El Paso Electric Company

2017 Energy Efficiency Plan and Report

16 Texas Administrative Code §25.181 and §25.183

April 1, 2017

(Revised April 27, 2017)

Project No. 46907

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INTRODUCTION

El Paso Electric Company (EPE or Company) presents this Energy Efficiency Plan and Report (EEPR) to comply with 16 Texas Administrative Code (TAC) §25.181 and §25.183, which are the sections of the Energy Efficiency Rule (EE Rule) implementing the Public Utility Regulatory Act (PURA) §39.905. As mandated by this section of PURA, 16 TAC §25.181(e)(1) states that each investor owned electric utility must achieve the following minimum demand reduction goals through market-based standard offer programs (SOPs), targeted market transformation programs (MTPs) or utility self-delivered programs:

> §25.181(e)(1) An electric utility shall administer a portfolio of energy efficiency programs to acquire, at a minimum, the following:
>
> (A) The utility shall acquire no less than a 25% reduction of the electric utility's annual growth in demand of residential and commercial customers for the 2012 program year.
>
> (B) Beginning with the 2013 program year, until the trigger described in subparagraph (C) of this paragraph is reached, the utility shall acquire a 30% reduction of its annual growth in demand of residential and commercial customers.
>
> (C) If the demand reduction goal to be acquired by a utility under subparagraph (B) of this paragraph is equivalent to at least four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year, the utility shall meet the energy efficiency goal described in subparagraph (D) of this paragraph for each subsequent program year.
>
> (D) Once the trigger described in subparagraph (C) of this paragraph is reached, the utility shall acquire four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year.
>
> (E) Except as adjusted in accordance with subsection (w) of this section, a utility's demand reduction goal in any year shall not be lower than its goal for the prior year, unless the commission establishes a goal for a utility pursuant to paragraph (2) of this subsection.

The EE Rule includes specific requirements related to the implementation of SOPs, MTPs and utility self-delivered programs that control the manner in which utilities must administer their portfolio of energy efficiency programs in order to achieve their mandated annual demand reduction goals. EPE's plan enables it to meet its statutory goals through implementation of energy efficiency programs in a manner that complies with PURA §39.905 and the EE Rule. This EEPR reports EPE's achievements for 2016 and its projections for 2017 and 2018 as required by the EE Rule. The following section describes the information that is contained in each of the subsequent sections and appendices.

ENERGY EFFICIENCY PLAN AND REPORT ORGANIZATION

This EEPR consists of an executive summary, fourteen sections, a list of acronyms, glossary and two appendices.

- The Executive Summary highlights EPE's reported achievements for 2016 and EPE's plans for achieving its 2017 and 2018 projected energy efficiency savings.

Energy Efficiency Plan

- Section I describes EPE's program portfolio. It details how each program will be implemented, discusses related informational and outreach activities, and provides an explanation of any discontinued programs.

- Section II explains EPE's targeted customer classes, specifying the size of each class and the method for determining those class sizes.

- Section III presents EPE's goal calculation and projected energy efficiency savings for the prescribed planning period by program for each customer class.

- Section IV describes EPE's proposed energy efficiency budgets for 2017 and 2018 by program for each customer class.

Energy Efficiency Report

- Section V documents EPE's demand reduction goals for each of the previous five years (2012-2016) and the actual savings achieved for those years.

- Section VI compares EPE's projected energy and demand savings to its reported savings by program for calendar years 2015 and 2016.

- Section VII details EPE's incentive and administration expenditures for the previous five years (2012-2016) detailed by program for each customer class.

- Section VIII compares EPE's actual and budgeted program costs for 2016 detailed by program for each customer class. It also provides an explanation of EPE’s administrative costs and any expenditure deviation of more than 10% from the anticipated program budget.

- Section IX describes the results from EPE's MTPs and the self-delivered program.

- Section X documents EPE's most recent Energy Efficiency Cost Recovery Factor (EECRF).

- Section XI reflects EPE’s revenue collection through the 2016 EECRF.

- Section XII details the over/under recovery of EPE’s energy efficiency program costs for 2016.

- Section XIII reports the number of customers served and the savings relative to the three counties served by EPE in Texas.

- Section XIV details the performance incentive calculation.

Acronyms – a list of abbreviations for common terms used within this document.

Appendix A – Reported kW and kWh Savings by county for each program.

Appendix B – Residential and Small Commercial Demand Response Pilot Program Description

EXECUTIVE SUMMARY

The Energy Efficiency Plan portion of this EEPR details EPE's plans to meet the energy efficiency demand reduction goal for 2017, as established pursuant to 16 TAC §25.181(e)(2). The final order of Docket No. 45885[1] issued on November 2, 2016, established the EECRF rates applicable to EPE for 2017. The order also left in place the same demand reduction goal as EPE had in 2016 for the 2017 energy efficiency programs. This goal was 11.16 MW, which is greater than four-tenths of one percent of EPE's average weather-adjusted peak demand at meter for 2011 through 2015. Since EPE has reached a demand reduction goal of greater than four-tenths of 1 percent of its summer weather-adjusted peak demand and in accordance with 16 TAC §25.181(e)(1)(E), EPE's 2018 demand reduction goal should remain at 11.16 MW.

The final order of Docket No. 45885 also established an energy efficiency program budget for 2017 of $4,394,650.[2] EPE made some modifications to the individual program budgets that were identified in the 2016 EEPR; however, the overall program budget for 2017 remained the same at $4,394,650. The modifications consisted of a decrease in the Commercial SOP budget, an increase in Research and Development (R&D) expenses for the R&D component of a Residential and Small Commercial Demand Response Pilot Program (DRPP), and the discontinuation of the Commercial Rebate Pilot Program.

The goals, budgets and implementation plans that are included in this EEPR are influenced substantially by the requirements of the EE Rule and lessons learned regarding energy efficiency service providers and customer participation in the various energy efficiency programs. A summary of projected goals and budgets is presented in Table 1.

Table 1: Summary of 2017 & 2018 Projected Goals, Savings and Budgets[3]

Calendar Year	Average Growth in Demand (MW at Meter)	Goal Metric: 30% of 5-year Average Growth of Demand (MW at Meter)	Goal Metric: .4% of 5-year Average Peak Demand (MW at Meter)	Demand Goal (MW)*	Energy Goal (MWh)**	Projected MW Savings (at Meter)	Projected MWh Savings (at Meter)	Proposed Budget (000's)
2017	23.9	7.17	4.51	11.16	19,552	12.059	20,234	$4,536
2018	38.0	11.39	4.66	11.16	19,552	14.181	21,054	$4,551

* Pursuant to 16 TAC §25.181(e)(1)
** Calculated using a 20% conservation load factor

The Energy Efficiency Report portion of this EEPR shows that, in 2016, EPE achieved a demand reduction in excess of its goal. This was accomplished through the implementation of EPE's SOPs, and MTPs. In 2016, the Company achieved a demand reduction of 12.790 MW, which exceeded the demand reduction goal of 11.16 MW by 14.61%.

The SOPs that EPE provided in 2016 were the Commercial SOP and the Load Management SOP. The MTPs were the Small Commercial Solutions MTP, the Large Commercial & Industrial (C&I)

[1] *Application of El Paso Electric Company for Approval to Revise its Energy Efficiency Cost Recovery Factor and Request to Establish Revised Cost Cap*, Docket No. 45885.
[2] *Id.* at Findings of Fact No. 26
[3] Average Growth in Demand and Weather Adjusted Peak Demand are found in Table 4, Projected Demand and Energy Reductions are found in Table 5, and Proposed Budgets are found in Table 6.

Solutions MTP, the Texas SCORE MTP, the Residential Solutions MTP, the LivingWise® MTP, and the Hard-to-Reach Solutions MTP. EPE also offered the Commercial Rebate Pilot Program, which is a self-delivered program.

In order to reach the projected savings for 2017 as shown in Table 1, EPE proposes to offer the following programs:

- **Standard Offer Programs**
  - Commercial SOP
  - Load Management SOP
- **Market Transformation Programs**
  - Small Commercial Solutions MTP
  - Large C&I Solutions MTP
  - Texas SCORE MTP
  - Residential Solutions MTP
  - LivingWise® MTP
  - Hard-to-Reach Solutions MTP

EPE will continue its agreement with Frontier Associates, LLC (Frontier) to assist with EPE's Commercial SOP.

EPE will continue its agreement with CLEAResult Consulting, Inc. (CLEAResult) to implement EPE's Texas SCORE MTP and the four "Solutions" MTPs.

EPE will continue its agreement with Resource Action Programs to offer EPE's LivingWise® MTP.

In order to reach the projected savings for 2018 as shown in Table 1, EPE proposes to offer the following programs:

- **Standard Offer Program**
  - Load Management SOP
- **Market Transformation Programs**
  - Small Commercial Solutions MTP
  - Large C&I Solutions MTP
  - Texas SCORE MTP
  - Residential Solutions MTP
  - LivingWise® MTP
  - Hard-to-Reach Solutions MTP
  - Residential and Small Commercial Demand Response Pilot MTP
  - Appliance Recycling MTP

EPE will continue its agreement with CLEAResult Consulting, Inc. (CLEAResult) to implement EPE's Texas SCORE MTP and the four "Solutions" MTPs.

EPE will continue its agreement with Resource Action Programs to offer EPE's LivingWise® MTP

EPE currently has a contract with EnergyHub, Inc. (EnergyHub) to implement the DRPP.

EPE is currently negotiating a contract with ARCA Recycling, Inc. (ARCA) to implement the Appliance Recycling MTP.

ENERGY EFFICIENCY PLAN

I. 2017 Programs

A. 2017 Program Portfolio

El Paso Electric Company (EPE or Company) plans to continue the implementation of two SOPs and six MTPs in 2017. These programs have been structured to comply with the rules of the Public Utility Commission of Texas (PUCT) governing program design and evaluation. These programs target both broad market segments and specific market segments that offer significant opportunities for cost-effective savings. EPE anticipates that targeted outreach to a broad range of service providers and customers will be necessary in order to meet the demand reduction goals established by the PUCT for EPE. Table 2 below summarizes the programs and target markets:

Table 2: 2017 Energy Efficiency Program Portfolios

Program	Target Market	Application
Commercial SOP	Large and Small Commercial and Industrial	Retrofit; New Construction
Small Commercial Solutions MTP	Small Commercial (<100kW)	Retrofit; New Construction
Large C&I Solutions MTP	Large Commercial and Industrial (≥100kW)	Retrofit; New Construction
Texas SCORE MTP	City, County Governments and Schools	Retrofit; New Construction
Load Management SOP	Commercial, Government and Schools	Load Management
Residential Solutions MTP	Residential	Retrofit; New Construction
LivingWise® MTP	Residential	Educational; Retrofit
Hard-to-Reach Solutions MTP	Residential Hard-to-Reach	Retrofit; New Construction

The programs in Table 2 are described in further detail below. EPE maintains a website containing links to the program manuals, the requirements for project participation, and available electronic forms at www.epelectric.com. Program manuals can be found at the following website: www.epelectric.com/tx/business/program-manuals-and-guidelines.

B. Existing Programs

Commercial SOP

The Commercial SOP targets small and large commercial and industrial customers. The program pays incentives to qualified project sponsors or to commercial customers who act as their own project sponsor. Incentives of $194 per kW and $0.05 per kWh are paid for qualified measures installed in new or retrofit applications that provide verifiable demand and energy savings. Commercial and industrial customers with a demand of 50 kW or greater may act as their own project sponsor. Due to low participation in this program, EPE has reduced the budget for program year 2017 and plans to discontinue it in 2018.

Small Commercial Solutions MTP

The Small Commercial Solutions MTP offers customers with a peak demand of less than 100 kW both cash and non-cash incentives. The program pays a cash incentive of $400 per reduced kW for the majority of measures and $500 per reduced kW when converting T12 lamps to higher efficiency lamps. The incentive is paid to customers, generally through participating contractors, for eligible energy efficiency measures that are installed in new or retrofit applications. This program also provides non-cash incentives which include technical assistance, education on energy efficiency projects, and marketing material to customers and participating contractors. In addition to capturing demand and energy savings, the implementer helps small commercial contractors improve their ability to identify, evaluate, and sell energy efficiency improvements to small business owners. Also, this program assists customers in evaluating energy efficiency proposals from contractors. EPE plans to continue this program in 2017 and 2018. The Small Commercial Solutions Program will continue working with contractors and business owners to improve energy efficiency in the targeted market. This program will continue to expand outreach to active contractors and other building industry players to raise overall energy efficiency practices across the marketplace.

Large Commercial & Industrial Solutions MTP

The Large C&I Solutions MTP offers customers with a peak demand of equal to or greater than 100 kW both cash and non-cash incentives. The program pays a cash incentive of $240 per reduced kW to customers for eligible energy efficiency measures that are installed in new or retrofit applications. This program helps companies to: (1) identify, evaluate, and undertake energy efficiency improvements; (2) properly evaluate energy efficiency proposals from vendors; and/or (3) understand how to leverage their energy savings to finance projects. The Large C&I Solutions Program also provides measurement and verification for projects, as necessary. EPE plans to continue this program in 2017 and 2018. The Large C&I Solutions MTP will continue its outreach to active contractors, architectural firms, engineering firms, and other building industry players to raise overall energy efficiency practices across the marketplace.

Texas SCORE MTP

The Texas SCORE MTP promotes a structured process for school districts, higher education and local governments to identify opportunities and implement energy efficiency measures. This program pays a cash incentive of $240 per reduced kW to schools and local governmental entities for the installation of energy efficiency measures, as well as non-cash incentive tools used to identify their critical needs and promote best business practices. This program is designed to assist and educate these customers in improving their facilities' energy performance and reducing their operating costs by integrating energy efficiency into their short- and long-term planning. This program also helps

these customers identify, prioritize, budget, and complete energy efficiency projects. A benchmarking analysis may be conducted depending upon the individual customer needs. The benchmarking data compares energy performance within the school campuses and government facilities against national and state averages. This data also serves as the program baseline data. EPE will continue to offer its Texas SCORE MTP in 2017 and 2018; however, the budget and goal will be reduced in 2018 to assist EPE in bringing the 2018 program portfolio within the cost-caps as established by 16 TAC §25.181(f)(7). EPE will continue working with schools and governmental entities to help identify energy efficiency opportunities. The Texas SCORE MTP will continue to provide outreach to contractors, architectural firms, engineering firms, and other building industry players to raise overall energy efficiency practices across the marketplace.

Load Management SOP

The Load Management SOP allows participating customers or third-party sponsors to provide on-call, voluntary curtailment of electric consumption during peak demand periods in return for incentive payments. Any commercial customer, governmental entity, or educational customer that takes service at the distribution level is eligible to participate in the program. Incentives are based on verified demand savings that customers are able to achieve in response to notifications of voluntary curtailment events by EPE. Demand savings and incentive payment amounts are based on the actual, verified load curtailments. EPE plans to continue this program in 2017 and 2018.

Residential Solutions MTP

The Residential Solutions MTP offers both cash and non-cash incentives. The cash incentives vary by measure and are paid to customers, through participating contractors, for eligible energy efficiency measures that are installed in residences. This program also provides non-cash incentives which include technical assistance and education on energy efficiency projects to participating contractors. In addition to capturing demand and energy savings, this program helps contractors improve their ability to identify, evaluate, and sell energy efficiency improvements to home owners. EPE plans to continue this program in 2017 and 2018.

LivingWise® MTP

The LivingWise® MTP is implemented by Resource Action Programs. This program serves as an effective community outreach program to improve customer awareness of energy efficiency programs and measures. The LivingWise® program is designed to generate immediate and long-term energy savings for participants.

Through this program, EPE identifies and enrolls teachers and sixth-grade students, providing them with a LivingWise® kit that contains energy saving devices and energy efficiency educational materials. All of the materials provided meet state and national educational standards, which allow the program to easily fit into the teachers' existing requirements. The students take the LivingWise® kit home and, with the help of their parents, install the devices in their home and complete a home energy audit report. The LivingWise® staff tabulates all responses including home audits, teacher responses, student input and parent responses. EPE plans on continuing this program in 2017 and 2018.

Hard-to-Reach Solutions MTP

The Hard-to-Reach Solutions MTP offers both cash and non-cash incentives. This program targets residential customers that are at or below 200% of the Federal Poverty Guidelines. The cash incentives vary by measure and are paid to customers, through participating contractors, for eligible

energy efficiency measures that are installed in residences. This program also provides non-cash incentives which include technical assistance and education on energy efficiency projects to participating contractors. In addition to capturing demand and energy savings, this program helps contractors improve their ability to identify, evaluate, and sell energy efficiency improvements to home owners. EPE plans to continue this program in 2017 and 2018.

Research and Development

During 2017, EPE will be testing the efficacy and acceptance of a demand response program that targets reduction in central refrigerated air conditioning load for residential and small commercial customers. EPE will be testing various load control strategies, designs and structures in order to identify the most effective methods for maximizing program efficiency and load reduction. EPE will have the capability of remotely adjusting participating customers' internet-enabled smart thermostats during Demand Response Events. EPE has allocated $364,000 to R&D for 2017. This funding amount is less than 10% of EPE's 2016 total program costs in accordance with 16 TAC §25.181(i). EPE will also utilize a portion of the 2017 R&D budget to fund a deemed savings study that will be performed by Frontier. Research will be conducted to identify which combination of temperature set-back and air conditioner cycling will offer the greatest benefit to load reduction during events. Please see Appendix B for more detailed information.

C. New Programs for 2017 and 2018

EPE is currently working with ARCA to implement an Appliance Recycling MTP in 2018. EPE discontinued its original Appliance Recycling Program in 2015 because the third party implementer of that program was placed into receivership. The 2018 program is designed to encourage residential customers to recycle their old, less efficient refrigerators and freezers rather than use them as secondary units. This program would offer residential customers a $50 incentive for each recycled unit.

Also in 2018, EPE will be implementing a residential and small commercial demand response pilot program, the DRPP. EPE will be working with EnergyHub to market and administer this program. It will target residential and small commercial central refrigerated air conditioning load to reduce demand during peak hours. EPE will have the capability of remotely adjusting participating customers' internet-enabled smart thermostats during Demand Response Events. Please reference Appendix B for a more detailed description of this program.

D. Discontinued Programs for 2017 and 2018

EPE has discontinued the 2017 Commercial Rebate Pilot Program due to lack of customer participation in 2016. The funds originally allocated to the Commercial Rebate Pilot Program have been reallocated to R&D. In 2018, EPE plans to discontinue the Commercial SOP due to recurring low customer participation. The discontinuation of these commercial programs will also contribute to the reduction of the commercial cost cap pursuant to 16 TAC §25.181(f)(7).

E. General Implementation Process

Program Implementation

In 2017, EPE will continue to conduct activities to implement energy efficiency programs in a non-discriminatory and cost-effective manner. EPE will provide program announcements to the

Energy Efficiency Service Provider (EESP) community in the form of pertinent news and updates, as necessary.

EPE announced the 2017 Commercial SOP on the EPE website and then opened its on-line application pages to provide EESPs with the program manuals and applicable forms. These application pages also provide program information and assist EESPs in preparing project applications. EPE began to accept applications in February for the Commercial SOP.

In April 2017, EPE will announce its 2017 Load Management SOP through the EPE website. EESPs who participated in the 2016 Load Management SOP will also be sent e-mails to inform them of the opening of this program. The program manual and initial application will be made available to EESPs on the website. All applications are considered on a first-come, first-served basis and reviewed for eligibility. Once approved, EESPs will be informed of their acceptance into the program.

All of the remaining MTPs were opened for new projects in January 2017. Depending upon the program, the MTPs were announced through kick-off meetings, informative e-mails to EESPs, direct communication, or the EPE website.

Program Tracking

EPE uses online databases to track program activity for the Commercial SOP and the various MTPs. Depending upon the associated program, these databases are accessible to project sponsors, EESPs, implementers, and administrators. The on-line databases capture customer and project information such as utility meter number or account number, proposed measures and associated energy savings, and incentive amounts.

Measurement and Verification

The majority of projects implemented through EPE's energy efficiency programs report demand and energy reductions utilizing deemed savings as approved by the PUCT. If the deemed savings approach is not applicable for a particular installation, savings will be reported using an approved measurement and verification approach. Guidelines within the International Performance Measurement and Verification Protocol (IPMVP) will be used in instances in which:

- a PUCT-approved deemed savings is not available for the energy efficiency measure(s) included in an eligible project; or

- an EESP has elected to follow the protocol because it believes that measurement and verification activities will result in a more accurate estimate of the savings associated with the project than would the application of the PUCT-approved deemed savings value.

The IPMVP is voluminous and is not included with this plan.

Based on the EE Rule, the PUCT implemented an evaluation, measurement, and verification (EM&V) process that included the selection of an EM&V contractor in 2013. The PUCT selected the current third-party EM&V contractor through the Request for Proposal 473-17-002 (RFP), Project No. 46302. The selected EM&V team is led by Tetra Tech and includes Texas Energy Engineering Services, Inc. (TEESI). The RFP was for the evaluation of Program Year (PY) 2016 through PY 2019. EPE will continue to provide all of the necessary information and data to the EM&V team.

F. Outreach Activities

EPE anticipates that outreach to a broad range of EESPs and market segments will be necessary in order to meet the savings goals required by Section (e)(1) of the EE Rule and PURA § 39.905. EPE markets the availability of its programs in the following manner:

- EPE maintains the websites www.epelectric.com and www.epelectricefficiency.com. The use of the websites is one of the primary methods of communication to provide potential project sponsors and customers with program information. The websites may contain detailed information such as requirements for program participation, project eligibility, end-use measure eligibility, incentive levels, application procedures, program manuals, and available funding.

- EPE offers outreach workshops, either physically or through webinars, for the MTPs. EPE invites the appropriate EESPs to participate in the workshops. The workshops describe the requirements for program participation, project eligibility, end-use measure eligibility, incentive levels, application procedures, and available funding.

- EPE gauges EESP interest in its workshops by participation levels. If warranted, EPE will offer workshops dedicated to specific measures.

- EPE includes information on the availability of energy efficiency programs several times a year through the monthly newsletter that is included in customers' bills.

- EPE maintains a dedicated energy efficiency phone line to provide customers with direct access to energy efficiency personnel on program availability, participation requirements, incentive levels, application procedures, and available funding.

- EPE maintains a dedicated energy efficiency e-mail address to allow customers to contact energy efficiency personnel directly.

- EPE utilizes mass electronic mail (e-mail and webinar) notifications to keep potential project sponsors interested and informed.

G. Existing Demand Side Management (DSM) Contracts or Obligations

EPE will continue its agreement with Frontier to assist with EPE's Commercial SOP.

EPE will continue its agreement with CLEAResult to implement EPE's Texas SCORE MTP and the four "Solutions" MTPs.

EPE will continue its agreement with Resource Action Programs to offer EPE's LivingWise® MTP.

II. Customer Classes

For the twelve months ending December 2016, there was an average of 277,129 residential accounts in the EPE Texas service territory. Based on the 2016 Annual Social and Economic Supplement of the U.S. Census Bureau's Current Population Survey, 34.4% of Texas families are at or below 200% of the poverty threshold. Applying this standard pursuant to 16 TAC §25.181(c)(27), approximately 95,332 of EPE's residential accounts fall into the Hard-to-Reach Customer Class. The average number of commercial accounts for this same time period was 34,129.

Customer classes targeted by EPE's energy efficiency programs are residential and commercial customer classes that take service at the distribution level. Transmission level customers are not eligible to participate. The total residential class includes the Hard-to-Reach accounts. Table 3 summarizes the number of customers in each of the customer classes for 2016.

Table 3: Summary of Texas Residential and Commercial Customer Classes (2016)

Customer Class	Number of Texas Customers
Total Residential	**277,129**
Hard-to-Reach	**95,332**
Total Commercial	**34,129**

III. Projected Energy Efficiency Savings and Goals

As reflected in PUCT Docket No. 45885, EPE's energy efficiency demand reduction goal for 2017 is 11.16 MW, which mirrors the 2016 goal. The following is the Section of the EE Rule that describes how utilities are to calculate their minimum demand reduction goals:

§25.181(e)(1) An electric utility shall administer a portfolio of energy efficiency programs to acquire, at a minimum, the following:

(A) The utility shall acquire no less than a 25% reduction of the electric utility's annual growth in demand of residential and commercial customers for the 2012 program year.

(B) Beginning with the 2013 program year, until the trigger described in subparagraph (C) of this paragraph is reached, the utility shall acquire a 30% reduction of its annual growth in demand of residential and commercial customers.

(C) If the demand reduction goal to be acquired by a utility under subparagraph (B) of this paragraph is equivalent to at least four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential and commercial customers for the previous program year, the utility shall meet the energy efficiency goal described in subparagraph (D) of this paragraph for each subsequent program year.

(D) Once the trigger described in subparagraph (C) of this paragraph is reached, the utility shall acquire four-tenths of 1% of its summer weather-adjusted peak

demand for the combined residential and commercial customers for the previous program year.

(E) Except as adjusted in accordance with subsection (w) of this section, a utility's demand reduction goal in any year shall not be lower than its goal for the prior year, unless the commission establishes a goal for a utility pursuant to paragraph (2) of this subsection.

The demand reduction goal to be acquired in 2017 (11.16 MW) is greater than four-tenths of one percent of EPE's 5-year average summer weather-adjusted peak demand for 2011 through 2015, which is 4.51 MW as shown in Table 1. In accordance with Section (e)(1)(E) of the EE Rule, EPE's demand reduction goal in any year shall not be lower than its goal for the prior year. In light of the parameters established by the EE Rule, EPE's 2018 goal should remain at 11.16 MW (0.96% of the average summer weather-adjusted peak demand for 2012 through 2016) as shown in Table 1. The corresponding energy savings goals for all years are determined by applying a 20% conservation load factor to the demand reduction goals.

Table 4 presents historical annual growth in demand for the previous six years. Projected demand reduction and energy savings by customer class and program for 2017 and 2018 are presented in Table 5. The projected energy and demand savings for 2017, as shown in Table 5, have changed since the filing of the 2016 EEPR, Project No. 45675. These changes reflect the discontinuation of the Commercial Rebate Pilot Program, decreased projected demand and energy savings for the Commercial SOP and the recalculation of the projected energy savings for the Large C&I Solutions Program, the Texas SCORE MTP and the LivingWise Program based on the load factor achieved in each of these programs for 2016.

Table 4: Annual Growth in Demand and Energy Consumption

	Peak Demand (MW at Source)						Energy Consumption (MWh at Meter)				Growth (MW at Source)	Growth (MW at Meter)[4]	Average Growth (MW at Meter)[5]
	Total System		Residential & Commercial				Total System		Residential & Commercial				
Calendar Year	Actual	Weather Adjusted	Actual	Weather Adjusted	Opt-Out	Peak Demand @ Source Net Opt-Outs	Actual	Weather Adjusted	Actual	Weather Adjusted	Weather Adjusted	Weather Adjusted	Weather Adjusted
2011	1,314	1,290	1,213	1,188	0	1,188	5,954,789	5,847,816	5,190,202	5,083,229	53.0	48.4	NA
2012	1,294	1,287	1,191	1,184	0	1,184	6,035,970	6,003,736	5,279,626	5,247,392	-4.0	-3.7	NA
2013	1,357	1,352	1,252	1,248	0	1,248	6,028,388	6,008,772	5,276,023	5,256,408	64.0	58.4	NA
2014	1,385	1,387	1,289	1,291	0	1,291	5,973,273	5,981,108	5,211,869	5,219,704	43.0	39.3	NA
2015	1,398	1,386	1,279	1,266	0	1,266	6,141,917	6,086,745	5,318,795	5,263,622	-25.0	-22.8	NA
2016	1,509	1,509	1,397	1,397	-1.1	1,396	6,188,610	6,187,025	5,387,152	5,385,567	129.9	118.6	NA
2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23.9
2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	38.0

[4] Growth at meter includes an 8.72% line loss factor based on EPE's 2010 Analysis of System Losses completed on December 20, 2011.

[5] Average 5 year historical growth in demand for residential and commercial customers for 2017 (2011-2015) and 2018 (2012-2016).

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

2017	Projected Savings (at meter)	
Customer Class and Program	**kW**	**kWh**
Commercial	**10,641**	**17,723,216**
Commercial SOP	150	657,000
Small Commercial Solutions MTP	730	3,197,400
Large C&I Solutions MTP	2,011	10,569,816
Texas SCORE MTP	750	3,285,000
Load Management SOP	7,000	14,000
Residential	**618**	**1,459,936**
Residential Solutions MTP	418	732,336
LivingWise® MTP	200	727,600
Hard-to-Reach	**800**	**1,051,200**
Hard-to-Reach Solutions MTP	800	1,051,200
Total	**12,059**	**20,234,352**
2018	**Projected Savings (at meter)**	
Customer Class and Program	**kW**	**kWh**
Commercial	**10,241**	**16,635,216**
Small Commercial Solutions MTP	730	3,197,400
Large C&I Solutions MTP	2,011	10,569,816
Texas SCORE MTP	500	2,847,000
Load Management SOP	7,000	21,000
Residential	**940**	**3,261,640**
Residential Solutions MTP	545	954,840
LivingWise® MTP	200	727,600
Appliance Recycling MTP	195	1,579,200
Hard-to-Reach	**800**	**1,051,200**
Hard-to-Reach Solutions MTP	800	1,051,200
Residential / Commercial	**2,200**	**105,600**
Demand Response Pilot Program	2,200	105,600
Total	**14,181**	**21,053,656**

IV. Program Budgets

Table 6 presents the total proposed budget allocations required to achieve EPE's projected demand reduction and energy savings shown in Table 5. The budget allocations are broken down by customer class, program, and the budget categories of incentive payments and administration and R&D expenses. Table 6 also includes the estimated annual expenses for the statewide EM&V contractor and the EECRF proceeding expenses. EPE made some modifications to the individual program budgets that were identified in the 2016 EEPR. The overall program budget for 2017 remained at $4,394,650; however, there was an increase in R&D for the R&D component of the DRPP, a decrease in the Commercial SOP budget, and the discontinuation of the Commercial Rebate Pilot Program. The discontinuation of the Commercial Rebate Pilot Program and the decrease in the Commercial SOP were due to recurring low participation and will also assist in lowering EPE's 2017 commercial cost cap.

The number of customers in each of the customer classes shown in Table 3 was considered in budget allocations for those classes. EPE first ensured that the 5% goal for Hard-to-Reach customers was met and then allocated the remaining funding to the residential and commercial classes. A variety of additional factors and assumptions also went into the decision process.

Hard-to-Reach customers are residential customers at or below 200% of the Federal Poverty Guidelines. This is estimated to be approximately 95,332 customers or 34.4% of EPE's total residential load in Texas.

Avoided costs for 2017, as established by the PUCT, were set at $80 per kW per year and $0.03989 per kWh.

As directed in the EE Rule, EPE will limit administrative costs to a maximum of 15% of the total program costs and R&D costs to a maximum of 10% of the total program costs for 2016; however, the cumulative cost of administration and R&D will not exceed 20% of EPE's total program costs.

EPE used a 6.608% post-tax discount rate to calculate the present value of the avoided cost associated with a project and assumed a 2% escalation rate.

For simplicity, it is assumed that an EESP that completes an energy efficiency project in a given year receives all the incentives associated with that project in that year. Administration costs, however, may be committed in one year and expended in another.

EPE will offer a portfolio of SOPs and MTPs to all eligible 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, the potential interest of customer classes towards specific programs, and the overriding objective of meeting the legislative savings goal. Should funds not be reserved and used as prescribed by program milestones, EPE reserves the right to reallocate those unused funds to other programs in order to maximize contributions towards EPE's energy efficiency goal.

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

2017	Incentives	Admin & R&D	Total Budget
Commercial	**$2,720,075**	**$40,000**	**$2,760,075**
Commercial SOP	$88,995	$40,000	$128,995
Small Commercial Solutions MTP	$461,115	$0	$461,115
Large C&I Solutions MTP	$1,005,396	$0	$1,005,396
Texas SCORE MTP	$704,569	$0	$704,569
Load Management SOP	$460,000	$0	$460,000
Residential	**$576,346**	**$0**	**$576,346**
Residential Solutions MTP	$230,000	$0	$230,000
LivingWise® MTP	$346,346	$0	$346,346
Hard-to-Reach	**$600,000**	**$0**	**$600,000**
Hard-to-Reach Solutions MTP	$600,000	$0	$600,000
Administration		**$94,229**	**$94,229**
Research and Development		**$364,000**	**$364,000**
Subtotal Budgets	**$3,896,421**	**$498,229**	**$4,394,650**
EM&V		$56,342	$56,342
EECRF Proceeding Expenses		$85,000	$85,000
Total Budgets	**$3,896,421**	**$639,571**	**$4,535,992**
2018	**Incentives**	**Admin & R&D**	**Total Budget**
Commercial	**$2,436,511**	**$0**	**$2,436,511**
Small Commercial Solutions MTP	$461,115	$0	$461,115
Large C&I Solutions MTP	$1,005,396	$0	$1,005,396
Texas SCORE MTP	$510,000	$0	$510,000
Load Management SOP	$460,000	$0	$460,000
Residential	**$906,346**	**$10,000**	**$916,346**
Residential Solutions MTP	$315,000	$0	$315,000
LivingWise® MTP	$346,346	$0	$346,346
Appliance Recycling MTP	$245,000	$10,000	$255,000
Hard-to-Reach	**$600,000**	**$0**	**$600,000**
Hard-to-Reach Solutions MTP	$600,000	$0	$600,000
Residential / Commercial	**$279,000**	**$0**	**$279,000**
Demand Response Pilot Program	$279,000	$0	$279,000
Administration		**$87,793**	**$87,793**
Research and Development		**$75,000**	**$75,000**
Subtotal Budgets	**$4,221,857**	**$172,793**	**$4,394,650**
EM&V		$56,348	$56,348
EECRF Proceeding Expenses		$100,000	$100,000
Total Budgets	**$4,221,857**	**$329,141**	**$4,550,998**

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

Table 7 documents EPE's actual demand reduction goals and energy targets for the previous five years (2012-2016) calculated in accordance with 16 TAC §25.181.

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

Calendar Year	Demand Goals (MW)	Energy Targets (MWh)	Actual Demand Reduction (MW)	Actual Energy Savings (MWh)
2016[6]	11.16	19,552	12.790	22,912
2015[7]	11.16	19,552	12.305	22,283
2014[8]	11.16	19,552	13.389	22,118
2013[9]	11.16	19,552	14.188	23,394
2012[10]	11.16	19,552	11.886	20,168

[6] 2016 MW goal and MWh target as reported in EPE's EEPR filed April 1, 2016 under Project No. 45675. 2016 actual demand reduction and energy savings reported in this document, Project No. 46907.

[7] 2015 MW goal and MWh target as reported in EPE's EEPR filed April 1, 2015 under Project No. 44480. 2015 actual demand reduction and energy savings reported in Project No. 45675.

[8] 2014 MW goal and MWh target as reported in EPE's EEPR filed April 1, 2014 under Project No. 42264. 2014 actual demand reduction and energy savings reported in Project No.44480.

[9] 2013 MW goal and MWh target as reported in EPE's EEPR filed March 29, 2013 under Project No. 41196. 2013 actual demand reduction and energy savings reported in Project No. 42264.

[10] 2012 MW goal and MWh target as reported in EPE's EEPR filed March 30, 2012 under Project No. 40194. 2012 demand reduction and energy savings modified pursuant to settlement of Docket No. 41403.

VI. Projected, Reported and Verified Demand and Energy Savings

Table 8: Projected versus Reported Savings for 2015 and 2016 (at Meter)

2015	Projected Savings		Reported and Verified Savings	
Customer Class and Program	**MW**	**MWh**	**MW**	**MWh**
Commercial	**10.696**	**15,954**	**10.250**	**17,263**
Commercial SOP	0.600	2,628	0.329	1,897
Small Comm. Solutions MTP	0.730	3,197	0.672	3,007
Large C&I Solutions MTP	1.800	7,884	1.945	9,504
Texas SCORE MTP	0.500	1,971	0.577	2,775
Load Management SOP	7.000	14	6.711	34
Commercial Rebate Pilot Program	0.066	260	0.016	46
Residential	**0.540**	**2,043**	**0.623**	**1,767**
Residential Solutions MTP	0.400	701	0.400	601
LivingWise® MTP	0.140	1,342	0.223	1,166
Hard-to-Reach	**0.800**	**1,051**	**0.964**	**1,480**
Hard-to-Reach Solutions MTP	0.800	1,051	0.964	1,480
Residential / Commercial	**0.443**	**1,828**	**0.468**	**1,773**
Appliance Recycling MTP	0.202	1,416	0.189	1,235
Solar PV Pilot MTP	0.241	412	0.279	538
Total	**12.479**	**20,876**	**12.305**	**22,283**
2016	**Projected Savings**		**Reported and Verified Savings**	
Customer Class and Program	**MW**	**MWh**	**MW**	**MWh**
Commercial	**11.207**	**18,104**	**11.194**	**19,909**
Commercial SOP	0.700	3,066	0.030	177
Small Comm. Solutions MTP	0.730	3,197	0.852	3,857
Large C&I Solutions MTP	2.011	8,808	2.162	12,734
Texas SCORE MTP	0.700	2,759	0.551	3,118
Load Management SOP	7.000	14	7.599	23
Commercial Rebate Pilot	0.066	260	0.000	-
Residential	**0.558**	**2,074**	**0.672**	**1,543**
Residential Solutions MTP	0.418	732	0.452	815
LivingWise® MTP	0.140	1,342	0.220	728
Hard-to-Reach	**0.800**	**1,051**	**0.924**	**1,460**
Hard-to-Reach Solutions MTP	0.800	1,051	0.924	1,460
Total	**12.565**	**21,229**	**12.790**	**22,912**

VII. Historical Program Expenditures

Table 9 documents EPE's incentive and administration expenditures for the previous five years (2012-2016) by program for each customer class. Note that this table does not include R&D expenditures, EM&V expenditures and administration costs not allocated to particular programs. R&D expenditures, EM&V expenditures and administration costs not associated with particular programs for 2016 can be found in Table 10.

Table 9: Historical Program Incentive and Administration Expenditures for 2012 through 2016[11]

	2016		2015		2014		2013		2012	
Programs	**Incent.**	**Admin**	**Incent.**	**Admin**	**Incent.**	**Admin**	**Incent.**	**Admin**	**Incent.**	**Admin**
Commercial	**$2,354,215**	**$0**	**$2,308,969**	**$739**	**$2,414,919**	**$1,450**	**$2,646,031**	**$21,614**	**$2,173,205**	**$18,614**
Commercial SOP	$14,605	$0	$160,945	$739	$180,951	$1,450	$204,235	$21,091	$83,753	$18,614
Small Comm. Solutions	$524,420	$0	$426,637	$0	$458,717	$0	$461,625	$0	$543,770	0
Large C&I Solutions	$1,054,659	$0	$932,618	$0	$820,871	$0	$872,385	$0	$617,972	0
Texas SCORE MTP	$436,538	$0	$447,792	$0	$468,130	$0	$440,716	$0	$482,327	0
Load Management SOP	$323,993	$0	$318,627	$0	$462,300	$0	$464,700	$0	$380,430	0
Rebate Pilot Program	$0	$0	$22,350	$0	$23,950	$0	$202,370	$523	64953	0
Residential	**$592,090**	**$0**	**$548,496**	**$0**	**$560,482**	**$0**	**$536,266**	**$0**	**$590,827**	**$0**
Residential Solutions	$245,748	$0	$202,144	$0	$214,136	$0	$190,006	$0	$245,257	0
LivingWise® MTP	$346,342	$0	$346,352	$0	$346,346	$0	$346,260	$0	$345,570	0
Hard-to-Reach	**$662,577**	**$0**	**$651,474**	**$0**	**$576,214**	**$0**	**$600,238**	**$0**	**$602,842**	**$0**
Hard-to-Reach Solutions	$662,577	$0	$651,474	$0	$576,214	$0	$600,238	$0	$602,842	0
Residential / Comm.	**$0**	**$0**	**$334,648**	**$30,178**	**$405,380**	**$33,941**	**$454,833**	**$42,735**	**$437,640**	**$11,030**
Appliance Recycling MTP	NA	NA	$140,418	$0	$181,185	$0	$241,747	$7,145	$201,428	$6,144
Solar PV Pilot MTP	NA	NA	$194,230	$30,178	$224,195	$33,941	$213,086	$35,590	$236,212	$4,886
Total	**$3,608,882**	**$0**	**$3,843,587**	**$30,917**	**$3,956,995**	**$35,391**	**$4,237,368**	**$64,349**	**$3,804,514**	**$29,644**

[11] 2015 expenditures are from EEPR filed in Project No. 45675; 2014 expenditures are from EEPR filed in Project No. 44480; 2013 expenditures are from EEPR filed in Project No. 42264; and 2012 expenditures are from EEPR filed in Project No. 41196.

VIII. Program Funding and Explanation of Administration Costs for Calendar Year 2016

As shown in the subtotal for the "Total Funds Expended" column of Table 10, EPE spent $3,677,110 on program expenses (excluding EM&V and EECRF Proceeding Expenses) for its PUCT-approved energy efficiency programs in 2016. These programs were funded by EPE's 2016 EECRF. These expenses account for 83.9% of the total forecasted program budget for 2016 of $4,384,650. The difference between the forecasted program budget and the actual program expenditures is mainly attributable to the Commercial SOP, the Texas SCORE MTP and the Commercial Rebate Pilot Program not reaching the participation levels anticipated by EPE. Actual program funding levels are shown in Table 10 and Table 11.

The administration expenses shown in Table 10 benefited the entire portfolio of programs. These expenses include, but were not limited to, outsourced program administration, marketing (i.e. website maintenance and promotional items), Electric Utility Marketing Managers of Texas (EUMMOT) expenses, costs associated with regulatory filings, and EM&V administration expenses outside of those associated with the PUCT-appointed EM&V contractor.

Table 10: Program Funding for Calendar Year 2016

	Total Projected Budget	Number of Customer Projects	Actual Funds Expended (Incentives)	Actual Funds Expended (Admin & R&D)	Total Funds Expended	Funds Committed (Not Expended)	Funds Remaining
Commercial	**$ 3,118,630**	**800**	**$ 2,354,215**	**$ -**	**$ 2,354,215**	**$ -**	**$ 764,415**
Commercial SOP	471,000	3	14,605	-	14,605	-	456,395
Small Comm. Solutions MTP	461,115	483	524,420	-	524,420	-	(63,305)
Large C&I Solutions MTP	1,005,396	246	1,054,659	-	1,054,659	-	(49,263)
Texas SCORE MTP	615,569	52	436,538	-	436,538	-	179,031
Load Management	460,000	16	323,993	-	323,993	-	136,007
Comm. Rebate Pilot Program	105,550	-	-		-	-	105,550
Residential	**$ 576,346**	**11,276**	**$ 592,090**	**$ -**	**$ 592,090**	**$ -**	**$ (15,744)**
Residential Solutions MTP	230,000	2,452	245,748	-	245,748	-	(15,748)
LivingWise MTP	346,346	8,824	346,342	-	346,342	-	4
Hard-to-Reach	**$ 600,000**	**3,943**	**$ 662,577**	**-**	**$ 662,577**	**$ -**	**$ (62,577)**
Hard-to-Reach Solutions MTP	600,000	3,943	662,577	-	662,577	-	(62,577)
Administration Expenses	**$ 89,674**		**$ -**	**$ 68,228**	**$ 68,228**	**-**	**$ 21,446**
Subtotal	**$ 4,384,650**	**16,019**	**$ 3,608,882**	**$ 68,228**	**$ 3,677,110**	**$ -**	**$ 707,540**
EM&V Expenses	**$ 51,290**		**-**	**$ 44,028**	**$ 44,028**	**$ -**	**$ 7,262**
EECRF Proceeding Expenses	**$ 85,000**		**-**	**$ 90,432**	**$ 90,432**		**$ (5,432)**
Total	**$ 4,520,940**	**16,019**	**$ 3,608,882**	**$ 202,688**	**$ 3,811,570**	**$ -**	**$ 709,370**

Table 11: Program Comparison – Budget to Actual Expenditures

Programs	2016 Budget	2016 Expenditures	Percent	>10% Variance Explanation
Commercial	**$ 3,118,630**	**$ 2,354,215**	**75.5%**	
Commercial SOP	471,000	14,605	3.1%	Program did not draw the number of participants anticipated. Funds were reallocated to better performing programs.
Small Comm. Solutions MTP	461,115	524,420	113.7%	Program had more participation than anticipated.
Large C&I Solutions MTP	1,005,396	1,054,659	104.9%	
Texas SCORE MTP	615,569	436,538	70.9%	Program did not achieve anticipated participation for 2016.
Load Management	460,000	323,993	70.4%	Program expenditures were not as high as anticipated; however, demand and energy savings exceeded goal.
Commercial Rebate Pilot MTP	105,550	-	0.0%	Program did not draw the number of participants anticipated. Funds were reallocated to better performing programs.
Residential	**$ 576,346**	**$ 592,090**	**102.7%**	
Res. Solutions MTP	230,000	245,748	106.8%	
LivingWise MTP	346,346	346,342	100.0%	
Hard-to-Reach	**$ 600,000**	**$ 662,577**	**110.4%**	
Hard-to-Reach Solutions MTP	600,000	662,577	110.4%	Program had more participation than anticipated.
Admin. Expenses	**$ 89,674**	**$ 68,228**		Not allocated to specific programs
Total	**$ 4,384,650**	**$ 3,677,110**	**83.9%**	

IX. Program Results for MTPs and Self-Delivered Program

A. Market Transformation Programs

Small Commercial Solutions MTP

In 2016, the Small Commercial Solutions MTP provided customers and participating contractors with cash and non-cash incentives. This program targeted commercial customers with a demand of less than 100 kW. This program focused on improving the energy efficiency of small commercial facilities, as well as improving the installation practices of participating contractors. EPE contracted with a third-party program implementer to provide the non-cash incentives such as technical assistance, education on energy efficiency projects, and communications services to participating customers and contractors.

The 2016 goal for this program was 730 kW. There were 483 projects completed in the Small Commercial Solutions MTP during 2016. These projects reduced demand by 852 kW and saved 3,856,747 kWh in energy.

Large C&I Solutions MTP

The Large C&I Solutions MTP was established to test a solutions-based approach toward garnering peak kW savings among large commercial customers. This program targeted commercial customers with a demand of equal to or greater than 100 kW. Key components of the "solutions" approach include: EPE acting as a third-party unbiased player to assist commercial customers in identifying energy efficiency opportunities, realizing the financial benefits associated with such opportunities, assisting with the evaluation of contractor bids, and conveying the social and financial benefits by way of internal and community-wide communications efforts. Besides peak demand reduction, this program has also had success in reaching out to the contracting community, including affiliated architectural and engineering firms.

In 2016, the Large C&I Solutions MTP provided customers with cash and non-cash incentives. As with the Small Commercial Solutions MTP, EPE contracted with a third-party program implementer to provide non-cash incentives such as technical assistance, education on energy efficiency projects, measurement and verification, and communications services to participating customers.

The 2016 goal for this program was 2,011 kW. There were 246 projects completed in the Large C&I Solutions MTP during 2016 that reduced demand by 2,162 kW and saved 12,734,633 kWh in energy.

Texas SCORE MTP

As with the previous programs, the 2016 Texas SCORE MTP provided customers with cash and non-cash incentives. This program targeted schools districts, higher educational facilities and local governmental entities. EPE recognized that many school districts and local governments lack the technical knowledge, first-hand experience, and management decision-making processes that are necessary for identifying, prioritizing and completing projects that improve their facilities' energy performance and reduce operating costs. This program helped these customers identify, prioritize, budget, and complete energy efficiency projects. EPE contracted with a third-party program implementer to provide non-cash incentives such as benchmarking, technical assistance, education on energy efficiency projects, and communications services to participating customers.

The 2016 goal for this program was 700 kW. This program had 52 projects from participating schools and local government entities in the EPE service territory. These projects reduced demand by 551 kW and saved 3,117,684 kWh in energy.

Residential Solutions MTP

In 2016, the Residential Solutions MTP offered residential customers, through the use of participating contractors, incentives for making energy efficient improvements to their homes. This program focused on improving the energy efficiency of residential buildings, as well as improving the installation practices of the participating contractors. EPE contracted with a third-party implementer to administer the Residential Solutions MTP.

The 2016 goal for this program was 418 kW. There were 2,452 participants that reduced demand by approximately 452 kW and saved 814,715 kWh in energy.

LivingWise® MTP

The LivingWise® MTP is an educational program that uses a school-based method that builds student knowledge, provides high energy efficiency devices to families and serves as an effective community outreach program. In 2016, each participant received a kit that contained energy saving devices to be installed in their homes, as well as energy efficiency educational materials.

The 2016 goal for this program was 140 kW. In 2016, the LivingWise® MTP provided 8,824 LivingWise® kits. The savings from this program were 221 kW in demand savings and 727,636 kWh in energy savings.

Hard-to-Reach Solutions MTP

In 2016, the Hard-to-Reach Solutions MTP offered residential customers who were at or below 200% of the Federal Poverty Guidelines, through the use of participating contractors, incentives for making energy efficient improvements to their homes. This program focused on improving the energy efficiency of low income residential buildings, as well as improving the installation practices of the participating contractors. EPE contracted with a third-party implementer to administer the Hard-to-Reach Solutions MTP.

The 2016 goal for this program was 800 kW. There were 3,943 projects in this program that reduced demand by 924 kW and saved 1,460,375 kWh in energy.

B. Self-Delivered Program

Commercial Rebate Pilot Program

In 2016, the Commercial Rebate Pilot Program provided commercial customers with rebates for two measures, the room HVAC controls measure and the vending machine controls measure. This program encouraged customers to install these energy saving devices by subsidizing part of the up-front cost of these measures.

The 2016 goal for this program was 66 kW. There were no participants in this program for 2016. The acceptance of this program by customers has been extremely slow and, as such, this program will be discontinued in 2017.

X. Current Energy Efficiency Cost Recovery Factor (EECRF)

Report for 2016

In Docket No. 44677, EPE was granted approval for recovery through its 2016 EECRF of (a) $4,384,650 in energy efficiency program costs projected to be incurred from January 1 through December 31, 2016; (b) a performance incentive for 2014 of $970,201; (c) EPE's 2014 EECRF proceeding expenses of $181,470; (d) the 2014 over-recovery revenue amount of $106,636; and (e) the Company's share of the costs of the PUCT EM&V contractor's expenses in the amount of $58,210. EPE requested that the EECRF be applicable beginning January 1, 2016. The Final Order in Docket No. 44677 concluded that the filing conformed to the requirements of the EE Rule.[12] The order also found the allocation of the energy efficiency costs and performance incentive in accordance with the EE Rule.[13] The recovery of the agreed-upon EECRF amount of $5,487,895 is based on a dollar per kWh rate. The 2016 cost recovery factors by rate are listed in Table 12.

Table 12: 2016 EECRF Monthly Rates

Rate No.	Description	Energy Efficiency Cost Recovery Factor ($/kWh)
01	Residential Service Rate	$ 0.000998
02	Small Commercial Service Rate	$ 0.001482
07	Outdoor Recreational Lighting Service Rate	$ (0.000409)
08	Governmental Street Lighting and Signal Service Rate	$ 0.006738
11	Municipal Pumping Service Rate	$ (0.000833)
11-TOU	Time-Of-Use Municipal Pumping Service Rate	$ (0.000833)
WH	Water Heating	$ (0.000493)
22	Irrigation Service Rate	$ (0.000808)
24	General Service Rate	$ 0.001165
25	Large Power Service Rate (excludes transmission)	$ 0.001201
34	Cotton Gin Service Rate	$ 0.002224
41	City and County Service Rate	$ 0.001433
43	University Service Rate	$ 0.001977
46	Maintenance Power Service For Cogeneration And Small Power Production Facilities	$ (0.002680)
47	Backup Power Service For Cogeneration And Small Power Production Facilities	$ (0.002680)

XI. Revenue Collected through EECRF

[12] Docket No. 44677, Final Order at Findings of Fact No. 21 (November 6, 2015)
[13] *Id.* at Conclusion of Law No. 8

In 2016, EPE collected a total of $5,624,291 under Rate Schedule No. 97 – Energy Efficiency Cost Recovery Factor.

XII. Over/Under Recovery of Energy Efficiency Program Costs

In 2016, EPE over-recovered an amount of $843,936 as shown in Table 13.

Table 13: Authorized and Actual Recovery Amounts

Description	Authorized in Docket No. 44677	Actual
January 1 – December 31, 2016 Energy Efficiency Costs	$ 4,384,650	$ 3,677,110
Program Year 2015 EM&V Review	$ 58,210	$ 58,210
2014 (Over)/Under Recovery	$ (106,636)	$ (106,636)
2014 Performance Bonus	$ 970,201	$ 970,201
2014 EECRF Proceeding Costs	$ 181,470	$ 181,470
2016 Total Costs and Bonus	$ 5,487,895	$ 4,780,355
2016 EECRF Revenues		$ 5,624,291
2016 (Over)/Under Recovery		$ (843,936)

XIII. Underserved Counties

EPE serves customers in three Texas counties: Culberson, Hudspeth, and El Paso. During 2016, the majority of energy efficiency projects were in El Paso County. EPE has defined Underserved Counties as any county in the Texas EPE service territory that EPE reported no demand or energy savings through any of its 2016 energy efficiency programs. Based on this definition, EPE had no Underserved Counties in 2016.

Table 14: 2016 Energy Efficiency Activities by County

County	Participants	Reported Savings	
		kW	kWh
El Paso County	15,934	12,770	22,789,925
Culberson County	31	0.77	2,556
Hudspeth County	54	18.89	119,545
Total	**16,019**	**12,790**	**22,912,026**

XIV. Performance Incentive Calculation

EPE achieved a 12.790 MW reduction in demand from its energy efficiency programs offered in 2016. EPE's demand reduction goal for 2016 was 11.16 MW. EPE's achievement represents 114.61% of its demand reduction goal, qualifying it for a performance incentive. Per 16 TAC §25.181, EPE is eligible for a performance incentive of $999,169 which it plans to request in its 2017 EECRF filing.

Per the PUCT, the total program costs to be used in the performance incentive calculation below include the 2016 EM&V cost allocation of $58,210 as provided by the statewide EM&V evaluator, rather than EPE's actual booked EM&V costs of $44,028 as shown in Table 10. The performance incentive calculation below also includes the 2016 EECRF proceeding costs for municipalities of $15,267.73. As a result, the total program costs for the performance incentive calculation will not match the actual total program costs exhibited in Table 10.

Table 15: 2016 Performance Incentive Calculations

	kW	kWh
Demand and Energy Goals	11,160	19,552,320
Demand and Energy Savings		
Actual Demand and Energy Savings (including Hard-to-Reach)	12,790	22,912,026
Reported/Verified Hard-to-Reach	924	
PUCT-Approved Avoided Costs		
per kW	$80.00	
per kWh	$0.05088	
Inflation Rate	2.00%	
Discount Rate	6.608%	
Total Avoided Costs	$17,507,730	
2016 Program Costs (includes allocated EM&V and municipalities' EECRF proceeding costs)	$3,825,753	
Net Benefits	$13,681,977	
Performance Incentive	$999,169	

ACRONYMS

C&I	Commercial and Industrial
DR	Demand Response
DRPP	Residential and Small Commercial Demand Response Pilot Program
DSM	Demand Side Management
EECRF	Energy Efficiency Cost Recovery Factor
EEPR	Energy Efficiency Plan and Report
EE Rule	Energy Efficiency Rule, 16 TAC §25.181 and §25.183
EESP	Energy Efficiency Service Provider
EPE	El Paso Electric Company
EM&V	Evaluation, Measurement & Verification
HTR	Hard-To-Reach
M&V	Measurement and Verification
MTP	Market Transformation Program
PUCT	Public Utility Commission of Texas
PURA	Public Utility Regulatory Act
PV	Photovoltaic
R&D	Research and Development
RES	Residential
SCORE	Schools and Cities Conserving Resources
SOP	Standard Offer Program
TAC	Texas Administrative Code

GLOSSARY

Glossary is the same as the definitions in 16 TAC §25.181(c).

APPENDIX A: REPORTED DEMAND AND ENERGY REDUCTION BY COUNTY

Table 16: Program Savings by County

Commercial SOP

County	# of Participants	Reported Savings	
		kW	kWh
El Paso County	3	30	177,439
Total	3	30	177,439

Small Commercial Solutions MTP

County	# of Participants	Reported Savings	
		kW	kWh
El Paso County	483	852	3,856,747
Total	483	852	3,856,747

Large C&I Solutions MTP

County	# of Participants	Reported Savings	
		kW	kWh
El Paso County	244	2,144.88	12,619,376
Hudspeth	2	17.59	115,257
Total	246	2,162.47	12,734,633

Texas SCORE MTP

County	# of Participants	Reported Savings	
		kW	kWh
El Paso County	52	551	3,117,684
Total	52	551	3,117,684

Load Management SOP

County	# of Participants	Reported Savings	
		kW	kWh
El Paso County	16	7,599	22,796
Total	16	7,599	22,796

Commercial Rebate Pilot Program

County	# of Participants	Reported Savings	
		kW	kWh
El Paso County	0	0	0
Total	0	0	0

Residential Solutions MTP

County	# of Participants	Reported Savings	
		kW	kWh
El Paso County	2,452	452	814,715
Total	2,452	452	814,715

LivingWise® MTP

County	# of Participants	Reported Savings	
		kW	kWh
Culberson	31	0.77	2,556.29
El Paso County	8,741	218.41	720,791.69
Hudspeth County	52	1.30	4,287.99
Total	8,824	220.48	727,635.97

Hard-to-Reach Solutions MTP

County	# of Participants	Reported Savings	
		kW	kWh
El Paso County	3,943	924	1,460,375
Total	3,943	924	1,460,375

APPENDIX B: RESIDENTIAL AND SMALL COMMERCIAL DEMAND RESPONSE PILOT PROGRAM DESCRIPTION[14]

I. Program Description

El Paso Electric Company's ("EPE" or the "Company") Demand Response Pilot Program ("DRPP," "Pilot Program," or "Program") is a voluntary three-year pilot program that utilizes "smart" thermostats to target residential and small commercial central refrigerated air conditioning load during peak hours. A "smart" thermostat is an internet-enabled, compatible thermostat installed and connected to a Customer's central refrigerated air conditioning at the Customer's service location that can be adjusted remotely by EPE. Under the DRPP, EPE will remotely communicate with smart thermostats for enrolled Customers to control a participating Customer's central refrigerated air conditioning thermostat in an attempt to reduce electrical load during demand response events.

The Demand Response Season is a period commencing June 1 and continuing through September 30 of each calendar year, during which EPE may initiate Demand Response Events. A Demand Response Event is the process through which, in order to optimize resources available to the Company and at the Company's discretion, the Company sends a signal to the Customer's smart thermostat to modify the smart thermostat temperature setting in an attempt to reduce overall load demand from central refrigerated air conditioning. Each Demand Response Event may be continuous or segmented throughout the week-day, with any segment lasting a maximum four (4) hours in duration. There will be a maximum of twelve (12) Demand Response Events per Demand Response Season. The applicable hours for Demand Response Events are 2:00 PM through 8:00 PM Mountain Daylight Time on non-holiday weekdays during the Demand Response Season. For the purpose of calculating energy efficiency savings and as per 16 Texas Administrative Code ("TAC") § 25.181, the energy efficiency savings will only be calculated through 7:00 PM.

EPE will provide a one-time enrollment incentive for each smart thermostat enrolled by the Customer and approved by the Company to participate in the Program. In addition, EPE will provide an annual participation incentive to participating Customers for each smart thermostat

[14] As filed in Docket No. 46967 as a pilot program template.

that was enrolled and approved by the Company and that completed the Demand Response Season.

II. Scope of Work

A. Target Audience and Size

Participants must be EPE Customers taking service under Rate Schedule No. 01 (Residential Service) or Rate Schedule No. 02 (Small General Service Rate). A Customer must have, or must purchase and install, an internet-connected smart thermostat that controls the Customer's central refrigerated air conditioning unit. The Program will be limited to a maximum of 3,000 smart thermostat devices across EPE's service territory. EPE anticipates that approximately 75% of the enrollment will be from customers in Texas and 25% of the enrollment will be from customers in New Mexico.

In order to participate in the Program, a Customer must complete the Program enrollment application, and EPE must review and approve the Customer's enrollment. Once the application is approved by EPE, the participant will receive verification of enrollment and the enrollment incentive will be issued. Applications will be accepted on a first-come, first-served basis. Once approved, the Customer's participating thermostat will become available for dispatch by EPE using a third-party implementer's platform.

B. Roles and Responsibilities

A third-party implementer, selected through a competitive bidding process, will collaborate with EPE to implement the DRPP. The third-party implementer is responsible for Program marketing and providing EPE with an enrollment on-line portal which will allow customers with eligible thermostats to enroll their thermostats in the DRPP. EPE will be responsible for reviewing and approving customer applications. Once the application is approved, EPE will notify the third-party implementer to issue the enrollment incentive to the customer.

At its discretion and based on the parameters of the Program, EPE will use the third-party implementer's platform to declare a Demand Response Event. The EPE event coordinator will select the event parameters, including start time, duration, and temperature offset levels. A signal will be sent through the platform to enrolled smart thermostats and, unless the Customer overrides the signal, the thermostats will automatically be adjusted for the duration of the event. Once the Demand Response Event has been completed, another signal is sent to the smart thermostats to resume normal operation.

EPE will be measuring the impact of each curtailment event against baseline load through the reports provided by the third-party implementer. For validation purposes, EPE will conduct measurement and verification activities through a sample of participating customers through the use of interval metering.

The Company reserves the right to verify the operability of the smart thermostat at any reasonable time. If the Company determines that a Customer's equipment has been rendered ineffective or inoperable, then the Company may discontinue the Customer's participation in the Program. A Customer that is removed from the Program will be eligible to participate again only at the Company's discretion.

C. Demand Savings Goals

EPE anticipates achieving an average of 1 kW of demand reduction for each connected smart thermostat. During 2017, EPE will conduct the DRPP as a Research and Development project to gather the necessary data that will allow EPE to process a deemed savings filing for a demand response program in EPE's service territory. EPE will use the data that is provided by the third-party implementer after each event, as well as data that will be captured through interval metering that will be installed on a statistical sample of participants, to prepare the deemed savings filing. This filing will be the basis for the savings that will ultimately be claimed in the 2018 DRPP. EPE does not intend to claim any savings for the Research and Development component in 2017.

D. Program Design Characteristics

The DRPP will be marketed and administered by a single implementer. Through marketing and the implementer's association with smart thermostat manufacturers, the implementer will engage potential participants. Eligible customers will sign up via the implementer's on-line portal providing the Company with the necessary information to verify eligibility and approve their application. Once a customer has been approved, their device will be eligible for dispatch during the next Demand Response Event. Customers that participate in the 2017 Research and Development component of this pilot program will automatically be enrolled in the 2018 DRPP.

EPE may initiate a Demand Response Event during system peak times and in times of emergency. EPE may also initiate events in order to test the effectiveness of the Program under various scenarios.

EPE may initiate a maximum of twelve (12) Demand Response Events per Demand Response Season.

E. Data Collection and Evaluation Methods

EPE will closely monitor and evaluate the Program participation and will review all of the reports that are provided by the third-party implementer to ensure that the Program is meeting the established goals. EPE will also verify these reports through the interval metering that is installed on a sample of participants. EPE will work with the statewide measurement and verification evaluator to assure that all data relevant to robust measurement and verification of program savings is collected.

F. Program Budget

The Program budget for the 2017 Research and Development component of this Pilot Program is $364,000. The Program budget for the 2018 DRPP program year is $279,000. The Program budget for the 2019 DRPP program year is approximately $200,000. The variance in annual budgets is attributable to the initial set-up expenses in 2017, the need to complete a deemed savings application, and the higher volume of up-front incentives for 2017 and 2018 based on the anticipated number of customers expected to sign up during these years.

G. Anticipated Program Timeline

The implementer has already been selected through a competitive bidding process. Following is the anticipated Program timeline:

- May 1, 2017: Begin customer enrollment for the 2017 Demand Response Season.
- June 1, 2017: Demand Response Season will begin.
- September 30, 2017: Demand Response Season will close.
- June 1, 2018: Demand response Season will begin.
- September 30, 2018: Demand Response Season will close.

III. Rationale

The purpose of implementing the DRPP is to test the efficacy of demand response in the EPE service territory to reduce electrical load from central refrigerated air conditioning equipment during peak hours. During the Pilot Program, various load control strategies, designs and

structures will be tested in order to identify the most effective methods for maximizing program efficiency and load reduction.

IV. Program Objectives

The primary objective of the DRPP is to test the acceptance and efficacy of demand response that targets central refrigerated air conditioning load for residential and small commercial customers. Other objectives of the Program include:

- Reduce participating customers' electrical load from central refrigerated air conditioning equipment during peak hours;
- Test several load control strategies to determine the demand response program effectiveness under various conditions;
- Engage a broad range of entities to leverage smart thermostat capabilities to achieve DRPP goals;
- Evaluate customer tolerance of peak load reduction during events and identify obstacles that can be avoided in a larger-scale program;
- Measure the load reductions achieved by the Program;
- Determine appropriate customer incentive levels; and
- Evaluate the potential for implementation of a final program template at the end of the Pilot Program.

V. Program Pricing

Customers who participate in the Program will receive a one-time enrollment incentive for each device that is enrolled by the Customer and approved by EPE. This enrollment incentive will help to off-set the customer's initial expense of the smart thermostat. In addition, customers will receive an annual participation incentive at the end of each Demand Response Season.

VI. Measurement and Verification

The DRPP will be subject to the evaluation, measurement and verification protocol consistent with 16 TAC § 25.181(p) and (q).

VII. Customer Protection

The DRPP shall be designed to comply with the customer protection provisions required in 16 TAC § 25.181(u).

A Customer may request to be removed from the Program before completion of the Demand Response Season. The Customer can manually override the smart thermostat temperature setting during a Demand Response Event by adjusting the smart thermostat.