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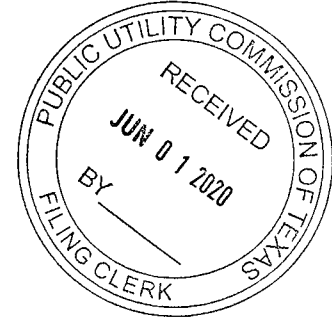


Item Number: 16

Addendum StartPage: 0



Shea A. Richardson
Manager of Energy Efficiency Compliance
1111 Louisiana St.
Houston, Texas 77002



June 1, 2020

Ms. Deven Reeves
Filing Clerk
Public Utility Commission of Texas
1701 N. Congress Avenue
P.O. Box 13326
Austin, Texas 78711

RE: Project No. 50666 – Revision to CenterPoint Energy Houston Electric’s 2020 Energy Plan and Report Pursuant to 16 TAC § 25.181(l)

Dear Ms. Reeves:

On April 1, 2020 CenterPoint Energy Houston Electric (“CEHE”) filed its 2020 Energy Efficiency Plan and Report (“EEPR”). Following the filing, CEHE identified certain minor grammatical errors and other areas in need of correction or clarification. Accordingly, CEHE has revised the document consistent with new EM&V vendor findings.

Please do not hesitate to contact the Company should you have any questions.

Shea A. Richardson
Energy Efficiency Compliance Manager
(713) 207-7465

**CenterPoint Energy Houston Electric,
LLC**

2020 Energy Efficiency Plan and Report

Pursuant to 16 Tex. Admin. Code § 25.181(l)

(Revised)

June 1, 2020

Project No. 50666

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Introduction

CenterPoint Energy Houston Electric, LLC (CenterPoint Houston or the Company) presents this Energy Efficiency Plan and Report (EEPR) to comply with 16 Tex. Admin. Code (TAC) § 25.181, § 25.182 and §25.183, which implement Public Utility Regulatory Act (PURA) § 39.905. PURA § 39.905 and 16 TAC § 25.181 require that each investor-owned electric utility achieve the following savings goal through market-based standard offer programs (SOPs) and limited, targeted, market transformation programs (MTPs):

- 0.4% reduction of the electric utility's peak demand of residential and commercial customers for the 2019, 2020 and 2021 program years.

The format used herein is consistent with the requirements outlined in 16 TAC § 25.181(l) and the Company's 2019 EEPR filing. The EEPR presents the results of CenterPoint Houston's 2019 energy efficiency programs and describes how the Company plans to achieve its goals and meet the requirements set forth in 16 TAC § 25.181. Planning information provided focuses on 2020 and 2021 projected savings and budgets, as well as information on programs to be offered, and discusses outreach, informational activities and workshops designed to encourage participation by energy service providers and retail electric providers (REPs).

EEPR Organization

This EEPR consists of an executive summary, fifteen (15) sections, and three (3) appendices. Sections one through four provide the Energy Efficiency Plan (The Plan), while sections five through eleven present energy efficiency report information. The final four sections address the Energy Efficiency Cost Recovery Factor (EECRF). The three appendices provide a description of the acronyms used throughout the report, give the location of the glossary of commonly used terms, and the demand and energy savings for each program by county.

Executive Summary

The Plan portion of this EEPR details CenterPoint Houston's plans to achieve a 0.4% reduction in its peak demand of residential and commercial customers by December 31, 2020, and another 0.4% reduction in its peak demand of residential and commercial customers by December 31, 2021. The Plan also addresses the corresponding energy savings goal, which is calculated from the demand savings goal using a 20% capacity factor. The goals, budgets, and implementation plans that are included herein are determined by requirements of 16 TAC § 25.181 and the information gained from prior implementation of the selected programs. Table 1 presents a summary of 2020 and 2021 goals, projected savings, and projected budgets.

Table 1: Summary of Annual Goals, Projected Savings and Projected Budgets¹

	Calendar Year	Normalized Peak Demand	MW Goal	Demand (MW) Goal	Energy (MWh) Goal ²	Projected MW Savings	Projected MWh Savings ³	Projected Budget (in 000's)
Annual Goals	2020	15,704	0.4% of peak demand	62.82	110,061	161.76	189,482	\$37.821
	2021	15,923	0.4% of peak demand	63.69	111,585	171.63	204,910	\$38.253

¹ Peak Demand figures are from Table 4; Projected Savings from Table 5; Projected Budget from Table 6. All MW and MWh figures in this Table and throughout this EEPR are measured at the meter.

² Calculated using a 20% capacity factor

³ Peak demand reduction and energy savings projections are for the current and following calendar year that CenterPoint Houston is planning and budgeting for in the EEPR. These projected savings reflect estimates based on information gained from prior implementation of the programs.

In order to reach the projected savings presented in Table 1, CenterPoint Houston will implement the following programs:

1. Commercial Standard Offer Program (SOP)
2. Commercial MTP (SCORE, Healthcare, Data Center)
3. Commercial Load Management (SOP)
4. Retro-Commissioning MTP
5. REP (Commercial CoolSaver)
6. CenterPoint Energy High Efficiency Homes MTP
7. Advanced Lighting MTP
8. Mid-Stream MTP (HVAC and Pool Pump Distributor)
9. REP (Residential CoolSaver and Efficiency Connection)
10. Smart Thermostat Program
11. Multi-Family MTP Market Rate
12. Residential Load Management SOP
13. Residential & Small Commercial (SC) SOP
14. Hard-to-Reach SOP
15. Multi-Family MTP Hard-to-Reach
16. Targeted Low Income MTP (Agencies in Action)
17. Smart Home Energy Management System Pilot
18. Mid-Stream MTP (Commercial Kitchen Equipment Pilot)

As detailed in this report, CenterPoint Houston successfully implemented SOPs and MTPs required by PURA § 39.905 that met the statutory energy efficiency savings goal of 0.4% peak demand reduction. CenterPoint Houston's goals for 2019 were 61.94 MW in peak demand reduction and 108,519 MWh in energy savings. Actual achieved reductions in 2019 totaled 194.82 MW and 215,619.87 MWh respectively. The total forecasted spending for 2019 was \$37.898 million, and actual 2019 spending totaled \$35.779 million.

Energy Efficiency Plan

I. 2020 Programs

A. 2020 Program Portfolio

CenterPoint Houston plans to implement 17 programs in 2020. These programs target both broad market segments and specific market sub-segments that offer significant opportunities for cost-effective savings. CenterPoint Houston anticipates that targeted outreach to a broad range of service providers will be necessary in order to meet the savings goals required by PURA § 39.905 on a continuing basis. Table 2 lists each program and identifies target markets and applications.

Table 2: 2020 Energy Efficiency Program Portfolio

Program	Target Market	Application
Commercial Standard Offer Program (SOP)	Large Commercial	Retrofit; New Construction
Commercial MTP (SCORE, Healthcare, Data Center)	Large Commercial	Retrofit; New Construction
Commercial Load Management (SOP)	Large Commercial	Load Management
Retro-Commissioning MTP	Large Commercial	Tune-up of existing facilities
REP (Commercial CoolSaver)	Large Commercial	Retrofit
CenterPoint Energy High Efficiency Homes MTP	Residential	New Construction
Residential & Small Commercial (SC) SOP	Residential & Commercial	Retrofit
Smart Thermostat Program	Residential	Retrofit; New Construction
Advanced Lighting MTP	Residential & Commercial	Retrofit; New Construction
Mid Stream MTP (A/C and Pool Pump Distributor)	Residential & Commercial	Retrofit; New Construction
REP (Residential CoolSaver and Efficiency Connection)	Residential	Retrofit
Residential Load Management SOP	Residential	Load Management
Multi-Family MTP Market Rate	Residential	New Construction
Smart Home Energy Management System (Pilot)	Residential	New Construction
Hard-to-Reach SOP	Hard-to-Reach	Retrofit
Multi-Family MTP Hard-to-Reach	Hard-to-Reach	New Construction
Targeted Low Income MTP (Agencies in Action)	Hard-to-Reach	Retrofit

The programs listed in Table 2 are described further in sub-section B. CenterPoint Houston maintains two energy efficiency websites:⁴ one targeted to the end user and one for project sponsors. The energy efficiency sponsor portal contains requirements for project participation and most of the forms required for project submission. These websites provide project sponsors with program updates and information.

B. Existing Programs

Commercial Standard Offer Program (SOP)

Program Design

The Commercial SOP targets commercial customers by offering financial incentives for the installation of efficient measures in new or retrofit applications. Eligible measures include: lighting, HVAC, chillers, motors, refrigeration, and other custom projects.

Implementation Process

CenterPoint Houston will continue implementation of its Commercial SOP where any eligible project sponsor may submit applications for qualifying projects.

Outreach and Research Activities

- Maintains internet website with program processes on how to register for participation, as well as how to input a viable project, detailed project eligibility, end-use measures, incentives, workbooks to assist with providing incentive estimates, as well as procedures and application forms;
- Collaborates with internal departments to leverage existing relationships with commercial customers, informing them of energy efficiency opportunities;
- Participates in appropriate industry-related meetings and events to generate awareness and interest; and
- Conducts workshops as necessary to explain elements such as: responsibilities of the project sponsor, project requirements, incentive information, and the application and reporting process.

⁴ CenterPoint Houston's energy efficiency website is www.centerpointefficiency.com. CenterPoint Houston's sponsor portal is <https://cnpsponsor.programprocessing.com/>.

Commercial Market Transformation Program (MTP)

Program Design

The Commercial MTP includes the following three program offerings: SCORE/CitySmart, Healthcare Energy Efficiency Program (HEEP), and the Data Center Energy Efficiency Program (DCEEP).

The SCORE/CitySmart program targets public and private K-12 schools, public and private higher education, cities, counties, state governmental agencies, non-profit and faith-based organizations.

Program participants are provided with technical assistance, engineering analysis, and performance benchmarking to help them make decisions about cost-effective investments.

HEEP provides technical support and financial incentives for implementing energy efficiency projects to eligible healthcare facilities including hospitals, doctors' offices, clinics, laboratories, medical office buildings, and assisted living/nursing care facilities. Program participants are provided with technical assistance, engineering analysis, and performance benchmarking to help them make informed decisions about installing cost-effective energy efficient measures.

DCEEP provides technical support and incentives for implementing energy efficiency projects to commercial customers that have a dedicated data center, server room or server closets. Program participants are incentivized for installing a variety of energy saving measures, e.g. data storage, web hosting and telecommunications.

Implementation Process

The Commercial MTP uses third party implementers to help eligible participants identify energy efficient measure upgrades in their facilities. The program pays incentives to participants for approved measures that result in both demand and energy savings.

Outreach and Research Activities

- Contracts with third-party program implementers to conduct outreach and planning activities;
- Participates in appropriate industry-related meetings and events to generate awareness and interest; and
- Conducts workshops as necessary to explain elements of program requirements, incentive information, application and reporting processes.

Commercial Load Management SOP (CLM)

Program Design

The CLM is available to non-residential distribution customers, as well as governmental, educational, and non-profit transmission customers. Curtailments will be initiated when the Electric Reliability Council of Texas (ERCOT) declares an EEA2⁵ event or deems that an EEA2 event is imminent, or to support local system emergency situations. Incentives will be paid for measured and verified kW reductions to project sponsors based on average performance of all their events. Participating facilities must be equipped with an Interval Data Recorder (IDR) or smart meter and be able to curtail a minimum of 100 kW to be eligible.

Implementation Process

Implementation of this program will be through customers and third-party entities representing eligible facilities within the CenterPoint Houston service territory. The CLM will initiate up to a maximum of six events totaling 22 hours per year during the summer on peak period (up to a maximum of two test curtailments lasting one to three hours; and up to a maximum of four unscheduled events based on ERCOT EEA2 events lasting one to four hours each). A thirty-minute notice is given to all participants prior to each event.

Outreach and Research Activities

- Maintains program information in the program tracking database;
- Conducts workshops as necessary to explain elements such as responsibilities of the project participant, program requirements, incentive information, and the application and reporting process; and
- Participates in appropriate industry-related meetings and events to generate awareness and interest.

⁵ Energy Emergency Alert (EEA) 2 – ERCOT may issue an EEA level 2 when operating reserves are less than 1,750 MW and are not expected to recover within 30 minutes. ERCOT may reduce demand on the system by interrupting power from large industrial customers who have contractually agreed to have their electricity turned off during an emergency. ERCOT may also use demand response resources that have been procured to address tight operating conditions. Website: <http://www.ercot.com>

Retro-Commissioning MTP (RCx)

Program Design

RCx is an optimization program that identifies no cost or low-cost measures (up to a three-year simple payback) the customer can implement to reduce the demand and energy usage in existing commercial facilities. The program provides end-users with a free engineering analysis to identify measures that will improve the performance within their facilities by reducing electric demand and consumption. Facility owners are required to implement all identified measures with simple payback of less than one and a half years or pay the cost of the analysis. Customers are also eligible to receive incentives based on kWh savings and how quickly the low-cost or no-cost measures are implemented.

Implementation Process

The program is implemented through a third-party implementer. Program information is provided on CenterPoint Houston's website. RCx Agents, typically engineering consulting firms, are used to deliver the program to customers. The engineering analysis is comparable to an ASHRAE Level 2 audit.⁶

Outreach and Research Activities

- Maintains internet website with detailed project eligibility, procedures, and application forms;
- Participates in appropriate industry-related meetings and events to generate awareness and interest;
- Conducts workshops as necessary to explain elements such as responsibilities of the project sponsor and RCx Agents, program requirements, incentive information, and the application and reporting process; and
- Efforts are underway to investigate the expansion of the existing RCx program to include a Monitored Based Commissioning (MBCx) component in late 2020 or early 2021. MBCx involves the use of hardware and software to commission buildings on a more frequent basis, using trend data to identify new energy savings opportunities and to evaluate underperforming measures to improve persistence of savings.

⁶American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Audit Level 2 - Energy Survey and Analysis: includes the ASHRAE Level 1 walk-through analysis, but adds detailed energy calculations and financial analysis of proposed energy efficiency measures. Website: <http://www.ashrae.org/>

Retail Electric Provider MTP

Program Design

This program offers energy saving products and services to end use residential and/or commercial customers through participating Retail Electric Providers (REPs). Participating REPs market energy saving measures and services to their customers in the CenterPoint Houston service territory. REPs can participate in the following programs:

- CoolSaver A/C Tune-up Program – Residential
- CoolSaver A/C Tune-up Program – Commercial
- Efficiency Connection Electronic Marketplace

CoolSaver A/C Tune-Up Program – Residential and Commercial

The CoolSaver A/C Tune-up program utilizes specially trained air conditioning contractors to perform comprehensive A/C tune-ups for residential and commercial customers. The program pays incentives to the A/C contractor to reduce the customer's upfront cost of system diagnosis and correction. It also provides participating trade allies with training on best practices and discounts on high quality diagnostic tools.

Efficiency Connection

Efficiency Connection is an online marketplace that enables customers to shop for discounted energy efficiency products. Through the program's third-party vendor, products are delivered directly to qualifying residential customers. Program marketing informs the customer of the importance of installing LED lighting in high use areas and replacing existing incandescent, fluorescent and halogen lamps to increase savings.

Implementation Process

The Retail Electric Provider program works with REPs to recruit and enroll customers. Incentives are paid to program service providers or contractors for the average verified demand and energy savings achieved through the program.

Outreach and Research Activities

- Contracts with a third-party program implementer to conduct outreach and planning activities and
- REPs market the program to existing customers via e-mail, social media and direct mail.

Smart Thermostat Program

Program Design

The Smart Thermostat Program enables customers to receive discounts for the purchase of ENERGY STAR®⁷ Certified Smart Thermostats online at retail locations. The program was launched as a pilot in November 2018 to coincide with the holiday shopping season, and 2019 was the first full year of program delivery.

Implementation Process

The program utilizes an online marketplace promoted by REPs that allows customers to shop for discounted energy efficiency products. An internet portal offers an instant coupon code sent directly to customers to reduce the price of eligible devices at participating retailers.

Outreach and Research Activities

- Contracts with third-party internet marketplace and online portals and
- Implements in-store marketing materials with participating retailers.

Residential Load Management (SOP)

Program Design

The Residential Load Management program provides demand reduction during the summer peak period, when ERCOT issues an EEA2 Energy Emergency Alert. Participants are randomly tested twice during the summer peak period and agree to be available for up to five additional demand response events. Events may last from one to four hours and may be initiated Monday through Friday between the hours of 1:00 pm and 7:00 pm. The program begins June 1 and ends on September 30.

Implementation Process

The Residential Demand Response program sponsors utilize CenterPoint Houston's Vision DSM database to enroll customers who own a Wi-Fi enabled device that can provide curtailment during energy saving events.

⁷ ENERGY STAR® is the government-backed symbol for energy efficiency, providing simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions. Environmental Protection Agency (EPA) ensures that each product that earns the label is independently certified to deliver the quality, performance, and savings that consumers have come to expect. Website: <https://www.energystar.gov/>

Outreach and Research Activities

- Maintains internet website with detailed project eligibility, end-use measures, incentive structure, procedures, application forms and list of third-party project sponsors and
- CenterPoint Houston works with aggregators and vendors to enroll customers who wish to participate.

CenterPoint Energy High Efficiency Home MTP

Program Design

The High Efficiency Home MTP incentivizes the construction of new ENERGY STAR® certified and other high efficiency qualified homes. To qualify for incentives, all homes at a minimum must achieve 10% or 750 more kWh savings over the 2015 IECC reference baseline home. Incentives can also be earned by meeting minimum prescriptive technology requirements such as high efficiency HVAC systems, and above code attic and wall insulation. An additional bonus will be offered for those builders who build ENERGY STAR® version 3.1 certified homes. Each home is reviewed for verifiable demand and energy savings.

Outreach and Research Activities

- Contracts with a third-party program implementer to conduct outreach, training and technical assistance and
- Advertise using a multitude of media, including, digital media, local TV, search engine optimization, online and targeted relocation publications, and local home builder association publications.

Residential & Small Commercial Standard Offer Program (SOP)

Program Design

The Residential & Small Commercial SOP targets retrofit measures for residential and small commercial customers with incentives being paid to project sponsors for qualifying measures that provide verifiable demand and energy savings. The program is open to all qualifying energy efficiency measures, including, but not limited to, air conditioning, duct sealing, weatherization, ceiling insulation, water saving measures, refrigerator recycling and ENERGY STAR® appliances.

Outreach and Research Activities

- Maintains internet website with detailed project eligibility, end-use measures, incentive structure, procedures, application forms and list of third-party project sponsors.

Advanced Lighting MTP

Program Design

This program offers point of purchase discounts to residential customers at participating retail stores for the purchase of qualified (i.e., ENERGY STAR® rated) high efficiency LED lighting products.

Implementation Process

The Advanced Lighting MTP is implemented by a third-party program implementer. Point of purchase discounts will be applied to residential customers at participating retailers, including Home Depot, Lowes, and Sam's Club. Five percent of the savings and cost associated with the Advanced Lighting MTP will be allocated to the commercial sector. The program is administered as a single program, but the savings and cost are detailed by segment throughout this document.

Outreach and Research Activities

- In-store promotions of the program via signage and
- Participates in appropriate industry-related meetings and events to generate awareness and interest.

Mid-Stream MTP

Program Design

The Mid-Stream MTP (HVAC and Pool Pump Distributor) provides incentives to air conditioning and pool pump distributors who agree to facilitate the installation of high-efficiency pool pumps, air conditioners, heat pumps, and smart thermostats in existing single-family and multi-family properties.

Implementation Process

Any registered A/C or pool pump distributor may apply for participation in the program. Program information is provided on CenterPoint Houston's website.

Outreach and Research Activities

- Contracts with a third-party program implementer to conduct outreach, marketing, and planning activities and
- Conducts workshops as necessary to explain elements such as responsibilities of the distributors and contractors, program requirements, incentive information, and the application and reporting process.

Hard-To-Reach Standard Offer Program (HTR SOP)

Program Design

The HTR SOP provides incentives to project sponsors for qualifying measures installed in retrofit applications which provide verifiable demand and energy savings to customers whose annual total household income is less than 200% of current federal poverty guidelines. Qualifying energy efficiency measures include, but are not limited to, air conditioning, AC tune-ups, duct sealing, weatherization, ceiling insulation, water saving measures, and ENERGY STAR[®] windows.

Implementation Process

Any registered project sponsor may apply for a project meeting the minimum requirements. Program information is provided on CenterPoint Houston's website.

Outreach and Research Activities

- Maintain an internet website with detailed project eligibility, end-use measures, incentive structure, procedures and application forms and
- Conduct workshops as necessary to explain elements such as responsibilities of the project sponsor, project requirements, incentive information, and the application and reporting process.

Multi-Family MTP Market Rate

Program Design

The Multi-family MTP Market Rate encompasses two program elements; Multi-family Water and Space Heating and Multi-Family High Efficiency New Construction. Multi-family Water and Space Heating promotes the installation of energy efficient non-electric water heating in multi-family housing developments. Multi-family High Efficiency New Construction incentivizes energy efficiency in new multi-family buildings.

Implementation Process

The program is implemented through a third-party implementer. Program information is provided on CenterPoint Energy Houston's website.

Outreach and Research Activities

- Contracts with a third-party program implementer to conduct outreach and planning and
- Marketing materials including brochures, cut sheets and program guidebook provided to potential participating developers and property managers.

Multi-family MTP Hard-to-Reach

Program Design

The Multi-family MTP Hard-to-Reach encompasses three program elements: Multi-family Water and Space Heating, Multi-family High Efficiency New Construction, and Direct Install (DI). Multi-family Water and Space Heating promotes the installation of energy efficient non-electric water heating in multi-family housing developments. Multi-family High Efficiency New Construction incentivizes energy efficiency in new multi-family buildings. The Multi-Family Direct Install element offers property owners and managers a free visual audit of existing units to see if the property is eligible for energy efficient direct installation measures, which may include CFLs / LED lights and water saving measures. These three elements are only available to properties with tenants whose annual total household income is less than 200% of current federal poverty guidelines. In the DI element, applicable measures will be installed at no cost and include an educational component for those eligible.

Outreach and Research Activities

- Contracts with a third-party program implementer to implement outreach and planning and
- Marketing materials including brochures, cut sheets and program guidebook provided to potential participating developers and property managers.

Targeted Low-Income MTP (Agencies in Action)

Program Design

The Targeted Low-Income MTP facilitates the installation of energy efficiency upgrades for low-income residential customers in single family or multi-family homes. Local non-profit organizations and energy service companies provide comprehensive, whole-house retrofits that maximize electricity savings to

homes with a Savings to Investment Ratio (SIR) greater than one (1). This is accomplished by installing attic insulation, solar screens, lighting retrofits, water saving measures, ENERGY STAR® room air conditioners, central air conditioning systems, ENERGY STAR® refrigerators, and air infiltration control for participants that have an annual household income of less than 200% of the federal poverty guidelines. A maximum expenditure of \$7,541 is allowed per home.

Implementation Process

CenterPoint Houston contracts with a program implementer that has the responsibility of recruiting and overseeing the participating agencies and energy service companies. An energy audit using the National Energy Audit Assessment Tool (NEAT) is performed at the premise and the SIR score determines which projects are selected for renovation.

Outreach and Research Activities

- Partner with a third-party implementer and
- Contact non-profit organizations for potential participation.

Research and Development (R&D) Projects

In 2020, CenterPoint Houston plans to implement the following R&D activities. Additional projects may be implemented depending on research opportunities and the availability of budgeted R&D funds.

- **Project Tracking System**

In 2019, CenterPoint Houston began implementation of a new project tracking system, customer portal, and energy efficiency database. While the system went live for the 2020 Program Year, the Company plans to utilize R&D funds in 2020 to fully configure and integrate the features of this technology.

- **Commercial Smart Thermostat**

Deemed savings methodology and energy savings potential for ENERGY STAR® Smart Thermostats for commercial buildings will be evaluated for inclusion to the Technical Reference Manual in 2020. The focus of the R&D project will be on building types that do not traditionally

have Building Management or Automation Systems installed, such as convenience stores, converted residences, retail stores, and strip malls.

C. New Programs for 2020

Smart Home Energy Management System (SHEM) Pilot Program

CenterPoint Houston is implementing this pilot program in 2020 to determine the market potential and verifiable energy savings associated with Smart Home Energy Management Systems (SHEMs) and their related technologies. This pilot will integrate hardware such as thermostats, plugs, lighting, and other controls with internet connectivity, new software, and advanced analytics to validate energy savings potential. “Smart” Technology and Home Energy Management Systems is a rapidly growing industry that is valued by consumers and this technology could create a pipeline of “demand response ready” homes. If a deemed savings measure is created and approved, it could be incorporated into multiple existing programs as a measure for new construction and retrofit.

D. Potential New Programs for 2021

Commercial Mid-Stream Market Transformation Pilot Program

In 2021, CenterPoint Houston plans to implement a Commercial Midstream Market Transformation Program to influence and incentivize the adoption of energy-efficient commercial kitchen equipment measures recently approved in the TRM. This program will target small and mid-sized business segments including restaurants, schools, quick service restaurants, government facilities, and other customers that utilize commercial food service equipment.

II. Customer Classes

CenterPoint Houston's energy efficiency programs target the Hard-to-Reach, Residential, and Commercial customer classes.

The annual MW savings goal will be allocated to customer classes by examining historical program results, evaluating economic trends, and considering 16 TAC § 25.181(e)(3)(F) and (p), which respectively state that no less than 5% of the utility's total demand reduction savings goal should be achieved through programs for hard-to-reach customers and no less than 10% of the energy efficiency budget is to be spent on targeted low-income programs. Table 3 summarizes the number of customers in each of the customer classes. It should be noted, however, that the actual distribution of the goal and budget must remain flexible based upon the response of the marketplace and the overriding objective of meeting legislative and Commission goals.

Table 3: Summary of Customer Classes

Customer Class	Number of Customers
Commercial	290,891
Residential	1,514,601
Hard to Reach ⁸	728,587

⁸ CenterPoint Houston does not require income information for electric service and no records are available to correlate revenue for the Hard-to-Reach customer class. However, according to the U.S. Census Bureau, Current Population Survey 2018 Annual Social and Economic Supplement, 32.48% of Texas families fall below 200% of the poverty threshold. Applying that percentage to CenterPoint Houston's residential customer totals, the number of HTR customers is estimated at 728,587. Program goals will be based on the requirement in the energy efficiency rule that no less than 5% of the total energy efficiency demand goal will be achieved through the programs in the Hard-to-Reach customer class.

III. Energy Efficiency Goals and Projected Savings

As prescribed by 16 TAC § 25.181, and because CenterPoint Houston satisfied its goal to meet 30% of its five-year average rate of growth in demand in 2013, CenterPoint Houston's demand goal for 2020 is 0.4% of peak demand. For the purposes of this report, the 2020 demand goal is based on the 5-year average of weather adjusted peak demand for 2014-2018, and the 2021 demand goal is based on the 5-year average of weather adjusted peak demand for 2015-2019. The corresponding energy savings goals are determined by applying a 20 percent capacity factor to the demand savings goals.

Table 4 presents historical annual peak demand for 2014-2019 and estimated peak demand for 2020 and 2021. Table 5 presents the corresponding projected demand and energy savings broken out by program for each customer class for 2020 and 2021. The projected savings is the demand and energy savings that can be achieved based on the annual budget shown in Table 6. The MW and MWh values presented in Table 5 are at the customer meter and include line loss factors used in the latest CenterPoint Houston electric base rate case, Docket No. 49421.

Table 4: Annual Growth in Demand and Energy Consumption

Calendar Year	Peak Demand (MW)				Energy Consumption (GWh)			
	Total System		Residential & Commercial		Total System		Residential & Commercial	
	Actual ⁹	Weather Adjusted ^{10,11}	Actual	Weather Adjusted	Actual	Weather Adjusted	Actual	Weather Adjusted
2014	16,592	17,032	14,692	15,131	86,159	87,044	68,420	69,680
2015	18,056	17,768	15,960	15,672	88,232	88,326	71,013	71,107
2016	17,957	18,201	15,731	15,975	91,322	91,336	72,022	72,036
2017	18,364	18,611	16,236	15,665	92,593	93,480	76,652	72,449
2018	19,125	18,662	16,726	16,078	93,856	94,889	72,635	73,435
2019	18,915	19,684	16,525	16,226	93,856	87,180	73,929	70,777
2020	19,676	N/A ¹²	16,537	N/A	96,016	N/A	73,064	N/A
2021	19,984		16,837		97,060		74,022	

2020 Goals¹³

MW Goal = $15,704 \times 0.4\% = 62.82$ MW

MWh Goal = $62.82\text{MW} \times 8760 \text{ Hours} \times 20\% \text{ Load Factor} = 110,061$ MWh

2021 Goals

MW Goal = $15,923 \times 0.4\% = 63.69$ MW

MWh Goal = $63.69 \text{ MW} \times 8760 \text{ Hours} \times 20\% \text{ Load Factor} = 111,585$ MWh

⁹ 2020 and 2021 Calendar Year "Actual" values are forecasted.

¹⁰ "Actual Weather Adjusted" Peak Demand is "Actual" Peak Demand adjusted for weather fluctuations using weather data for the most recent ten years.

¹¹ Weather adjustment calculations are based on hourly weather data from NOAA's Quality Controlled Local Climatological Data (QCLCD).

¹² NA = Not Applicable: Energy efficiency goals are calculated based upon the actual weather-adjusted growth in demand.

¹³ Demand goals for 2020 and 2021 are provided at the meter level. Source level demand goals are 66.32 MW for 2020 and 67.24 MW for 2021. The source values were determined by applying a line loss factor of 5.57%

Table 5: Projected Demand and Energy Savings Broken Out by Program for Each Customer Class (at Meter)

Program Goals by Customer Class for 2020 and 2021	2020		2021	
	Projected Savings (KW) at Meter	Projected Savings (kWh) at Meter	Projected Savings (kW) at Meter	Projected Savings (kWh) at Meter
Large Commercial	120,275	127,713,774	128,077	140,455,616
Commercial Standard Offer Program (SOP)	11,700	75,000,000	11,700	75,000,000
Commercial MTP (SCORE, Healthcare, Data Center)	7,100	40,000,000	7,300	47,500,000
Commercial Load Management (SOP)	98,000	590,000	104,761	628,566
Retro-Commissioning MTP	3,100	10,800,000	3,100	10,800,000
REP (Commercial CoolSaver)	226	699,341	550	1,400,000
Advanced Lighting Commercial	149	624,433	196	1,044,835
Mid-Stream MTP (Commercial Kitchen Equipment)	NA	NA	470	4,082,215
Residential and Small Commercial	35,632	52,855,638	37,975	55,365,700
REP (Residential CoolSaver and Efficiency Connection)	1,900	5,900,000	2,600	7,000,000
Residential Load Management SOP	17,550	105,300	17,550	105,300
Residential & Small Commercial (SC) SOP	660	1,200,000	600	1,000,000
Smart Thermostat Program	-	4,470,000	-	3,800
Advanced Lighting Residential	2,823	11,864,230	3,725	19,851,862
Mid-Stream MTP (A/C and Pool Pump Distributor)	3,500	9,855,000	3,500	9,855,000
Multi-Family MTP Market Rate	1,199	1,914,570	2,000	3,200
CenterPoint Energy High Efficiency Homes MTP	8,000	17,500,000	8,000	17,500,000
Smart Home Energy Management System (Pilot)	-	46,538	-	46,538
Hard-to-Reach	5,850	8,912,129	5,578	9,088,598
Hard-to-Reach SOP	876	97,700	876	915,251
Multi-Family MTP Hard-to-Reach	597	1,286,082	325	645,000
Targeted Low Income MTP (Agencies in Action)	4,377	7,528,347	4,377	7,528,347
TOTAL	161,757	189,481,541	171,630	204,909,914

IV. Program Budgets

Table 6 presents proposed budget allocations required to achieve the projected demand and energy savings for calendar years 2020 and 2021. The budget allocations are a result of the projected demand and energy savings presented in Table 5. The budget allocations presented in Table 6 include incentive and administration costs for each program and customer class.

Table 6: Proposed Annual Budget Broken Out by Program for Each Customer Class¹⁴

Program Estimated Budget by Customer Class for 2020 and 2021	2020			2021		
	Incentives	Admin	Total Budget	Incentives	Admin	Total Budget
Large Commercial	\$16,877,250	\$2,039,324	\$18,916,574	\$17,167,250	\$2,040,350	\$19,207,600
Commercial Standard Offer Program (SOP)	\$5,000,000	\$703,264	\$5,703,264	\$5,000,000	\$703,264	\$5,703,264
Commercial MTP (SCORE, Healthcare, Data Center)	\$7,200,000	\$840,706	\$8,040,706	\$6,700,000	\$782,324	\$7,482,324
Commercial Load Management (SOP)	\$3,300,000	\$323,112	\$3,623,112	\$3,300,000	\$323,112	\$3,623,112
Retro-Commissioning MTP	\$1,200,000	\$158,109	\$1,358,109	\$1,200,000	\$158,109	\$1,358,109
REP (Commercial CoolSaver)	\$125,000	\$9,461	\$134,461	\$100,000	\$7,568	\$107,568
Advanced Lighting Commercial	\$52,250	\$4,673	\$56,923	\$52,250	\$4,673	\$56,923
Mid-Stream MTP (Commercial Kitchen Equipment)	NA	NA	NA	\$815,000	\$61,300	\$876,300
Residential and Small Commercial	\$11,042,750	\$1,288,646	\$12,331,396	\$11,392,750	\$1,299,975	\$12,692,725
REP (Residential CoolSaver and Efficiency Connection)	\$1,300,000	\$103,812	\$1,403,812	\$1,300,000	\$103,812	\$1,403,812
Residential Load Management SOP	\$900,000	\$72,800	\$972,800	\$900,000	\$72,800	\$972,800
CenterPoint Energy High Efficiency Homes MTP	\$3,600,000	\$452,706	\$4,052,706	\$3,600,000	\$452,706	\$4,052,706
Residential & Small Commercial (SC) SOP	\$350,000	\$66,023	\$416,023	\$300,000	\$56,591	\$356,591
Advanced Lighting Residential	\$992,750	\$88,778	\$1,081,528	\$992,750	\$88,778	\$1,081,528
Mid-Stream MTP (A/C and Pool Pump Distributor)	\$2,500,000	\$340,553	\$2,840,553	\$2,500,000	\$340,553	\$2,840,553
Multi-Family MTP Market Rate	\$600,000	\$31,142	\$631,142	\$1,000,000	\$51,903	\$1,051,903
Smart Thermostat Program	\$500,000	\$95,000	\$595,000	\$500,000	\$95,000	\$595,000
Smart Home Energy Management System (Pilot)	\$300,000	\$37,832	\$337,832	\$300,000	\$37,832	\$337,832
Hard-to-Reach	\$5,200,000	\$873,021	\$6,073,021	\$5,000,000	\$852,260	\$5,852,260
Hard-to-Reach SOP	\$500,000	\$127,769	\$627,769	\$500,000	\$127,769	\$627,769
Multi-Family MTP Hard-to-Reach	\$500,000	\$51,903	\$551,903	\$300,000	\$31,142	\$331,142
Targeted Low Income MTP (Agencies in Action)	\$4,200,000	\$693,350	\$4,893,350	\$4,200,000	\$693,350	\$4,893,350
SUB TOTAL	\$33,120,000	\$4,200,991	\$37,320,991	\$33,560,000	\$4,192,585	\$37,752,585
Research and Development		\$500,000	\$500,000		\$500,000	\$500,000
PROGRAM TOTAL	\$33,120,000	\$4,700,991	\$37,820,991	\$33,560,000	\$4,692,585	\$38,252,585
EM&V			\$550,514			\$541,294
EECRF PROGRAM TOTAL			\$38,371,505			\$38,793,879

¹⁴ 2021 EM&V cost projection of \$541,294 is based on the actual costs incurred during calendar year 2019 (for the evaluation of program year 2018). This cost projection is an estimate and actual 2021 EM&V costs may differ.

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V. Historical Demand Savings Goals and Energy Targets for Previous Five Years

Table 7 documents CenterPoint Houston's actual demand goals and energy targets for the previous five years (2015 – 2019). Each value was calculated using the methods outlined in 16 TAC § 25.181.

Table 7: Historical Demand and Energy Savings Goals (at Meter)¹⁵

Calendar Year	Actual Weather Adjusted Demand Goal at Meter (MW)	Actual Weather Adjusted Energy Goals at Meter (MWh)	Actual Demand Savings at Meter (MW)	Actual Weather Adjusted Energy Savings at Meter (MWh)
2019	62.82	110,060.64	195.18	215,856.43
2018	61.42	107,608.00	176.36	162,439.61
2017	60.42	105,855.84	188.44	183,491.15
2016	59.40	104,314.00	167.70	190,892.42
2015	58.83	103,069.00	168.49	188,255.21

¹⁵ 2019 Portfolio demand savings at the source level total 206.07 MW. The line loss values calculated for each rate class Docket 42491 were weighted according to 2019 program participation to arrive at a final line loss value of 5.57%. This value was applied to the meter level portfolio demand savings to determine savings at the source level.

VI. Projected Savings, Reported and Verified Demand and Energy Savings

Table 8 breaks out the projected savings verified and reported demand energy savings by customer class for each program. The projected savings were reported in the Energy Efficiency Plan filed in April of 2019. The verified and reported savings are those savings that have been achieved and verified in the 2019 calendar year.

Table 8: Projected Savings versus Verified and Reported Savings for 2019 (at Meter)

	2019					
	Projected Savings		Verified Savings		Reported / Verified	
	kW	kWh	kW	kWh	kW	kWh
Large Commercial	121,581	137,131,254	144,030.3	126,737,285.8	144,030.3	126,737,285.8
Commercial Standard Offer Program (SOP)	13,846	79,384,615	8,998.5	55,504,537.0	8,998.5	55,504,537.0
Commercial MTP (SCORE, Healthcare, Data Center)	7,700	41,800,000	9,669.7	63,217,038.7	9,669.7	63,217,038.7
Commercial Load Management (SOP)	98,000	590,000	123,670.3	742,022.3	123,670.3	742,022.3
Retro-Commissioning MTP	1,652	14,000,000	860.9	4,458,398.6	860.9	4,458,398.6
REP (Commercial CoolSaver)	226	699,341	584.4	1,467,968.0	584.4	1,467,968.0
Advanced Lighting Commercial	156	657,298	246.5	1,347,321.3	246.5	1,347,321.3
Residential and Small Commercial	33,053	43,536,833	44,724.2	79,397,057.3	44,724.2	79,397,057.3
REP (Residential CoolSaver and Efficiency Connection)	2,280	6,910,672	3,509.4	9,349,133.4	3,509.4	9,349,133.4
Residential Load Management SOP	17,550	105,300	17,816.7	106,905.3	17,816.7	106,905.3
Residential & Small Commercial (SC) SOP	952	1,740,893	396.0	1,329,657.9	396.0	1,329,657.9
Smart Thermostat Program	500	2,400,000	0.0	2,389,960.0	0.0	2,389,960.0
Advanced Lighting Residential	2,972	12,488,663	4,682.7	25,599,103.8	4,682.7	25,599,103.8
Mid-Stream MTP (A/C and Pool Pump Distributor)	1,379	3,790,617	3,471.2	9,950,513.5	3,471.2	9,950,513.5
Multi-Family MTP Market Rate	1,012	1,100,689	849.0	2,391,383.9	849.0	2,391,383.9
CenterPoint Energy High Efficiency Homes MTP	6,408	15,000,000	13,999.2	28,280,399.5	13,999.2	28,280,399.5
Hard-to-Reach	4,616	7,562,854	6,074.9	9,485,529.8	6,074.9	9,485,529.8
Hard-to-Reach SOP	1,876	3,668,810	1,357.3	1,940,951.7	1,357.3	1,940,951.7
Multi-Family MTP Hard-to-Reach	1,168	1,135,539	388.4	834,144.7	388.4	834,144.7
Targeted Low Income MTP (Agencies in Action)	1,572	2,758,505	4,329.2	6,710,433.4	4,329.2	6,710,433.4
TOTAL	159,250	188,230,942	194,829	215,619,873	194,829	215,619,873

Table 9: Projected Savings versus Reported and Verified Savings for 2018 (at Meter)

	2018					
	Projected Savings		Verified Savings		Reported / Verified	
	kW	kWh	kW	kWh	kW	kWh
Large Commercial	121,975	139,747,016	125,424.8	86,151,360.0	125,424.8	86,151,360.0
Commercial Standard Offer Program (SOP)	15,000	86,000,000	6,554.1	40,416,097.0	6,554.1	40,416,097.0
Commercial MTP (SCORE, Healthcare, Data Center)	7,000	38,000,000	6,837.1	38,977,943.4	6,837.1	38,977,943.4
Commercial Load Management (SOP)	98,000	590,000	110,625.9	663,755.5	110,625.9	663,755.5
Retro-Commissioning MTP	1,652	14,000,000	769.2	4,067,881.4	769.2	4,067,881.4
REP (Commercial CoolSaver)	181	559,472	313.0	422,182.0	313.0	422,182.0
Advanced Lighting Commercial	142	597,544	325.4	1,603,500.7	325.4	1,603,500.7
Residential and Small Commercial	35,015	44,351,721	44,849.4	66,715,927.5	44,849.4	66,715,927.5
REP (Residential CoolSaver and Efficiency Connection)	3,344	10,135,652	1,605.1	4,574,602.5	1,605.1	4,574,602.5
Residential Demand Response SOP	19,500	117,000	19,481.4	117,410.8	19,481.4	117,410.8
Residential & Small Commercial (SC) SOP	952	1,740,893	486.1	1,030,029.4	486.1	1,030,029.4
Smart Thermostat Program (Pilot)	250	1,200,000	0.0	388,592.0	0.0	388,592.0
Advanced Lighting Residential	2,702	11,353,330	6,183.4	30,466,512.8	6,183.4	30,466,512.8
Residential A/C and Pool Pump Distributor MTP	1,379	3,790,617	2,850.4	6,977,205.1	2,850.4	6,977,205.1
Multi-Family Market Rate MTP	658	1,430,896	1,094.6	1,913,678.9	1,094.6	1,913,678.9
CenterPoint Energy High Efficiency Homes MTP	6,230	14,583,333	13,148.4	21,247,896.0	13,148.4	21,247,896.0
Hard-to-Reach	4,565	7,198,565	6,089.0	9,572,321.5	6,089.0	9,572,321.5
Hard-to-Reach SOP	1,876	3,668,810	1,397.1	1,862,128.4	1,397.1	1,862,128.4
Multi-Family MTP HTR	1,519	1,476,201	517.7	964,202.7	517.7	964,202.7
Targeted Low Income MTP (Agencies in Action)	1,170	2,053,554	4,174.3	6,745,990.4	4,174.3	6,745,990.4
TOTAL	161,555	191,297,302	176,363	162,439,609	176,363	162,439,609

VII. Historical Program Expenditures

This section documents CenterPoint Houston's incentive and administration expenditures for the previous five years (2015 – 2019) broken out by program for each customer class. Administrative costs do not include Evaluation Measurement and Verification (EM&V) or rate case expenses.

Table 10: Historical Program Incentive and Administrative Expenditures (2015 – 2019)¹⁶

Historical Statutory Program Funding by Customer Class	2019		2018		2017		2016		2015	
	Incentives	Admin	Incentives	Admin	Incentives	Admin	Incentives	Admin	Incentives	Admin
Large Commercial	\$15,567,811	\$1,943,656	\$13,339,628	\$1,825,309	\$13,090,927	\$1,621,148	\$14,984,848	\$1,874,746	\$15,297,984	\$1,808,656
Commercial Standard Offer Program (SOP)	\$4,633,580	\$901,274	\$3,353,840	\$897,987	\$4,239,883	\$846,554	\$5,932,906	\$973,862	\$6,283,259	\$795,079
Retro-Commissioning MTP	\$835,326	\$206,837	\$997,678	\$161,328	\$298,214	\$46,658	\$451,417	\$52,715	\$464,977	\$48,338
Commercial MTP (SCORE, Healthcare, Data Center)	\$6,631,359	\$550,456	\$5,474,005	\$469,118	\$5,059,102	\$397,526	\$4,639,648	\$448,834	\$4,450,206	\$512,236
Commercial Load Management (SOP)	\$3,300,000	\$251,352	\$3,346,334	\$264,402	\$3,027,561	\$261,179	\$3,106,220	\$327,570	\$3,244,409	\$346,571
Sustainable Schools	N/A	N/A	N/A	N/A	\$344,898	\$22,450	\$334,782	\$28,914	\$357,537	\$49,264
Advanced Lighting Commercial	\$54,229	\$5,387	\$54,134	\$5,265	\$46,267	\$2,438	N/A	N/A	N/A	N/A
REP (Commercial CoolSaver)	\$113,317	\$28,350	\$113,636	\$27,209	\$75,000	\$44,342	\$400,300	\$30,474	\$397,350	\$45,679
Pool Pump Program Commercial	N/A	N/A	N/A	N/A	N/A	N/A	\$119,576	\$12,377	\$100,247	\$11,489
Residential and Small Commercial	\$11,336,554	\$1,174,011	\$8,942,381	\$1,082,326	\$10,820,380	\$1,022,888	\$9,832,154	\$1,126,186	\$11,659,302	\$1,308,234
CenterPoint Energy High Efficiency Homes MTP	\$4,531,218	\$404,251	\$3,519,955	\$361,655	\$3,677,205	\$277,696	\$2,636,756	\$339,312	\$3,892,457	\$399,031
Residential & Small Commercial (SC) SOP	\$236,247	\$84,224	\$271,258	\$82,472	\$35,832	\$107,863	\$79,596	\$31,791	\$300,720	\$61,320
Advanced Lighting Residential	\$1,030,358	\$102,362	\$1,028,549	\$100,040	\$879,069	\$46,330	\$943,324	\$74,665	\$843,658	\$108,397
Multi-Family Market Rate MTP	\$524,312	\$90,294	\$405,322	\$80,251	\$443,524	\$95,973	\$462,168	\$28,541	\$506,714	\$48,463
Mid-Stream MTP (A/C and Pool Pump Distributor)	\$2,304,126	\$173,374	\$1,667,306	\$179,571	\$2,827,330	\$193,395	\$2,519,151	\$264,834	\$2,756,253	\$297,717
Smart Thermostat Program (Pilot)	\$419,235	\$66,684	\$159,256	\$43,485	N/A	N/A	N/A	N/A	N/A	N/A
Residential Load Management SOP	\$833,982	\$108,931	\$838,260	\$100,999	\$778,937	\$72,943	\$542,750	\$52,766	\$603,315	\$91,107
Energy Wise Resource Action MTP	N/A	N/A	N/A	N/A	\$499,992	\$31,293	\$502,515	\$103,808	\$657,801	\$89,390
REP (Residential CoolSaver and Efficiency Connection)	\$1,457,075	\$143,891	\$1,052,474	\$133,852	\$1,678,490	\$197,396	\$2,145,893	\$230,470	\$2,098,385	\$212,809
Hard-to-Reach	\$4,865,369	\$498,312	\$4,861,962	\$457,654	\$4,265,535	\$477,199	\$4,488,903	\$481,142	\$4,844,189	\$521,843
Hard-to-Reach SOP	\$1,060,339	\$114,277	\$1,075,289	\$109,943	\$320,078	\$129,723	\$245,907	\$111,156	\$971,292	\$160,463
Multi-Family MTP HTR	\$245,422	\$92,884	\$313,017	\$80,245	\$286,980	\$88,796	\$554,407	\$48,936	\$447,330	\$49,039
Res. HTR - Afford Home	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$3,529	\$312
Targeted Low Income MTP (Agencies in Action)	\$3,559,609	\$291,151	\$3,473,656	\$267,466	\$3,658,477	\$258,680	\$3,656,549	\$318,396	\$3,360,588	\$303,786
REP (CoolSaver Income Qualified)	N/A	N/A	N/A	N/A	\$0	\$0	\$32,040	\$2,655	\$61,450	\$8,243
Research and Development		\$393,134		\$0		\$122,775		\$322,930		\$392,784
TOTAL	\$31,769,734	\$4,009,113	\$27,143,970	\$3,365,289	\$28,176,841	\$3,244,810	\$29,305,905	\$3,885,004	\$31,801,475	\$4,831,517

¹⁶ 2019 actual spending taken from Table 11 in the current EEPR; 2018, 2017, 2016, and 2015 actual spending from the 2019 EEPR filed under Project 49297.

VIII. Program Funding for Calendar Year 2019

As shown on Table 11, CenterPoint Houston spent a total of \$35,778,847 on energy efficiency programs in 2019. This was less than the budgeted \$37,897,605. Changes to individual program budgets that resulted in greater than 10% increases or decreases are described below.

- The Commercial Standard Offer Program was 19% underspent in 2019. The program has seen a shift to smaller projects that produce lower incentive spend. This shift contributed to underspending in the 2018 and 2019 program years, but the impact was less pronounced in 2019 compared to 2018 (when the program was underspent by 57%). Early in 2019, CenterPoint Houston was able to determine that the program would not be able to utilize the full incentive budget, and the Company identified opportunities to reallocate incentive funding to other programs. In the budgets for program year 2020 and 2021, the Commercial Standard Offer Program have been reduced to better align with program activity.
- The Commercial MTP was able to utilize some of the unspent CSOP funding program for customers participating in SCORE, DCEEP and HEEP, and the program spent an additional 17%.
- The Retro-Commissioning Market Transformation Program spent an additional 15% in 2019. Following program year 2017, in which the Retro-Commissioning MTP was under-subscribed and the budget underspent, the program has closed an increased number of projects in both 2018 and 2019.
- Residential & Small Commercial Standard Offer Program has seen a decline in spending due to more stringent requirements for certain measures such as duct efficiency and weatherization, as well as a lack of interest from ceiling insulation contractors. This led to an 46% underrun in budget, and the excess funding was moved to other programs.
- The High Efficiency Homes MTP spent an additional 22% in 2019 and was able to leverage funds not utilized in other residential programs.
- The Multi-Family MTP spent 42% less than budgeted for 2019, and the Multi-Family HTR MTP was underspent by 39% due to the slowdown of the affordable housing market and delayed projects.

- The Smart Thermostat Program, in its first full year of implementation, spent 18% less than budgeted. In 2019, however, the program did see a significant increase in participation and spending compared to 2018 when it was brought to market late in the year. CenterPoint Houston expects participation for this program to increase in 2020 and 2021.

Table 11: Program Funding for Calendar Year 2019

Program Funding for Calendar Year 2019	Number of Customer Meters	Forecasted Budget	Actuals Funds Expended (Incentives)	Actuals Funds Expended (Admin)	Total Funds Expended	Funds Committed (Not Expended)	Funds Remaining (Not Committed)	Percentage Change From Budgeted/ Actual
Large Commercial	1,331	\$ 17,709,019	\$ 15,567,811	\$ 1,943,656	\$ 17,511,467	\$ -	\$ (197,552)	-1%
Commercial Standard Offer Program (SOP)	861	\$ 6,843,917	\$ 4,633,580	\$ 901,274	\$ 5,534,854	\$ -	\$ (1,309,063)	-19%
Commercial MTP (SCORE, Healthcare, Data Center)	175	\$ 6,142,206	\$ 6,631,359	\$ 550,456	\$ 7,181,815	\$ -	\$ 1,039,610	17%
Commercial Load Management (SOP)	238	\$ 3,623,112	\$ 3,300,000	\$ 251,352	\$ 3,551,352	\$ -	\$ (71,760)	-2%
Retro-Commissioning MTP	11	\$ 905,406	\$ 835,326	\$ 206,837	\$ 1,042,163	\$ -	\$ 136,757	15%
REP (Commercial CoolSaver)	46	\$ 134,461	\$ 113,317	\$ 28,350	\$ 141,666	\$ -	\$ 7,206	5%
Advanced Lighting Commercial	N/A	\$ 59,918	\$ 54,229	\$ 5,387	\$ 59,617	\$ -	\$ (302)	-1%
Residential and Small Commercial	43,468	\$ 12,638,271	\$ 11,336,554	\$ 1,174,011	\$ 12,510,565	\$ -	\$ (127,706)	-1%
CenterPoint Energy High Efficiency Homes MTP	11,377	\$ 4,052,706	\$ 4,531,218	\$ 404,251	\$ 4,935,469	\$ -	\$ 882,763	22%
Residential & Small Commercial (SC) SOP	812	\$ 594,319	\$ 236,247	\$ 84,224	\$ 320,471	\$ -	\$ (273,847)	-46%
Advanced Lighting Residential	N/A	\$ 1,138,450	\$ 1,030,358	\$ 102,362	\$ 1,132,720	\$ -	\$ (5,731)	-1%
Mid-Stream MTP (A/C and Pool Pump Distributor)	3,107	\$ 2,613,309	\$ 2,304,126	\$ 173,374	\$ 2,477,500	\$ -	\$ (135,809)	-5%
REP (Residential CoolSaver and Efficiency Connection)	5,737	\$ 1,619,783	\$ 1,457,075	\$ 143,891	\$ 1,600,967	\$ -	\$ (18,817)	-1%
Residential Load Management SOP	18,203	\$ 972,800	\$ 833,982	\$ 108,931	\$ 942,913	\$ -	\$ (29,887)	-3%
Multi-Family Market Rate MTP	2,416	\$ 1,051,903	\$ 524,312	\$ 90,294	\$ 614,606	\$ -	\$ (437,297)	-42%
Smart Thermostat Program (Pilot)	1,816	\$ 595,000	\$ 419,235	\$ 66,684	\$ 485,919	\$ -	\$ (109,081)	-18%
Hard-to-Reach	2,960	\$ 7,050,315	\$ 4,865,369	\$ 498,312	\$ 5,363,681	\$ -	\$ (1,686,634)	-24%
Hard-to-Reach SOP		\$ 1,255,537	\$ 1,060,339	\$ 114,277	\$ 1,174,616	\$ -	\$ (80,921)	-6%
Multi-Family MTP HTR	1,354	\$ 551,903	\$ 245,422	\$ 92,884	\$ 338,305	\$ -	\$ (213,598)	-39%
Targeted Low Income MTP (Agencies in Action)	1,606	\$ 5,242,875	\$ 3,559,609	\$ 291,151	\$ 3,850,759	\$ -	\$ (1,392,115)	-27%
SUB TOTAL	47,759	\$ 37,397,605	\$ 31,769,734	\$ 3,615,979	\$ 35,385,713	\$ -	\$ (2,011,892)	-5%
Research and Development		\$ 500,000	\$ -	\$ 393,134	\$ 393,134	\$ -	\$ (106,866)	-21%
TOTAL	47,759	\$ 37,897,605	\$ 31,769,734	\$ 4,009,113	\$ 35,778,847	\$ -	\$ (2,118,758)	-6%

IX. Market Transformation Program Results

The Commercial MTP

In 2019, CenterPoint Houston projected to acquire 7,700 kW and 41,800,000 kWh savings from the SCORE, HEEP, and DCEEP program offerings included in the Commercial MTP. CenterPoint Houston verified and is reporting a savings of 9,670 kW and 63,217,039 kWh.

SCORE - The SCORE program paid incentives to school districts, colleges/universities, municipal governments, county governments, and faith-based organizations reaching a total of 51 customers through 194 projects. 17 of the participating customers were new to the program in 2019. Lighting, Chillers, HVAC, and Roofing represented most of the projects incentivized in 2019.

The program will also focus additional outreach efforts to customer segments that have not participated as heavily in the SCORE/CitySmart program, namely local governments, faith-based organizations, and non-profits.

HEEP - HEEP produced strong results in 2019 with a total of 23 projects including LED lighting retrofits, HVAC retrofits, HVAC new construction, and custom HVAC optimization projects. The program delivered savings of 1,954 kW and 21,898,774 kWh.

DCEEP - In 2019, DCEEP delivered notable savings of 2,528 kW and 21,516,688 kWh through the implementation of four projects. The program is comprised of new construction and retrofit applications, with incentivized measures including immersion cooling, where the use of the traditional UPS is eliminated, LED lighting, cooling equipment, and uninterruptable power supply.

Retro-Commissioning MTP (RCx)

In 2019, CenterPoint Houston projected to acquire 1,652 kW and 14,000,000 kWh savings from this program. CenterPoint Houston verified and is reporting a savings of 861 kW and 4,458,399 kWh.

High Efficiency Homes MTP

In 2019, CenterPoint Houston projected to acquire 6,408 kW and 15,000,000 kWh savings from this program. CenterPoint Houston verified and is reporting a savings of 13,999 kW and 28,280,400 kWh. This program drives builders to use energy efficient methods in design and construction for new single-family homes.

Advanced Lighting Residential MTP

In 2019, CenterPoint Houston projected to acquire 2,972 kW and 12,488,663 kWh from this program. CenterPoint Houston verified and is reporting residential savings of 4,683 kW and 25,599,104 kWh, and commercial savings of 247 kW and 1,347,321 kWh.

Mid-Stream MTP

In 2019, the program included 11 HVAC distributors that performed over 2,790 HVAC and heat pump change outs and 6 Pool Pump distributors who performed 869 variable speed pool pump changeouts. Incentives were increased to encourage sales of 17 SEER and higher, and incentives were reduced for the 16 SEER HVAC systems. Incentives were streamlined for pool pumps to incentivize <2.25hp pumps at one level and incentivize >2.25hp at a higher level. In 2019, CenterPoint Houston projected to acquire 1,379 kW and 3,790,617 kWh from this program. CenterPoint Houston verified and is reporting savings of 3,471 kW and 9,950,514 kWh.

Targeted Low-Income MTP (Agencies in Action)

In 2019, the program reached 1,606 homes in the CenterPoint Houston electric territory. Of these homes, 1,427 were multi-family units and 179 were single family homes. Heat pumps were the leading measure installed and made up most of incentives paid. Other measures installed included: air infiltration, attic insulation, central AC, refrigerator replacement, solar screen, wall insulation, and window AC. In 2019, CenterPoint Houston projected to acquire 1,572 kW and 2,758,505 kWh from this program. 2019 verified and reporting savings totaled 4,329 kW and 6,710,433 kWh.

Retail Electric Provider Market Transformation Program

CoolSaver - The CoolSaver portion of the REP MTP program provided free comprehensive air conditioning tune-ups to residential and small commercial customers in the CenterPoint Houston Electric service territory. The program was marketed by thirteen (13) participating REPs: Amigo Energy, Champion Energy Services, Cirro Energy, Direct Energy, First Choice Power, Gexa Energy, Green Mountain Energy, Hello Energy, Hudson Energy, Just Energy, Summer Energy, Tara Energy, and TriEagle Energy. CoolSaver tune-ups were performed by eighteen (18) specially trained A/C contractors. As a result, 5,767 residential A/C tune-ups and 407 commercial A/C tune-ups were performed in 2019.

Efficiency Connection - In 2019, CenterPoint Houston continued the online Efficiency Connection website to promote and deliver energy efficient LED bulbs at a reduced price. The program was marketed by ten (10) participating REPs and yielded 36,868 Energy Star certified LED bulbs. Participating Retail Electric Providers included: Amigo Energy, Champion Energy Services, Direct Energy, First Choice Power, Gexa Energy, Just Energy, Tara Energy, and TriEagle Energy.

Smart Thermostat Program

In 2019, CenterPoint Houston continued offering incentives for Energy Star Certified Smart Thermostats. Thermostats were made available to customers via an online marketplace and at participating retail stores. Customers were able to receive a cash discount by downloading an electronic coupon code for redemption at the register. The program yielded 2,005 thermostat sales resulting 2,389,960 kWh.

Multi-Family MTP Program & Multi-Family HTR MTP Program

Water & Space Heating – The Water & Space Heating portion of the Multi-Family Program promotes the installation of energy efficient non-electric water heating and space heating in housing projects. In 2019, it paid incentives on six apartment complexes with a total of 1,427 units in the CenterPoint Houston service area. Of these units, 72 were classified as Hard-To-Reach and 1,355 were classified as Market Rate.

Direct Install - The Direct Install portion of the Multi-Family Program promotes the installation of energy efficient measures at no cost to the developer, property owner, and tenants. In 2019, it paid incentives on

nine apartment complexes with a total of 1,160 units in the CenterPoint Houston service area, all classified as Hard-To-Reach.

High Efficiency New Construction - The High Efficiency New Construction program expands the participation to include both low-and mid-rise projects, and to incorporate greater flexibility in estimating and documenting above-code energy savings via additional RESNET accredited energy modeling software tools, and tools that can perform hourly analyses. It incentivized the construction of three market rate properties, with a total of 828 units, and incentivized one hard-to reach property, with a total of 192 units which also participated in the Water & Space Heating Program, providing additional savings to customers.

X. Research and Development Results

In 2019, CenterPoint Houston contracted with a new vendor to provide an updated energy efficiency database. Configuration of this system began mid-year 2019, and the database went live in 2020.

XI. Administrative Funds Expended

In 2019, CenterPoint Houston incurred administrative costs on categories such as continued support of its energy efficiency tracking database, employees' salaries, training, and travel, purchase of supplies, and other activities necessary and appropriate for successful program implementation. These costs meet the definition of administration costs as defined by the energy efficiency rule under 16 TAC § 25.181(g)(1) that states these type of costs "include all reasonable and necessary costs incurred by the utility in carrying out its responsibilities..." The spending in these cost categories is monitored throughout the year and mid-course corrections are made as necessary to ensure the success of our portfolio.

XII. Current Energy Efficiency Cost Recovery Factor (EECRF)

CenterPoint Houston's 2020 EECRF was approved by the Public Utility Commission of Texas in Docket No. 49583 on October 14, 2019 in the amount of \$35,401,638.

"The Commission approves CenterPoint Houston's 2020 EECRF in the amount of \$35,401,638, which is comprised of the following: (a) forecasted 2020 energy-efficiency program costs of \$37,820,991; (b) projected EM&V expenses of \$550,514 for program year 2020; (c) a credit of \$6,101,507, including interest, for the over-recovery of 2018 program costs; (e) 2018 EECRF proceeding expenses in the amount of \$93,211; (f) a performance bonus of \$6,738,428; and (g) an adjustment to lower the EECRF revenue requirement by \$3,700,000."

XIII. Revenue Collected Through EECRF

In 2019, CenterPoint Houston collected a total of \$39,724,561 in energy efficiency program costs through the EECRF Rider.

XIV. Over or Under-recovery of Energy Efficiency Program Costs

In Docket No. 48420, the PUCT approved CenterPoint Houston's 2019 EECRF in the amount of \$39,457,985 consisting of:

\$37,897,605	2019 Forecasted Program Costs
\$8,393,259	2017 Bonus
\$5,705,676	2017 Over-Recovery
\$541,294	2019 Forecasted EM&V Expenses
-\$1,700,000	Adjustment/Lower EECRF Revenue Requirement
-\$420	2017 Adjustment/Administrative Expense
-\$359	2017 Adjustment/Lighting
<u>\$32,281</u>	2017 Rate Case Expense
\$39,457,985	Total EECRF Costs

In 2019, total energy efficiency related costs were \$39,039,226 which include program expenditures of \$35,778,847, EM&V costs of \$541,294, a prior period over-recovery of \$5,705,676, a program year 2017 performance bonus of \$8,393,259, 2017 EECRF proceeding expense of \$32,281, a 2017 historical administrative adjustment credit of \$420, and a 2017 lighting credit of \$359. Total revenues collected through the EECRF Rider were \$39,724,561, resulting in overall over-recovery of \$685,335.

XV. Under Served Counties

There were no counties within the CenterPoint Houston service territory that were under-served by the Company's energy efficiency programs in 2019. CenterPoint Houston's energy efficiency programs were accessible to all counties within the Company's electric service area. Appendix C lists the counties served by CenterPoint Houston and the amount of savings each county achieved in 2019 through the Company's energy efficiency programs.

Appendix A: Acronyms

ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
CCET	Center for the Commercialization of Electric Technologies
CLM	Commercial Load Management
DR	Demand Response
DSM	Demand Side Management
EEA	Energy Emergency Alert
EECRF	Energy Efficiency Cost Recovery Factor
EEP	Energy Efficiency Plan, which was filed as a separate document prior to April 2008
EEPR	Energy Efficiency Plan and Report
EER	Energy Efficiency Report, which was filed as a separate document prior to April 2008
ERCOT	Electric Reliability Council of Texas
HERS	Home Energy Ratings
HTR	Hard-To-Reach
IECC	International Energy Conservation Code
MTP	Market Transformation Program
PUCT	Public Utility Commission of Texas
RCx	Retro-Commissioning
REP	Retail Electrical Provider
RES	Residential
RESNET	Residential Energy Services Network
SCORE	Schools Conserving Resources
SOP	Standard Offer Program
SHEM	Smart Home Energy Management System

Appendix B: Glossary

Please refer to the glossary defined in 16 TAC § 25.181.

Appendix C: Reported Demand and Energy Reduction by County

Appendix C
CenterPoint Energy Houston Electric, LLC Efficiency Programs
Energy Efficiency Programs
2019 Demand (kW) and Energy (kWh) Savings at Meter By County

Programs		C O U N T I E S											
		Austin	Brazoria	Chambers	Ft Bend	Galveston	Harris	Liberty	Matagorda	Montgomery	Waller	Wharton	Total
Commercial Standard Offer Program (SOP)	kW	21	210	1,350	656	139	6,165	0	0	56	392	5	8,993
	kWh	140,118	1,165,587	8,921,268	3,264,749	519,087	37,836,687	0	0	268,428	3,314,590	31,073	55,461,587
Score	kW	0	56	98	543	890	3,517	0	0	160	0	0	5,264
	kWh	0	158,569	520,877	1,832,893	3,111,892	14,333,545	0	0	461,669	0	0	20,419,445
Healthcare	kW	0	11	0	12	0	2,002	0	0	0	0	0	2,026
	kWh	0	49,051	0	288,749	0	19,383,544	0	0	0	0	0	19,721,344
Data Centers Program	kW	0	0	0	0	0	2,740	0	0	0	0	0	2,740
	kWh	0	0	0	0	0	23,355,762	0	0	0	0	0	23,355,762
Commercial Load Management (SOP)	kW	0	2,102	1,161	6,881	354	113,049	0	0	99	25	0	123,670
	kWh	0	12,611	6,964	41,286	2,127	678,294	0	0	592	149	0	742,022
Retro-Commissioning MTP	kW	0	0	0	0	0	861	0	0	0	0	0	861
	kWh	0	0	0	0	0	4,458,399	0	0	0	0	0	4,458,399
REP (Commercial CoolSaver)	kW	0	0	0	1	0	578	0	0	6	0	0	584
	kWh	0	0	0	1,748	0	1,453,537	0	0	12,683	0	0	1,467,968
Advanced Lighting Commercial	kW	0	18	0	29	8	183	0	0	8	0	0	246
	kWh	0	100,808	0	157,764	45,744	1,000,650	0	0	42,355	0	0	1,347,321
CenterPoint Energy High Efficiency Homes MTP	kW	0	1,009	133	5,098	52	6,659	0	0	951	98	0	13,999
	kWh	0	1,793,164	285,870	10,392,299	119,570	13,352,293	0	0	2,137,417	199,788	0	28,280,400
Residential & Small Commercial (SC) SOP	kW	13	5	4	32	2	307	0	0	31	1	0	396
	kWh	21,597	27,166	8,546	169,119	6,628	961,469	0	0	132,802	2,330	0	1,329,658
Smart Thermostat Program (Pilot)	kW	0	0	0	0	0	0	0	0	0	0	0	0
	kWh	1,192	137,080	9,536	412,432	41,720	1,726,016	1,192	0	53,640	7,152	0	2,389,960
Advanced Lighting Residential	kW	0	351	0	548	158	3,480	0	0	146	0	0	4,683
	kWh	0	1,915,356	0	2,997,513	869,136	19,012,355	0	0	804,744	0	0	25,599,104
Mid-Stream MTP (A/C and Pool Pump Distributor)	kW	5	238	20	630	74	2,354	0	0	136	10	5	3,471
	kWh	12,102	603,247	51,973	1,762,576	195,263	6,786,401	0	0	491,389	29,323	18,239	9,950,514
REP (Residential CoolSaver and Efficiency Connection)	kW	4	166	13	855	47	2,276	1	1	134	12	1	3,509
	kWh	11,530	446,051	36,715	2,248,565	130,655	6,077,358	2,639	1,943	355,789	33,637	4,252	9,349,133
Residential Demand Response SOP	kW	12	923	127	3,310	268	12,258	-1	0	870	40	9	17,817
	kWh	73	5,536	764	19,862	1,611	73,555	-8	0	5,221	241	51	106,905
Multi-Family MTP	kW	0	0	0	0	0	849	0	0	0	0	0	849
	kWh	0	0	0	0	0	2,391,384	0	0	0	0	0	2,391,384
Hard-to-Reach SOP	kW	0	0	0	7	2	1,348	0	0	0	0	0	1,357
	kWh	0	358	0	10,633	1,763	1,928,197	0	0	0	0	0	1,940,952
Multi-Family MTP (HTR)	kW	0	0	0	0	0	388	0	0	0	0	0	388
	kWh	0	0	0	693	0	833,452	0	0	0	0	0	834,145
Targeted Low Income MTP (Agencies in Action)	kW	0	0	0	67	0	4,263	0	0	0	0	0	4,329
	kWh	0	0	0	95,150	0	6,615,283	0	0	0	0	0	6,710,433
Programs - TOTAL													
Total kW Savings		55	5,089	2,906	18,668	1,995	163,277	0	1	2,597	578	19	195,184
Total kWh Savings		186,611	6,414,583	9,842,513	23,696,032	5,045,196	162,258,181	3,823	1,943	4,766,729	3,587,210	53,615	215,856,435