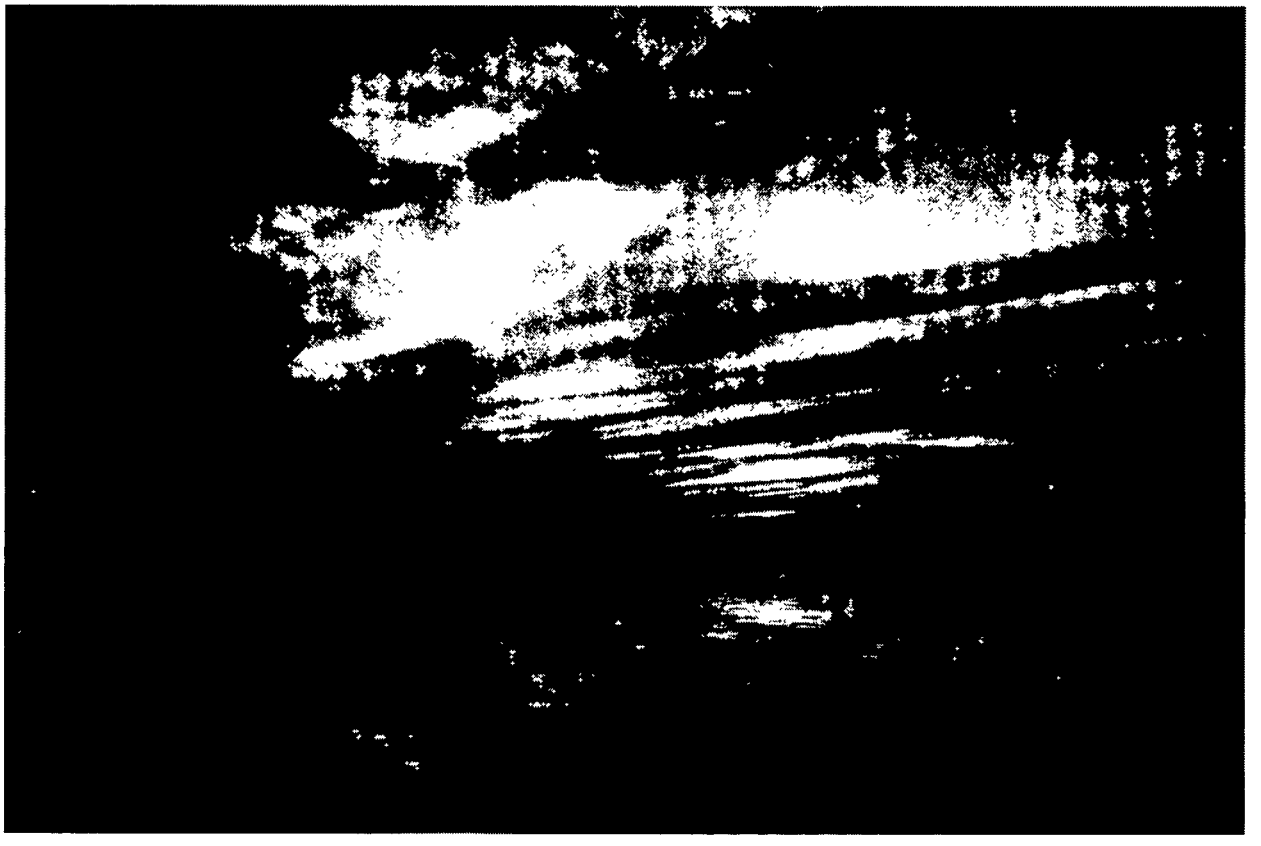
Environmental: Policy and Approach



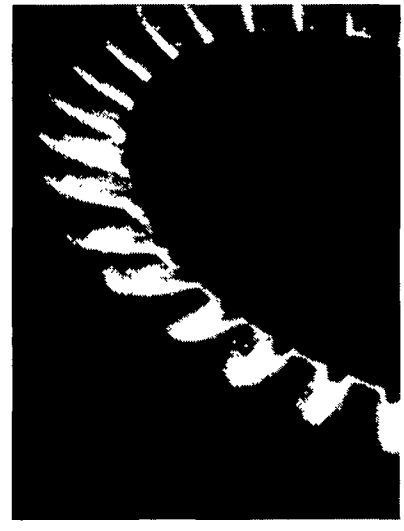
Environmental Services Mission

The Environmental Services department is a central resource for CenterPoint Energy's businesses. Its goal is to proactively and effectively manage and mitigate environmental risk through the following processes:

- Strategically partner with business unit leadership,
- Develop compliance strategies aligned with business unit operations and goals,
- Manage emerging environmental issues, regulations and legislation that may impact business operations,
- Develop risk mitigation strategies, as appropriate,
- Cultivate a culture of responsible environmental stewardship, and
- Engage employees and become a strategic environmental partner with communities we serve.

The Environmental Services department establishes and maintains a common framework of guidelines that apply to businesses operated by CenterPoint Energy. The management approach is evaluated annually and considers tools and factors, such as internal audits, changes in the regulatory and legislative landscapes, impacts to environmental indicators, changes in stakeholder priorities and related issues. Adjustments to the management approach may be made from time to time, as approved by the company's environmental officer.

Greenhouse Gas Emissions



CenterPoint Energy has made investments and implemented controls to reduce greenhouse gas (GHG) emissions from our operations, while also deploying new technologies to increase efficiency for the company and our customers. GHG emissions are generated from the company's natural gas distribution and storage business and, to a lesser extent, from the electric transmission and distribution business and fleet operations. CenterPoint Energy does not generate electricity, nor do we own or operate natural gas production facilities. Not having electric generation or natural gas production assets reduces environmental risk and the overall level of GHG emissions relative to many industry peers.

Our Approach

CenterPoint Energy is committed to conducting operations in an environmentally responsible manner. We are addressing GHG emissions by:

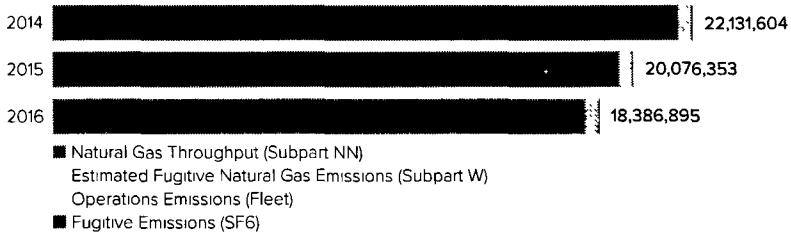
- Working to reduce our operational emissions
- Building natural gas infrastructure that enables use of cleaner-burning natural gas,
- Helping our customers use the energy we provide efficiently, and
- Participating in external research and development programs to improve operating efficiencies.

In 2016, our Scope 1 emissions were approximately 18.4 million metric tons (mtons) of carbon dioxide equivalent (CO_2e). This represents a decrease of 14.7 percent from 2014.

Methane Emissions

Methane is the largest component of CenterPoint Energy's Scope 1 GHG emissions. Methane emissions have been reduced by 14.8 percent from 2014 to 2016. The reduction is primarily from investments in infrastructure and implementing operating practices that result in avoided or reduced fugitive emissions.

Greenhouse Gas Emissions Summary
mtons CO_2e



Environmental: Greenhouse Gas Emissions

Management of Methane Emissions: Gas Distribution
Used with permission from Richard Meyer, Director Energy Analysis and Standards, American Gas Association

The Environmental Protection Agency (EPA) made substantial updates to its estimates of methane emissions in its Inventory of U.S. Greenhouse Gases and Sinks. 1990-2015, released in 2017 The Inventory now incorporates new data available from studies on emissions, as well as its Greenhouse Gas Reporting Program.

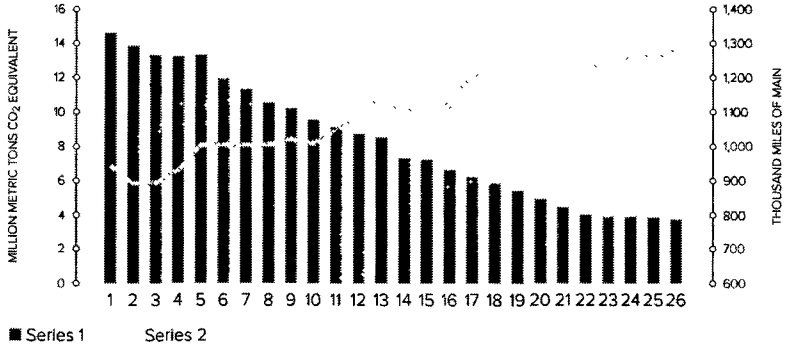
The inventory reveals once again that natural gas distribution systems have a small emissions footprint shaped by a declining trend. Less than 01 percent of produced natural gas is emitted from distribution systems owned and operated by local natural gas utilities Annual emissions from these systems declined 75 percent from 1990 to 2015 even as natural gas utility companies added nearly 600,000 miles of pipeline to serve 19 million more customers

This exceptional record can be traced to safety as the top priority for gas utilities that continue to be vigilant and deeply committed to systematically upgrading infrastructure through risk-based integrity management programs. As companies and the country continue to modernize the natural gas infrastructure base and connect homes and businesses, there will be new opportunities to achieve low-cost carbon emissions reductions by leveraging this existing infrastructure and the nation's natural gas resource.

Key Findings

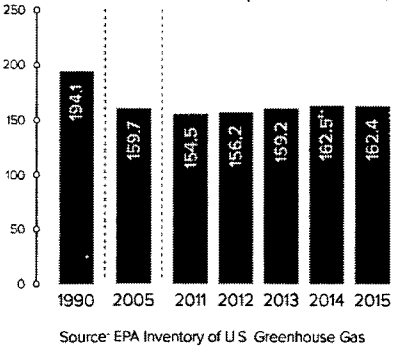
- Annual methane emissions from natural gas distribution systems declined 75 percent from 1990 to 2015.
- The natural gas emissions rate of production from distribution systems is now less than 01 percent.
- The ratio of methane emissions per unit of natural gas produced has declined continuously during the past two and a half decades, dropping 46 percent since 1990
- Total methane emissions from all natural gas systems have declined 16 percent from 1990 to 2015
- Methane emissions economy-wide represent 10 percent of all greenhouse gas emissions in the United States. Along with natural gas systems, methane emission sources include enteric fermentation and manure management (livestock), landfills, coal mining petroleum systems, wastewater treatment and others

Pipeline Replacement Lowers Emissions
mtons CO_2e



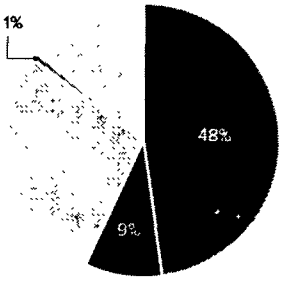
Source AGA chart and calculations using data from EPA Inventory of U.S Greenhouse Gas Emissions and Sinks 1990-2014

Methane Emissions from Natural Gas Systems have Declined 16 percent from 1990 Levels
mtons CO_2e



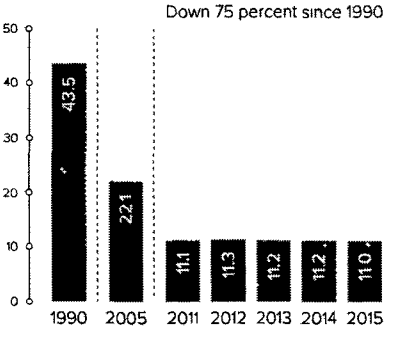
Source: EPA Inventory of U.S Greenhouse Gas Emissions and Sinks. 1990-2015

Sources of Distribution Systems Emissions
percent



Source: EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2015

Natural Gas Distribution Emissions Dropped 75 percent since 1990
mtons CO_2e



Source: EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2015

Participation in Methane Research

- CenterPoint Energy, along with other AGA member companies, participated in and co-funded three methane studies within the past five years. The studies were conducted in conjunction with the Environmental Defense Fund and the Department of Energy, as well as with support from various universities, including Washington State University, Colorado State University and Colorado School of Mines.
- In the fall of 2017, CenterPoint Energy, along with other AGA member companies, co-funded the Gas Technology Institute's portion of a new methane study to address the large uncertainties surrounding the estimate of methane emissions from natural gas distribution systems. We believe this study will improve the characterization of the emissions from industrial meters in the natural gas distribution system, examine significant differences between vintage and new plastic pipelines, and gather data comparing pipelines with and without plastic liners.

Pipe Replacement: EPA Natural Gas Methane Challenge Program

As part of our efforts to reduce methane emissions, the company's natural gas operations business joined the EPA Natural Gas Methane Challenge Program as a founding partner in March 2016. Partner companies have committed to replacing or rehabilitating cast-iron and unprotected steel natural gas distribution mains, as well as reducing methane emissions from natural gas pipeline blowdowns. Reducing methane emissions lowers operational risk, increases efficiency and improves air quality.

CenterPoint Energy's plan includes replacement of cast-iron and unprotected steel natural gas mains at a 5 percent annual rate, along with achieving full cast iron replacement by year-end 2018 and unprotected steel mains replacement by year-end 2032.

Since joining the program, CenterPoint Energy has replaced more than 58.6 miles of its cast iron natural gas pipe. We anticipate achieving full replacement by the end of 2018. In addition, we expect to replace more than 227 miles of unprotected steel main by year-end 2018. We continue to achieve our committed annual replacement rate. This program is an important component of our operational strategy, as well as our commitment to safety and reliability.

	2016	2017	2018 (planned)
Cast-Iron Miles Replaced	36.4	52.0	27.2
Unprotected Steel Mains Miles Replaced	79.9	83.8	64

Emissions Avoidance and Reduction: EPA Natural Gas STAR Program

The EPA Natural Gas STAR Program provides a framework for partner companies with U.S. oil and natural gas operations to implement methane reducing technologies and practices, as well as to document their voluntary emission reduction activities. CenterPoint Energy joined the program in 1997 and submits its reports annually.

Environmental: Greenhouse Gas Emissions

Since joining the EPA Natural Gas STAR Program, CenterPoint Energy's natural gas operations in Minnesota have achieved cumulative methane emission reductions of more than 202,270 million cubic feet. This was accomplished through best management practices including identifying and rehabilitating leaky distribution pipe, injecting blowdown gas into low pressure mains, and identifying and rehabilitating high bleed pneumatic devices.

Sulfur Hexafluoride (SF6) Emissions

Since 1999, CenterPoint Energy's electric operations business has been actively involved in SF6 emission-reduction efforts through our participation in the EPA's SF6 Emissions Reduction Partnership for Electric Power Systems. Our 2016 SF6 emission rate is 1.9 percent, which is the industry average. We have achieved this rate through effective operational controls including the careful management, handling and recordkeeping of SF6 and SF6 containing equipment. This approach has allowed us to identify and address areas of potential SF6 loss to further reduce emission risks.

Fleet Operations

CenterPoint Energy's fleet consists of approximately 6,000 vehicles, including small cars, light pickup trucks, service body vehicles, single- and double-bucket trucks, excavators, trailers and machinery in the specialized category. In 2014, our vehicles were equipped with telematics to reduce fuel idle costs and to better improve route optimization. The technology has improved driving by reducing overall idling and fuel consumption across our fleet.

CenterPoint Energy has diversified our fleet by introducing both compressed natural gas hybrid vehicles and dedicated plug-in electric vehicles. We have also purchased several aerial units that manage engine runtime. The unit, known as JEMS (Jobsite Energy Management System), is paired with an idle mitigation system that operates solely on battery power while the vehicle's main engine is shut down.

We continue to seek new and innovative solutions to lower our fuel consumption, which in turn benefits the environment through a reduced carbon footprint.

HELPING CUSTOMERS REDUCE CARBON EMISSIONS

CES and 'Green Gas'

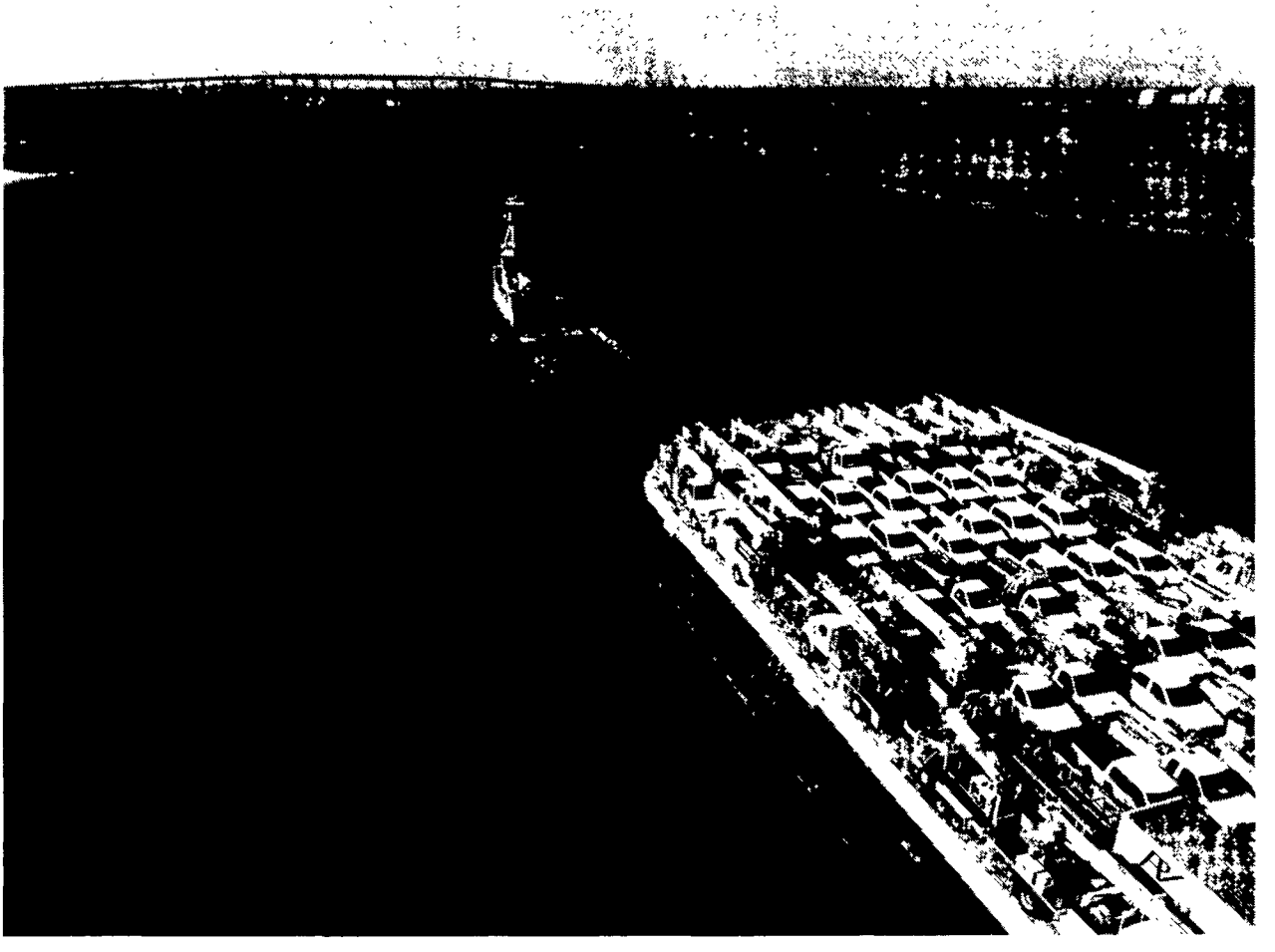
Thanks to innovative technology and a strong customer focus, CES is using gas produced from landfills to serve customers and benefit the environment. As part of its natural gas sales and supply strategy, CES purchases "green gas," also known as Renewable Natural Gas (RNG), from landfills in the United States. Green gas is methane captured from landfills that are equipped to convert organic matter into a gaseous state. CES then sells the gas to specific customers to meet their supply needs and environmental requirements. CES also shares in a monetary credit for the value RNG provides in reducing emissions as a transportation fuel.

RNG is commonly used as transportation fuel in vehicles that use compressed or liquefied natural gas (CNG or LNG). In 2014, CES structured a transportation fuel RNG deal through a long-standing relationship with Memphis Light, Gas and Water (MLGW). The arrangement involves delivering green gas to the utility's CNG stations and LNG tanks for redelivery to customers. One of these customers is United Parcel Service (UPS), which uses the RNG to fuel its fleet of trucks. The contract with MLGW is active and more UPS facilities have been added. CES has been purchasing landfill gas in Houston for more than 15 years. Since 2008, we have been delivering landfill gas to InBev's Budweiser beer production plant located in northwest Houston.

Green Balance

Green Balance is a carbon-neutral gas purchase program that applies Green Credits to customers' natural gas purchases in order to offset all or a portion of the carbon emissions that are created during natural gas combustion. CES purchases Green Credits to offset the carbon emissions created when a customer consumes natural gas, making the purchase carbon-neutral.

By participating in the Green Balance program, our customers can conveniently manage their carbon footprint, meet greenhouse gas emissions-reduction goals and promote environmental stewardship. CES purchases its Green Credits exclusively from Element Markets, a Houston-based integrated environmental credit marketing and project development company. Element Markets certifies that all Green Credits purchased by CES are sourced from voluntary carbon emissions-reduction projects that meet nationally recognized standards. The credits have been registered as required by the rules and protocols of the Climate Action Reserve, the Verified Carbon Standard or other generally accepted organizations.



CenterPoint Energy was part of the national effort to restore power to Puerto Rico in the aftermath of Hurricane Maria We sent 140 employees, along with 60 bucket trucks, support vehicles and electric supplies to Puerto Rico from mid-January to early March 2018 In this picture, a barge carrying our vehicles leaves the port of Lake Charles, La., for the two-week trip to the island

Environmental

Energy Efficiency

ENERGY-EFFICIENCY PROGRAMS: OUR CUSTOMERS AND COMMUNITIES

CenterPoint Energy provides our customers with greater choice and control over their energy consumption. We are encouraging innovative products and services that give customers greater insights into how they use energy. We also promote the installation of energy-efficiency measures. CenterPoint Energy's electric business has more than 20 energy-efficiency programs that saved approximately 170,000 megawatt hours of electricity in 2017. The programs benefited more than 18,000 customers across all rate classes, including commercial, residential and low-income sites. The programs target builders, developers, cities, commercial and industrial facilities, homeowners, renters and schools. The savings reduced the carbon footprint by 130,000 metric tons or the equivalent of 14,000 passenger vehicles driven for one year.*

Case Study: Houston Methodist San Jacinto Hospital – Energy Assessment, Chiller Plant and Controls Upgrades

Houston Methodist San Jacinto Hospital, a 360,000-square foot acute care hospital located in Baytown, Texas, was interested in upgrading its chiller plant and reducing its energy usage. By participating in CenterPoint Energy's Healthcare Energy Efficiency Program (HEEP), the hospital could receive free engineering services to assist with this goal. HEEP's consultant, Willdan Energy Solutions, worked closely with the hospital to maximize its savings and incentives, resulting in an estimated annual energy savings of 40 percent for the chiller plant and electricity cost savings of $192,500 per year.

CenterPoint Energy's HEEP team provided an in-depth energy assessment for the chiller plant and identified potential energy savings measures with estimated energy and cost savings, anticipated project cost, incentives and simple payback.

The existing primary-secondary chilled water plant had two water-cooled chillers with a total capacity of 2,200 tons served by dedicated primary chilled water pumps and three secondary chilled water pumps. The condensing water system had five cooling towers with seven cells and two condensing water pumps. Other than the cooling tower fans that were equipped with variable frequency drives, the equipment ran on constant speeds. It was recommended the chiller plant be converted to a variable primary flow chilled water system with the controls system upgraded to optimize the chiller plant operation. After evaluating the HEEP benefits and costs, the hospital implemented the recommended upgrades.

"The significant estimated annual energy savings and reduction in electricity costs realized by Houston Methodist San Jacinto Hospital's participation in CenterPoint Energy's HEEP program allows us to greatly minimize our impact on the environment," said Jonathan Sturgis, CFO, Houston Methodist San Jacinto Hospital. "We are extremely appreciative of the cash incentive and in-depth energy assessment provided by CenterPoint Energy. Utilizing the most advanced energy-efficient systems available goes hand-in-hand with our mission to provide unparalleled safety, quality, service and innovation to the residents of Baytown and the surrounding communities."

284.9 kilowatt (kW) peak/ 2.75 gigawatt hours (GWh)/year
Demand and Energy Savings

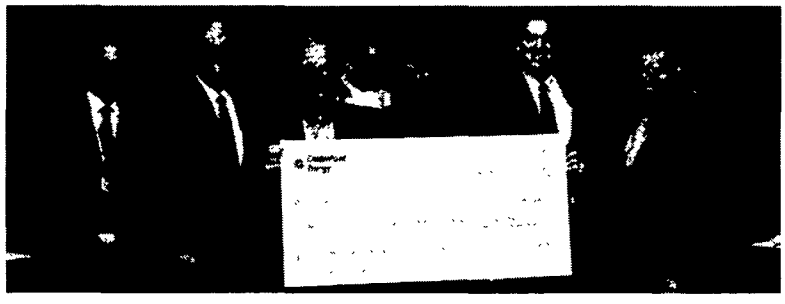
$192,500 per year
Estimated Electricity Cost Savings

40 percent
Estimated Electricity Savings

$214,935
Total Incentive

* We used estimates using www.epa.gov/energy/ghg-equivalencies-calculator

GRI 102-40



Schools Conserving Resources Energy-Efficiency Program

CenterPoint Energy's Schools Conserving Resources (SCORE) Program provides educational facilities with monetary incentives and technical assistance to help lower their energy usage and costs. CenterPoint Energy was proud to present the Klein Independent School District (KISD) board with a check for $395,000 for their outstanding participation in SCORE. This incentive was the largest single annual rebate it has received from SCORE, and will be reinvested to cover the cost of energy upgrades at KISD. During 2017, the company incentivized new chiller retrofits across the district and one campus lighting upgrade (LED) retrofit.

Forklift Beneficial Electrification

Launched in 2008, CenterPoint Energy's forklift electrification program is largely driven through forklift dealer engagement and training, resulting in an average of 3.7 megawatts in load growth per year. Programs are evaluated based on load growth delivered, incremental operating margin and return on investment.

Conservation Improvement Program

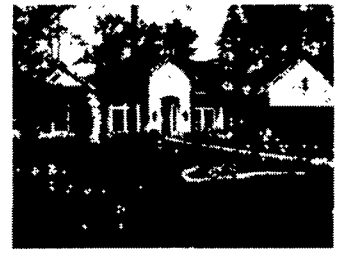
Rebates from our Conservation Improvement Program encourage residential and business natural gas customers in Arkansas, Minnesota, Mississippi and Oklahoma to choose energy-efficient equipment, as well as our energy-saving programs. In 2017, our customers saved more than 3.23 billion cubic feet of natural gas totaling more than $25.8 million – the equivalent of the annual energy usage of more than 38,000 homes. These savings reduced our customers' total carbon footprint by approximately 172,000 metric tons, which is equivalent to removing more than 28,000 cars from the road for a year.

University of Minnesota Historic Conservation Improvement Project

In January 2018, CenterPoint Energy awarded a historic energy conservation rebate check for $2 million to the University of Minnesota for installation and construction of its Main Energy Plant, a high-efficiency natural gas combined heat and power plant (CHP) on the East Bank campus. Energy produced from natural gas now allows the plant to provide its own electric power to serve the Minneapolis campus' electrical loads, as well as thermal energy to heat and cool the entire campus. The project resulted in saving nearly 1 million dekatherms annually – the equivalent of the natural gas energy used in more than 10,000 homes for an entire year.

ENERGY STAR

Feature: High-Efficiency Homes



In 2017, 12,605 new houses were part of our High Efficiency Homes program, which provides incentives to builders in our electric service territory. Participants received incentives for nearly 4,000 ENERGY STAR-certified homes that deliver savings of up to 30 percent more than typical new homes. In 2017, CenterPoint Energy earned the ENERGY STAR Partners of the Year Award from the EPA.

Feature: City of Houston LED Conversion

In addition to maintaining Houston's electric infrastructure and restoring power after storms, CenterPoint Energy operates and maintains more than 400,000 streetlights throughout its service territory. In 2015, CenterPoint Energy and the City of Houston partnered to convert the approximately 176,000 street lights in Houston from traditional lighting sources to light-emitting diode (LED) lighting over five years. The initiative is a key part of Houston's air quality and greenhouse gas emission reduction goals.

LED lighting uses 50 to 60 percent less energy and lowers associated carbon emissions. Upon completion, it is expected that Houston's consumption of electricity could be reduced by about 70 million kW hours annually. To date, we have completed about 76 percent of the project, with completion estimated by year-end 2019.

GP 02 43

Case Study: Smart Grid

In Houston, known as the energy capital of the world, CenterPoint Energy continues to extend the benefits of our transformative Smart Grid to improve safety, operational efficiency, reliability, environmental performance and the customer experience. Since 2009, CenterPoint Energy has deployed advanced meters to virtually all of our 2.4 million metered customers, automated 31 substations, installed 872 intelligent grid switching devices on more than 200 circuits, built a wireless radio frequency mesh telecommunications network across the company's 5,000-square-mile electric footprint, and enabled real-time grid monitoring and control.

CenterPoint Energy's Smart Grid has delivered invaluable results, including:

- More than 194 million customer outage minutes saved – a 23 percent reliability improvement on Intelligent Grid circuits;
- Restoration of more than 1.5 million outage cases without a single customer phone call; and
- Consumer savings of $20 to $25 million per year in eliminated fees from service automation.

From a reliability perspective, customers count on us to keep the lights on and inform them when they do go out. Our Smart Grid has improved power reliability and outage response, reducing the time to localize outages by 50 to 70 percent and isolating faults remotely to save customers more than 194 million outage minutes.

Looking ahead, CenterPoint Energy will continue to drive grid modernization efforts. In 2018, we have scheduled the installation of 88 intelligent grid switching devices across the service territory.

Advanced Metering System

CenterPoint Energy performs approximately 3 million electronic service orders annually with a 99.8 percent average success rate. Prior to Advanced Metering System (AMS) automation each of these required a truck roll. AMS implementation has saved the company more than 1.7 million gallons of fuel and avoided more than 15,000 tons of CO_2 emissions. Electronic service orders are completed in approximately 10 minutes on average, greatly improving turnaround time for customers.

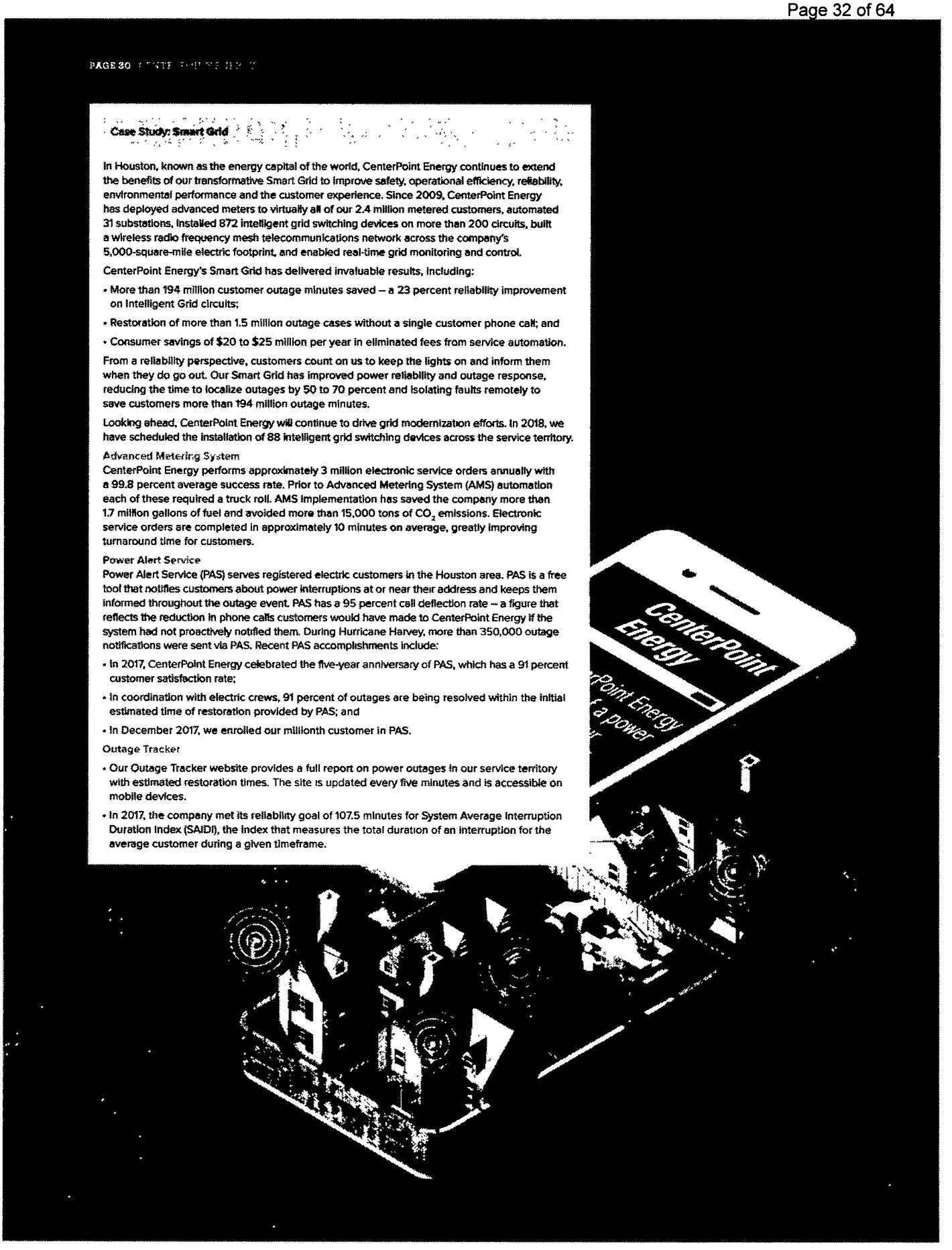
Power Alert Service

Power Alert Service (PAS) serves registered electric customers in the Houston area. PAS is a free tool that notifies customers about power interruptions at or near their address and keeps them informed throughout the outage event. PAS has a 95 percent call deflection rate – a figure that reflects the reduction in phone calls customers would have made to CenterPoint Energy if the system had not proactively notified them. During Hurricane Harvey, more than 350,000 outage notifications were sent via PAS. Recent PAS accomplishments include:

- In 2017, CenterPoint Energy celebrated the five-year anniversary of PAS, which has a 91 percent customer satisfaction rate;
- In coordination with electric crews, 91 percent of outages are being resolved within the initial estimated time of restoration provided by PAS; and
- In December 2017, we enrolled our millionth customer in PAS.

Outage Tracker

- Our Outage Tracker website provides a full report on power outages in our service territory with estimated restoration times. The site is updated every five minutes and is accessible on mobile devices.
- In 2017, the company met its reliability goal of 107.5 minutes for System Average Interruption Duration Index (SAIDI), the index that measures the total duration of an interruption for the average customer during a given timeframe.



Biodiversity

Access to and for electric transmission facilities and pipeline rights-of-way is critical for our operations. Our business may affect areas of biological or cultural sensitivity during the construction or operation of these facilities and rights-of-way.

Our Approach

CenterPoint Energy's Environmental Policy furthers the company's commitment to responsible environmental operations and effective environmental stewardship. The policy guides our approach to biodiversity protection. The company:

- Assesses proposed locations for electric transmission facilities and pipeline routes in order to identify sensitive areas, including protected species and habitats;
- Avoids environmentally or culturally sensitive areas when practical and when alternative locations or routes are feasible;
- Minimizes project footprints and ecological impact of facilities;
- Mitigates impacts through restoration and careful vegetation management of pipeline rights-of-ways, avoiding active bird nests during the breeding season;
- Monitors and works collaboratively with regulatory agencies in the management of affected listed species and ecosystems; and
- Partners with federal and state regulatory agencies and non-profit conservation groups to support biodiversity conservation efforts beyond our operational footprint.

Our electric business facilities and construction activities typically consist of narrow, linear power lines and substations, as well as service centers with relatively small footprints. We work diligently to minimize project footprints and ecological impacts.

CenterPoint Energy's natural gas operations business reviews projects during the design phase using an Environmental Review Worksheet to assess any environmental impacts. The review incorporates the impact our projects have on air, water and land resources so we can manage and permit projects, as necessary, in compliance with all biodiversity-related environmental laws and regulations. Upon completion of the review, it may be necessary to survey potential critical habitats for the presence or absence of species that are threatened, protected or endangered. In these cases, natural gas operations personnel could liaise with state and federal agencies, as appropriate, prior to initiating construction.

Avian Protection Program – Electric Operations

CenterPoint Energy operates in a service territory with a rich diversity of habitats including forests, prairies, marshes, swamps, bayous, rivers, lakes and the Galveston Bay system. These habitats support an abundance and diversity of wildlife, including more than 300 species of birds. We have developed a robust avian protection program, taking great care to prevent harm to birds around our energy delivery facilities. Since 2010, we have installed avian protection materials on more than 1,000 distribution and transmission structures throughout our service territory. We work to develop practical products to efficiently protect the avian population and collaborate with industry groups to share experiences.

As of 2017, we have identified the locations of more than 20 bald eagle nests within our service territory and have taken protective measures around the nests with input from the U.S. Fish and Wildlife Service (USFWS). Assistance from this agency and others, including the Texas Parks and Wildlife Department and Houston Audubon Society, and private citizens, is critical to our bald eagle protection efforts.

Due to the vast number of birds that utilize CenterPoint Energy's power lines, towers and poles for hunting, resting and nesting, it is impossible to completely eliminate harmful interactions, despite our efforts to make our system safe for them. When harmful contact occurs or when nests are found on equipment posing risks to the birds and system reliability, CenterPoint Energy files a report with the USFWS. We immediately implement preventative solutions, such as installing protective guards or relocating the nests to a licensed wildlife rehabilitator on a case-by-case basis. Additionally, we file an annual report with the USFWS listing avian contact incidents and nest relocations. Finally, we provide updates on proactive avian program successes, such as progress on proactive retrofitting.

CenterPoint Energy has a robust vegetation management program, which is critical in maintaining safe and reliable service. Employees are trained to watch for and avoid bird nests during tree trimming and following activities. Active bird nests are avoided until the young have fledged and left the nest, at which time crews return to finish trimming. Particular caution is taken near bald eagle nests.

Environmental: Biodiversity

Feature: Bald Eagle Rescue

In February 2017, CenterPoint Energy and our vegetation management contractor, Davey Tree, helped rescue an eaglet from a nest in northwest Houston. The eaglet was found in poor condition after one of its parents was killed. The USFWS, Texas Parks and Wildlife Department, and Harris County Flood Control District discovered the nest during their investigation of the incident. After several hours of observing the nest, local USFWS biologists saw the surviving parent, which only delivered one small fish to the baby bald eagle. Concerned for the well-being of the eaglet, which requires a near-continuous supply of food to grow, the local biologists consulted a national eagle expert with the USFWS, who agreed that it would be best to rescue the eaglet. The USFWS transferred the eaglet to the Wildlife Center of Texas, which frequently partners with the agencies and CenterPoint Energy in wildlife rescue efforts. The bird was examined and prepared for transfer to a facility equipped to rehabilitate and train eagles for later release back into the wild.

Collaborative Partnerships

As part of our avian protection program, we have forged strong collaborative partnerships with federal and state wildlife agencies, local nonprofit conservation organizations and members of the public. The program has received extensive positive local media coverage and recognition by the Galveston Bay Foundation. Nest management activities are conducted under permit from the USFWS.

CenterPoint Energy is also an active participant in the Avian Power Line Interaction Committee (APLIC), which is composed of more than 50 utilities and the USFWS. This organization has led the development of an effective avian protection approach for more than 25 years. CenterPoint Energy's program applies major avian protection elements established by the APLIC and is guided by employees from our Avian Protection Team, comprised of Operations, Engineering and Legal.

Wildlife Center of Texas

The company's environmental team works closely with local nonprofit conservation organizations and state and federal resource agencies in implementing its avian protection program. In some cases, nests with eggs or young must be removed from the power equipment. This not only protects the birds, but also prevents outages caused by electrical contact. Nest removals are conducted under permit from the USFWS. Eggs and young from these nests are carefully relocated to the Wildlife Center of Texas, where they are incubated, raised and then released back into the wild at locations that will support their survival.

CenterPoint Energy employees volunteer at the center, which includes on-volunteer staff caring for injured animals. We also partner with the Texas Parks and Wildlife Department, the USFWS and local conservation organizations, including the Houston Audubon Society. The organizations provide important information on avian issues, such as locations of bald eagle nests and water bird colonies. In turn, CenterPoint Energy shares avian species management information with government agencies and conservation organizations.

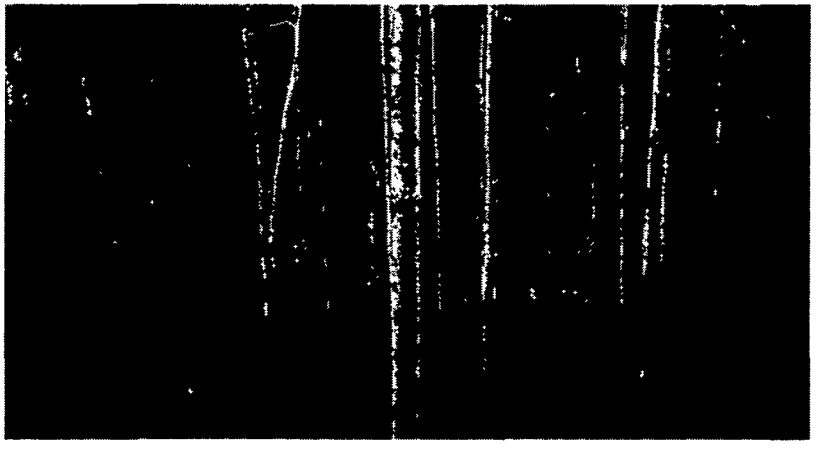
Avian Protection Program – Natural Gas Operations

CenterPoint Energy's natural gas operations business recognizes the need to protect migratory birds and eagles while operating its pipeline distribution system. Consistent with CenterPoint Energy's environmental policy, the business has established Migratory Bird Conservation Guidance, a set of engineering and operations implementation guidelines. The document was developed to minimize potential impacts to migratory birds and eagles, as well as to comply with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

When assessing projects that may disturb natural vegetation or affect protected migratory birds, CenterPoint Energy implements the applicable peak nesting season restrictions and eagle nest buffers. If work activities cannot be scheduled outside of the peak nesting season, or are within the established avoidance buffers of active eagle nests, a survey of the workspace is performed by trained CenterPoint Energy personnel. The survey is completed prior to construction in order to verify that nests hosting migratory birds or eagles are not present.

Environmental

Waste and Recycling



WASTE

CenterPoint Energy generates wastes from our operations. Waste is derived primarily from maintenance and replacement of electric transmission and natural gas infrastructure, as well as from our offices.

Our Approach

CenterPoint Energy is committed to conducting our operations in accordance with all applicable environmental laws and regulations. We manage all operational controls, policies and procedures to ensure compliance. In addition, we maintain a robust environmental audit program on all solid waste disposal vendors.

CenterPoint Energy tracks all hazardous and regulated waste to ensure proper management. In order to reduce the quantity of hazardous waste generated, the company continuously strives to find suitable nonhazardous alternatives to solvents and other products that are needed to conduct our operations. Most of our facilities are listed as "small quantity generator" or "very small quantity generator" status.

INVESTMENT RECOVERY

Part of CenterPoint Energy's Purchasing and Logistics organization, Investment Recovery was created to be a customer-oriented service group dedicated to obtaining maximum value for the disposition of surplus assets and scrap material. Investment Recovery also promotes an effective recycling program. If a company asset can no longer be used for its intended purpose, the Investment Recovery team works to identify a responsible way to reuse it in a new application or recycle it in a responsible manner.

During 2017, CenterPoint Energy's Investment Recovery team recycled 15,186,522 pounds of scrap metals, including donating used computers to nonprofit organizations and contributing office furniture to organizations affected by Hurricane Harvey. During the storm restoration, the group also assisted in selling excess materials to companies and expanded its recycling efforts for scrap wire, cable and transformers.

2017 Recycling Summary

50 tons
Paper and cardboard

498,823 gallons
Transformer oil

208
Wood reels

11,490
Distribution transformers

15,186,522 lbs.
Scrap metal

116,722 lbs.
Batteries

19,523 gallons
Motor oil

102,422
Lamps

236,323 lbs.
E-Waste

129
Computers (donated)

Case Study: Picarro System

PICARRO offers superior leak detection

The Picarro Surveyor system is the next generation of methane detection technology. With 15 units, CenterPoint Energy has the largest fleet in the world of the state-of-the-art Picarro Surveyor leak survey technology, which is a thousand times more sensitive than other current techniques. In 2013, the company began a pilot study of the Picarro Surveyor in its natural gas operations to proactively identify leaks in underground natural gas mains and service lines, as well as above-ground facilities.

In addition to enabling us to locate and respond to natural gas leaks much faster, Picarro Surveyors are more efficient in terms of accuracy and coverage area As a result, Picarro also plays a key role in the company's methane emissions-reduction efforts.

Traditional survey methods use methane detection devices with optical, laser, infrared or flame ionization technology. These devices are either mounted on a vehicle that drives slowly through an area or a handheld instrument used by a technician who walks over the lines to detect methane plumes near underground natural gas mains and service lines.

Picarro can be used at driving speeds of up to 40 miles per hour to accurately survey a much broader area Each night, a single surveyor can cover up to 30 miles of natural gas mains and service. Night is the optimal survey time as the ground is cooler and natural gas does not rise as quickly as it does during the day. In the "survey" mode, Picarro constantly collects precise data, including Global Positioning System (GPS) readings, wind speed and direction, as well as methane and ethane concentration This data is utilized in complex algorithms to determine areas where there may potentially be a natural gas leak

Picarro's sensitivity to methane is measured in parts per billion, while traditional technology measures in parts per million This innovative tool helps detect leaks before customers even know about them. As a result, Picarro technology has proven to detect significantly more natural gas leaks than traditional leak survey methods.

CenterPoint Energy tested and phased Picarro into operations beginning in 2016. Our Texas region conducted a pilot program and has been using Picarro since January 2016 Arkansas completed full deployment in 2016, with the remaining regions being implemented in early 2018.

To further enhance the Picarro system, CenterPoint Energy has deployed industry-leading business processes and technology systems, including

- Real-time tracking of the leak survey results and natural gas system assets surveyed in the geographic information system, replacing the need to manually track completed leak surveys using paper maps,
- Automation of paperless work orders to investigate potential leaks identified by Picarro, which replaced a manual process; and
- Leak survey applications on computer tablets allow technicians to document survey results with cameras and GPS capabilities Providing crews with mobile data access to digital photos and GPS coordinates significantly reduces the time spent determining where to excavate.

CenterPoint Energy is currently partnering with Picarro to integrate its Emission Quantification (EQ) technology into our distribution integrity management program. For users, selected pipe segments EQ can predict the number of leaks and methane emission volume By adding EQ information into our integrity management program, we expect to enhance the ability to select and design pipe replacements that deliver increased value in safety and emission reductions.

68,640
students
and teachers received
safety information

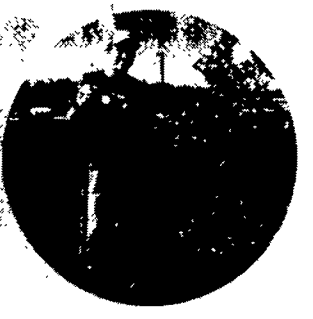
CenterPoint Energy is committed to developing strong relationships with diverse suppliers and using innovative approaches to continually improve business opportunities.

More than
$1 billion
in spending with small
business suppliers

6th
on Indeed.com's
Top 10 Best
Places to Work

Gulf Coast
Regional Blood
Center Corporation
of the Year

2,100 people
reached through
CenterPoint Energy's
Speakers' Bureau



With more than
146,000 hours
volunteered by
employees,
CenterPoint Energy
received the Corporate
Philanthropy Award
from the *Houston*
Business Journal
in 2017.

Social

SOCIAL CONTENTS

Stakeholder Engagement

CenterPoint Energy actively works to engage with our stakeholders to build trust, strengthen relationships and make a positive impact in our service territory. Our major stakeholders include individuals and groups who impact – or are impacted by – our company and its business operations. They include customers, communities, employees, investors, suppliers and regulators.

The chart below outlines some of our ongoing engagement practices with our stakeholders.

Stakeholder Engagement at CenterPoint Energy

Communities
- Advocacy groups
- Community and charitable organizations
- Economic development organizations
- Environmental partners and organizations
- First responders/emergency agencies
- Government officials
- K-12 and higher-education institutions

How We Engage
- Participation in industry dialogue through agencies such as AGA and EEI
- Support for local programs through community investments, grants and sponsorships
- Leadership by company officers and employees on nonprofit organization boards
- Host meetings, conferences and community development initiatives
- Engage with community partners and environmental agencies on voluntary programs and beautification projects
- Hold workshops and training with public safety teams, local emergency agencies and first responders
- Provide public safety materials
- Employee volunteerism
- Speakers Bureau presentations and leadership speaking engagements
- Proactive outreach to community and government officials
- Workforce training and development

Customers Served by Our Three Businesses (Residential, Commercial and Industrial)
- Electric
- Natural Gas
- Energy Services

How We Engage
- Refreshed online account self-service
- Customer satisfaction surveys and focus groups
- Power Alert Service notifies customers about power interruptions and restoration times
- Social media platforms
- Customer call center and local service centers
- Energy-efficiency programs
- Public safety and awareness efforts

Employees
- Current and prospective employees
- Retirees
- Labor unions

How We Engage
- Employee engagement surveys
- Leadership meetings
- Employee meetings, video-streams and webcasts
- Training and skills development, including leadership development and knowledge transfer programs
- Informal, ongoing meetings, such as floor meetings, location visits, lunches and conversations over coffee with leaders
- Professional networking and affinity groups
- Workforce recruiting program
- Helpline for employees with a grievance or concern
- Health and wellness initiatives include Employee Assistance Program
- Retiree communications and annual events
- Labor and management joint engagement on key topics, such as safety

Investors
- Approximately 77 percent of CenterPoint Energy common shares were held by institutional investors

How We Engage
- Quarterly earnings conference calls
- One-on-one investor meetings and presentations
- Industry conferences
- *Public disclosures*
- Annual Meeting of Shareholders
- Website

Suppliers
- Diverse suppliers
- Local, small suppliers

How We Engage
- Formal supplier diversity program
- Supplier Diversity Advisory Council promotes mentoring, capacity building and outreach initiatives
- Scholarship program for MBWEs
- Annual Supplier Diversity Month for employees and vendors
- Participation in minority and women supplier development councils
- Annual recognition breakfast
- Engagement with diverse business organizations

Regulators

How We Engage
- Participate in the regulatory process with various federal, state and local governmental agencies on requirements and processes
- Workshops
- Legislative sessions

GRI 102-40, GRI 102-42, GRI 102-43, GRI 102-46, GRI 102-47

Social

Communities

Our Approach

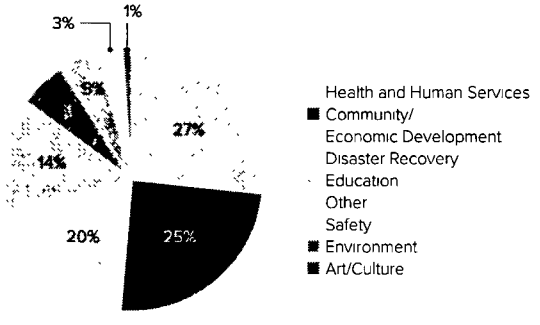
CenterPoint Energy's Community Relations mission is to build and enhance our brand, image and reputation in the communities we serve. Our vision is to be a highly valued, respected and influential community partner with a reputation for excellence in the results we achieve for the business and the community.

2017 CORPORATE CONTRIBUTIONS

As a company and as individuals, we are committed to making a positive difference in the communities we touch. Lending a helping hand is a strong part of our company culture, and we are proud to serve as a responsible corporate citizen. Our focus areas include education, community development and health and human services.

We believe education, community development and health and human services are inextricably linked and critical to the sustainability of our communities. We also serve alongside with our employees, elected officials, community and civic leaders, neighbors and others in these communities to assess areas of need. That is why we focus our charitable investments, volunteerism and other community-based activities on the non-profit organizations and causes in these three core giving areas.

2017 Corporate Contributions by Focus Area
percent



COMMUNITY INVOLVEMENT AND VOLUNTEERISM

Our Approach

Employee volunteerism is an important part of CenterPoint Energy's commitment to our communities. Volunteerism provides opportunities for our employees to form lasting relationships with each other and the communities we serve. Volunteerism also helps develop career and leadership skills.

2017 Achievements

- Employees contributed more than 146,000 employee volunteer hours. When calculated using the Independent Sector's value of $24.14 for a volunteer hour, this equates to approximately $3.5 million in labor.
- Retirees and employees' families and friends contributed an additional 16,531 volunteer hours.
- Donated $6.5 million to nonprofit organizations.
- Supported approximately 500 nonprofit boards and advisory councils through 300 employees serving in volunteer leadership positions.
- Received the Corporate Philanthropy Award from the *Houston Business Journal* for volunteering the most hours among large companies in Houston.

2017 Highlights

- In the spirit of innovation, Community Relations launched its CNP Cares system, a one-stop, mobile-friendly digital platform for managing volunteer activities. Employees and retirees can easily sign up for volunteer opportunities and track their progress on personal volunteer goals.

- Junior Achievement USA honored CenterPoint Energy with a Bronze level U.S. President's Volunteer Service Award for providing more than 5,000 volunteer hours in support of Junior Achievement during the 2015-2016 school year.
- United Way is a signature program for CenterPoint Energy. Our 2017 companywide campaign contributed more than $2.5 million to 85 chapters across our service territory.
- Employees in Minnesota celebrated 25 years of volunteerism for Twin Cities Habitat for Humanity at a build site in the city of Blaine. Approximately 20,000 volunteer hours from more than 2,100 employees and retirees have been contributed in support of the organization.
- Through Easy Match, CenterPoint Energy's higher education matching gift program that supports employee donations to accredited colleges, universities, community colleges and technical schools, 54 grants were awarded totaling $63,161.
- Every year the company recognizes 10 Outstanding Volunteers of the Year for activities completed in the prior year. Each winner is awarded a $500 GIVE (Grant Incentives for Volunteer Employees) grant that is donated on their behalf to an approved nonprofit of their choice. Employees are selected based on their volunteer efforts in both company and community events.
- Our GIVE program recognizes, supports and encourages contributions of our employees' and retirees' volunteer efforts during their personal time, aligning the company's charitable support with employees' passions. Grants are awarded to nonprofit organizations based on employee and retiree volunteer involvement. In 2017, 166 GIVE grants were awarded totaling more than $65,000.
- CenterPoint Energy honored John Slanina, vice president of Business and Operations Support, as the Executive Volunteer of the Year. His organization participated in many team volunteer projects in recent years, including beach cleanups in Galveston, youth fishing events in Lake Jackson supporting the Houston Furniture Bank and logistics advice for Rebuilding Together Houston. In 2017, employees in his organization donated 7,800 volunteer hours.

Blood Drives

CenterPoint Energy's blood drive program addresses a critical need in the community – life-saving blood. In 2017, our employees donated 4,814 units of blood, which is enough to benefit 14,442 lives. In partnership with the Gulf Coast Regional Blood Center, which serves the world's largest medical campus, our employees in Houston have collected 68,664 units of blood since 2002, enough to save 230,367 lives. Several drives were engaged community patients to support collection efforts. In 2017, CenterPoint Energy held 149 blood drives.

Salvation Army Angel Tree Program

CenterPoint Energy recently celebrated more than 20 years of supporting the Houston area Salvation Army Angel Tree program. Continuing our tradition of serving as the largest corporate participant, our employees set a record in 2017 by adopting more than 800 children and senior "angels" and fulfilling their holiday wishes. Employee groups pooled donations and purchased items totaling more than $80,000. Employees volunteered to deliver gifts to the Salvation Army warehouse, as well as check and sort gifts for distribution to recipients. Employees in Minneapolis brightened the holidays for 175 children and seniors through their Angel Tree program, bringing the company's record total to nearly 1,000 "angels."

Social: Communities

Tree Trust

CenterPoint Energy partners with Tree Trust in Minnesota, sponsoring the Learning with Trees program that brings the classroom outdoors. Since 2004, CenterPoint Energy has sponsored a tree planting at a school served by the company. More than 950 volunteer hours have been donated to plant more than 280 trees with elementary level students. Tree Trust presented a 2017 Community Partner Award to CenterPoint Energy, which for more than 20 years has provided financial and volunteer support to the program.

Learning with Trees provides an outdoor classroom for local schools to create a more beautiful educational setting and invest in students by enriching their appreciation for the environment and the importance of "paying it forward." Employees from numerous departments volunteered to help create an outdoor classroom for the 625 pupils at Lake Marion Elementary School. Volunteers planted 26 trees, while the crew set 10 benches in place for use in outdoor classes.

ECONOMIC DEVELOPMENT

Our Approach

CenterPoint Energy's approach to economic development is to be a force for growth and economic prosperity in the communities we serve. We create and retain jobs that facilitate growth, provide a stable community tax base and grow employment within our service area. Our Economic Development team works to support and leverage local communities' efforts to promote economic growth. We also strive to influence the decisions of current and prospective customers to expand, relocate and retain their businesses in CenterPoint Energy's service area, therefore increasing regional economic prosperity.

Regional Economic Impact

In 2017, our team – in collaboration with regional partners – engaged in economic development projects that are expected to create more than 2,000 new jobs and result in more than $1 billion in total economic impact for the region. These projects are also expected to produce more than $1.6 billion in new capital investments to the communities we serve.

Over the past 10 years, we have been involved in projects that have resulted in nearly 30,000 new jobs, as well as tens of thousands of indirect regional jobs. Our staff has also partnered with economic development organizations (EDOs) on recent issues impacting future economic development, including workforce development and training initiatives, local and state incentive programs, infrastructure improvements, and community resiliency efforts following Hurricane Harvey.

Community Leadership

Economic Development staff serves in more than 50 leadership roles with local EDOs. President and CEO Scott M. Prochazka is the chair of the Greater Houston Partnership's Regional Economic Development Advisory Committee. CenterPoint Energy has taken a leadership role in national and international EDOs, including the International Economic Development Council and the Utility Economic Development Association.

The Economic Development department is recognized by the International Economic Development Council as an Accredited Economic Development Organization (AEDO). CenterPoint Energy continues to be one of only two utility companies in the nation to receive the AEDO certification.

Targeted Initiatives

CenterPoint Energy produces valuable research data, such as demographic information, market trends and data analysis. Our staff also prospects for leads at trade shows and conferences, cultivates industry allies to develop leads or assists with initiatives, such as strategic planning, community assessment studies and workforce training projects.

CenterPoint Energy is actively engaged in local and state marketing initiatives to help support growth in the region, including Opportunity Houston, Texas Economic Development Corporation and Team Texas. These programs have specific domestic and international outreach strategies to connect with company executives, site selection consultants and real estate professionals to promote growth opportunities in our service territory.

Energy Insight Center Tours

CenterPoint Energy's Energy Insight Center (EIC) is an innovative educational and technological demonstration facility where we showcase our electric grid's technology and capabilities. Since the facility opened in 2006, it has hosted nearly 1,000 tours for industry executives, government officials, community groups and students. The facility uses science, technology, engineering and mathematics education to further enhance student learning opportunities about our industry and business.

Social: Communities

Power Tools for Nonprofits Conference
The 24th Annual Power Tools For Nonprofits Conference – held with our community partner, the University of Houston Downtown – provides an educational forum for nonprofit professionals, volunteers and board members. The event offers ideas on how to leverage resources, strengthen organizational effectiveness and improve lives. To date, the conference has served more than 10,000 nonprofit professionals and volunteers in improving their effectiveness through education, resources, networking and collaboration. Power Tools is one of the most affordable professional development opportunities for nonprofit leaders in the region.

Feature: Energy Assistance Program

CenterPoint Energy understands that paying natural gas utility bills during the heating season may pose a challenge. That is why we support local energy assistance programs for customers in the communities we serve. Our energy assistance activities include:

- Supporting efforts to fund of Low-Income Home Energy Assistance Programs (LIHEAP);
- Encouraging our customers to contribute to energy assistance funds by checking a box on their bills; and
- Donating window insulator kits to agencies to distribute to low-income customers to help lower heating costs.

Customers

Our Approach

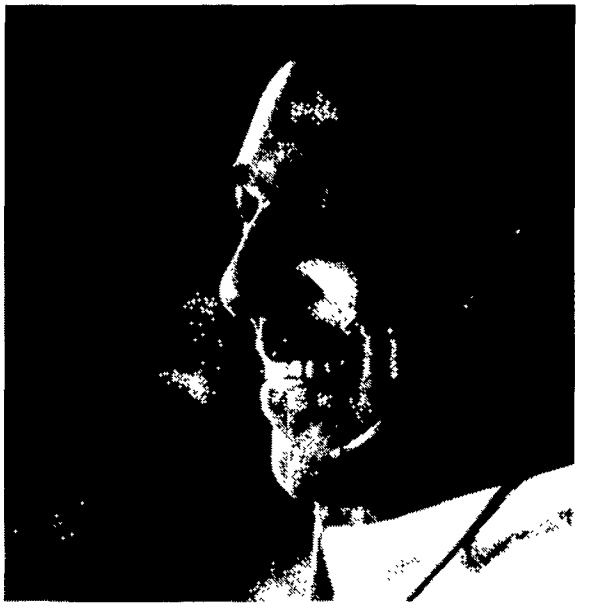
CenterPoint Energy's vision is to lead the nation in delivering energy service and value. We are committed to putting the customer in the center of everything we do. Our Customer Service organization prides itself on its ability to consistently provide reliable, value-added service to customers. Through our innovative, customer-centric solutions, we strive to make CenterPoint Energy easy to do business with by providing the information our customers want, when and how they want it.

As consumer expectations increase and technology evolves, so do the wants and needs of our customers. Mobile devices are also increasing consumers' ability to control and make real-time decisions about services. This is why CenterPoint Energy provides its customers the innovative, personalized experiences they want. We're continuing to broaden our understanding of their expectations.

2017 Highlights

- In late 2017, we enhanced our *My Account* self-service web tool, enabling Houston-area customers to manage their natural gas service and view electric usage online for the first time. Throughout our service territory, the refreshed *My Account* experience allows customers to add authorized users, manage multiple natural gas accounts and add multiple ways to receive alerts.
- CenterPoint Energy's residential customers ranked our company highest in customer satisfaction among large natural gas utilities in the South region in an annual study by J.D. Power and Associates. 2017 was the first time we recorded the top ranking in the South.
- Natural gas customers in the South named CenterPoint Energy a "Most Trusted Brand" in a Cogent Reports study by Market Strategies International. The study benchmarks brand performance of 150 utilities on a quarterly basis among nearly 60,000 utility consumers.

We are committed in our efforts to become our customers' trusted energy advisor and reliability partner. At the same time, we have our sights set on the future, including a team focusing on emerging energy technology, such as distributed generation and electric vehicles.



Customer Service Excellence

We honor exceptional Customer Service performance by our employees each quarter through our Service of Excellence Awards. Winners are recognized for their outstanding work and ideas that impact our work processes, customers and profitability.

Building the Future

Our smart grid facilitates the integration of emerging energy technology such as solar panels, wind turbines and electric vehicle charging stations. We believe the grid of the future must be reliable and resilient, safe and secure, affordable, enable customer choice, and integrate distributed generation. We expect to invest in innovative solutions that address our customers' needs.

Employees

Our Approach

CenterPoint Energy places a high priority on sustaining a strong culture of ethics, opportunity and mutual respect at all levels. Our Human Resources organization oversees compensation, benefits, hiring, recruiting, learning and organizational development, as well as other employee-related services. Using a strategic approach to managing people and workplace culture, Human Resources provides employees with tools and resources to support their career and development goals.

2017 Highlight

- Employees cited a strong workplace culture, growth opportunities and relationships with co-workers in reviews that earned CenterPoint Energy the sixth spot in Indeed.com's Top 10 Best Places to Work. Indeed.com is an employment-related search engine for job listings.

WORKPLACE DIVERSITY

Our Approach

CenterPoint Energy is committed to creating an open and inclusive work environment where business results are achieved through the skills, abilities and talents of our diverse workforce. At CenterPoint Energy, individuals are respected for their contributions toward our company's goals. From our board of directors to each of our nearly 8,000 employees, we foster a culture where different backgrounds and viewpoints are valued.

We embrace the power of diversity because it enriches our work environment and provides social and economic benefits to the communities we serve. It's not only a focus that our employees, customers, communities and shareholders expect from us, it's also the right approach from a business standpoint.

Every employee at CenterPoint Energy is encouraged to support diversity and inclusion. In fact, all employees actively participate in diversity awareness training. We believe the training provides our company with a competitive advantage to have people from different backgrounds and viewpoints unified in purpose.

Total number of employees by gender

	Female	Male	Total
Permanent	1,971	5,993	7,964
Temporary	4	26	30

EMPLOYEE ENGAGEMENT

Our Approach

CenterPoint Energy's goal is to create a work environment in which every employee is engaged, aligned with our vision and values, and understands how they contribute to the company's long-term performance. In order to achieve this goal, we strive to connect with our employees in meaningful ways.

Leadership Meetings

CenterPoint Energy held an Officer & Director Meeting in May 2017 to review company strategy with senior leaders across the company. As a follow-up to the meeting, Scott M. Prochazka, president and CEO, and senior leaders hosted nine Leadership Meetings across our locations to discuss strategy and other key performance areas with supervisors and managers. The goal of the meetings was to equip managers and supervisors with information to engage their employees on key issues. We will hold 11 leadership meetings in 2018.

Employee Meetings

Six employee meetings took place in 2017, reaching more than 4,100 employees across the company. While all meetings were video streamed to remote locations, company leaders also made a point to incorporate face-to-face communications and facilitate a portion of the agenda. Surveys showed that employees embraced the use of technology for these meetings, particularly an audience polling app that enabled employees' feedback to shape the meeting content. We will hold four employee meetings in 2018.

2017 Employee Survey

CenterPoint Energy's 2017 employee survey was administered to help us gain deeper insights into specific topic areas from the 2016 Employee Engagement Survey, which reflected high levels of employee engagement. The 2017 survey results also showed favorable ratings in most areas and scores reflected high levels of employee commitment and employee engagement. The participation rate was 56 percent. We expect to conduct brief surveys with employees in 2018 and 2019 to assess engagement.

Informal Ongoing Meetings

In addition to structured engagement initiatives, employee outreach occurs throughout the year through informal floor meetings, location visits, lunches and conversations over coffee with President & CEO Scott M. Prochazka and other members of our leadership team.

Volunteerism as an important part of CenterPoint Energy's employee engagement strategy
From building relationships with each other and the communities we serve, volunteer activities help employees develop career and leadership skills

Performance Management

CenterPoint Energy's Performance Management process supports employees' career goals through ongoing feedback and development. Performance Management is a foundational element of our organization's talent management efforts and addresses the processes to effectively lead, manage, develop, assess and reward employees. We have eight competencies – key skills, knowledge and behaviors that are closely aligned with our values. They include:

- Business and financial acumen,
- Coaching and development,
- Collaboration,
- Connecting, listening and sharing,
- Customer focus through service,
- Enterprise mindset,
- Results orientation, and
- Steadiness.

Through our formal review process, goal management and job aids, our company encourages supervisors to provide timely feedback throughout the year, in addition to regular performance reviews. In 2017, more than 99 percent of eligible employees received a performance evaluation.

Knowledge Transfer

Our knowledge transfer program aims to capture expertise when employees retire or change jobs, thus preserving experience and transferring it to others. We utilize knowledge transfer to keep a record of the knowledge acquired in certain positions or job roles, lessening the impact of employee departures and enhancing career development opportunities.

GR 102-43

Social: Employees

Professional Networks

CenterPoint Energy's professional networks aim to foster a culture of collaboration, knowledge sharing and development. A governing committee, OurPoint, oversees the company's four professional development and networking organizations. They include:

- EnPoint: Gas Engineering employees;
- EPN (Engineering Professional Network): Houston Electric Engineering employees;
- MyPoint: Finance, Audit and Technology Operations employees; and
- OurPoint: Employees in CenterPoint Energy Tower in Houston who work in CenterPoint Energy Services, Customer Services, Electric Operations, Natural Gas Operations, Human Resources, Legal and Regulatory and Communications and Community Relations.

Women in Leadership

CenterPoint Energy's Women in Leadership organization provides opportunities for mentoring and interaction among its members. The organization's goals include providing networking opportunities and fostering career and leadership development. The organization hosts two professional development events each year, volunteers with Dress for Success (a nonprofit organization that helps women thrive in work and life), and sponsors a webinar series for emerging women leaders.

Veterans Support

CenterPoint Energy is a strong supporter of training and hiring veterans and military members. We recognize the experience, skills and perspectives they can offer companies. Currently, nearly 500 CenterPoint Energy employees are veterans. More than 60 employees are active military reservists. *U.S. Veterans Magazine* named CenterPoint Energy one of its 2017 Top Veteran Friendly Companies for our participation in military job fairs and our hiring practices, including our commitment to hiring veterans with disabilities. Through our participation in the Houston Volunteer Lawyers program, our in-house lawyers provide free legal services to veterans at the DeBakey Veterans Hospital in Houston.

LEARNING AND DEVELOPMENT

Our Approach

CenterPoint Energy recognizes the importance of employee and career development, to ensure a motivated and skilled workforce. To help meet these needs, the Learning and Organizational Development (LOD) team provides opportunities for employees across the company to develop skills and competencies to operate our business safely, meet customer needs and identify opportunities for innovation.

LOD works with individuals and teams to evaluate needs and provide solutions that bridge the gap between current and desired performance. The group also implements leaders to development strategy that provides a specific curriculum and experiences to targeted identified audiences, including emerging leaders, leaders new to supervision and high potential employees.

CNP University is CenterPoint Energy's corporate university. The system is made up of six colleges that represent all formal learning and training operations designed to meet employees' needs. Available resources focus on professional development including leadership, business excellence and personal effectiveness. These resources include instructor-led training, web-based courses, on-demand express learning, live virtual events, and library resources.

2017 Training

CNP University	
Total online courses completed	236,821
Total hours of online courses completed	118,412*
College of Professional Development	
Instructor/virtual instructor led training	
Total participants	2,315
Total hours completed	14,689

*Estimated based on approximately 30 minutes per course.

Training and Apprentice Programs – Electric Operations

Electric operations provides three apprentice classes per year, ranging in size from 30 to 35 participants. In addition, up to three helper classes are offered for 35 to 40 new hires who aspire to become apprentices.

Becoming a helper in electric operations is the first step toward completing a three-year lineman apprentice program. This highly skilled job requires a significant amount of physical strength and dexterity as well as the ability to work in adverse conditions. All apprentices must obtain a certification and commercial driver's license (CDL) within the initial period of employment. We partner with Houston Community College's East Technical Driving School to assist in obtaining CDLs.

Each apprentice receives training on all aspects of lineman work, including working on poles. Training is also offered on meter testing and installation. We provide refresher courses for apprentices who want to improve their skills or receive training. The center employs 16 technical trainers, two supervisors and an administrator. In 2017, the company trained 105 helpers and 90 apprentices completed the first module of their technical training.

Apprentice Program – Natural Gas Operations

This program has three technical trainers, two training coordinators and one supervisor. At least two apprentice classes are typically offered each year, ranging in size from 10 to 18 employee apprentices, depending on operational needs.

All apprentices are enrolled in a two-year technical training program. They must obtain a welding certification and a CDL within their initial period of employment. Each apprentice receives training on leak investigation, plastic pipe fusion, natural gas fundamentals, carbon monoxide investigation, and other safety-related courses. Classes have constructed a new leak field, enabling employees to conduct hands-on leak investigations, work on large meters and investigate house line leaks. In 2017, the company trained 41 apprentices with training hours totaling 13,462. In January 2018, the program began a pilot partnership with the Houston Community College Stafford Campus for oxygen acetylene welding training.

HEALTH AND WELLNESS

Our Approach

CenterPoint Energy is committed to providing health and wellness initiatives to our employees.

- To promote an active lifestyle, a fitness facility is available in the CenterPoint Energy Tower in Houston. Employees can also utilize the GlobalFit health discount program, which provides a lowest-price guarantee on memberships to their network of fitness clubs nationwide.
- Our Employee Assistance Program provides free consulting, legal, financial and other services.

- The company supports the use of various work schedules, such as flextime, compressed work weeks and reduced work schedules, to increase employee flexibility and reduce commuting costs while also maintaining and enhancing productivity.
- Our Sick Leave Policy provides income protection to employees who are unable to perform their job because of illness or injury.
- CenterPoint Energy helps cover public transportation commuting costs by offering subsidized bus passes or reimbursement for certain car pool expenses.
- Our Education Assistance Program helps employees finish a degree or embark on a new one by providing reimbursement for tuition and required fees toward a degree from a state or federally accredited school.
- For dependents of CenterPoint Energy employees, we offer scholarship programs to help cover education costs.

As a responsible employer, we also offer a robust, comprehensive benefits package that is competitive for our industry. We offer retirement and savings plans, in addition to benefits such as medical, dental, vision, life, disability and accident coverage. Please visit our Benefits page on CenterPointEnergy.com for more details.

Social

Labor Relations

Approximately 35 percent of CenterPoint Energy's employees are represented by several collective bargaining agreements. We work with our labor unions to achieve business results that benefit our employees, customers and the communities we serve. We have negotiated labor agreements with each union regarding the working rules and other terms and conditions of employment.

Safety Collaboration

Employees of CenterPoint Energy's electric transmission and distribution business and the International Brotherhood of Electrical Workers (IBEW) Local 66 launched the Union Safety Program (USP) in 2017. This new collaborative approach strives to help achieve continuous improvement and a safer workplace. The program's goals are to improve safety performance, safety culture and morale through updates to important work practices. New rules and "Rules to Live By" were introduced to empower employees to engage in safe work practices with increased accountability.

CenterPoint Energy Houston Electric

UNION SAFETY PROGRAM

IBEW

CenterPoint Energy

Purchasing and Supplier Diversity

CenterPoint Energy's Purchasing and Logistics organization maintains the purchasing processes for all goods and services. Employees are expected to conduct fair and transparent purchasing and payment practices, which provide benefits, support and internal controls for the company. The Purchasing and Logistics organization also oversees our robust supplier diversity program.

SUPPLIER DIVERSITY

Our Approach

CenterPoint Energy recognizes the economic importance of diverse suppliers, such as MWBEs and all categories of small business concerns, to the community. We are committed to developing strong working relationships with diverse suppliers and using innovative approaches designed to continually improve business opportunities.

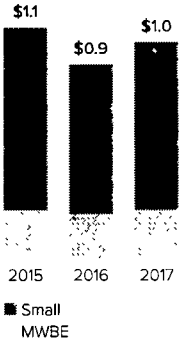
The relationships we seek must provide value to both CenterPoint Energy and to diverse suppliers. Our objectives include:

- Actively and routinely seeking qualified diverse suppliers that can provide competitive and high-quality commodities and services;
- Encouraging participation and support of supplier diversity by major suppliers to the company; and
- Identifying opportunities to assist in the development and competitiveness of diverse suppliers through instruction, mentoring, capacity building and outreach activities.

2017 Highlights

- CenterPoint Energy achieved more than $1 billion in spending with small business suppliers. Twelve percent of our corporate spend was with certified-MWBE suppliers. CenterPoint Energy's prime suppliers reported more than $100 million in second-tier spending with diverse suppliers and small veteran-owned businesses.
- Our annual Supplier Diversity Month and Recognition Breakfast highlights included an in-house mini-MWBE expo featuring 24 diverse suppliers, a MWBE CEO Roundtable hosted by President and CEO Scott M. Prochazka, and a one-time supplier training and workshop. The breakfast honored four employees, one business unit and two diverse suppliers for outstanding contributions to CenterPoint Energy's supplier diversity success.
- We partnered and participated with the Association of Electric Companies of Texas and the Department of Energy's Houston Minority Supplier Development Council (HMSDC) 2017 Energy Summit. CenterPoint Energy representatives served as panelists and facilitators on two of the summit panels.
- CenterPoint Energy sponsored and presented at approximately 50 external supplier diversity-related activities locally and nationally, including expos, workshops, trainings and conferences.
- CenterPoint Energy consistently uses minority investment banking firms for our debt financing activities. In February 2018, our electric operations business worked with a diverse group of banks to close on $400 million of general mortgage bonds.

CenterPoint Energy's Small Business Spend
dollars in billions



Social: Purchasing and Supplier Diversity

2017 Supplier Diversity Awards

- Buyer of the Year –
  Alan Velicek – Houston Women's Business Enterprise Alliance
- Corporate Accountability for MBE Procurement Award
  Houston Minority Supplier Development Council
- Corporate Advocate of the Year –
  Jewel Smith – Women's Business Enterprise Alliance
- Corporation of the Year –
  Houston Women's Business Enterprise Alliance
- Champion of Supplier Diversity –
  Jewel Smith – *Minority Business National News Magazine*
- Cutting Edge Award for Outstanding Utilization of WBEA WBEs
  Women's Business Enterprise Alliance
- Rigel Award for Leadership in Minority Business Development –
  Houston Minority Supplier Development Council
- Top 100 U.S. Corporations in Supplier Diversity –
  Minority Business News USA

Spotlight on MWBE

Parsley Coffin Renner LLC (PCR) is a small woman-owned law firm that represents CenterPoint Energy's electric and natural gas businesses across multiple areas. PCR is consistently able to meet our Legal department's needs in complex regulatory matters that balance legal, public interest, economic and accounting issues.

PCR's diversity efforts include its Sustaining Sponsorship commitment to the Houston Association of Women Attorneys Foundation Pro Bono Fellowship Program, a program that was created under the leadership of our General Counsel Dana C. O'Brien. The program offers female attorneys in their first year of practice a chance to provide pro bono legal services to their community while developing technical legal skills. PCR also utilizes women and minority owned businesses for its accounting and bookkeeping.

Safety

Our Approach

CenterPoint Energy is committed to the protection of our employees, contractors, systems and communities. Our goal is to maintain a safe work environment and deliver electricity and natural gas safely to the communities we serve. To achieve our goal, CenterPoint Energy is guided by the following principles:

- Compliance. We are committed to complying with applicable safety laws and regulations. Employees are expected to adhere to and abide by all company policies, procedures and guidelines for safely working and operating our systems. We also expect contractors who perform work for the company to do so safely, in compliance with applicable laws and regulations;
- Accountability. Safety is the responsibility of all employees and is a condition of employment. While management sets clear expectations and provides support and training, employees are accountable for understanding and incorporating safety responsibilities into their daily work activities. Employees are also accountable for reporting incidents, injuries and unsafe practices or conditions so they can be promptly addressed and corrected. Employees are empowered and understand we will perform our duties in a safe manner or we will not do them;
- Continuous Improvement. CenterPoint Energy strives to continuously improve our safety performance and culture. We embrace innovation and technology that will enhance our performance. We will identify opportunities to improve and learn from incidents, near-misses, inspection programs and observations that the public or employees submit; and
- Customer and Community Focus. We will continue to develop and maintain effective safety programs that educate and inform customers and the public in the communities where we operate.

WORKPLACE SAFETY

CenterPoint Energy focuses on being *Safety Forward*, which is our companywide approach to safety performance and excellence. Initiatives are designed to encourage employees to keep safety at the forefront, regardless of their business unit or work location. It is critical that our employees be well trained when it comes to safety procedures, so we offer industry and peer education programs that address safety challenges.

As we continue our focus on improving our safety performance, behavior based safety programs include:

- POWER (Proactively Observing While Eliminating Risk) is the behavior-based safety program for our electric operations business. The program enables the continuous improvement of tools and equipment, work practices and the environment through effective measurement, communication and corrective actions. The program has delivered valuable results, such as a reduction of injuries as safety observations increased; and
- CSAFE (CenterPoint Energy Safe Action For Employees) is the natural gas operations' behavior based safety program that has multiple committees that meet on a monthly basis. Employees are encouraged to share safety experiences that will help their peers.

Initiative and accountability – two of our values – have led to many safety improvements through employee involvement. Speaking up to correct possible hazards or improve existing practices has created positive change. In both our electric and natural gas operations, we practice our safety commitment through quality observations, near-miss notifications, inspections and other safety-related activities. Safety observations are the first line of defense in maintaining safety awareness on a job. In 2017, more than 64 percent of employees in our electric and natural gas businesses submitted at least two observations per month. This amounted to 214,895 safety observations submitted over the course of the year.

Social: Safety

We believe CenterPoint Energy's ongoing efforts to sustain a strong safety culture are resulting in fewer injuries and incidents. We had excellent safety performance in 2017, with our highest levels in employee engagement and continuous improvement, fair participation and observation rates, days away, restricted or transferred (DART) rates and recordable incident rates (RIR). From 2016 to 2017, we had a 16 percent decrease in Occupational Safety and Health Administration (OSHA) recordable incidents, a 28 percent decrease in DART cases, and a 32 percent decrease in Lost Time Injuries. Our reduction in recordable incidents placed CenterPoint Energy in the top quartile for EEI and AGA rankings.

Employee Safety Performance

	2014	2015	2016	2017	2016-2017 Improvement
Recordable Incident Rate	1.73	1.35	1.23	1.01	**17.8%**
DART Rate	1.24	0.89	0.87	0.56	**35.6%**
Lost Time Incident Rate	0.66	0.42	0.55	0.45	**18.2%**

However, we also experienced several serious safety incidents in 2017 that reinforced our commitment to working safely and continuing to improve our safety program and performance. We are participating in an 18 month national study with EEI on serious injury and fatality precursors to help prevent such incidents from happening in our industry.

2017 Highlights

- Collaboration between Engineering and Construction resulted in hot arms being purchased for energized work. The arms mount on 38 ton boom trucks and assist linemen by picking up energized conductors without bull blocks and sticks, making work safer and more efficient.
- Our natural gas operations in Oklahoma achieved a 0-0-0 incident rate in 2017, which means zero preventable vehicle collisions, zero recordable incidents and zero days away from work/restricted injuries. Their success is attributable to a commitment to incorporate safety into everything they do.
- Employees in Arkansas and Oklahoma hosted the first Natural Gas Distribution Safety Summit of the year with the theme "Safety Improvement," based on the television series "Home Improvement." More than 100 employees attended. The region has maintained the highest level of year-to-date employee participation.

Facts

- All company drivers are expected to complete training on safety behind the wheel, Smith System training, AlertDriving training and Mobile Eye technology help prevent vehicle incidents and related injuries.
- To drive continuous improvement and knowledge sharing, regular safety meetings, trainings and summits are held for both employees and contractors.
- Quarterly safety campaigns focus on key topics such as ergonomics during work activities, including setting meters, climbing poles, lifting boxes and driving.

PUBLIC SAFETY

Our Approach

CenterPoint Energy is committed to the safe delivery of electricity and natural gas. To support this commitment, we provide our stakeholders with information and educational outreach about potential hazards and how to respond to them. This includes education about staying away from power lines, how trees and vegetation affect electric safety and natural gas safety.

2017 Highlights

- CenterPoint Energy's Safety and Gas System Integrity organization committed to participating in the American Petroleum Institute's standards for managing pipeline infrastructure and is implementing them in our operations.
- Through our Speakers' Bureau, CenterPoint Energy offers free presentations to Houston area community groups, professional associations and businesses. In 2017, 49 presentations were held reaching more than 2,100 individuals. Of those presentations, 24 were safety electric arcing demonstrations for businesses and fire departments.
- CenterPoint Energy partnered with the Houston Astros to lead interactive assemblies on electrical and natural gas safety for elementary students. The assemblies featured company mascot Lucite and Lightning Bug and Orbit of the Houston Astros. Eight assemblies held in the Houston area reached more than 1,700 students.
- Our educational websites, Electric Universe and Safe and Smart with Buddy Blue Heron, offer educational information and activities related to electrical and natural gas safety. In 2017, we received the Southern Gas Association Community Service Award for our natural gas safety education website.

Educational Outreach

CenterPoint Energy's educational outreach activities include partnerships with local schools and nonprofit organizations to reach a broad audience, we educate adults and youth in our communities in both English and Spanish. During the 2016-17 school year, CenterPoint Energy actively promotes safety education and outreach through free community resources and strategic partnerships. We distributed 68,640 booklets on electric and natural gas safety to K-12 students. In the 2016-17 school year, we partnered with more than 60 organizations on safety outreach, including Junior Achievement, Houston Audubon Society and the Children's Museum of Houston.

Community Partnership Grants

One of the company's signature safety programs is CenterPoint Energy's Community Partnership Grants. The program helps cities leverage local funds to purchase safety equipment, hold trainings or support important safety projects. We invite local emergency responders, including fire and police departments in our natural gas markets, to apply for a safety grant. We conduct this program in Minnesota, Arkansas and Oklahoma and are in the process of expanding it. In 2017, 73 grants were awarded totaling $174,576. Since the program's inception in 2003, CenterPoint Energy has contributed $1.7 million toward safety initiatives in our communities.

Right Tree Right Place

CenterPoint Energy understands that planting trees responsibly has a positive effect for our environment and beautifies our community. However, when trees grow into power lines, they can cause power outages and create safety hazards for residents and workers. The company's Vegetation Management group proactively assesses the need for tree trimming near power lines, prepares work maps and schedules tree trimming. To maintain safety and electric service reliability, we trim approximately 1 million trees per year. Our Right Tree Right Place education efforts help the public understand that we trim trees to protect service reliability.

We have partnered with the Arbor Day Foundation and Trees For Houston for five years to provide energy-saving trees to qualifying Houston-area residents. The program is designed to help customers reduce energy consumption and save money on their electric bill. Studies show that the right trees planted in the right place – not under power lines – can reduce electricity use up to 30 percent by providing summer shade and slowing cold winter winds. Through the online program, CenterPoint Energy offers two free trees per registrant. Each year, the program offers 2,500 trees to individuals in CenterPoint Energy's electric service territory who agree to plant them in energy-saving locations.

In 2016 and 2017, CenterPoint Energy was proud to serve as the presenting sponsor for the Houston Zoo's Party for the Planet. This annual Earth Day celebration focuses on how environmental protection saves wildlife. We distributed more than 10,000 tree seedlings to attendees, along with planting guides and information about our Right Tree Right Place program.

2017 Facts

- Trees planted by CenterPoint Energy: 2,449
- Trees distributed to community members: 4,500

Planting a tree in an energy-saving location saves consumers money and provides community benefits such as storm water runoff reduction, improved air quality and neighborhood beautification. Therefore, education is a large component of CenterPoint Energy's outreach. The company also consults with local community leaders and elected officials to promote electric reliability through the Right Tree Right Place program.

PIPELINE PUBLIC SAFETY AWARENESS

Our Approach

As part of our focus on safety, CenterPoint Energy has a comprehensive pipeline safety public awareness program that educates the public about pipeline purpose, reliability, potential hazards and preventive measures. Additional topics include leak recognition and response, emergency preparedness and damage prevention and One Call requirements. We communicate information via ads on television, radio and outdoor, direct mail, presentations and educational materials. Much of our public safety awareness work is accomplished through strategic partnerships.

Social: Safety

CenterPoint Energy's Public Awareness Program helps protect people, property and the environment through increased stakeholder awareness and knowledge. Objectives include:

- Increasing stakeholder awareness of pipelines in their communities and how they transport energy
- Growing stakeholder understanding of steps to reduce the occurrence of pipeline emergencies; and
- Educating stakeholders on the steps to take in response to a pipeline emergency

2017 Initiatives

- Delivered key natural gas pipeline safety messages to approximately 13 million non-customer stakeholders along CenterPoint Energy's distribution and transmission system
- Partnered with Texas Pipeline Awareness Alliance to produce natural gas safety advertising campaigns in all 254 counties in Texas on both English and Spanish-language networks, producing more than 34 million impressions
- Sponsored presentations at 17 Texas regional school safety summits presented by the Smalley Foundation. We provided pipeline safety information to school administrators, safety officials, bus drivers and other staff at schools located near underground pipelines
- Distributed substantial outreach of pipeline safety information to all public officials in Arkansas
- With the Pipeline Operators Safety Partnership, which helps build partnerships between pipeline companies and emergency responders, we distributed educational materials at two nationwide conferences

Electric Safety Awareness

Electric operations provides important information to the public through electrical safety presentations and the distribution of safety-related materials at large events such as the Houston Livestock Show and Rodeo and the annual Houston/Galveston Extreme Weather Ready Expo. CenterPoint Energy also provides information about working safely to those whose jobs require them to be near powerlines, including fire departments, cable company workers, crane operators and tree trimmers.

Emergency Operating Plan and Drills

CenterPoint Energy maintains an Emergency Operating Plan (EOP) to restore service to customers as safely, quickly and efficiently as possible. To prepare for major weather events, CenterPoint Energy conducts a Hurricane Response Exercise to test our response plans, preparedness and recovery processes. Everyone with an EOP role receives annual training on their specific response procedures and how to use the Incident Command System.

We provide resources to employees to help prepare them for their EOP roles. Our EOP site is available on the company's intranet, CNP Today. Employees can log on to the Employee Storm Room, view the EOP plans for electric and natural gas operations, download forms, and access information, policies and guides.

CYBERSECURITY RISK, DATA PRIVACY RISK AND MITIGATION

Our Approach: Cybersecurity

CenterPoint Energy's customers, partners, shareholders and employees entrust us with their information. Our stakeholders' information plays a vital role in our ability to perform our services. We are committed to managing the security of our infrastructure and protecting the privacy of the information we maintain.

The company's cybersecurity strategy and roadmap are reviewed at least annually as a part of our governance processes. CenterPoint Energy's Security Governance Council, which focuses on physical security and cybersecurity, oversees the program. The strategy and roadmap are presented to the Corporate Risk Oversight Committee and, subsequently, to our Executive Committee. The board of directors is regularly updated on cyber-related activities, security initiatives, risks and strategy.

We routinely evaluate cyber threats and develop strategies that address near- and long-term mitigation efforts. Additionally, we monitor and address ongoing system-related activities and practice our response plans.

All new employees are required to complete physical security and cybersecurity training, along with ethics and compliance training, which includes the protection of confidential information and records. These trainings are followed by annual certification for all employees.

To further enhance awareness, we have implemented a Cyber Security Awareness Program that is available to employees and contractors. Our Cyber Security Operations Center (CSOC) is the hub of our cybersecurity program. CSOC personnel monitor information from external sources and respond to users who receive questionable emails.

Our Approach: Data Privacy

CenterPoint Energy recognizes the importance of a dedicated Data Privacy Office to address existing and emerging laws, regulations, trends, expectations and best practices. Our Ethics and Compliance team maintains a data privacy office led by the company's chief ethics, compliance and privacy officer. Our data privacy governance addresses the collection, storage, usage, disclosure and destruction of data for a specific business purpose. We take steps to ensure the data will remain private and protected against unauthorized access or modification.

As part of our business of delivering energy to millions of customers, we amass large quantities of information. Much of that information is protected by various local and federal laws, such as insider trading and customer information protection laws. In support of protections required by law, the company abides by its own set of internal policies and processes.

Protecting information from unauthorized access, use or modification is the right thing to do for our customers, employees and others. In addition, it helps the company minimize the risk of serious financial, legal and regulatory issues. All employees, contractors and third-party business partners have a responsibility to handle sensitive, private and confidential information carefully and to protect the private and personal nature of much of the information we maintain.

- In 2017, the company launched seven data privacy principles, along with descriptions of how employees can implement each principle and annual companywide data privacy training.
- CenterPoint Energy recognizes and actively promotes International Data Privacy Day on January 28, an effort to raise awareness of how personal information should be managed.

Feature: Sealy, Texas, Microburst

CenterPoint Energy's annual EOP drill was scheduled on May 24, 2017, but Mother Nature had other plans. On May 23, a powerful microburst caused damage to the company's transmission and distribution infrastructure in Sealy, Texas, located approximately 50 miles west of Houston. The storm produced tornado-force winds, torrential rain and massive hail. A major interstate highway was closed and nearly 100 homes and businesses were severely damaged. While the storm was isolated to only 15.5 square-miles of our 5,000 square-mile service territory, the damage to the electrical infrastructure was extreme and more than 68,000 customers lost power.

The staging site that was prepared for the EOP drill was relocated and used during the emergency response. Working safely and efficiently, our crews replaced nine wooden transmission poles, 246 distribution poles and 356 spans of wire. Over a two-day response period, we restored power to all affected customers. For the first time, the company utilized drones to assess damage, as well as to communicate the extent of the damage and restoration efforts to media and customers. Our employees used the staging site to provide meals, organize materials and house more than 500 crew members.

Feature: Mutual Assistance

CenterPoint Energy understands how critical it is to quickly and safely restore service after a natural disaster or other emergency. In addition to being prepared to respond to incidents across our territory, we have mutual assistance agreements with other electric utilities and natural gas companies that enable them to ask for our support in a time of need.

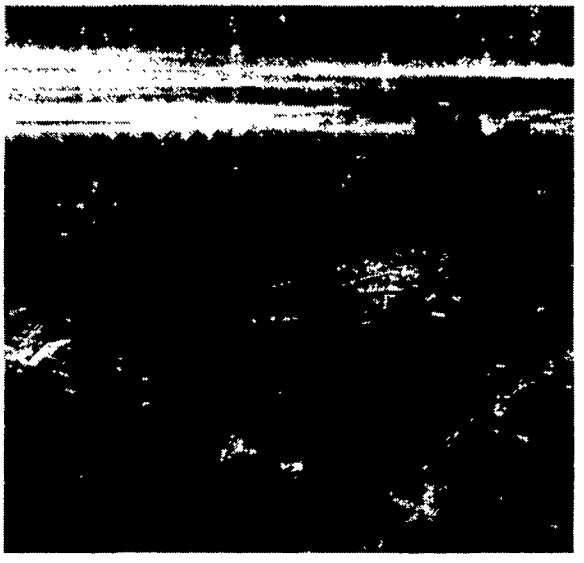
CenterPoint Energy benefited from these relationships during our Hurricane Harvey restoration, with more than 1,500 resources supporting our activities. In turn, we have supported fellow utilities by sending resources on the following 2017 mutual assistance trips:

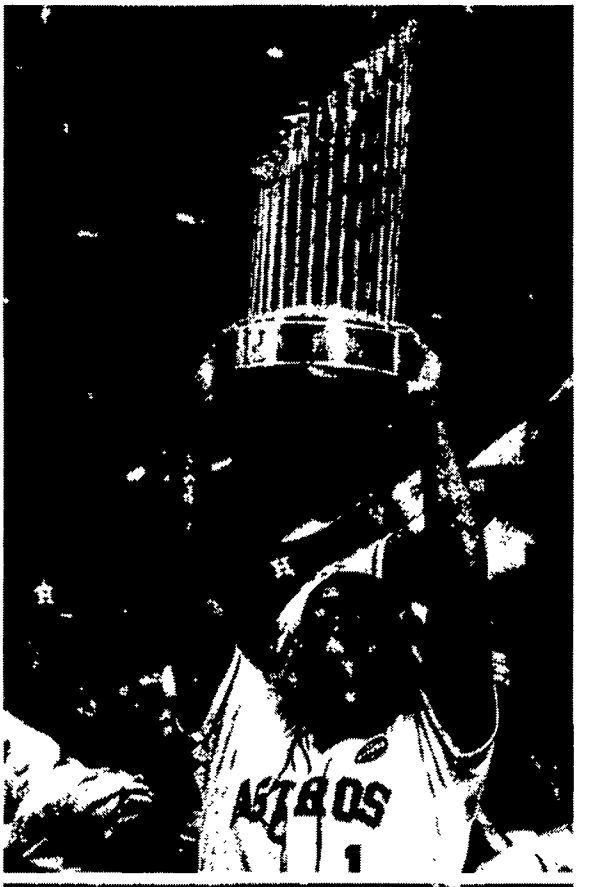
- January: Public Service Company of Oklahoma (AEP-PSO) for ice storm restoration;
- September: Tampa Electric and Florida Power & Light for Hurricane Irma restoration; and
- October: Entergy Louisiana for Hurricane Nate restoration.

As part of a nationwide, coordinated power restoration plan involving several investor-owned electric companies, CenterPoint Energy's electric utility sent 140 employees to Puerto Rico to accelerate the power restoration efforts.

Social: Features

Feature: Super Bowl and World Series





In early 2017, the Atlanta Falcons and New England Patriots faced off in the 2017 Super Bowl in Houston. Behind the scenes, CenterPoint Energy had been preparing since early 2016 for the critical role we would play in the National Football League's championship game. While millions of fans around the world watched the game, employees from a wide range of CenterPoint Energy departments were quietly doing their jobs, working to ensure the security and reliability of electric service and natural gas for the Super Bowl and the many related events scheduled throughout Houston.

The operational leaders of our electric and natural gas businesses began meeting in 2016 to discuss preparedness. This was a high-visibility event, and our company's leadership recognized that the best way to support Houston as a great place to live and work was through reliable electric and natural gas systems. The company developed an organizational structure, established communications, put resources in position, and closely monitored all systems to ensure a prompt and coordinated response to restore service in the event of an interruption. This carefully designed plan also included effective, timely communications to employees, customers and external partners.

The reliability measures executed for the Super Bowl prepared CenterPoint Energy to support the World Series games that were hosted in Houston Oct. 27-29, 2017. During the games, electric operations personnel were positioned to respond to any issues, and plans were in place to have power restored in less than 30 minutes, if needed.

Lessons learned from Houston's Super Bowl and World Series helped our natural gas operations in Minnesota prepare for the 2018 Super Bowl, which was played Feb. 4 in Minneapolis.

Feature: Drone Program

At CenterPoint Energy, use of an unmanned aircraft system (UAS) – commonly known as a drone – has helped expedite our ability to assess damage to our electric transmission and distribution system following storms. The company tested drone technology following the Sealy, Texas, microburst and Hurricane Harvey, and is developing a formal program to support drone usage during emergency response and daily operations.

Obstacles, such as downed trees or flooded roads, make it difficult for crews to assess damage following a severe weather event, and can hinder response and restoration time. Using drones to capture high-resolution imagery in real time will help us assess damage and deploy the right resources to the right places in order to restore power. CenterPoint Energy has used helicopters to assess system damage and will continue use them as necessary; however, drones can typically be deployed faster. Drones also help the company avoid risk when assessing inaccessible equipment and keep employees out of hazardous situations when inspecting infrastructure.

After Hurricane Harvey, CenterPoint Energy used 15 drones to:

- Determine the extent of access issues at various locations;
- Monitor circuit loading and conditions by equipping drones with infrared equipment;
- Establish safe routes for crews to reach areas with high water; and
- Monitor flooded equipment.

Drone footage of the severe weather events in 2017 was shared with news outlets and on social media, which helped keep the public informed about our ongoing restoration efforts.

Feature: 811

811 Know what's below. Call before you dig.

Because third-party damage is the number-one cause of pipeline incidents for CenterPoint Energy, we partner with the Common Ground Alliance to raise awareness of 811, the national "Call Before You Dig" number. Each year on Aug. 11, CenterPoint Energy issues a news release promoting 811 as the resource for marking utility lines before digging. In 2017, CenterPoint Energy held 14 damage-prevention events in the Texas region, reaching nearly 1,400 stakeholders. These events included the downtown Houston 811 Day Block Party, held in collaboration with other pipeline operators, and a presence at a Houston Astros game.

Report Overview/Feedback

CenterPoint Energy is committed to making ongoing improvements to our reporting. We welcome your input and comments. Please email your thoughts to us at info1@centerpointenergy.com or engage with us via our social media channels:

- Facebook: facebook.com/CenterPointEnergy
- Twitter: @centerpoint
- Twitter: @cnpalerts
- YouTube: youtube.com/user/centerpointenergyvid
- LinkedIn: linkedin.com/company/centerpoint-energy

Thank you to Richard T. Bye, director of Environmental Services, CenterPoint Energy, for providing his photos for this report.

GRI Index

CenterPoint Energy's 2017 Corporate Responsibility Report is based on the Global Reporting Initiative (GRI) standards. This report has been prepared in accordance with the GRI Standards: Core option. It was developed based on issues related to our company's environmental, social and economic performance that we have identified as material or important to stakeholders.

The table below provides the location to find information reported that completely or partially relates to the indicators published by GRI. For our complete GRI Content Index, please see the Investors section of CenterPointEnergy.com.

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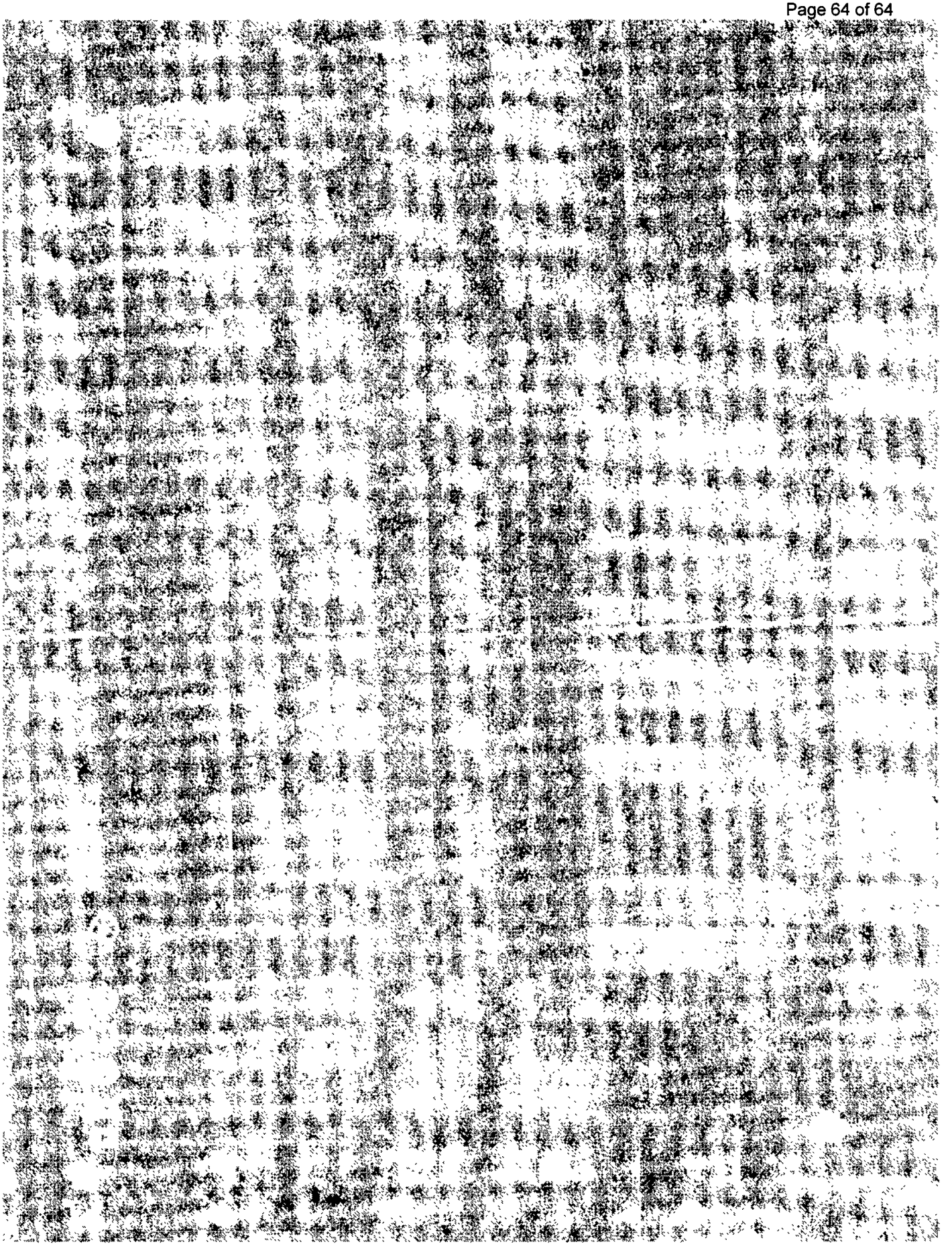

CenterPoint Energy

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January 25, 2018

Chairman DeAnn T. Walker
Commissioner Brandy Marty Marquez
Commissioner Arthur C. D'Andrea
Public Utility Commission of Texas
1701 N. Congress Avenue
Austin, Texas 78701

Re: Project No. 47945, *Proceeding to Investigate and Address the Effects of the Tax Cuts and Jobs Act of 2017 on the Rates of Texas Investor-Owned Utility Companies*

Dear Chairman Walker, Commissioner Marquez, and Commissioner D'Andrea:

CenterPoint Energy Houston Electric, LLC ("CenterPoint Energy") has reviewed the memorandum filed yesterday by Chairman Walker in this project and understands the concerns raised regarding the need to address the impacts of the Tax Cuts and Jobs Act of 2017. The memorandum recommends that the Commission address those impacts for each electric utility on a case-by-case basis and, with respect to CenterPoint Energy, recommends that the Commission require the company to file a full base rate proceeding. Chairman Walker indicates that this will allow the Commission to address both the impacts of federal income tax legislation and the difference between the company's distribution and transmission rates.

In its review of electric utility earnings in October 2017, the Commission considered whether to initiate a full base rate proceeding for CenterPoint Energy but declined to do so in part because of the impacts of Hurricane Harvey on the company's test year costs and billing determinants. That concern continues to exist today. At the same time, CenterPoint Energy understands the desire to address the impacts of the federal income tax legislation in a timely manner while also addressing the difference between distribution and transmission rates. While a full base rate proceeding is one way to address both distribution and transmission rates, there may be other ways to achieve that objective while avoiding the test year impacts of Hurricane Harvey and the delay in setting new rates associated with preparing and prosecuting a full base rate proceeding.

For these reasons, CenterPoint Energy respectfully requests that the Commission defer its decision regarding whether to initiate a full base rate case proceeding for the company until the next Open Meeting on February 15, 2018 so that Commission Staff and the company may discuss possible alternatives.

Sincerely,

Patrick H. Peters III

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CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS.

Subchapter J. COSTS, RATES AND TARIFFS.

DIVISION 1: RETAIL RATES.

§25.243. Distribution Cost Recovery Factor (DCRF).

(a) **Purpose and application.** This section implements Public Utility Regulatory Act (PURA) §36.210. This section applies to electric utilities, including transmission and distribution utilities (TDUs), that provide wholesale or retail distribution service.

(b) **Definitions.** The following terms, when used in this section, have the following meanings unless the context indicates otherwise.

(1) **Capitalized operations and maintenance expenses** -- Expenses that have been deferred or amortized as a regulatory asset or liability.

(2) **DCRF proceeding** -- A proceeding conducted pursuant to this section in which creation or amendment of a DCRF is considered on application of an electric utility to the commission pursuant to subsection (c)(1) of this section.

(3) **Distribution invested capital** -- The parts of the electric utility's invested capital, as described in PURA §36.053, that are categorized as distribution plant, distribution-related intangible plant, and distribution-related communication equipment and networks properly recorded in Federal Energy Regulatory Commission (FERC) Uniform System of Accounts 303, 352, 353, 360 through 374, 391, and 397. Distribution invested capital includes only costs: for plant that has been placed into service; that comply with PURA, including §36.053 and §36.058; and that are prudent, reasonable, and necessary. Distribution invested capital does not include: generation-related costs; transmission-related costs, including costs recovered through rates set pursuant to §25.192 of this title (relating to Transmission Service Rates), §25.193 of this title (relating to Distribution Service Provider Transmission Cost Recovery Factors (TCRF)), or §25.239 of this title (relating to Transmission Cost Recovery Factor for Certain Electric Utilities); indirect corporate costs; capitalized operations and maintenance expenses; and distribution invested capital recovered through a separate rate, including a surcharge, tracker, rider, or other mechanism. In a DCRF proceeding, an electric utility may elect not to seek recovery of certain distribution invested capital, but may not exclude all of the distribution invested capital in one of the accounts identified above unless the electric utility can prove that the distribution invested capital in the account reduced by the related accumulated depreciation is greater than the distribution invested capital in the account reduced by the related accumulated depreciation used in setting rates in the electric utility's last comprehensive base-rate proceeding.

(4) **Net distribution invested capital** -- Distribution invested capital less accumulated depreciation and adjusted for any changes in distribution-related accumulated deferred federal income taxes and excluding any impact associated with Financial Accounting Standards Board Interpretation No. 48 (FIN 48).

(5) **Weather-normalized** -- Adjusted for normal weather using weather data for the most recent ten calendar years.

CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS.

Subchapter J. COSTS, RATES AND TARIFFS.

DIVISION 1: RETAIL RATES.

(c) **Application for a DCRF.**

(1) **General requirements.**

(A) **Filing of application.** An electric utility may apply for inclusion of a DCRF in its tariffs for wholesale and retail distribution service. To implement a DCRF, an electric utility shall file the application for the DCRF simultaneously with all regulatory authorities having original jurisdiction over the electric utility's distribution service area.

(B) **Municipal proceedings.** A municipality's governing body with original jurisdiction over an application for a DCRF shall make a final decision on the application within 60 days after the application was filed. If the governing body does not make a final decision within 60 days after the application was filed, the application is deemed denied by the governing body. On the 60th day after the application is filed, the electric utility is deemed to appeal the governing body's final decision to the commission, regardless of whether the governing body approves or denies the application, and the appeal is deemed at that time to be consolidated with the electric utility's DCRF proceeding before the commission. In addition, the governing body's interim and final decisions are deemed automatically suspended at the times they took effect.

(C) **Frequency of DCRF proceedings.** An electric utility may have no more than one DCRF (including a DCRF amendment) become effective each calendar year pursuant to an application filed pursuant to this paragraph. An electric utility may change its rates pursuant to a DCRF no more than four times between comprehensive base-rate proceedings. An electric utility shall not apply for a DCRF while a comprehensive base-rate proceeding for the electric utility is pending. In addition, the presiding officer shall dismiss an electric utility's application for a DCRF if the electric utility or commission initiates a comprehensive base-rate proceeding within 145 days after the electric utility filed the application for a DCRF.

(2) **Requirements applicable to TDUs.** A TDU may file an application for a DCRF only during the period April 1 through April 8. A TDU shall not file an application for a DCRF after April 8 of a year even if April 8 is not a working day, as defined by §22.2(44) of this title (relating to Definitions).

(3) **Requirements applicable to other electric utilities.** An electric utility that does not offer customer choice may file an application for a DCRF at any time other than in April and May.

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(d) **Calculation of DCRF.**

(1) **DCRF formula.** The DCRF for each rate class shall be calculated using the following formula:

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

Where:

DIC_C = Current Net Distribution Invested Capital.

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

ROR_{AT} = After-Tax Rate of Return as defined in paragraph (2) of this subsection.

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

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

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

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

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

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

$DISTREV_{RC\text{-}CLASS}$ (Distribution Revenues by rate class based on Net Distribution Invested Capital from the last comprehensive base-rate proceeding) = $(DIC_{RC\text{-}CLASS} * ROR_{AT}) + DEPR_{RC\text{-}CLASS} + FIT_{RC\text{-}CLASS} + OT_{RC\text{-}CLASS}$

$\%GROWTH_{CLASS}$ (Growth in Billing Determinants by Class) = $(BD_{C\text{-}CLASS} - BD_{RC\text{-}CLASS}) / BD_{RC\text{-}CLASS}$

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

$DEPR_{RC\text{-}CLASS}$ = Depreciation Expense, as related to Gross Distribution Invested Capital, allocated to the rate class in the last comprehensive base-rate proceeding.

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

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

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

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

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

If an input to the DCRF formula from the last comprehensive base-rate proceeding is not separately identified in that proceeding, it shall be derived from information from that proceeding.

(2) **Return on invested capital.** The electric utility's rate of return is the rate of return approved by the commission in the electric utility's last comprehensive base-rate proceeding if the final order (which may be an order on rehearing) approving the rate of return was filed less than three years before the application for a DCRF was filed. If the final order approving the rate of return was filed three years or more before the application for a DCRF was filed, the rate of return is the lesser of the rate of return in the final order or the alternative rate of return calculated as follows: The alternative rate of return shall be calculated using a 10% cost of equity, the capital structure approved by the commission in the electric utility's last comprehensive base-rate proceeding, and the cost of debt as reported in the electric utility's most recent Earnings Monitoring Report filed pursuant to §25.73 of this title (relating to Financial and Operating Reports).

(3) **Determination of Distribution Invested Capital.** The electric utility must clearly identify any costs included as distribution invested capital because of a change in accounting rules or practices since the test year in the electric utility's most recent comprehensive base-rate proceeding. The commission shall exclude such costs if the electric utility does not prove that the costs are appropriate for recovery through the DCRF.

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(e) **Procedures for DCRF proceeding.**

(1) **Filing requirements.** To file an application for a DCRF, an electric utility shall use the commission-prescribed form and include a sworn statement from an appropriate employee of the electric utility that the application complies with the electric utility's tariff and this section, including that the distribution invested capital in the application includes only costs: for plant that has been placed into service; that comply with PURA, including §36.053 and §36.058; and that are prudent, reasonable, and necessary. In addition, the sworn statement shall state that the application is true and correct to the best of the employee's knowledge, information, and belief. Furthermore, the electric utility shall include in its application an earnings monitoring report for the immediately preceding calendar year prepared in accordance with §25.73(b) of this title.

(2) **Notice and intervention deadline.** By the day after it files its application, the electric utility shall provide notice of its application, using a reasonable method of notice, to all parties in the electric utility's last comprehensive base-rate proceeding and, if applicable, last DCRF proceeding, and shall include in the notice the docket number for the new proceeding. The intervention deadline is 30 days from the date service of notice is completed.

(3) **Parties.** The Office of Public Utility Counsel and affected parties may participate as parties in a DCRF proceeding.

(4) **Denial due to earnings.** The commission shall deny an electric utility's application for a DCRF if the earnings monitoring report included in the electric utility's application shows that the electric utility is earning more than its authorized rate of return using weather-normalized data. In making this determination, the commission shall correct the calculation of the earned rate of return in the earnings monitoring report to the extent that the calculation does not comply with §25.73(b) of this title and any form adopted to implement that subsection.

(5) **Scope of proceeding.** The issues of whether distribution invested capital included in an application for a DCRF or DCRF adjustment complies with PURA, including §36.053 and §36.058, and is prudent, reasonable, and necessary shall not be addressed in a DCRF proceeding unless the presiding officer finds that good cause exists to address these issues.

(6) **Commission processing of application.**

(A) **Sufficiency of application.** A motion to find an application materially deficient shall be filed no later than 30 days after service of notice is completed. The motion shall be served on the electric utility by hand delivery, facsimile transmission, or overnight courier delivery, or by e-mail if agreed to by the electric utility or ordered by the presiding officer. The motion shall specify the nature of the deficiency and the relevant portions of the application, and cite the particular requirement with which the application is alleged not to comply. The electric utility's response to a motion to find an application materially deficient shall be filed no later than five working days after such motion is received. If within ten working days after the deadline for filing a motion to find an application materially deficient, the presiding officer has not issued a written order concluding that material deficiencies exist in the application, the application is deemed sufficient.

(B) Discovery. Each party, other than commission staff, may serve no more than 20 requests for information and requests for admissions of fact pursuant to §22.144 of this title (relating to Requests for Information and Requests for Admission of Facts), except where the presiding officer finds good cause for a party to serve additional requests. Except for a request by commission staff, a request shall not include subparts or multiple questions, and requests shall be sequentially numbered,

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regardless of whether the requests are served at the same time or on different parties. A response to a request shall be served no later than ten working days after receipt of the discovery request. An objection to a request shall be filed no later than five working days from receipt of the request. A request for which an objection is filed does not count towards a party's request limit. A party may request a technical conference by the intervention deadline, and shall identify the topics that it wants to discuss. An electric utility shall hold the technical conference in Austin, Texas five working days after the intervention deadline, unless the electric utility and the parties who requested the technical conference agree to a different date. The technical conference shall be held at the location designated by the electric utility, unless the commission staff designates a location. The electric utility shall have appropriate persons attend the technical conference to answer questions. A party may take a deposition only if authorized by the presiding officer.

(C) System-wide rates and effective date of DCRF. The presiding officer shall approve the DCRF for an electric utility on a system-wide basis and set the effective date of the DCRF for a TDU as September 1 unless good cause exists for a later date. The presiding officer shall make a final decision on a DCRF application made by a TDU at least 46 days before the effective date of the approved rates, even if this requirement results in an effective date after September 1. For an electric utility that does not offer customer choice, the presiding officer shall set the effective date of the DCRF to be 145 days after the application was filed unless good cause exists for a later date.

(D) Review of application. A DCRF proceeding is eligible for disposition pursuant to §22.35(b)(1) of this title (relating to Informal Disposition).

(E) Notice of approved rates. Unless otherwise ordered, a TDU shall serve notice of the approved rates and the effective date of the approved rates by the working day after the presiding officer's final decision, to retail electric providers that are authorized by the registration agent to provide service in the TDU's distribution service area. Notice under this subparagraph of this paragraph may be served by email.

(f) **DCRF reconciliation.** The commission shall reconcile investments recovered through a DCRF in the electric utility's next comprehensive base-rate proceeding to the extent such reconciliation did not already occur in a DCRF proceeding pursuant to subsection (e)(5) of this section. The reconciliation shall be limited to the issues of the extent to which the investments complied with PURA, including §36.053 and §36.058, and this section and were prudent, reasonable, and necessary. To the extent that the commission determines that the investments did not comply with PURA and this section or were not prudent, reasonable, and necessary, the electric utility shall refund all revenues related to the investments that it improperly recovered through rates, and shall also pay its customers carrying charges on these revenues. The carrying charges shall be determined as follows: For the time period beginning with the date on which over-recovery is determined to have begun to the effective date of the new base rates, carrying costs shall be calculated using the same rate of return that was applied to the investments in the DCRF proceedings that resulted in the over-recovery. For the time period beginning with the effective date of the new base rates, carrying costs shall be calculated using the electric utility's rate of return authorized in the comprehensive base-rate proceeding.

(g) **DCRF's effect on electric utility's financial risk and rate of return.** In setting the rate of return for an electric utility with a DCRF, the commission may expressly consider the effect of the DCRF on the electric utility's financial risk and rate of return.

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(h) **Reports**. An electric utility with a DCRF shall file reports that will permit the commission to monitor its DCRF revenues, in accordance with any filing requirements and schedules prescribed by the commission pursuant to §25.73 of this title or this section.

(i) **Expiration.** This section expires upon the expiration of PURA §36.210. Any DCRF in effect at that time shall remain in effect until the electric utility's next comprehensive base-rate proceeding.

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§25.192. Transmission Service Rates.

(a) **Tariffs.** Each transmission service provider (TSP) shall file a tariff for transmission service to establish its rates and other terms and conditions and shall apply its tariffs and rates on a non-discriminatory basis. The tariff shall apply to all distribution service providers (DSPs) and any entity scheduling the export of power from the Electric Reliability Council of Texas (ERCOT) region. The tariff shall not apply to any entity engaging in wholesale storage as described by §25.501(m) of this title (relating to Wholesale Market Design for the Electric Reliability Council of Texas) (storage entity).

(b) **Charges for transmission service delivered within ERCOT.** DSPs, excluding storage entities, shall incur transmission service charges pursuant to the tariffs of the TSP.

(1) A TSP's transmission rate shall be calculated as its commission-approved transmission cost of service divided by the average of ERCOT coincident peak demand for the months of June, July, August and September (4CP), excluding the portion of coincident peak demand attributable to wholesale storage load. A TSP's transmission rate shall remain in effect until the commission approves a new rate. The TSP's annual rate shall be converted to a monthly rate. The monthly transmission service charge to be paid by each DSP is the product of each TSP's monthly rate as specified in its tariff and the DSP's previous year's average of the 4CP demand that is coincident with the ERCOT 4CP.

(2) Payments for transmission services shall be consistent with commission orders, approved tariffs, and §25.202 of this title (relating to Commercial Terms for Transmission Service).

(c) **Transmission cost of service.** The transmission cost of service for each TSP shall be based on the expenses in Federal Energy Regulatory Commission (FERC) expense accounts 560-573 (or accounts with similar contents or amounts functionalized to the transmission function) plus the depreciation, federal income tax, and other associated taxes, and the commission-allowed rate of return based on FERC plant accounts 350-359 (or accounts with similar contents or amounts functionalized to the transmission function), less accumulated depreciation and accumulated deferred federal income taxes, as applicable.

(1) The following facilities are deemed to be transmission facilities:

(A) power lines, substations, reactive devices, and associated facilities, operated at 60 kilovolts or above, including radial lines operated at or above 60 kilovolts, except the step-up transformers and a protective device associated with the interconnection from a generating station to the transmission network;

(B) substation facilities on the high side of the transformer, in a substation where power is transformed from a voltage higher than 60 kilovolts to a voltage lower than 60 kilovolts;

(C) the portion of the direct-current interconnections with areas outside of the ERCOT region (DC ties) that are owned by a TSP in the ERCOT region, including those portions of the DC tie that operate at a voltage lower than 60 kilovolts; and

(D) capacitors and other reactive devices that are operated at a voltage below 60 kilovolts, if they are located in a distribution substation, the load at the substation has a power factor in excess of 0.95 as measured or calculated at the distribution voltage level without the reactive devices, and the reactive devices are controlled by an operator or automatically switched in response to transmission voltage.

(E) As used in subparagraphs (A) - (D) of this paragraph, reactive devices do not include generating facilities.

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(2) For municipally owned utilities, river authorities, and electric cooperatives, the commission may permit the use of the cash flow method or other reasonable alternative methods of determining the annual transmission revenue requirement, including the return element of the revenue requirement, consistent with the rate actions of the rate-setting authority for a municipally owned utility.

(3) For municipally owned utilities, river authorities, and electric cooperatives, the return may be determined based on the TSP's actual debt service and a reasonable coverage ratio. In determining a reasonable coverage ratio, the commission will consider the coverage ratios required in the TSP's bond indentures or ordinances and the most recent rate action of the rate-setting authority for the TSP.

(4) A municipally owned utility that is required to apply for a certificate of public convenience and necessity to construct, install, or extend a transmission facility within ERCOT pursuant to §25.101 of this title (relating to Certification Criteria) is entitled to recover, through the utility's wholesale transmission rate, reasonable payments made to a taxing entity in lieu of ad valorem taxes on that transmission facility, provided that:

(A) The utility enters into a written agreement with the governing body of the taxing entity related to the payments;

(B) The amount paid is the same as the amount the utility would have to pay to the taxing entity on that transmission facility if the facility were subject to ad valorem taxation;

(C) The governing body of the taxing entity is not the governing body of the utility; and

(D) The utility provides the commission with a copy of the written agreement and any other information that the commission considers necessary in relation to the agreement.

(5) The commission may adopt rate-filing requirements that provide additional details concerning the costs that may be included in the transmission costs and how such costs should be reported in a proceeding to establish transmission rates.

(d) **Billing units.** No later than December 1 of each year, ERCOT shall determine and file with the commission the current year's average 4CP demand for each DSP, or the DSP's agent for transmission service billing purposes, as appropriate, excluding the portion of coincident peak demand attributable to wholesale storage load. This demand shall be used to bill transmission service for the next year. The ERCOT average 4CP demand shall be the sum of the coincident peak of all of the ERCOT DSPs, excluding the portion of coincident peak demand attributable to wholesale storage load, for the four intervals coincident with ERCOT system peak for the months of June, July, August, and September, divided by four. As used in this section, a DSP's average 4CP demand is determined from the total demand, coincident with the ERCOT 4CP, of all customers connected to a DSP, including load served at transmission voltage, but excluding the load of wholesale storage entities. The measurement of the coincident peak shall be in accordance with commission-approved ERCOT protocols.

(e) **Transmission rates for exports from ERCOT.** Transmission service charges for exports of power from ERCOT will be assessed to transmission service customers for transmission service within the boundaries of the ERCOT region, in accordance with this section and the ERCOT protocols.

(1) A transmission service customer shall be assessed a transmission service charge for the use of the ERCOT transmission system in exporting power from ERCOT based on the megawatts that are actually exported, the duration of the transaction and the rates established under subsections (c) and (d) of this section. Billing intervals shall consist of a year, month, week, day, or hour.

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(2) The monthly on-peak transmission rate will be one-fourth the TSP's annual rate, and the monthly off-peak transmission rate will be one-twelfth its annual rate. The peak period used to determine the applicable transmission rate for such transactions shall be the months of June, July, August, and September.

(3) The DSP or an entity scheduling the export of power over a DC tie is solely responsible to the TSP for payment of transmission service charges under this subsection.

(4) A transmission service customer's charges for use of the ERCOT transmission system for export purposes on a monthly basis shall not exceed the annual transmission charge for the transaction.

(f) **Transmission revenue.** Revenue from the transmission of electric energy out of the ERCOT region over the DC ties that is recovered under subsection (e) of this section shall be credited to all transmission service customers as a reduction in the transmission cost of service for TSPs that receive the revenue.

(g) **Revision of transmission rates.** Each TSP in the ERCOT region shall periodically revise its transmission service rates to reflect changes in the cost of providing such services. Any request for a change in transmission rates shall comply with the filing requirements established by the commission under this section.

(h) **Interim Update of Transmission rates.**

(1) **Frequency.** Each TSP in the ERCOT region may apply to update its transmission rates on an interim basis not more than once per calendar year to reflect changes in its invested capital. Upon the effective date of an amendment to §25.193 pursuant to an order in Project Number 37909, *Rulemaking Proceeding to Amend P.U.C. Subst. R. 25.193, Relating to Distribution Service Provider Transmission Cost Recovery factors (TCRF)*, that allows a distribution service provider to recover, through its transmission cost recovery factor, all transmission costs charged to the distribution service provider by TSPs, each TSP in the ERCOT region may apply to update its transmission rates on an interim basis not more than twice per calendar year to reflect changes in its invested capital. If the TSP elects to update its transmission rates, the new rates shall reflect the addition and retirement of transmission facilities and include appropriate depreciation, federal income tax and other associated taxes, and the commission-authorized rate of return on such facilities as well as changes in loads. If the TSP does not have a commission-authorized rate of return, an appropriate rate of return shall be used.

(2) **Reconciliation.** An update of transmission rates under paragraph (1) of this subsection shall be subject to reconciliation at the next complete review of the TSP's transmission cost of service, at which time the commission shall review the costs of the interim transmission plant additions to determine if they were reasonable and necessary. Any amounts resulting from an update that are found to have been unreasonable or unnecessary, plus the corresponding return and taxes, shall be refunded with carrying costs determined as follows: for the time period beginning with the date on which over-recovery is determined to have begun to the effective date of the TSP's rates set in that complete review of the TSP's transmission cost of service, carrying costs shall be calculated using the same rate of return that was applied to the transmission investments included in the update. For the time period beginning with the effective date of the TSP's rates set in that complete review of the TSP's transmission cost of service, carrying costs shall be calculated using the TSP's rate of return authorized in that complete review.

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(3) **Future consideration of effect on TSP's financial risk and rate of return.** For a TSP that has increased its rates pursuant to paragraph (1) of this subsection, the commission may, in setting rates in the next complete review of the TSP's transmission cost of service, expressly consider the effects of reduced regulatory lag resulting from the interim updates to the TSP's rates and the concomitant impact on the TSP's financial risk and rate of return.

(4) **Commission processing of application**. The commission shall process an application filed pursuant to paragraph (1) of this subsection in the following manner.

(A) **Notice and intervention deadline.** The applicant shall provide notice of its application to all parties in the applicant's last complete review of the applicant's transmission cost of service and all of the distribution service providers listed in the last docket in which the commission set the annual transmission service charges for the Electric Reliability Council of Texas. The intervention deadline shall be 21 days from the date service of notice is completed.

(B) **Sufficiency of application.** A motion to find an application materially deficient shall be filed no later than 21 days after an application is filed. The motion shall be served on the applicant by hand delivery, facsimile transmission, or overnight courier delivery, or by e-mail if agreed to by the applicant or ordered by the presiding officer. The motion shall specify the nature of the deficiency and the relevant portions of the application, and cite the particular requirement with which the application is alleged not to comply. The applicant's response to a motion to find an application materially deficient shall be filed no later than five working days after such motion is received. If within ten working days after the deadline for filing a motion to find an application materially deficient, the presiding officer has not filed a written order concluding that material deficiencies exist in the application, the application is deemed sufficient.

(C) **Review of application.** A proceeding initiated pursuant to paragraph (1) of this subsection is eligible for disposition pursuant to §22.35(b)(1) of this title (relating to Informal Disposition). If the requirements of §22.35 of this title are met, the presiding officer shall issue a notice of approval within 60 days of the date a materially sufficient application is filed unless good cause exists to extend this deadline or the presiding officer determines that the proceeding should be considered by the commission.

(5) **Filing Schedule.** The commission may prescribe a schedule for providers of transmission services to file proceedings to revise the rates for such services.

(6) **DSP's right to pass through changes in wholesale rates.** A DSP may expeditiously pass through to its customers changes in wholesale transmission rates approved by the commission, pursuant to §25.193 of this title (relating to Distribution Service Provider Transmission Cost Recovery Factors (TCRF)).

(7) **Reporting requirements.** TSPs shall file reports that will permit the commission to monitor their transmission costs and revenues, in accordance with any filing requirements and schedules prescribed by the commission.

CenterPoint Monthly Bill
for Residential Customer
Using 1000 kWh per Month

As of 3/20/2019

Current Rates	Charge	Amount
Total CEHE Charges	$ 0.04596	$ 45.96
Average Annual Rate - December 2018 REP Bill Comparison	$ 0.1251	$ 125.10

Proposed Rates	Charge	Amount
Total CEHE Charges	$ 0.04834	$ 48.34
Average Annual Rate - December 2018 REP Bill Comparison	$ 0.1251	$ 125.10

Total CEHE Charges Increase/ (Decrease)	**$**	**2.38**
Total CEHE Charges Percentage Increase/ (Decrease)		**5.19%**
Per 1,000 kWh Increase/ (Decrease)	**$**	**0.00238**
REP Proposed Average Annual Rate	**$**	**0.1275**
Increase/ (Decrease) in REP Bill due to CEHE Charges	**$**	**127.49**
Total Percent REP Bill Increase/ (Decrease)		**1.91%**

CenterPoint Monthly Bill
for Residential Customer
Using 1000 kWh per Month

As of 3/20/2019

Component	Charge	Amount	% of Total Bill	% of TDU Bill
Number of kWh		1,000		
Customer Charge	$1 62	$1 62	1.29%	3.53%
Metering Charge	$3 85	$3 85	3.08%	8 38%
AMS	$0.00	$0.00	0.00%	0.00%
Energy Efficiency Cost Recovery Factor (EECRF)	$0 000665	$0 67	0 53%	1 45%
Rider Remand (EECRF Bonus)	$0.00	$0.00	0.00%	0.00%
Transmission System Charge	$0 008439	$8 44	6 75%	18.36%
Distribution System Charge	$0 016489	$16 49	13 18%	35 88%
System Benefit Fund	$0.000000	$0.00	0.00%	0.00%
Transmission Cost Recovery Factor (TCRF)	$0 008245	$8 25	6 59%	17 94%
Nuclear Decommissioning Charge	$0 000003	$0 00	0 00%	0 01%
Transition Charge 1	$0.000000	$0.00	0.00%	0.00%
Transition Charge 2	$0 002708	$2 71	2 16%	5 89%
Transition Charge 3	$0 000346	$0 35	0 28%	0 75%
Transition Charge 5	$0 001946	$1.95	1.56%	4 23%
Rate Case Expense Rider	$0.000000	$0.00	0.00%	0 00%
System Restoration Charge (Hurricane Ike)	$0 001126	$1 13	0 90%	2 45%
Accumulated Deferred Federal Income Tax Credit (Hurricane Ike)	($0 000137)	($0 14)	-0 11%	-0 30%
Rider TC Refund - Refund of Transition Charges	$0.000000	$0.00	0.00%	0.00%
Distribution Cost Recovery Factor (DCRF) 2015	$0.000241	$0 24	0 19%	0 52%
Distribution Cost Recovery Factor (DCRF) 2016 Incremental Increase	$0 000554	$0 55	0 44%	1.21%
Distribution Cost Recovery Factor (DCRF) 2017 Incremental Decrease	($0 000143)	($0 14)	-0 11%	-0 31%
Distribution Cost Recovery Factor (DCRF) 2017 (AMS Recon) Incremental Decrease	($0 000028)	($0 03)	-0 02%	-0 06%
Distribution Cost Recovery Factor (DCRF) 2018 (TCJA) Incremental Increase	$0 000138	$0 14	0 11%	0 30%
Distribution Cost Recovery Factor (DCRF) 2018 (TCJA Deferral)) Incremental Decrease	($0 000107)	($0 11)	-0 09%	-0 23%
Unprotected Excess Deferred Income Taxes (UEDIT)	$0 000000	$0 00	0 00%	0 00%

Total Base Related Charges (Customer, Metering, Trans. And Distr Only)		$30.40	
Total Bond Related Charges (TC, SRC, ADFITC)		$5.99	
Total RCE Charges and UEDIT Refund		$0.00	
Total Other Charges (AMS, EECRF, TCRF, SBF, NDC, DCRF)		$9.57	% of Total Bill
Total CEHE Charges	$0 045955	$45.96	36 73%
Average Annual Rate - December 2018 REP Bill Comparison	$0.1251	$125.10	

CenterPoint Monthly Bill
for Residential Customer
Using 1000 kWh per Month

As of 3/20/2019

Component	Charge	Amount	% of Total Bill	% of TDU Bill
Number of kWh		1,000		
Customer Charge				
Metering Charge				
AMS	$0.00	$0.00	0.00%	0.00%
Energy Efficiency Cost Recovery Factor (EECRF)	$0 000665	$0 67	0 53%	1 38%
Rider Remand (EECRF Bonus)	$0.00	$0.00	0.00%	0.00%
Transmission System Charge				
Distribution System Charge				
System Benefit Fund	$0.000000	$0.00	0.00%	0.00%
Transmission Cost Recovery Factor (TCRF)	$0.000000	$0.00	0.00%	0.00%
Nuclear Decommissioning Charge	$0 000003	$0 00	0 00%	0 01%
Transition Charge 1	$0.000000	$0.00	0.00%	0.00%
Transition Charge 2	$0 002708	$2 71	2 16%	5 60%
Transition Charge 3	$0 000346	$0 35	0 28%	0 72%
Transition Charge 5	$0 001946	$1 95	1 56%	4 03%
Rate Case Expense Rider				
System Restoration Charge (Hurricane Ike)	$0 001126	$1 13	0 90%	2 33%
Accumulated Deferred Federal Income Tax Credit (Hurricane Ike)	($0.000137)	($0 14)	-0 11%	-0 28%
Rider TC Refund - Refund of Transition Charges	$0.000000	$0.00	0.00%	0.00%
Distribution Cost Recovery Factor (DCRF) 2015	$0.000000	$0 00	0.00%	0.00%
Distribution Cost Recovery Factor (DCRF) 2016 Incremental Increase	$0.000000	$0.00	0.00%	0.00%
Distribution Cost Recovery Factor (DCRF) 2017 Incremental Decrease	$0.000000	$0.00	0.00%	0.00%
Distribution Cost Recovery Factor (DCRF) 2017 (AMS Recon) Incremental Decrease	$0.000000	$0.00	0.00%	0.00%
Distribution Cost Recovery Factor (DCRF) 2018 (TCJA) Incremental Increase	$0.000000	$0.00	0.00%	0.00%
Distribution Cost Recovery Factor (DCRF) 2018 (TCJA Deferral)) Incremental Decrease	$0.000000	$0.00	0.00%	0.00%
Unprotected Excess Deferred Income Taxes (UEDIT)				

Total Base Related Charges (Customer, Metering, Trans And Distr Only)		$42.19	
Total Bond Related Charges (TC, SRC, ADFITC)		$5.99	
Total RCE Charges and UEDIT Refund		($0.51)	
Total Other Charges (AMS, EECRF, TCRF, SBF, NDC, DCRF)		$0.67	% of Total Bill
Total CEHE Charges	$0 048340	$48.34	38 64%
Average Annual Rate - December 2018 REP Bill Comparison	$0.1251	$125.10	

Fields, Brian L

From: Schmitt, Owen <OSchmitt@eei.org>
Sent: Monday, March 04, 2019 1:16 PM
To: Fields, Brian L
Subject: [External Email] RE: EEI Emergency Response Awards for CenterPoint Energy

Follow Up Flag: Follow up
Flag Status: Flagged

EXTERNAL EMAIL

Mr. Fields,

The Emergency Response Awards are provided in two categories: **Recovery**, for companies directly impacted by events; and **Assistance**, for companies that come to the aid of another company. Since the first awards were provided in 1998, CenterPoint Energy has received the following 12 awards:

RECOVERY

CenterPoint Energy	Sealy Microburst	May 2017
CenterPoint Energy	Hurricane Harvey	September 2017
CenterPoint Energy	Thunderstorm & Flooding	April 2016
CenterPoint Energy	Hurricane Ike	September 2008
CenterPoint Energy	Hurricane Rita	September 2005

ASSISTANCE

CenterPoint Energy	Hurricane Michael	October 2018
CenterPoint Energy	Puerto Rico Assistance	2018
CenterPoint Energy	Hurricane Irma	2018
CenterPoint Energy	Derecho and Hurricane Sandy	2012
CenterPoint Energy	Ice Storm & Hurricanes Dolly & Gustav	2008
CenterPoint Energy	Four storms	2007
CenterPoint Energy	Hurricanes Dennis, Katrina, Rita, and Wilma	2005

Sincerely,

Owen Schmitt
Edison Electric Institute | Member Relations
701 Pennsylvania Avenue, N.W.| Washington, D.C. 20004-2696
202-508-5180 | www.eei.org

Wednesday, March 6, 2019

Texas Diversity Magazine

Texas Diversity Magazine

THESE ARE THE TOP 25 COMPANIES FOR DIVERSITY IN TEXAS

By
Marisa Richard
-

Collage of portraits of an ethnically diverse and mixed age group of focused business professionals

Every year, for their most exclusive list to-date, the National Diversity Council releases the Top 25 Fortune 1000 Companies for Diversity in Texas. Once again, The National Diversity Council is proud to announce the 2018 Top 25 Companies for Diversity in Texas based on gender and minority representation in executive leadership and boards of directors. These organizations will be recognized on April 11, 2018 at the 14th Annual Texas Diversity and Leadership Conference.

"I would like to commend the organizations who have made this distinguished list," said Dennis Kennedy, Founder and Chair of the National Diversity Council. "Although the highlighted companies have made some progress in their inclusion efforts, our hope is that this report will motivate them to continue progressing in a positive direction."

Each of the 25 companies has been analyzed and compared against Texas demographics in the recently released report "Workforce Diversity and Corporate Governance: A Quantitative Analysis of Diversity and Inclusion in Texas Fortune 1000 Companies". The National Diversity Council utilized various resources such as census reports, corporate websites, internal contacts, and external diversity associations to gather and report accurate information. To see the full report, please visit our Corporate Diversity Research site.

Companies to be recognized include Dynegy, American Airlines, Dr. Pepper Snapple and J.C. Penney, to name a few, who after extensive research measured by racial and ethnic diversity, gender diversity, diversity in board membership and executive leadership, and corporate governance diversity of 101 Texas Fortune 1000 companies were hand selected.

The Texas Diversity and Leadership conference is a three-day event that will give organizations the opportunity to explore the tools and resources necessary to build diverse workforces and remain competitive on the global stage. Attendees will have the opportunity to participate in informational sessions covering topics such as "Unconscious Bias," "The Impact of Multiculturalism on the Healthcare Industry," and "Countering Islamophobia." This year's keynote speakers are Actress and Philanthropist, Angela Bassett, Princeton University Professor Emeritus, Dr. Cornel West, Florida's 43 Governor, Jeb Bush and Former U.S. Department of Housing and Urban Development Secretary, Julián Castro.

Registration for the Texas Diversity & Leadership Conference is currently ongoing and can be completed at texasdiversityconference.com. For more

information, please contact Dennis Kennedy at dennis.kennedy@nationaldiversitycouncil.org.

See who made the cut. For the full list of the Top 25 Companies, see below.

1. J.C. Penney
2. Kimberly-Clark
3. Neiman Marcus
4. Texas Instruments
5. Center Point Energy
6. Commercial Metals
7. Dynegy
8. Conoco Phillips
9. United Services Automobile Association
10. Cinemark Holdings
11. Marathon Oil
12. Pepper Snapple
13. KBR
14. AT&T
15. Oxy
16. Michaels Stores
17. American Airlines
18. Phillips 66
19. Westlake Chemical
20. NuStar
21. Comerica Incorporated
22. Valero Energy
23. Brinker International
24. Enbridge
25. Waste Management

2018 10k

	Overhead	Underground	Total
Transmission lines - 69 kV	266	2	
Transmission lines - 138 kV	2,207	24	
Transmission lines - 345 kV	1,336	-	
Total transmission lines	3,809	26	3,835
Distribution lines	29,094	25,255	54,349

2009 10k

	Overhead	Underground	Total
Transmission lines - 69 kV	423	2	
Transmission lines - 138 kV	2,090	24	
Transmission lines - 345 kV	1,216	-	
Total transmission lines	3,729	26	3,755
Distribution lines	27,726	20,080	47,806

2018 less 2009

	2018 less 2009		Total
	Overhead	Underground	2018 less 2009
Trans lines	80	-	80
Dist lines	1,368	5,175	6,543

Number of Metered Customers
(End of Period)

	2009	2018	2018 less 2009
Residential	1,849,019	2,198,225	349,206
Total	2,094,210	2,485,370	391,160
Calc Non-Res	245,191	287,145	41,954

Source: 10K

	$ millions
2010	463
2011	538
2012	599
2013	759
2014	818
2015	934
2016	858
2017	924
2018	952
CEHE CapEx 10k	6,845

Year	Annual Total System Net Load (MWH)	Annual Distribution System Net Load (MWH)	Annual Transmission System Net Load (MWH)
2009	79,612,886	62,163,260	17,449,626
2010	81,136,196	63,668,456	17,467,740
2011	84,346,790	66,674,330	17,672,460
2012	82,713,525	64,868,152	17,845,373
2013	84,437,122	65,231,800	19,205,322
2014	86,152,406	65,840,988	20,311,418
2015	88,225,204	67,547,642	20,677,562
2016	91,321,626	68,214,763	23,106,863
2017	93,017,644	68,586,326	24,431,318
2018	94,736,491	70,202,197	24,534,294
CAGR	2.0%	1.4%	3.9%

Port Houston

STATISTICS

Houston is a vibrant, growing, international city fueled by trade, which certainly shows in the port's trade statistics. Use this page to learn more about the port and its global connections. In-depth statistics are available near the bottom of this page.

2017 Statistical Highlights for the greater Port of Houston complex

- *1st ranked U.S. port in foreign waterborne tonnage – 173 million short tons*
- *2nd ranked U.S. port in total foreign and domestic waterborne tonnage – 260 million short tons*
- *3rd ranked U.S. port in terms of total foreign cargo value*

2018 Statistical Highlights for the greater Port of Houston complex

- *6th ranked U.S. container port by total TEUs*
- *Largest Gulf Coast container port, handling 69% of U.S. Gulf Coast container traffic*
- *Largest Texas port with 45% of market share by tonnage and 96% market share in containers*

Sources: USACE Navigation Data Center (facts 1,2), U.S. Dept. of Commerce Bureau of Census, Customs Data from Census Bureau (fact 3), Journal of Commerce PIERS (facts 4 and 5), American Association of Port Authorities (fact 6).

TMC Facts Figures

Texas Medical Center (TMC)—the largest medical complex in the world—is at the forefront of advancing life sciences. Home to the brightest minds in medicine, TMC nurtures cross-institutional collaboration, creativity, and innovation because together, we can push the limits of what's possible.

10 million
PATIENT VISITS PER YEAR

180,000+
ANNUAL SURGERIES
TMC begins a surgery every 3 minutes

750,000
ER VISITS PER YEAR

Home to the
WORLD'S LARGEST CHILDREN'S HOSPITAL
TEXAS CHILDREN'S HOSPITAL

&

Home to the
WORLD'S LARGEST CANCER HOSPITAL
MD ANDERSON CANCER CENTER

Houston's Medical Center, TMC is the
8th largest
BUSINESS DISTRICT IN THE U.S.

TMC offers over
9,200
TOTAL PATIENT BEDS

TMC's campus spans
50 million
DEVELOPED SQUARE FEET

OVER 25,000 BABIES DELIVERED PER YEAR
TMC delivers a baby every 20 minutes, resulting in approximately 26,280 births per calendar year.

13,600+
TOTAL HEART SURGERIES

$3 billion
IN CONSTRUCTION PROJECTS UNDERWAY

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

DIRECT TESTIMONY

OF

RANDAL M. PRYOR

ON BEHALF OF

CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

April 2019

TABLE OF CONTENTS

LIST OF EXHIBITS

GLOSSARY OF ACRONYMS AND DEFINED TERMS

1.	ADMS	Advanced Distribution Management System
2.	CAIDI	Customer Average Interruption Duration Index: the average length of an outage.
3.	FSR	Field Service Representative
4.	kV	Kilo-volts
5.	KVA	Kilovolt-amperes: total power.
6.	kwh	Kilowatt-hour
7.	PF	Power factor: ratio of real power (kW or kilowatts) to total power (KVA or kilovolt-amperes) or PF = KW / KVA
8.	SAIDI	System Average Interruption Duration Index: average number of outage minutes per customer per year.
9.	SAIFI	System Average Interruption Frequency Index: average number of times that a customer's service is interrupted.
10.	URD	Underground Residential Distribution

EXECUTIVE SUMMARY OF RANDAL M. PRYOR

CenterPoint Energy Houston Electric, LLC's ("CenterPoint Houston" or the "Company") Distribution Operations Division is responsible for the daily operation of the Company's distribution grid.

My testimony:

- supports the reasonableness and necessity of Distribution Capital Costs from 2010 through 2018 in the amount of approximately $2.3 billion, of which approximately $1.1 billion was attributable to customer growth;
- describes the Distribution Operations division, the major programs and initiatives that drive distribution investment and expense;
- describes the system growth the Company's distribution system has experienced since its last rate case, Docket No. 38339;
- supports the reasonableness and necessity of Operations and Maintenance ("O&M") expenses incurred in support of the distribution function during the 2018 test year in the amount of $206.7 million; and
- describes a number of the processes used to plan, monitor, and control investments and expenditures.

Together with the cost of service data and testimony of the Company's other witnesses, my testimony demonstrates that the capital expenditures and test year O&M expenses for the distribution function are reasonable, necessary, and representative of the costs to provide service to customers of CenterPoint Houston and thus, should be included in the Company's cost of service.

DIRECT TESTIMONY OF RANDAL M. PRYOR

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND POSITION.

A. My name is Randal M. Pryor and I am employed by CenterPoint Energy Houston Electric, LLC ("CenterPoint Houston" or the "Company") as Vice President of Distribution Operations.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I graduated from Texas A&M University in 1990 with a Bachelor of Science degree in Agricultural Economics. I began my career with Houston Lighting & Power, a CenterPoint Energy, Inc. ("CNP") predecessor company, in June of 1991. Since that time, I have been employed by CNP or one of its affiliates. My positions within the Company have included Financial Analyst, Supervisor/Manager/Director of Financial Planning, Service Area Director, Operations Director, and my previous position within CenterPoint Energy Resources Corp. as Division Vice President Regional Operations for Texas. I was named to my present position in December 2018, at which time I assumed responsibility for all electric distribution operations in the state of Texas.

Q. WHAT ARE YOUR CURRENT RESPONSIBILITIES?

A. As Vice President of Distribution Operations, my responsibilities include overseeing electric distribution operations for the entire greater Houston area, which covers approximately 5,000 square miles and delivers electricity to approximately 2.5 million meters.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of CenterPoint Houston.

Q. HAVE YOU TESTIFIED PREVIOUSLY?

A. Yes. I have filed testimony with the Railroad Commission of Texas in Gas Utilities Docket Nos. 10432, 10567 and 10669.

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

A. The electric organization consists of four divisions, the Distribution Operations division, the Power Delivery Solutions division, the Engineering & Asset Optimization division, and the High Voltage Operations division. The purpose of my testimony is to support the $206.7 million in Operations and Maintenance ("O&M") expense associated with activities performed by the Distribution Operations division.

My testimony identifies the functions of the Distribution Operations and describes how the division is structured and staffed to accomplish the goal of providing a reliable power delivery system at a reasonable cost. My testimony demonstrates that the O&M costs associated with the Distribution Operations division are effectively and carefully managed and maintained through business planning, budget plan review, and ongoing budget plan monitoring. I also support the prudence of distribution capital investment in the amount of $2,344.5 million through December 31, 2018. This capital investment is used and useful in the provision of electric utility service and was prudently incurred. As a result, I conclude that these costs are reasonable and necessary and should be recovered in the Company's rates.

Q. HAVE YOU INCLUDED ANY EXHIBITS WITH YOUR TESTIMONY?

A. Yes. I have prepared or supervised the preparation of the exhibits listed in the table of contents.

Q. PLEASE DESCRIBE THE INTERACTION OF YOUR TESTIMONY WITH OTHER WITNESSES IN THIS CASE.

A. My testimony sponsors the total capital investment that has been made in the Company's distribution system since January 1, 2010, and describes the operation, system maintenance, trouble response and meter maintenance of the distribution delivery system. Company witness Dale Bodden is responsible for the Engineering and Asset Optimization division and her testimony describes the engineering, planning, design and capital budgeting process for the distribution and transmission system. Company witness Julienne P. Sugarek is responsible for the Power Delivery Solutions division and her testimony describes the customer interface, customer support and power quality solutions that directly impact our customers. My testimony and that of Ms. Bodden and Ms. Sugarek explain the reliability and maintenance programs for which we are each responsible.

Company witness Martin W. Narendorf Jr. is responsible for the High Voltage Operations division and his testimony describes the transmission system and how it provides energy to the distribution delivery system. Mr. Narendorf supports the total capital spent for transmission, substation and major underground work required to provide service to the distribution system. Mr. Narendorf similarly supports the overall maintenance and operation of these activities and the associated expenditures. I support the reasonableness and necessity of the O&M

costs associated with the Distribution Operations division that are attributed to the distribution and transmission functions.

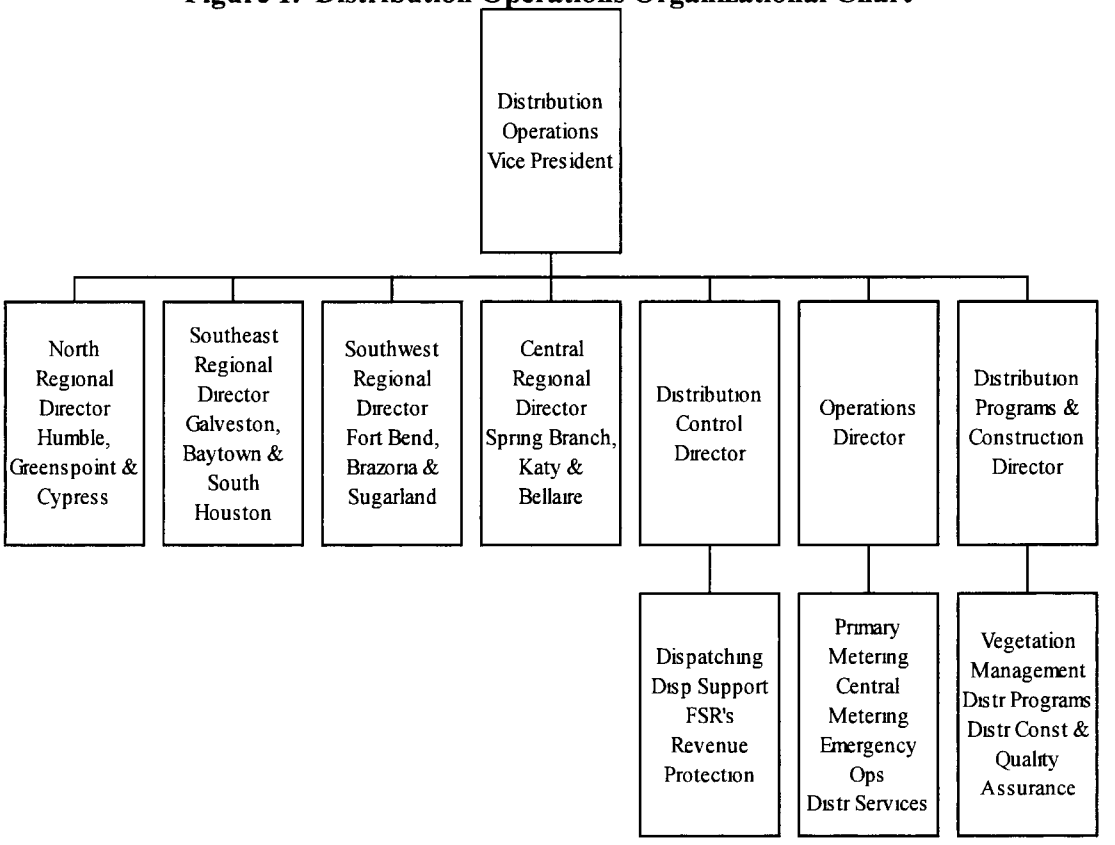
Company witness Michelle M. Townsend discusses allocated costs associated with the regulated support organizations and CenterPoint Energy Service Company, LLC. Company witness Kristie L. Colvin provides testimony on the Company's overall planning and budgeting process and cost of service adjustments.

II. DESCRIPTION OF THE DISTRIBUTION OPERATIONS DIVISION

Q. HOW IS DISTRIBUTION OPERATIONS ORGANIZED?

A. In 2018, Distribution Operations included 12 service centers that were managed by four Regional Directors. The division also included the Distribution Control Department, the Operations Department, and the Distribution Programs & Construction Department. See Figure 1 for the organizational chart for Distribution Operations.

Figure 1. Distribution Operations Organizational Chart



III. DISTRIBUTION OPERATIONS SINCE DOCKET NO. 38339

Q. HAVE THERE BEEN ANY CHANGES IN THE COMPANY'S DAY-TO-DAY DISTRIBUTION OPERATIONS SINCE THE PUBLIC UTILITY COMMISSION OF TEXAS ("COMMISSION") LAST CONDUCTED A COMPREHENSIVE BASE RATE REVIEW FOR CENTERPOINT HOUSTON?

A. Yes. The test year in Docket No. 38339 ended December 31, 2009. Since that time, CenterPoint Houston has remained committed to delivering safe and reliable electric delivery service to its customers—this commitment never has and never will change. However, two factors—customer growth and technology advancements—are changing the way the Company operates on a day-to-day basis.

Q. WHAT CUSTOMER GROWTH HAS THE COMPANY SEEN SINCE DOCKET NO. 38339?

A. When the growth of the Houston metro area is considered for just the past seven years, it ranks No. 4 in the nation.[1] As shown on Exhibit RMP-1, CenterPoint Houston serves much of this fast-growing area. The population in and around Houston grew from approximately 5.9 million in 2010 to nearly 6.9 million in 2017, an increase of more than 16 percent. Among the Houston area's 10 counties, two—Harris and Fort Bend— ranked among the top 15 nationwide for largest population gains in 2017.[2] As a result, the Company has experienced the addition of 359,525 new residential customers and 41,991 new commercial customers from January 1, 2010 through December 31, 2018.

From an infrastructure perspective, over the past four years, overhead distribution pole miles (feeder-main and laterals) have increased an average of 171 miles per year, while Underground Residential Distribution ("URD") circuit miles have increased an average of 257 miles per year. As Ms. Bodden's direct testimony also notes, necessary infrastructure to support economic growth within the City of Houston and surrounding areas has resulted in the need to build or install approximately 221 new substation feeder positions to accommodate new distribution feeders, 55 new substation transformers, size upgrades for 12 substation transformers, and 6 new distribution substations.

[1] Source: https://www.bizjournals.com/houston/news/2018/03/23/houstons-population-keeps-popping-but-growth-is.html.
[2] *Id.*

Q. CAN YOU PROVIDE SOME EXAMPLES OF THE AREAS WITHIN CENTERPOINT HOUSTON'S SERVICE TERRITORY THAT HAVE REQUIRED INVESTMENT DUE TO GROWTH?

A. Yes. Residential and commercial growth areas in the last eight years include: 1) the Bridgelands, Towne Lakes, Exxon, Creekside, Summerwood/Balmoral, and Generation Park in the North Region; 2) Ameriport, Windfree Developments, Kilgore Parkway, Joseph's Cove, Methodist Hospital Baytown, Trinity Oaks, San Jacinto Mall, LBC Magellan, Port of Houston, Liberty Port Crossing, Avera, Parkway Trails, Cedar Park Industrial Park, Canterbury Park, Massey Lakes Estates, Pearland ISD and Bayport in the Southeast Region; 3) Twinwood, Cinco Ranch, Cross Creek Ranch, Jordan Ranch, The Boardwalk, Skybox Data Center, Brazos Town Center, Circle Oak, Walnut Creek, Stone Creek Estates, and Sunrise Meadows, in the Southwest Region; and 4) Regent Square, Market Square, Caydon, Camden Toyota Center, Hines Development, Texas Children's Pediatric Center, TMC3, and Houston Methodist Hospital in the Central Region.

Q. HAS THE COMPANY'S GROWTH BEEN LIMITED TO AREAS OF CONCENTRATED INFRASTRUCTURE?

A. No. CenterPoint Houston has experienced growth in both the well-developed areas of its service territory and in areas where infrastructure is less concentrated. The numerous subdivisions referenced above attest to this fact. This, in turn, has required the Company to expand the breadth of its distribution system and distribution operations to serve new developments.

Q. DOES THE COMPANY EXPECT CUSTOMER GROWTH TO CONTINUE?

A. Yes. The Company is working on or anticipating the following new developments: Briarwood Crossing, Seabourne Landing, Kingdom Heights, Harvest Green, Costello Development, Sendero, Grand Vista Lakes, Taylor Morrison Development (Hines Nursery), Polo Ranch, Fulshear Farms, Vanbrooke, Freeman Ranch, Cane Island, City Gate, The Village At Katy, The Mix At Midtown, Boulevard Oaks Business Park, Sears Building Redevelopment, The Montrose At Buffalo Bayou, Equinox Hotel – River Oaks, Driscoll At River Oaks, Modern Green Ivy District, Blossom Hotel, Sage Property (downtown USPS site), Hanover River Oaks, Buffalo Point Townhomes, Regalia At The Park, Kirby Landing, TMC3, M.D. Anderson East Campus, Bridgeland (West side of State Highway 99), Daikin/Goodman facility expansion, AF Global in Waller, Generation Park (Eastside of Beltway 8), Republic Heat, P66 Red Oak Pipeline, Coca Cola Head Quarters and Bush Airport expansion.

Q. HOW HAVE THE COMPANY'S DAY-TO-DAY DISTRIBUTION OPERATIONS BEEN IMPACTED BY TECHNOLOGICAL CHANGES SINCE DOCKET NO. 38339?

A. As Company witness Shachella D. James explains in her direct testimony, the Company is investing in technology that is strategically engineered to support the increased safety, satisfaction, and security of our customers, employees, regulators, and the general public. Through major technology advancements, including deployment of approximately 2.5 million smart meters, intelligent grid technology, mobile customer and employee digital services, data analytics, and more

sophisticated cybersecurity capabilities, the Company is now operating as a 21st Century digital business.

Q. DOES THE COMPANY ANTICIPATE THAT TECHNOLOGICAL ADVANCEMENTS WILL CONTINUE TO AFFECT ITS DAY-TO-DAY OPERATIONS?

A. Yes. As Ms. James' direct testimony details, the Company continues to invest in technology upgrades or conversions required to maintain support or ensure data and cybersecurity maintenance, improve customer accessibility and functionality, and increase overall business resiliency. As technology advances continue globally, CenterPoint Houston must also move forward in its use of technology, while continuing to protect data that it must maintain for the benefit of customers.

IV. DISTRIBUTION OPERATIONS O&M EXPENDITURES

Q. WHAT O&M AMOUNT WAS NECESSARY FOR THE DISTRIBUTION OPERATIONS DIVISION DURING THE TEST YEAR?

A. Distribution Operations incurred $206.7 million in O&M during the test year. Figure 2 shows the test year expense by department for the Service Centers, Distribution Control, Operations, Distribution Programs & Construction, and Administration and General.

Figure 2. Test-Year O&M Expense by Department for Distribution Operations

Distribution Operations O&M by Department	Test Year Expense In Millions
Service Centers	$134.6
Distr Programs & Construction	$53.2
Operations	$7.9
Distribution Control	$6.1
Administrative and General	$4.9
Total	**$206.7**

Q. PLEASE DESCRIBE THE ACTIVITIES PERFORMED BY THE SERVICE CENTERS AND THE ASSOCIATED O&M COSTS.

A. For the test year, Service Center O&M-related costs were $134.6 million. This department has four Regional Directors and 12 service centers that are responsible for the day-to-day operations of the overhead distribution delivery system and associated URD, including construction, operation and maintenance. Service Center field personnel complete customer service orders ("CSOs") involving residential and commercial customers, such as disconnect and reconnect, maintenance on the meter and new installations, or change orders when a customer rewires his service. CSOs generally involve single phase meters greater than 200 amps and three phase meters. Distribution Operations personnel executed approximately 275,621 CSOs in 2018, including connections (cut-ins), disconnections (cut-outs), and meter investigations. Field personnel also perform service restoration in the event of outages, new construction and maintenance.

The majority of these O&M expenditures are essential non-discretionary activities since they involve distribution maintenance, distribution restoration and

new distribution service. Distribution maintenance includes repairs for pole top switches, regulators, reclosers, capacitors, security and guard lights, URD loops and transformers, and field corrective maintenance which is follow-up maintenance after trouble.

Distribution Operations personnel responded to approximately 87,396 outage cases in 2018. Outage events include circuit outages, line fuse outages, transformer outages and individual customer outages. Inclement weather, equipment failure, and foreign objects (trees, vehicles, wildlife, etc.) coming into contact with distribution facilities typically cause these power interruptions. Most of the repairs that are required are minor in nature, such as re-fusing line sections and replacing equipment (transformers, poles and crossarms). These expenditures do not include costs for restoration during major storm events, such as Hurricane Harvey.

Q. PLEASE DESCRIBE THE ACTIVITIES DISTRIBUTION PROGRAMS AND CONSTRUCTION AND THE ASSOCIATED O&M COSTS.

A. For the test year, Distribution Programs and Construction O&M-related costs were $53.2 million. This department is responsible for distribution and transmission vegetation management, substation and transmission right-of-way mowing, distribution programs, including pole maintenance and URD cable assessment, distribution construction, and quality assurance. The Pole Maintenance Program, the Cable Assessment Program and the Vegetation Management Program are discussed in detail later in the testimony.

Q. PLEASE DESCRIBE THE ACTIVITIES PERFORMED BY OPERATIONS AND THE ASSOCIATED O&M COSTS.

A. For the test year, Operations O&M-related costs were $7.9 million. This department is responsible for Primary Metering, Central Metering, Emergency Operations, and Distribution Support Services. Primary Metering handles distribution customers that take service at 12 kV or 35 kV. Central Metering is responsible for installing, maintaining, removing and repairing metering equipment, including transformer-rated metering services, and for procuring, testing, and calibrating meters, as well as the central meter shop that supports this effort. Central Metering is also responsible for the high voltage metering employees that perform these same tasks for transmission customers, the Electric Reliability Council of Texas, and inter-tie locations. Emergency Operations provides support for the Company's Emergency Operations Plan ("EOP"). Distribution Support Services is responsible for providing data analytics and business intelligence for the Distribution Operations Division.

Q. PLEASE DESCRIBE THE ACTIVITIES PERFORMED BY DISTRIBUTION CONTROL AND THE ASSOCIATED O&M COSTS.

A. For the test year, Distribution Control O&M-related costs were $6.1 million. The Distribution Control Department is responsible for the daily operation of the distribution grid, which includes proactive and reactive switching, remote control and monitoring of all distribution level switching devices, as well as trouble dispatching and daily system load monitoring. Distribution Control also dispatches trouble orders for outage restoration and CSOs to facilitate customer-related work.

The department is also responsible for dispatching support, Field Service

Representatives ("FSRs"), and revenue protection. Dispatching support is responsible for all testing, training, and rollout assistance with the Advanced Distribution Management System ("ADMS") and Service Suite (mobile data application for dispatching purposes), direct support for training, reporting and issue resolving for the dispatchers, tracking and reporting on distribution development plan construction work, performing quality assurance on all outage events to make sure the duration and customer count is correct, and providing specialized reporting from the ADMS system.

The FSR group is responsible for dispatching FSRs to handle field service orders involving residential and small commercial customers for single phase 120/240 volt 3 wire meters up to the 200 amp rating. They also remove and install lockbands at the request of electricians and customers to facilitate customer work behind the meter. The FSR group investigates meter tampering alerts that come from the AMS Analytics programs and help gather evidence to support a meter tampering case. Revenue protection is responsible for identifying, investigating and collecting lost revenue resulting from the theft of services and irregular meter conditions.

Q. WHAT O&M COSTS ARE ASSOCIATED WITH THE ADMINISTRATIVE AND GENERAL CATEGORY FOR DISTRIBUTION OPERATIONS?

A. For the test year, distribution administrative and general O&M costs were $4.9 million. These expenses include managerial labor, administrative support and miscellaneous general expenses for the Distribution Operations Division.

Q. ARE ALL OF THESE O&M EXPENDITURES REASONABLE AND NECESSARY?

A. Yes. The test year O&M expenses for Distribution Operations were related to necessary functions that directly impacted the reliability and operation of the distribution system to serve both existing and new customers.

V. DISTRIBUTION SYSTEM CAPITAL ADDITIONS

Q. WHAT CAPITAL INVESTMENT IN DISTRIBUTION PLANT ADDITIONS DOES CENTERPOINT HOUSTON SEEK TO INCLUDE IN RATE BASE IN THIS PROCEEDING?

A. The Company spent $2,344.7 million for distribution plant additions between January 1, 2010 and December 31, 2018. These capital investments were reasonable and necessary to satisfy service area growth, reliability improvements, service restoration, and operations & support activities.

Q. WHY WERE DISTRIBUTION CAPITAL INVESTMENTS NECESSARY?

A. The major factors necessitating the distribution capital investments are service area load growth, the associated improvements that are necessary for reliable service, service restoration replacement costs for damaged distribution facilities, and the investments that are required for fleet, office facilities and equipment that occur as our system grows and ages.

Q. IS ALL OF THE DISTRIBUTION SYSTEM CAPITAL INVESTMENT THAT THE COMPANY SEEKS TO RECOVER IN RATES USED AND USEFUL IN THE PROVISION OF ELECTRIC SERVICE AND WAS THIS INVESTMENT PRUDENTLY INCURRED?

A. Yes. The $2,344.7 million for distribution plant additions that the Company made between January 1, 2010 and December 31, 2018 were prudently incurred and are used and useful in the operation of the distribution system that serves both existing and new customers.

A. Categories of Distribution Capital Investment

Q. WHAT ARE THE CATEGORIES FOR CAPITAL INVESTMENTS FOR THIS RATE FILING?

A. The costs for capital investments from January 1, 2010 through December 31, 2018 are in the following categories: customer growth, including relocations for public improvements; reliability improvements; service restoration investments; and operations & support investments associated with the replacement of deteriorated equipment and facilities. These costs are identified in Figure 3, Capital Investment by Category.

Figure 3. Distribution Capital Investment by Category

Capital Investment by Category	Amount In Millions
Customer Growth (including relocations)	$ 1,095.1
Reliability Improvement	$ 865.9
Service Restoration Investments	$ 392.4
Operations and Support Investments	$ (8.7)
Total	$ 2,344.7

1. Customer Growth Investments

Q. WHAT ARE THE CAPITAL INVESTMENTS FOR CUSTOMER GROWTH FROM JANUARY 1, 2010 THROUGH DECEMBER 31, 2018?

A. As shown in Figure 4, the capital investment for customer growth generally falls into the categories of distribution development, relocations, and new service.

Figure 4. Customer Growth Expenditures

Customer Growth Investments			Amount In Millions
Distribution Development			$ 288.5
Relocations (Public Improvement)			$ 23.6
New Service			$ 783.0
Overhead Installations	$	273.8	
Underground Installations	$	270.7	
Meters and Drops	$	145.8	
Street Lighting	$	97.0	
(Over)/Under Recovery Construction Overhead	$	(4.3)	
Total			$ 1,095.1

Q. WHAT CAPITAL INVESTMENTS ARE REQUIRED TO ADD NEW DISTRIBUTION INFRASTRUCTURE TO SUPPORT DISTRIBUTION DEVELOPMENT AND ACCOMMODATE CUSTOMER GROWTH?

A. Area development projects resulting from the distribution planning process account for $288.5 million in capital expenditures since January 1, 2010. These projects include new overhead and underground distribution circuits, line extensions, the reconfiguration of existing circuits to shift load, and the installation and modification of capacitors to manage load. The capital additions typically occur slightly in advance of population and business growth, so that the electrical infrastructure will be in place to serve the demand. The Greater Houston area has experienced continued residential and commercial growth. Also, redevelopment of

these areas is frequently denser than the original development, which requires an upgrade to the electrical infrastructure.

Q. WHAT FACTORS DRIVE THE NEED FOR INVESTMENT RELATED TO RELOCATIONS?

A. Growth and changes in population often result in public improvement projects such as road expansions, new roadways, right-of-way changes and changes in land use, which, in turn, require relocations and other changes to the existing distribution infrastructure. In total, CenterPoint Houston spent $23.6 million to relocate overhead facilities and street lights to accommodate major road, highway, and freeway construction during the period from January 1, 2010 to December 31, 2018.

Q. CAN YOU PROVIDE EXAMPLES OF RELOCATION ACTIVITY NECESSARY TO ACCOMMODATE CUSTOMER GROWTH SINCE DOCKET NO. 38339?

A. Examples of facility relocations that have taken place since the Company's last rate case include: US 290 (segment F & G), Westpark Tollway (Phase 1 & II), FM 2234, FM 521, FM 762, Rayford Rd, FM 1774, Grant Rd, Tomball Tollway Phase II, Treschwig Rd, and Telge Rd.

Q. WHY ARE INVESTMENTS FOR OVERHEAD AND UNDERGROUND SERVICE INSTALLATIONS, METERS AND DROPS AND STREET LIGHTING NECESSARY?

A. Continued home building and the construction of associated services that follow new residential construction, such as new retail and restaurant facilities, schools, churches, and businesses, has necessitated new overhead service installations and URD installations, as well as new meters and drops and street lighting. In addition,

there has been office and warehouse development in the Company's service area resulting in new services.

2. Reliability Improvements

Q. WHAT CAPITAL RELIABILITY IMPROVEMENTS WERE NECESSARY DURING THE PERIOD JANUARY 1, 2010 THROUGH DECEMBER 31, 2018?

A. As shown in Figure 5, the Company incurred necessary reliability improvements for poles, capacitors, overhead service rehabilitation, URD replacement, street lighting, grid hardening and intelligent grid switching devices ("IGSD").

Figure 5. Capital Reliability Improvements

Capital Reliability Improvements	Amount In Millions
Overhead Service Rehabilitation	$ 244.9
Pole	$ 238.4
URD Replacement	$ 220.7
Street Lighting	$ 108.7
Capacitors	$ 45.8
IGSD Installations	$ 7.3
Total	$ 865.9

Q. WHY WERE INVESTMENTS IN POLES, CAPACITORS, OVERHEAD SERVICE REHABILITATION, URD REPLACEMENT, STREET LIGHTING, GRID HARDENING AND IGSD'S NECESSARY?

A. Reliability-related capital costs are primarily caused by the aging of the Company's overhead distribution system and the programs needed to meet the reliability standards required by the Public Utility Regulatory Act and the Commission's Substantive Rules. For instance, the Company inspected approximately 148,500 poles in 2018. As a result of its pole maintenance program, as well as pole

replacements by service centers on an as-needed basis, the Company replaced or braced approximately 9,000 wooden poles in 2018 alone. In addition, approximately 1,300 URD cables were replaced to maintain service. Capacitors were replaced as needed to support an adequate power factor. Street lights were replaced as necessary to maintain lighting requirements. IGSDs are installed to enhance the switching capability of the distribution system and thus improve reliability.

Q. DOES CENTERPOINT HOUSTON HAVE CAPITAL IMPROVEMENT PROGRAMS THAT ARE DESIGNED TO MAINTAIN OR IMPROVE RELIABILITY?

A. Yes. Programs to improve reliability often result in a capital improvement. These programs include the Company's pole maintenance program, its URD Cable Life Extension Program, the feeder inspection program, the power factor program, the infra-red program, the root cause analysis program, the hot fuse program and the distribution automation program. Ms. Bodden's testimony addresses the power factor program, while Ms. Sugarek addresses the infra-red program, the root cause analysis program, the hot fuse program and the distribution automation program.

Q. WHY IS INVESTMENT IN URD REPLACEMENT NECESSARY?

A. Similar to overhead service rehabilitation, underground rehabilitation costs are primarily caused by the aging of the underground distribution system. CenterPoint Houston's facilities installed during the economic boom of the late 1970s and early 1980s are aging, especially in residential areas served by underground URD facilities. As underground cable approaches and exceeds 30 years of age, it is more

likely to fail. When a URD failure occurs, it typically requires the replacement of one span of cable that is isolated between transformers.

3. Service Restoration Investments

Q. WHAT CAPITAL INVESTMENT WAS NECESSARY FOR SERVICE RESTORATION DURING THE PERIOD JANUARY 1, 2010 THROUGH DECEMBER 31, 2018?

A. As shown in Figure 6, capital expenditures for service restoration have been made for URD, overhead, weather related, major underground, and street lighting.

Figure 6. Capital Service Restoration Investments

Capital Service Restoration Investments	Amount In Millions
Overhead	$ 143.7
URD	$ 97.2
Weather Related	$ 80.7
Street Lighting	$ 70.7
Total	$ 392.3

Q. WHY WERE INVESTMENTS IN URD, OVERHEAD, WEATHER-RELATED, AND STREET LIGHT SERVICE RESTORATION NECESSARY?

A. Service Restoration costs are non-discretionary in nature and are the result of equipment damage or failure caused by events beyond the Company's control, such as poles being damaged due to vehicle accidents, third-party cable cuts, and inclement weather. Street light restoration costs are also non-discretionary in nature and are mainly the result of equipment damage to streetlight systems due to severe storms or poles being damaged due to vehicle accidents.

4. Operations and Support Investments

Q. WHAT CAPITAL INVESTMENT WAS INCURRED FOR OPERATIONS AND SUPPORT DURING THE JANUARY 1, 2010 THROUGH DECEMBER 31, 2018 PERIOD?

A. Capital investment for operations and support related to miscellaneous expenses, shop service, vessel moves, and other total to ($8.7 million) during the period.

Q. WERE INVESTMENTS IN MISCELLANEOUS EXPENSES, SHOP SERVICE, VESSEL MOVES AND OTHER OPERATIONS AND SUPPORT INVESTMENTS REASONABLE AND NECESSARY?

A. Yes. Capital operations and support investments include miscellaneous capital expenses for the purchase of distribution computer hardware, premise equipment, tools, and test equipment, the cost of distribution materials and services as provided by the Shops Department, the capital cost of vessel moves, which entails raising distribution lines to accommodate the moving of very large vessels down city streets, and other capital investments such as capital tools, climbing kits and salvage. Scrap sales and transformer sales resulted in a negative value for operations and support investments.

B. Capital Project Classification and Allocation

Q. WHAT POLICIES OR GUIDELINES DETERMINE THE MANNER IN WHICH SPECIFIC PROJECTS ARE CAPITALIZED ON THE COMPANY'S BOOKS AND RECORDS?

A. The three primary policies that determine how project costs are to be either capitalized or expensed include: various Federal Energy Regulatory Commission ("FERC") guidelines relating to capitalization and expenses; CNP's Capitalization

Policy (which was developed consistent with the FERC guidelines); and CNP's Capitalization of Computer Software Policy (also developed consistent with FERC guidelines). The Company's Capitalization Policy and Capitalization of Computer Software Policy are attached to Ms. Colvin's testimony as Exhibit KLC-11 (Capitalization Policy). The various FERC guidelines are voluminous, but are generally publicly available at https://www.ferc.gov/enforcement/acct-matts.asp.

Q. HAS THE COMPANY CONSISTENTLY FOLLOWED THESE POLICIES IN PREVIOUS RATE PROCEEDINGS?

A. Yes. CenterPoint Houston consistently applied these policies in its prior rate case in Docket No. 38339 as well as its prior Distribution Cost Recovery Factor and Transmission Cost of Service adjustment filings.

Q. HOW DOES THE COMPANY ENSURE THAT THE CAPITALIZATION POLICIES ARE FOLLOWED AND THAT ITS BOOKS AND RECORDS ARE ACCURATE AND COMPLETE, AND CONSISTENT WITH THESE POLICIES?

A. The Company uses work management software, SAP, to track each project on a work order basis. Service consultants and engineers are responsible for creating work orders based on design and load specifications. These employees are trained on work order creation, including specification of what defines capital work versus non-capital work and correct coding of work orders. The employee training materials related to work order entry—Service Consultant Budget Training, Service Consultant SAP Training, and Settlement Rules for Work Orders—are provided as Exhibits RMP-2, RMP-3 and RMP-4. All work orders are reviewed multiple times

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

Q. PLEASE DESCRIBE THE REVIEW PROCESS FOR WORK ORDERS.

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

Q. DO ANY OTHER PROCESSES AND CONTROLS ENSURE THAT WORK ORDERS ARE PROPERLY AND ACCURATELY COMPLETED?

A. Yes. On a monthly basis, testing is performed in accordance with the Company Sarbanes Oxley control, "Manage Fixed Assets." The Company's Finance Department randomly selects a sample of capital orders that have been completed, processed, and closed. A financial analyst then tests each order selected and provides evidence from SAP that the order meets the specifications of being a capital order. Finally, Deloitte & Touche LLP, the Company's independent financial auditor, samples and reviews orders to determine if they are correctly classified as capital, as part of the annual financial audit and controls review.

VI. CAPITAL AND O&M EXPENSE PLANNING AND COST CONTROL

Q. HOW DOES CENTERPOINT HOUSTON ENSURE THAT ITS NECESSARY CAPITAL INVESTMENTS AND O&M EXPENSES ARE REASONABLE?

A. CenterPoint Houston carefully plans capital investments and O&M activities and related expenses in a five-year planning process, and adjusts the programs, as well as costs annually depending upon system performance. The Company uses several processes to accomplish this oversight. These processes include: 1) the workforce planning process, 2) budgeting and cost control, 3) the use of contractors, 4) the distribution planning process, and 5) the transmission planning process. I will discuss the workforce planning process, budgeting and cost control, and the use of contractors. The distribution planning process and the transmission planning process are discussed in Ms. Bodden's testimony.

A. Workforce Planning Process

Q. HOW DOES CENTERPOINT HOUSTON ENSURE THAT IT MAINTAINS PERSONNEL LEVELS SUFFICIENT TO OPERATE AND MAINTAIN ITS DISTRIBUTION DELIVERY SYSTEM?

A. CenterPoint Houston must have an adequate number of experienced and well-trained field operations employees on staff at all times. This will enable the Company to support maintenance operations and construction for service area growth and facilitate timely response for restoration efforts. As such, the Company has processes in place to ensure adequate staffing while, at the same time, ensuring that its staffing is efficient and reasonable.

For instance, the Company regularly and consistently evaluates future staffing needs. Succession planning is reviewed and updated for key positions within the distribution organizations to address attrition, retirements, and promotions.

Relatedly, CenterPoint Houston also uses Service Suite (formerly Mobile Data), which dispatches CSOs and trouble orders to line mechanics in the field. This enables the distribution dispatching group to analyze the Company's resource needs by reviewing work levels across the system and adjust CSO assignments across service center boundaries to meet daily work requirements. This eliminates the need for staffing for peak days within some service center offices and allows for a more equalized workload to be distributed across the system.

Additionally, CenterPoint Houston has established a Resource Allocation Team to review and authorize staffing levels for all administrative assistants and line skill positions for all shifts for the various types of crews. This includes

daytime one-man crews that perform trouble restoration and one-man CSO work, daytime two-man crews that perform two-man CSO work and assist on trouble restoration, daytime four-man crews, evening crews, night crews and weekend crews. The Resource Allocation Team has representation that includes the Director of Operations, a Regional Operations Director, the Director of Distribution Control, the Director of Project Management, Service Area Operations Managers and Human Resource Managers.

Finally, the Company has established the Distribution Services Resource Utilization Team to support the Resource Allocation Team by analyzing staffing needs based on historical and projected workloads and making recommendations to the Resource Allocation Team accordingly.

Q. ARE WORK MANAGEMENT SYSTEMS IN PLACE?

A. Yes. All of the departments referenced in my testimony have work management systems in place to analyze the need for resources and to schedule and monitor work. Since 2000, all of these systems have been integrated with the corporate enterprise information system, SAP. This effort has enhanced overall efficiency, enabled resource allocation, and provided improved cost monitoring.

B. Budgeting and Cost Control

Q. WHAT MEASURES DOES THE COMPANY USE TO BUDGET, MONITOR, AND CONTROL COSTS?

A. CenterPoint Houston develops the distribution organization's budget as part of the Company's business planning process. In developing the distribution organization's budget, CenterPoint Houston uses historical trends for service restoration and maintenance and analyzes current trends in development activity to

anticipate growth that must be addressed through the budget. To be sure that planned expenditures remain reasonable, the Company monitors actual expenses, compares them against budgeted amounts on a monthly basis, and investigates variances. On a quarterly basis, CenterPoint Houston makes projections and changes to the budget forecast based on this review. These spending evaluations result in continual system-wide cost control. Please refer to the testimony of Ms. Colvin for more detail on the Company's planning and budget processes.

C. Use of Contractors

Q. DOES THE COMPANY UTILIZE CONTRACTORS IN ADDITION TO ITS INTERNAL WORKFORCE?

A. Yes. The Company utilizes contractors to supplement its work force to handle variations in the workload due to changes in economic conditions, such as contractors for new distribution, substation and transmission construction, tree trimming, and work order design for new distribution facilities, as well as engineering for new transmission lines. Line contractors also aid in the Company's service restoration response after severe weather.

Q. WHAT DEPARTMENTS UTILIZE CONTRACTORS IN ADDITION TO THE COMPANY'S INTERNAL WORKFORCE?

A. Company departments that rely on additional contractors are listed below:

- Within the Distribution Programs & Construction Department, Vegetation Management utilizes distribution tree trimming contractors. CenterPoint Houston has historically utilized outside contractors for line clearance due to the highly specialized skills and equipment required to perform this work in a cost-effective manner. The contractors have a proven track record and due to their size, have achieved the economies of scale required to provide both the proactive and reactive tree trimming necessary to ensure reliable service.

- Also, within the Distribution Programs & Construction Department, the Pole Maintenance group utilizes contractors for pole inspections, pole replacements and pole bracings.

- Across several departments, Overhead construction, URD construction, and Street Lighting, the Company utilizes construction contractors. These contractors have specialized equipment and labor for activities such as overhead line construction, pole replacement, underground residential URD construction, URD span replacement, facilities replacement for road widening, streetlight construction, and streetlight maintenance.

- Major Underground Operations, in Mr. Narendorf's organization, utilizes contractors for major civil construction, such as duct banks and equipment pads, boring jobs, three phase pad-mounted transformer installations, and preventative maintenance.

- Field Operations utilizes contractors to perform inspections for the Meter Inspection Program.

- Distribution Overhead Projects, in Ms. Bodden's organization, utilizes contractors to design work orders for the construction of new overhead distribution projects and for road widening projects.

- Transmission Projects, also in Ms. Bodden's organization, utilizes contractors to help engineer new transmission and substation projects.

- Transmission Operations, in Mr. Narendorf's organization, utilizes contractors for capital construction and the maintenance work on transmission lines, off-shore support of projects and maintenance of structures in and along the waters of the Gulf Coast, the installation of gates, gaps, culverts, roads, and pads, the maintenance painting of steel structures, and helicopter contractors for project support.

- Substation Operations, in Mr. Narendorf's organization, utilizes contractors to construct and install substation electrical equipment and structures, as well as replace damaged substation equipment.

Q. HAS DISTRIBUTION OPERATIONS ESTABLISHED WORKING ALLIANCES WITH CONTRACTORS TO OPTIMIZE PERFORMANCE AND TO MINIMIZE COSTS?

A. Yes. CenterPoint Houston established alliances with two contractors, North Houston Pole Line and MP Technologies, in 2008 in order to achieve additional

cost savings for the Company's capital construction programs. This was an area where the Company believed there was potential benefit.

Q. HOW DO THESE ALLIANCES ACCOMPLISH COST SAVINGS?

A. A competitive bid will typically have a certain amount of contingency cost built into it. However, in some instances, an alliance can take contingency costs out of the cost equation. It is also an advantage to have alliances with two contractors. This facilitates cost and performance comparisons, and provides resource flexibility. The two contractors are familiar with CenterPoint Houston's service territory and practices, and have a significant presence in the area. CenterPoint Houston utilizes an independent consultant to advise the Company on the alliance process, and to benchmark price and performance against appropriate indices.

Q. WERE THERE ANY OTHER REASONS FOR THE ALLIANCES?

A. Yes. There is a growing industry shortage of electric utility line skills, due to the aging work force and due to the increased number of electric utility transmission projects in Texas and across the United States. Also, variables in the economy can impact workload. Contractors are hesitant to hire and train without long-term contracts. The alliances assure sufficient line resources for CenterPoint Houston despite economic changes and despite industry competition for a limited resource.

Q. DOES CENTERPOINT HOUSTON HAVE THE RIGHT TO TERMINATE THE ALLIANCE AGREEMENTS?

A. Yes. CenterPoint Houston has the right to terminate the agreements and return to competitive bidding at any time with adequate notice.

Q. HAS CENTERPOINT HOUSTON INCORPORATED ANY STEPS TO IDENTIFY FURTHER COST SAVINGS WITH THE ALLIANCES?

A. Yes. Increased efficiency and increased productivity are the drivers for further cost savings. To that end, process improvement teams for overhead projects, URD projects, streetlight projects, and materials were formed with each of the two contractors to identify cost saving initiatives.

VII. DISTRIBUTION DELIVERY SYSTEM OVERVIEW, PROGRAMS AND INITIATIVES

Q. WHAT ASSETS MAKE UP THE COMPANY'S ELECTRIC DISTRIBUTION DELIVERY SYSTEM?

A. As shown on Exhibit RMP-5, the Company's distribution system begins at the distribution substation where high voltage, bulk power delivered by the Company's transmission system, is lowered to distribution voltage levels. The electric distribution delivery system consists of poles, wires, transformers, meters, and other equipment that efficiently transports power from the transmission delivery system to the customer.

Distribution feeder lines transport power from the distribution substations at 12,470 volts ("12 kV") and 34,500 volts ("35 kV"). CenterPoint Houston has approximately 1,700 distribution feeders. The distribution system includes approximately 5,488 miles of 12 kV and 4,919 miles of 35 kV overhead main feeder lines as well as underground main feeder lines.

Customers not served directly from main distribution feeder lines receive their electric service from fused overhead or URD lines originating from these main feeders. These fuse lines are referred to as laterals. CenterPoint Houston's distribution system includes over 12,805 miles of overhead primary laterals