FROM THIS STUDY



Uncertainty abounds, triggering heightened risk concerns for executives and boards. Survey respondents rate the overall severity and magnitude of risks at the highest level we have observed in the 11 years this study has been conducted.



The risk landscape is changing but resistance to change persists. Leaders cannot afford to ignore the changing risk landscape, given new risks can emerge rapidly. The culture of their organizations should be prepared to adapt to disruptive change and facilitate escalation of market opportunities and risks to decision makers.



The economy is top of mind. There are significant concerns globally about the potential for persistent challenges related to inflation and growth.



Talent and technology concerns dominate the composition of top risks. The 10-year outlook reflects a mix of opportunities and risks relating to disruptive innovation, advancing technologies and human capital challenges. Executives and boards recognize the need to find the talent to realize fully the value proposition associated with new technologies and digital innovations and are prioritizing strategies around reskilling and upskilling existing employees to get it. They also are concerned about increases in labor costs impacting achievement of profitability goals, as well as evolving approaches to managing hybrid and remote work environments and continued shifts in the nature of work.



There are diverse risk perspectives across the C-suite and boardroom. There is noticeable variation among different leaders about what risks are most critical, highlighting the importance of engaging in conversations about the most significant risks for their organizations.



A long-term view of risks is vital in navigating the near term. As organizations manage the challenges 2023 brings, they should also prepare for the long term by addressing issues noted in this survey, including effectively transforming legacy IT infrastructures, emphasizing the customer experience, investing in future growth opportunities, ensuring privacy and security, and advancing capabilities to deploy advanced data analytics. A long-term outlook helps companies focus on where to invest to be more resilient for the unexpected and better prepared for the next phase of growth.



The results show that risk management, as a discipline, is becoming more critical for success, with executives and boards expressing an overall higher likelihood to invest in strengthening risk management in 2023.

Results are based on a survey of 1,304 board members and C-suite executives worldwide. The full survey report, *Executive Perspectives on Top Risks*, may be accessed at erm.ncsu.edu or protiviti.com/toprisks. It includes detailed breakdowns of the results by respondent role, organization size, industry, geography and other categories.

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POLICY

Office of Policy

DOE Actions to Unlock Transformer and Grid Component Production

OCTOBER 20, 2022



Office of Policy » DOE Actions to Unlock Transformer and Grid Component Production

Supply chains spanning every corner of the global economy have been disrupted in recent years, largely due to the compounding effects of COVID-19 on demand and Russia's invasion of Ukraine on supply. Supply chains for key electric grid components have been no exception, with supply chain constraints increasing costs and threatening grid reliability and resilience.

The U.S. Department of Energy (DOE) is taking steps to better understand and address current supply chain constraints in the electric power sector, particularly as they pertain to distribution transformers—which present the most urgent near-term supply-chain challenge—and other critical grid components. Ensuring that supply of grid components can swiftly meet demand and continue to meet demand long-term is vital to maintaining grid reliability; enabling quick recovery from hurricanes and other disasters; and supporting community, business, and demand growth.

Reports from the electricity industry and trade press indicate that manufacturer lead-times to fill utility equipment orders have lengthened significantly over the last few years, increasing from weeks or months to over two years for components like

distribution transformers. These delays have been coupled with a sharp rise in grid component costs.

Utilities maintain backup inventories to quickly replace damaged or destroyed transformers. As wait times for new equipment have increased, utilities have drawn down their existing inventories while unable to fully replenish them or know when replacement inventory will become available. This uncertainty could lead to inability to swiftly repair systems after storms, replace aging equipment, and expand service.

Following proactive discussions with the electric sector in late 2021, DOE and the Electricity Subsector Coordinating Council (ESCC), a CEO-led group that serves as the principal liaison between the federal government and the electric power industry, jointly formed a Supply Chain Tiger Team to identify the challenges facing the energy sector and what solutions could help to address this issue. The Tiger Team's first meeting took place at the beginning of July. Since then, building on the insights from previous collaborations, it has taken steps to gather additional information on potential supply chain risks and explore solution-specific resources that can help alleviate this pressure on various electric components, including distribution transformers.

In parallel, in early June, **President Biden authorized DOE** to utilize the Defense Production Act (DPA) to accelerate the domestic production of critical electric grid and clean energy components—including transformers. As part of its efforts to exercise these DPA authorities, DOE held a series of listening sessions with stakeholders to collect feedback on appropriate next steps. These discussions reaffirmed broad industry interest in potential uses of DPA authorities that could alleviate short- and long-term challenges to materials availability and domestic production capacity.

DOE also conducted a survey of distribution transformer manufacturers to begin to understand challenges and gather information on production trends and primary constraints. Based on responses from manufacturers representing more than half of domestic manufacturing capacity, DOE identified the preliminary key challenges constraining domestic distribution transformer supply:

- **Labor constraints.** Labor and workforce availability was consistently cited as the most critical threat to transformer production capacity. Manufacturers report increasing difficulty in attracting and retaining a sufficient labor force. They face difficulty filling open positions and experience high turnover—around 10% in many cases. Manufacturers have also acknowledged that the skill level required and corresponding wages are low, which contributes to challenges with recruitment and retention. Manufacturers report that increasing labor input through additional shifts and expanded headcount could increase distribution transformer production by 10-25% or more. With current levels of low unemployment, these labor constraints are not unique to distribution transformer manufacturers but remain an urgent challenge that DOE, the administration, and industry and labor partners are working to address quickly by identifying resources and solutions.
- **Materials availability.** The ability to source specific materials was also raised as a production barrier. This challenge is related to volatile commodity markets for copper and aluminum—the metals used as conductive material in most transformers. Access to grain-oriented electrical and amorphous steel also emerged as a materials issue. According to survey responses, resolving material constraints could enable manufacturers to increase production by approximately 10% (supplemental to the potential labor-enabled increase).
- **Growing demand.** Compounding these challenges is a reported increase in demand for distribution transformers. Utility trade associations have indicated a range of increased demand, with an upper value for 2023 approximately 20% above current production. **Data from the Edison Electric Institute** shows that expected 2022 investor-owned utility capital expenditures on distribution systems are 20% above the 2020 level. If production does not keep pace in coming years with demand growth for deferred maintenance, inventory replenishment, and service expansion, the gap between supply and demand will continue to widen and the backlog will grow.

To gather further public input, on October 4, DOE released a **Request for Information (RFI)** on how best use DPA as a tool to accelerate manufacturing and deployment of clean energy technologies—including grid components—to bolster national defense, tackle climate change, support environmental justice, and improve employment

opportunities and broader economic prosperity for Americans. Responses to this RFI are requested by November 30.

DOE recognizes the need for an approach to these issues that will engage agencies from across the federal government, bringing their various legal authorities and policy tools to bear in this effort. It is important that domestic manufacturers can catch up with the backlog to meet current and growing needs, maintain resilience of our electricity system, and achieve long-term growth while providing high-quality and well-paying jobs.

DOE has engaged its federal partners to begin a range of potential actions—including further engagements with manufacturers; elevating of existing best practices, tools, and resources to address these underlying problems; and potentially using DPA authorities, pending appropriations from Congress.

Recognizing that weather events are becoming more extreme and the electricity sector will continue to grow for decades to come, DOE will also continue collaborating closely with the ESCC Supply Chain Tiger Team to identify and implement both government and industry measures that can help ensure production can meet demand and power sector reliability can be maintained.

DOE encourages developers, owners, operators, manufacturers, and others in the energy sector to respond to the aforementioned RFI to further understand current barriers and determine if DPA is a relevant tool for addressing the ongoing distribution transformers imbalance.

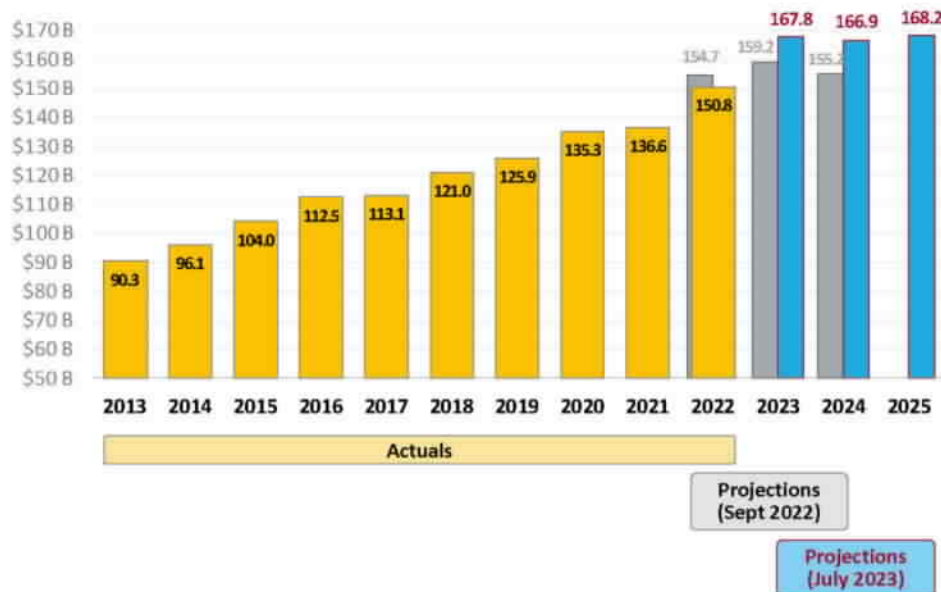
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Industry Capital Expenditures



Industry Capital Expenditures

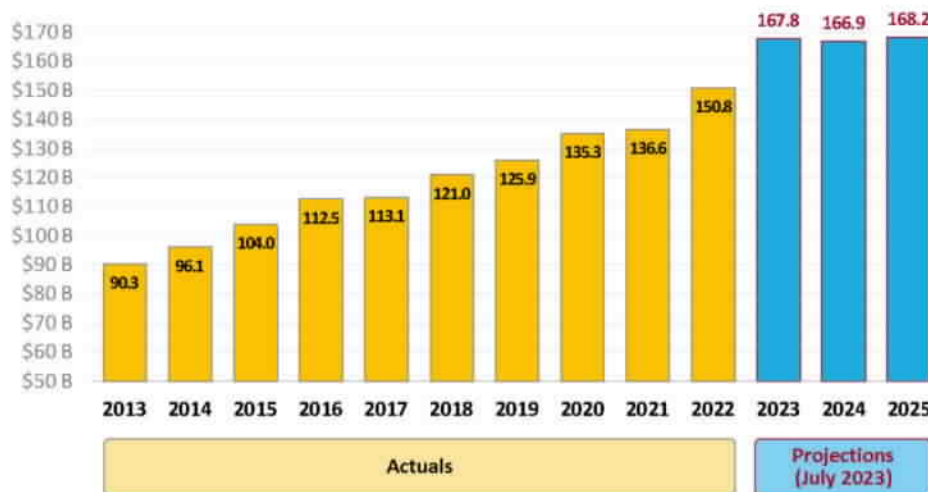


Chart represents total company spending of U.S. Investor-Owned Electric Utilities, consolidated at the parent or appropriate holding company.

Note: At the industry level, CapEx tends to be overestimated for the current, or first, year's projection and underestimated for the two following years. We expect a continued level of elevated spending after accounting for the historical trend of over- and underestimation.

Source: EEI Finance Department, member company reports, and S&P Global Market Intelligence (updated July 2023).

Projected Functional CapEx

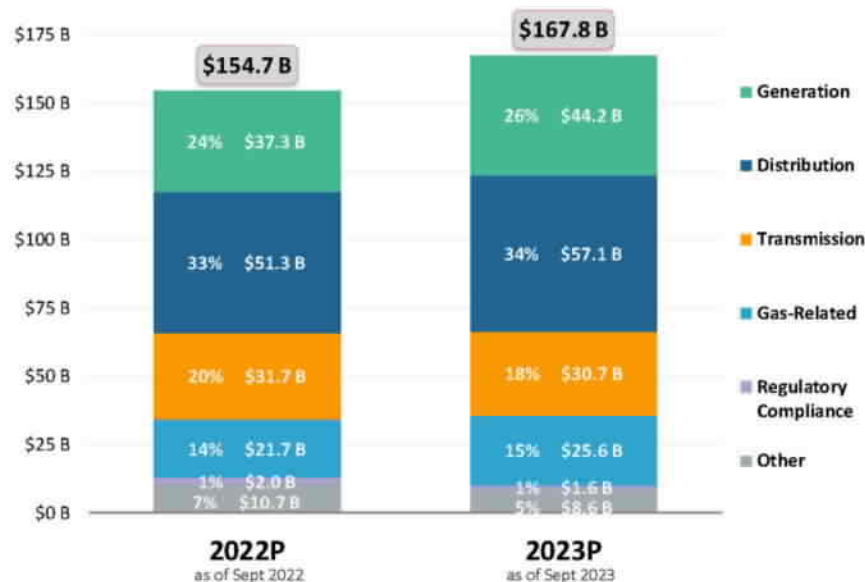


Chart represents total company functional spending of U.S. investor-Owned Electric Utilities. Individual years may not sum to 100% due to rounding error.

Note: Each annual functional projection is compiled during the calendar year for which it is reported and is not revised to align with the actual total. Therefore, the projected total dollar amounts in the functional chart do not align with the actual totals reported on the enclosed industry capital expenditures chart.

Source: EEI Finance Department, company reports, and S&P Global Market Intelligence (2023P as of September 2023).

Projected Functional CapEx



Chart represents total company functional spending of U.S. investor-Owned Electric Utilities. Individual years may not sum to 100% due to rounding error.

Note: Each annual functional projection is compiled during the calendar year for which it is reported and is not revised to align with the actual total. Therefore, the projected total dollar amounts in the functional chart do not align with the actual totals reported on the enclosed industry capital expenditures chart.

Source: EEI Finance Department, company reports, and S&P Global Market Intelligence (2023P as of September 2023).

Adaptation, Hardening, and Resilience (AHR) CapEx

- EEI member companies are deploying a significant and growing amount of capital resources on adaptation, hardening, and resilience (AHR) initiatives.
- AHR is increasingly becoming an important way that electric companies fulfill their mission of supplying clean, reliable, and affordable energy to customers.
- Working with EEI member companies and the financial community, EEI developed an AHR taxonomy that aligns with the electric power industry's functional CapEx categories to categorize types of AHR investments (see slide 6).
- EEI has surveyed member companies to quantify industry AHR investment in electric transmission and distribution (T&D) infrastructure (see slide 7).
- Examples of electric T&D AHR investments include:
 - Undergrounding power lines
 - Installing cement poles
 - Elevating or relocating transformers
- While we know a meaningful portion of generation and gas-related investments are also being driven by AHR initiatives, EEI has not surveyed member companies on these segments.

AHR CapEx Taxonomy

**Current Survey
Data Covers
Electric T&D
Segments Only**

Transmission

Hardening and Resilience

Examples:

- Elevating or relocating electric transformers in flood prone regions
- Reinforcing existing transmission structures in high-speed wind zones
- Installing higher temperature-rated transformers for extreme heat

Advanced Transmission Technology

Examples:

- Installing sensors on transmission towers and deploying Artificial Intelligence to detect and respond to system threats
- Implementing remote monitoring and control technologies
- Increasing deployment of energy storage systems associated with transmission infrastructure

Distribution

Hardening and Resilience

Examples:

- Undergrounding distribution lines
- Purchasing equipment for vegetation management
- Replacing wood electric distribution poles with cement and steel

Advanced Distribution Technology

Examples:

- Strengthening distribution networks through investments in Demand Response technologies and real time system management
- Increasing deployment of Advanced Metering Infrastructure, microgrids, and energy storage within distribution networks

**More Data
Coming Soon
on Generation
& Gas-Related**

Generation

Hardening and Resilience

Examples:

- Altering water intakes for generating stations
- Elevating control rooms and pump stations in flood prone regions
- Building and strengthening berms, levees and floodwalls at generating stations

Advanced Generation Technology

Examples:

- Increasing deployment of energy storage at generating stations
- Developing advanced water-cooling technologies at generating stations

Gas-Related

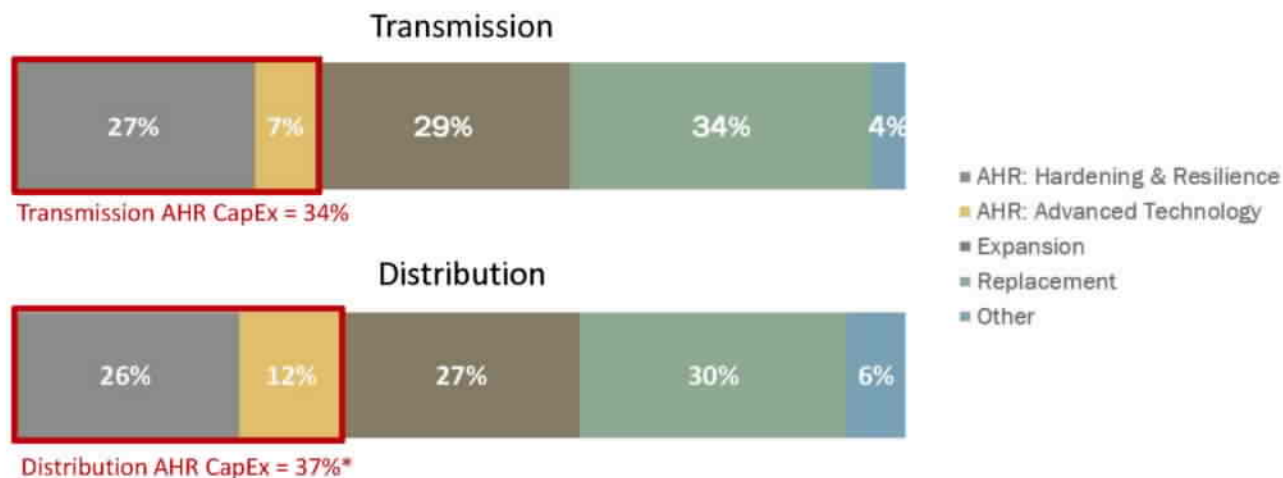
Hardening and Resilience

Examples:

- Replacing obsolete pipelines with more robust and structurally flexible materials

Note: gas-related includes investments in pipeline/delivery infrastructure; not gas-fired electric generation

AHR as a Driver of Electric T&D Investment



*Note: Totals may not sum to 100% and AHR sum may appear different due to rounding.

Source: EEI Business Analytics 2022 surveys.

EEI Financial Analysis Resources

Examples of EEI Financial Public Reports & Data

(Items updated quarterly unless otherwise indicated)

Financial Review (annual)

Incorporates the following reports and additional industry material

Stock Performance

Financial market performance (Price, TSR, etc.) of proprietary EEI member index and equity analyst opinions

Credit Ratings

Holding company ratings & rating agency activity

Dividends

Dividend-related actions of EEI members and relevant issues

Rate Review Summary

Aggregate industry statistics on quarterly rate review data

Industry Consolidated Financial Statements (annual)

- Income Statement
- Balance Sheet
- Cash Flow Statement

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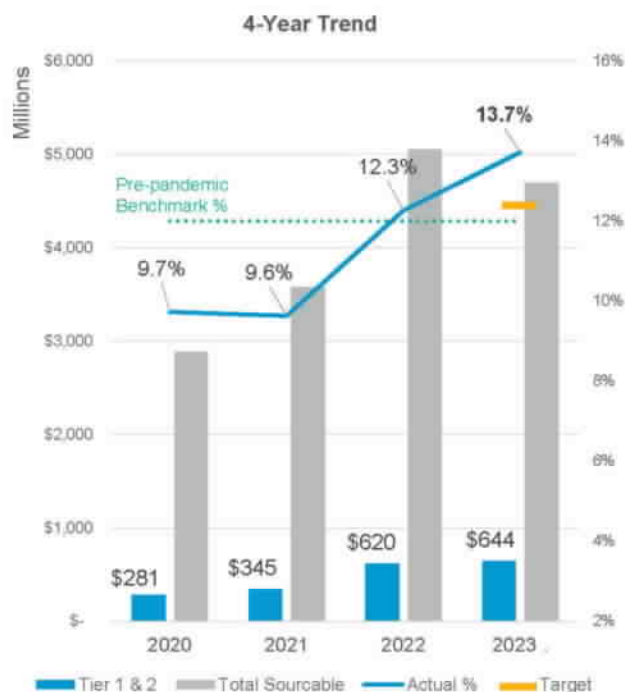
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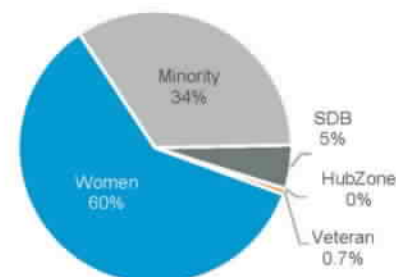
Supplier Diversity & Inclusion and Sustainability



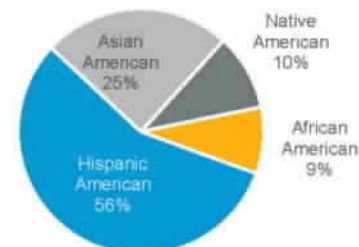
Diverse Spend Trend



Total Diverse Spend



Minority Spend Breakout



1. Tier 1 - attributed to invoices paid by CNP directly to a Contractor or Supplier for work related to the fulfillment of their contract.
2. Tier 2 - attributed to invoices paid by a Tier 1 vendor directly to a diverse supplier for work directly with CNP

PUC DOCKET NO. 56211

APPLICATION OF CENTERPOINT	§	PUBLIC UTILITY COMMISSION
ENERGY HOUSTON ELECTRIC, LLC	§	
FOR AUTHORITY TO CHANGE RATES	§	OF TEXAS

DIRECT TESTIMONY

OF

JOHN SOUSA

ON BEHALF OF

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

MARCH 2024

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym	Definition
ACSI	American Customer Satisfaction Index
CECP	Chief Executives for Corporate Purpose
CenterPoint Houston	CenterPoint Energy Houston Electric, LLC
CNP	CenterPoint Energy, Inc.
Company	CenterPoint Energy Houston Electric, LLC
Foundation	CenterPoint Energy Foundation
JA	Junior Achievement
Service Company	CenterPoint Energy Service Company, LLC
SOC	Security Operations Center

**EXECUTIVE SUMMARY – CORPORATE COMMUNICATIONS,
COMMUNITY RELATIONS, UTILITY MARKETING, AND CORPORATE
SECURITY**

JOHN SOUSA

The services the Corporate Communications, Community Relations, Utility Marketing, and Corporate Security departments provide to CenterPoint Energy Houston Electric, LLC (“CenterPoint Houston” or the “Company”) support the Company’s provision of safe and reliable electric service. Corporate Communications enables the Company to provide timely accurate external and internal information to media, communities, customers, employees, and other stakeholders in the cities where the Company operates. Community Relations is responsible for directing, planning and implementing community outreach and charitable giving programs, as well as overseeing employee volunteer initiatives and coordinating corporate contributions and memberships to civic and community organizations. The Utility Marketing group is responsible for communicating operational-, service- and safety-related information to residential, commercial and industrial end-use customers, the general public and other stakeholders. Corporate Security is responsible for developing and managing programs, technology and security guard services designed to help protect the Company and its electric customers through the identification and analysis of risks to CNP personnel, assets, knowledge, and organizational reputation. My testimony:

- Describes the organization and responsibilities of the Corporate Communications, Community Relations, Utility Marketing, and Corporate Security departments;

- 1 • Addresses the key functions that Corporate Communications, Community
2 Relations, Utility Marketing, and Corporate Security provide to CenterPoint
3 Houston;
 - 4 • Describes how the costs associated with Corporate Communications,
5 Community Relations, Utility Marketing, and Corporate Security costs are
6 controlled and monitored through the budgeting process;
 - 7 • Addresses how the costs of Corporate Communications, Community
8 Relations, Utility Marketing, and Corporate Security are assigned; and
 - 9 • Supports the reasonableness of the Corporate Communications,
10 Community Relations, Utility Marketing, and Corporate Security costs
11 incurred by CenterPoint Houston during the test year.
- 12 My testimony demonstrates that the affiliate costs for Corporate Communications,
13 Community Relations, Utility Marketing, and Corporate Security are reasonable and
14 necessary and are not priced higher to CenterPoint Houston than the prices charged for the
15 same services to other affiliates. Thus, CenterPoint Houston's requested Corporate
16 Communications, Community Relations, Utility Marketing, and Corporate Security costs
17 should be recovered in full through rates.

DIRECT TESTIMONY OF JOHN SOUSA

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND POSITION.

A. My name is John Sousa. I am currently Vice President, Corporate Communications, Utility Marketing, and Corporate Security at CenterPoint Energy, Inc. ("CNP").

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I graduated from Bowdoin College in Maine with a bachelor's degree in Sociology and History. I earned a master's degree in Mass Communications from Boston University's College of Communication. Before joining CNP in 2017, I had leadership roles at ConocoPhillips, El Paso Corporation, and Dynegy Inc. I joined CNP in 2017 in the role of Vice President, Corporate Communications and Community Relations. In 2018, Corporate Security was added to my areas of responsibility. In January 2023, I assumed responsibility for the Utility Marketing function. In February 2024, a new Vice President of Community Relations was named to oversee the company's community relations and the CenterPoint Energy Foundation ("the Foundation").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to describe the functions and organizational structure of Corporate Communications, Community Relations, Utility Marketing, and Corporate Security, and the affiliate services each department provided to CenterPoint Houston during the test year. In addition, I support the affiliate costs

1 associated with Corporate Communications, Community Relations, Utility
2 Marketing, and Corporate Security assigned to CenterPoint Houston during the test
3 year.

4 **Q. DO YOU SPONSOR ANY SCHEDULES IN THIS RATE FILING**
5 **PACKAGE?**

6 A. Yes, I co-sponsor with Company witness L. Darren Storey, Schedules V-K-7 and
7 V-K-12, as they relate to CenterPoint Energy Service Company, LLC ("Service
8 Company") Corporate Communications, Community Relations, Utility Marketing,
9 and Corporate Security costs.

10 **Q. HOW DOES YOUR TESTIMONY RELATE TO THE TESTIMONY OF**
11 **OTHER WITNESSES?**

12 A. The parts of my testimony that relate to planning, budgeting and the assignment of
13 affiliate costs to CenterPoint Houston support and supplement the testimony of Mr.
14 Storey, who testifies about the overall role and benefits of having a service
15 company, of which I am a part, including the budgeting and allocation
16 methodologies for Service Company affiliate costs charged to CenterPoint
17 Houston. Company witnesses Ms. Kristie Colvin and Mr. Storey address any
18 necessary test year adjustments to Service Company costs.

19 One of my responsibilities in Community Relations is to track the
20 contributions the Company makes to nonprofit organizations through its 501(c)(3)
21 foundation, the CenterPoint Energy Foundation, which is funded by shareholders.
22 Ms. Colvin discusses in her testimony the Public Utility Commission of Texas

1 threshold allowed for corporate contributions made outside of the Foundation and
2 the inclusion of these costs in the Company's rate request.

3 **II. CORPORATE COMMUNICATIONS,**
4 **COMMUNITY RELATIONS, UTILITY MARKETING, AND**
5 **CORPORATE SECURITY DEPARTMENTS**

6 **Q. PLEASE DESCRIBE THE ORGANIZATIONAL STRUCTURE OF THE**
7 **CORPORATE COMMUNICATIONS, COMMUNITY RELATIONS,**
8 **UTILITY MARKETING, AND CORPORATE SECURITY**
9 **DEPARTMENTS.**

10 A. Corporate Communications, Community Relations, Utility Marketing, and
11 Corporate Security are departments within Service Company. As Mr. Storey
12 explains in his testimony, several departments exist within Service Company that
13 provide a variety of corporate support services to different business units within
14 CNP, including CenterPoint Houston.

15 **A. Corporate Communications Services Provided to CenterPoint Houston**

16 **Q. PLEASE DESCRIBE THE ROLE AND FUNCTION OF THE CORPORATE**
17 **COMMUNICATIONS DEPARTMENT.**

18 A. CenterPoint Houston provides electric delivery service is approximately 2.8 million
19 metered customers that are located throughout the Greater Houston area. CNP has
20 approximately 9,000 employees. Corporate Communications is needed to
21 efficiently and effectively communicate on behalf of CenterPoint Houston.
22 Corporate Communications focuses on both external and internal communications,
23 fulfilling its mission through media relations, employee communications, video
24 production, employee town hall meetings, community meetings, corporate emails,

1 the Company intranet, social media, and other communications. Corporate
2 Communications focuses its efforts on the following areas:

3 **External Communications.** Corporate Communications helps
4 CenterPoint Houston communicate important information about CenterPoint
5 Houston's electric operations to the public. Corporate Communications shares
6 important information about system enhancement projects and their benefit to
7 customers. In addition, if there is an interruption in service due to weather,
8 third-party damage or a system issue, Corporate Communications engages the
9 media on these issues by providing timely and accurate information anytime it is
10 needed, 24-hours-a-day, seven-days-a-week, primarily through news media, social
11 media and website updates, and providing messaging to other departments,
12 including customer service, finance, safety, regulatory services, and government
13 relations. This distribution of information benefits CenterPoint Houston by helping
14 the Company communicate critical, consistent, and necessary updates to the public
15 on a regular basis, which helps share important safety information and meet the
16 public's information expectations.

17 As part of the proactive communications efforts and to ensure effective
18 coordination in outreach to the public, the Corporate Communications team
19 engages with members of the communications team of the Public Utility
20 Commission of Texas, Electric Reliability Council of Texas, and local offices of
21 Emergency Management, among other organizations and entities. The Corporate
22 Communications team also plans and participates with CenterPoint Houston in

1 community meetings with neighborhood groups and homeowners' associations to
2 discuss its operations, projects, practices.

3 **Internal Communications.** Corporate Communications helps CenterPoint
4 Houston develop an effective, informed, and engaged workforce by assisting in
5 communicating important business information to employees in ways that are
6 understood and meaningful. Some of the communication tools include emails,
7 digital signs, videos, intranet updates and interactive, town hall-style employee
8 meetings, including livestreaming video content to other locations within the
9 CenterPoint Houston footprint. These efforts help ensure that Company employees
10 are informed, and that they understand the Company's need to provide outstanding
11 service and information to end-use retail electric customers, while following
12 CenterPoint Houston's values of safety, integrity, accountability, initiative, and
13 respect.

14 **Q. DOES CORPORATE COMMUNICATIONS PROVIDE SERVICES TO**
15 **ANY EXTERNAL ENTITIES?**

16 A. No. Corporate Communications only provides services to CNP and its subsidiaries,
17 including CenterPoint Houston.

18 **Q. WHAT SPECIFIC SERVICES DOES CORPORATE COMMUNICATIONS**
19 **PROVIDE TO CENTERPOINT HOUSTON AND ITS END-USE RETAIL**
20 **ELECTRIC CUSTOMERS?**

21 A. Corporate Communications provides a variety of services to CenterPoint Houston
22 and its customers, including the following: safety communications; media relations;

1 employee media training; online and other written materials; employee town hall
2 meetings; video production; and internal digital signage.

3 **Safety Communications.** Safety is CenterPoint Houston's first value and
4 top priority. One of the most important services Corporate Communications
5 provides CenterPoint Houston is electric safety communications to employees and
6 end-use retail electric customers. The department collaborates with Electric
7 Operations and the Safety organization to communicate crucial safety information
8 in English and Spanish to news media and through the Company's social media
9 channels about the importance of working and living safely around electricity.

10 Corporate Communications actively supports safety initiatives for
11 employees, contractors, and customers, including "READY" (CNP's model to
12 prevent serious injuries and fatalities, ensuring workers are prepared to start work
13 by identifying hazards, planning work, and mitigating hazards), Employee Safety
14 Forum, Safety Management System, and Days of Summer employee campaigns.
15 Employee campaigns include intranet content, videos, digital signs, posters, and
16 presentations. Corporate Communications also created safety-related
17 communication materials to support monthly safety topics, including articles,
18 videos, links to additional resources, spotlight ads, and internal digital signs. Topics
19 included driving principles, hurricane preparedness, personal wellness and health,
20 injury prevention, and fire safety.

21 Also, Corporate Communications supports an annual Contractor Safety
22 Summit, assisting with planning and guidance on communications support. The
23 event is usually attended by more than 100 contractors, including senior leadership

1 and safety management employees. Attendees have the opportunity to hear from
2 CNP leaders on the importance of safety for employees, contractors, systems, and
3 the public.

4 **Media Relations.** Corporate Communications provides 24/7 media
5 relations support through the production and distribution of news releases and
6 statements to news media primarily related to electric system operations and
7 safety-related messages, including staying away from power lines and what to do
8 during power outages and major storms. Corporate Communications proactively
9 contacts media outlets as needed and responds to hundreds of media inquiries every
10 month related to a variety of topics.

11 As severe weather continues to impact the Greater Houston area, customer
12 and media interest in the status of the Company's electric grid and service
13 restoration efforts remain extremely high and present an opportunity to
14 communicate safety messages, including flooding and cold weather safety tips. In
15 January 2023, restoration efforts following the devastating tornadoes that impacted
16 our Houston service territory resulted in 51 broadcast media mentions, with some
17 stories covering CenterPoint Houston's efforts to restore power for several days. In
18 June, more than 60 news stories were related to restoration efforts after severe
19 storms impacted our area.

20 The social media team also coordinates and executes key messages and
21 shares important information with the public. During the test year, the Company
22 shared more than 150 posts on Facebook, X (formerly Twitter), LinkedIn, and

1 Nextdoor, highlighting reliability enhancement projects across the Greater Houston
2 area.

3 **Employee Media Training.** Corporate Communications conducts
4 employee media training to support CenterPoint Houston's employee response
5 when addressing onsite media or customers. New technology and social media
6 platforms represent a new challenge for employees who are trying to do their jobs
7 safely and effectively. This training equips employees with tools and strategies to
8 be responsive to questions from onsite media and end-use retail electric customers
9 when responding to an incident or addressing an issue.

10 **Intranet and Other Written Materials.** Corporate Communications
11 supports CenterPoint Houston through updates to CNP's intranet and corporate
12 emails to employees covering strategic business objectives, operational news, and
13 safety programs.

14 **Town Hall Meetings.** Corporate Communications works closely with
15 Company management to produce town hall-style meetings that bring together
16 management and CenterPoint Houston employees to discuss strategic, operational,
17 and safety subjects. A total of four all-employee meetings were held during the test
18 year.

19 **Video Production.** Corporate Communications produces videos for
20 CenterPoint Houston by request. These videos are frequently used as part of town
21 hall meetings, customer communications, or for employee training purposes.
22 During the test year, a total of 25 video production and web stream events were

1 produced, including for employee meetings and supplier diversity and safety
2 events.

3 **Digital Signs.** Corporate Communications collaborates with all business
4 units, including CenterPoint Houston, to develop internal digital sign content that
5 recognizes success in the areas of safety, volunteerism, and charitable giving.
6 Corporate Communications also promotes programs available to employees, such
7 as scholarships and human resources benefits. In addition, all of CenterPoint
8 Houston's service centers have digital signs at their locations, including some
9 locations with weatherized signs on the loading docks.

10 **B. Corporate Communications Costs and Cost Assignments**

11 **Q. PLEASE DESCRIBE THE NATURE OF THE COSTS ASSIGNED TO**
12 **CENTERPOINT HOUSTON FOR THE CORPORATE**
13 **COMMUNICATIONS FUNCTION AND THE METHODOLOGIES USED**
14 **TO ASSIGN THOSE COSTS.**

15 A. Corporate Communications' costs are directed to CenterPoint Houston in two
16 ways. Costs are directly assigned to the Company when costs for discrete work are
17 specifically and solely for CenterPoint Houston's benefit. Other costs are allocated
18 to the Company for certain corporate projects that benefit CenterPoint Houston and
19 all or some other CNP business units. Costs for all the services that Corporate
20 Communications provides directly to the Company are charged to internal orders
21 that allow costs to be directly assigned to CenterPoint Houston.

22 In some instances, Corporate Communications may achieve cost savings by
23 combining work for the Company with another business unit. When that occurs,

1 Corporate Communications divides the costs equitably between CenterPoint
2 Houston and the other business unit.

3 **Q. HOW DOES CORPORATE COMMUNICATIONS MONITOR EXPENSES**
4 **TO ENSURE COSTS INCURRED ARE REASONABLE AND NECESSARY**
5 **AND THAT COSTS ARE PROPERLY ASSIGNED?**

6 A. Corporate Communications' budget is established annually as part of CNP's budget
7 process. Each year, in consultation with the various business units that Corporate
8 Communications serves, the department identifies communication projects that
9 help support the strategic objectives of the business. Corporate Communications'
10 typical communication projects for CenterPoint Houston include media relations,
11 safety summit support, and town hall-style employee meetings. These activities are
12 reviewed by me as the vice president of Corporate Communications, Utility
13 Marketing, and Corporate Security and CenterPoint Houston's senior management
14 and are then approved by CNP's executive team.

15 In addition to activities undertaken for direct support of CenterPoint
16 Houston, Corporate Communications also provides services that support all of
17 CNP's business units. Corporate projects, such as the production of CNP's Annual
18 Report to shareholders, are reviewed by me as the vice president of Corporate
19 Communications, Utility Marketing, and Corporate Security and my management
20 team and are approved by CNP's senior leadership team. All Corporate
21 Communications expenses are monitored by me as the vice president of Corporate
22 Communications, Utility, Marketing and Corporate Security, my management team

1 and the Service Company's Finance organization. The Service Company's annual
2 budget process is described further in Mr. Storey's direct testimony.

3 During the test year, Corporate Communications undertook several
4 initiatives to ensure that costs are reasonable and operations are efficient. We seek
5 to reduce paper and printing costs by utilizing less-expensive, electronic
6 communication tools whenever possible -- this includes our Fingertip Facts
7 document (as shown in Figure 1). For instance, in recent years, we transitioned the
8 production of the Fingertip Facts document, a one-pager with information about the
9 Company, including a service territory map, customer count, contact information,
10 and other facts that customers, employees, and media can use as a source of
11 information, to an electronic version.