
AEP Texas Inc.
2017 Energy Efficiency Plan and Report
16 Tex. Admin. Code §§ 25.181 and 25.183

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Project No. 46907



An **AEP** Company

BOUNDLESS ENERGYSM

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INTRODUCTION

AEP Texas Inc. d/b/a AEP Texas (AEP Texas or Company) presents this Energy Efficiency Plan and Report (EEPR) to comply with Public Utility Commission of Texas (PUC or Commission) 16 Tex. Admin. Code §§ 25.181 and 25.183 (TAC) (EE Rule), which implement the Public Utility Regulatory Act (PURA) § 39.905. Effective December 31, 2016, AEP Texas Central Company (TCC) and AEP Texas North Company (TNC) were merged into their parent company, now called AEP Texas. The merger was approved by the Commission in Docket No. 46050 – *Application of AEP Texas Central Company, AEP Texas North Company, and AEP Utilities, Inc. for Approval of Merger*. The Commission ordered AEP Texas to “maintain separate TCC and TNC divisions, which will continue to charge separate rates and riders, and maintain separate tariffs, unless and until such time as the Commission may consider and approve consolidated rates and tariffs.”¹ Consistent with the Commission’s order, AEP Texas is maintaining two divisions within AEP Texas: AEP Texas – Central Division (formerly TCC) and AEP Texas – North Division (formerly TNC). Therefore, this EEPR filing for AEP Texas presents separate sets of information for the two divisions of AEP Texas.

As mandated by PURA § 39.905, the EE Rule requires that each investor-owned electric transmission and distribution utility (TDU) achieve the following demand reduction goals through market-based standard offer programs (SOPs) and targeted market transformation programs (MTPs). 16 TAC § 25.181(e)(1) provides in pertinent part as follows:

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

¹ Docket No. 46050, *Application of AEP Texas Central Company, AEP Texas North Company, and AEP Utilities, Inc. for Approval of Merger*, Final Order at Ordering Paragraph No. 2 (Dec. 12, 2016).

- (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 and MTPs that control the manner in which TDUs must administer their portfolio of energy efficiency programs in order to achieve their mandated annual demand reduction goals. AEP Texas' plans enable 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 covers the periods of time required in the EE Rule. The following section describes the information that is contained in each of the subsequent sections and appendices.

EEPR Organization

This EEPR consists of an Executive Summary, fourteen sections, a list of acronyms, and four appendices for each division of AEP Texas.

- Executive Summary summarizes AEP Texas' plans for achieving its goals and projected energy efficiency savings for program years 2017 and 2018 and highlights AEP Texas' achievements for Program Year 2016.

Energy Efficiency Plan

- Section I describes the program portfolio. It details how programs will be implemented, presents related informational and outreach activities, and provides an introduction to any programs not included in the 2016 EEPR.
- Section II explains the targeted customer classes, describes the estimated size of each class and the method of determining those class sizes.
- Section III presents the energy and demand goals and projected savings for the prescribed planning period detailed by program for each customer class.
- Section IV describes the proposed energy efficiency budgets for the prescribed planning period detailed by program for each customer class.

Energy Efficiency Report

- Section V documents the demand reduction goal for each of the previous five years (2012-2016) based on its weather-adjusted peak demand and actual savings achieved for those years.
- Section VI compares the projected energy and demand savings to its reported and verified savings by program for calendar years 2015 and 2016.
- Section VII details the incentive and administration expenditures for each of the previous five years (2012-2016) detailed by program for each customer class.
- Section VIII compares the actual 2016 expenditures with the 2016 budget by program for each customer class. It identifies funds committed but not expended and funds remaining and not committed. It also explains any cost differences of more than 10% from the overall program budget and from each program budget.
- Section IX describes the results from the MTPs.

- Section X describes Administrative costs and Research and Development activities.
- Section XI documents the 2017 Energy Efficiency Cost Recovery Factor (EECRF).
- Section XII documents the 2016 EECRF Summary.
- Section XIII documents the Underserved Counties.
- Section XIV describes the Performance Bonus calculation for Program Year 2016.

Acronyms

- A list of abbreviations for common terms used within this document.

Appendices

- Appendix A – Reported and verified demand and energy reductions by county for each program.
- Appendix B – Program templates for any new or significantly modified programs and programs not included in the previous EEPR.
- Appendix C – Existing energy efficiency contracts and obligations.
- Appendix D – Data, explanations, or documents supporting other sections of the EEPR.

Executive Summary – Energy Efficiency Plan (Plan)

AEP Texas makes this filing which includes information for the Central Division and North Division. Required details such as goals, budgets, program results, etc. will be provided for each division separately throughout this EEPR.

The Central Division plans to achieve its 2017 mandated demand and energy goals of 15,830 kW and 27,734,000 kWh as shown in Table 1 below through residential and non-residential SOPs and MTPs. The Central Division will utilize a budget of \$14,259,483 to accomplish these goals.

Table 1: Summary of Central Division Goals, Projected Savings (at the Meter),² and Budgets

Calendar Year	Average Peak Demand at Meter (MW)	Goal Metric: 0.4% Peak Demand (MW)	Peak Demand Goal (MW)	Energy Goal (MWh)	Projected Demand Reduction (MW)	Projected Energy Savings (MWh)	Projected Budget (000's)*
2017	3,958	15.83	15.83	27,734	43.78	65,693	\$14,259
2018	3,998	15.99	15.99	28,014	43.78	65,693	\$14,259

* The 2017 and 2018 Projected Budgets include costs associated with Evaluation, Measurement & Verification activities.

² Average Growth in Demand figures are from Table 5; Projected Savings from Table 6; Projected Budgets from Table 7.

The North Division plans to achieve its 2017 mandated demand and energy goals of 4,260 kW and 7,464,000 kWh as shown in Table 2 below through residential and non-residential SOPs and MTPs. The North Division will utilize a budget of \$3,308,221 to accomplish these goals.

Table 2: Summary of North Division Goals, Projected Savings (at the Meter),³ and Budgets

Calendar Year	Average Peak Demand at Meter (MW)	Goal Metric: 0.4% Peak Demand (MW)	Peak Demand Goal (MW)	Energy Goal (MWh)	Projected Demand Reduction (MW)	Projected Energy Savings (MWh)	Projected Budget (000's)*
2017	998	3.99	4.26	7,464	6.15	12,795	\$3,308
2018	1,004	4.02	4.26	7,464	6.15	12,795	\$3,308

* The 2017 and 2018 Projected Budgets include costs associated with Evaluation, Measurement & Verification activities.

Executive Summary – Energy Efficiency Report (Report)

The Central Division achieved demand and energy reductions of 39,412 kW and 68,278,234 kWh, respectively, in 2016. The total energy efficiency cost for achieving these savings was \$13,622,277. The Central Division’s achievement exceeded the 2016 mandated energy efficiency goals of 15,730 kW and 27,559,000 kWh, thus allowing the Central Division to earn a Performance Bonus.

The North Division achieved demand and energy reductions of 6,381 kW and 10,817,333 kWh, respectively, in 2016. The total energy efficiency cost for achieving these savings was \$2,622,904. The North Division’s achievement exceeded the 2016 mandated energy efficiency goals of 4,260 kW and 7,464,000 kWh, thus allowing the North Division to earn a Performance Bonus.

A broad portfolio of residential and non-residential SOPs and MTPs was used to accomplish these savings.

³ Average Growth in Demand figures are from Table 16; Projected Savings from Table 17; Projected Budgets from Table 18.

ENERGY EFFICIENCY PLAN – AEP TEXAS - CENTRAL DIVISION

I. 2017 Programs

A. 2017 Program Portfolio

The Central Division has implemented a variety of programs in 2017 to enable it to meet its goals in a manner that complies with PURA § 39.905 and the EE Rule. These programs target broad market segments and specific market sub-segments with significant opportunities for cost-effective energy savings.

Table 3 summarizes the programs and targeted customer class markets for Program Year 2017. The programs listed in Table 3 are described in further detail in Subsection B. AEP Texas maintains a web site containing information on participation and forms required for project submission at www.AEPTexas.com. This site is the primary method of communication used to provide program updates and information to Retail Electric Providers (REPs), potential Energy Efficiency Service Providers (EESPs), and other interested parties.

Implementation Process

MTPs are implemented by a third-party implementer. These implementers design, market and execute the applicable MTPs. Based on the specific MTP, the implementer may perform outreach activities to recruit local contractors and provide participating contractors specialized education, training/certification and tools as necessary. Implementers validate proposed measures/projects, perform quality assurance/quality control, and verify and report savings derived from the program.

SOPs are managed in-house with project sponsors providing eligible program measures. Project sponsors are typically EESPs; however, for commercial projects an AEP Texas end-use customer may serve as its own project sponsor. Eligible project sponsors can submit an application(s) for project(s) meeting the minimum SOP requirements.

AEP Texas monitors projects being submitted so as to not accept duplicate enrollments.

Outreach Activities

- Promote internet web sites with program information including project eligibility, end-use measures, incentives, procedures, application forms, and in some cases a list of participating project sponsors and the available program budget;
- Utilize mass e-mail notifications to inform and update potential project sponsors on AEP Texas energy efficiency program opportunities;
- Conduct workshops as necessary to explain program elements such as responsibilities of the project participants, program requirements, incentive information and the application and reporting process;
- Conduct specific project sponsor/contractor training sessions as necessary based on the energy efficiency programs being implemented;
- Participate in local, regional, state-wide, and industry-related outreach activities as may be necessary; and
- Facilitate earned media opportunities, spotlighting successful projects and/or interesting stories as applicable.

Table 3: 2017 Energy Efficiency Program Portfolio – Central Division

Program	Target Market	Application	Link to Program Manual
Commercial Solutions MTP	Commercial	Retrofit & New Construction	https://www.aeptexasenergy.com/commercial-solutions/
Commercial SOP	Commercial	Retrofit & New Construction	https://aep-texas.com/global/utilities/lib/docs/save/business/programs/aep-texas/TcC/2016/2017%20AEP%20CSOP%20Manual.pdf
CoolSaver SM A/C Tune-Up MTP	Commercial; Residential	Retrofit	https://www.aeptexasenergy.com/wp-content/uploads/2016/07/aep-tcc-coolsaver-2016-program-manual.pdf
Hard-to-Reach SOP	Residential Hard-to-Reach	Retrofit	https://www.aeptexas.com/save/residential/programs/sTX/Hard-to-ReachStandardOffer.aspx
High-Performance New Homes MTP	Residential	New Construction	http://www.southtxsaves.com/resources-and-tips
Load Management SOP	Commercial	Retrofit	https://aep-texas.com/global/utilities/lib/docs/save/business/programs/aep-texas/TCC/2016/LoadManagementProgram/2016_TCC_LM%20Manual.pdf
Open MTP	Commercial	Retrofit	https://www.aeptexasenergy.com/open-small-business/
Residential SOP	Residential	Retrofit	https://aep-texas.com/save/residential/programs/sTX/ResidentialStandardOffer.aspx
SCORE/CitySmart MTP	Commercial	Retrofit & New Construction	https://www.aeptexasenergy.com/score/ https://www.aeptexasenergy.com/citysmart/
SMART Source SM Solar PV MTP	Commercial; Residential	Retrofit & New Construction	http://www.txreincents.com/apv/documents/AEP-TCC%20AEP-TNC%20PV%20Program%20Guidebook%202017%2020161114.pdf
Targeted Low-Income Energy Efficiency Program	Low-Income Residential	Retrofit	No website available
Whisker Labs Residential DR Pilot MTP	Residential	Retrofit	No website available

B. Existing Programs

Commercial Solutions Market Transformation Program (CS MTP)

The CS MTP targets commercial customers (other than governmental and educational entities) that do not have the in-house expertise 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. Incentives are paid to customers for eligible energy efficiency measures that are installed in new or retrofit applications that result in verifiable demand and energy savings.

Commercial Standard Offer Program (CSOP)

The CSOP targets commercial customers of all sizes. Variable incentives are available to project sponsors based upon verified demand and energy savings for eligible measures installed in new or retrofit applications.

CoolSaverSM A/C Tune-Up Market Transformation Program (CoolSaverSM MTP)

The CoolSaverSM MTP is designed to overcome market barriers that prevent residential and small commercial customers from receiving high performance air conditioning (A/C) system tune-ups.

The program works through local A/C networks to offer key program components, including:

- Training and certifying A/C technicians on the tune-up and air flow correction services and protocols.
- Paying incentives to A/C contactors for the successful implementation of A/C tune-up and air flow correction services.
- Paying incentives to A/C contractors who replace existing residential air conditioners and/or heat pumps with new high efficiency units of 16 SEER or higher.

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

The HTR SOP targets residential customers with total annual household incomes at or below 200% of current federal poverty guidelines. Incentives are paid to project sponsors for eligible measures installed in retrofit applications that result in verifiable demand and energy savings. Project comprehensiveness is encouraged and customer education materials regarding energy conservation behavior are distributed by project sponsors.

High-Performance New Homes Market Transformation Program (New Homes MTP)

The New Homes MTP targets several market participants, primarily homebuilders and consumers. The program's goal is to create conditions in which consumers demand energy-efficient homes, and homebuilders supply them. Incentives are paid to homebuilders who construct homes to strict energy-efficient building guidelines and that are at least 10% above the Texas Baseline Reference Home and meet all minimum energy code requirements. The program offers incentive tiers designed to deliver higher kW and kWh savings and a bonus incentive for homes that are ENERGY STAR[®]-certified. Each home results in verifiable demand and energy savings. In addition to homebuilder and consumer outreach, the New Homes MTP targets key market actors in the homebuilding production and sales cycle: home energy raters, homebuilder sales agents, real estate agents, HVAC contractors, mortgage lenders, product manufacturers, homebuilder associations, and media outlets.

Load Management Standard Offer Program (LM SOP)

The LM SOP targets commercial customers with a peak electric demand of 500 kW or more. Incentive payments are based on measured and verified demand reduction of curtailed loads during the summer peak period. Load management events are dispatched by AEP Texas, using a one-hour-ahead notice for load reduction periods of one to four hours duration.

Open Market Transformation Program (Open MTP)

The Open MTP targets traditionally underserved small commercial customers who may not employ knowledgeable personnel with a focus on energy efficiency, who are limited in the ability to implement energy efficiency measures, and/or who typically do not actively seek the help of a professional EESP. Small commercial customers with a peak demand not exceeding 100 kW in the previous twelve consecutive billing months may qualify to participate in the program. Available incentives are paid directly to the contractor, thereby reducing a portion of the project cost for the customer.

The program is intended to overcome market barriers for participating contractors by providing technical support and incentives to implement energy efficiency upgrades and produce demand and energy savings.

Residential Standard Offer Program (RSOP)

The RSOP targets residential customers in existing homes. Incentives are paid to project sponsors for eligible measures installed in retrofit applications that result in verified demand and energy savings. Project comprehensiveness is encouraged.

SCORE/CitySmart Market Transformation Program (SCORE/CS MTP)

The SCORE/CS MTP provides energy efficiency and demand reduction solutions for public and private educational entities grades K-12 as well as colleges and universities. In addition to educational facilities, SCORE/CS MTP provides these same solutions to local, state, county and federal government customers. This program is designed to help educate and assist these customers in lowering their energy use by facilitating the integration of energy efficiency into their short- and long-term planning, budgeting, and operational practices. Incentives are paid to participating customers for eligible energy efficiency measures that are installed in new or retrofit applications that result in verifiable demand and energy savings.

SMART SourceSM Solar PV Market Transformation Program (PV MTP)

The PV MTP offers incentives to customers for the installation of solar photovoltaic (PV) systems interconnected on the customer's side of the meter. The incentives help offset the initial costs of installing solar PV systems, and encourage service providers to seek more installation opportunities. In addition to demand and energy savings achieved from the installations, the PV MTP aims to transform the solar PV market by increasing the number of qualified technicians and installers and decreasing the average installed cost of PV systems, thereby creating greater market economies of scale.

Targeted Low-Income Energy Efficiency Program (TLIP)

The TLIP is designed to cost-effectively reduce the energy consumption and energy costs for low-income residential customers in the Central Division service territory. Weatherization service providers install eligible weatherization and energy efficiency measures in qualified households that meet the Department of Energy (DOE) income-eligibility guidelines of at or below 200% of the federal poverty guidelines. A Savings-to-Investment Ratio of 1.0 or higher is required of each serviced dwelling unit.

Whisker Labs Residential Thermostat Demand Response (DR) Pilot Market Transformation Program (WLDR MTP)

Whisker Labs (WL), formerly known as Earth Networks (EN), will use their Connected Savings platform to deliver an Integrated Demand Side Management (IDSM) aggregation program that will bring residential energy and demand savings. On the days that AEP Texas requests demand response services be implemented, WL will optimize the control thermostats to reduce HVAC load. The load reduction period will be for a duration of no more than three hours with at least an hour notice prior to the desired event start time.

C. New Programs for 2017

The Central Division has no new programs for 2017.

D. Discontinued Programs

Efficiency Connection Pilot MTP (EffCon)

The EffCon Pilot MTP was a partnership with REPs to help promote energy efficiency to residential customers by offering discounted LED lamps via an online marketplace. A third-party implementer facilitated customer/REP participation and aided in the selection and management of an online retailer/vendor for the program website and order fulfillment. The pilot was not cost-effective for two consecutive years and has been discontinued.

Reliant Residential Demand Response (DR) Pilot Market Transformation Program (RDR MTP)

The Reliant Residential DR Pilot Program was a market transformation program that was utilized to support the Central Division's energy efficiency goals. The Central Division leveraged an existing industry-recognized program from a REP to reduce demand consumption. Reliant used its existing customer base from their thermostat-based peak time rebate program, Degrees of Difference, to respond quickly to market conditions.

E. Existing DSM Contracts or Obligations

The Central Division has no existing DSM contracts or obligations.

II. Customer Classes

The Central Division's energy efficiency programs target its Residential and Commercial customer classes. The Central Division's energy efficiency programs also target customer sub-classes, such as Residential Hard-to-Reach and Low-Income, Schools, Small Businesses, and Local Governments.

The annual projected savings targets are allocated among these customer classes and sub-classes by examining historical program results and by evaluating economic trends, in compliance with 16 TAC § 25.181(e)(3).

Table 4 summarizes the number of customers in each customer class and the Residential Hard-to-Reach sub-class. The numbers listed are the actual number of active electric service accounts by class served for the month of January 2017. These numbers were used to determine goal and budget allocations for each customer class and program. It should be noted, however, that the actual distribution of the annual goal and budget required to achieve the goal must remain flexible based upon the conditions of the marketplace, the potential interest a customer class may have in a specific program, and the overriding objective of meeting the mandated demand and energy reduction goals in total. The Central Division offers a varied portfolio of SOPs and MTPs such that all eligible customer classes have access to energy efficiency alternatives.

Table 4: Summary of Customer Classes – Central Division

Customer Class	Number of Customers
Commercial	150,706
Residential	755,256
Hard-to-Reach ⁴	259,808

* Hard-to-Reach customer count is a sub-set of the Residential total.

⁴ According to the U.S. Census Bureau's 2015 Current Population Survey, 34.4% of Texas families fall below 200% of the poverty threshold. Applying that percentage to the Central Division's residential customer base of 755,256, the number of HTR customers is estimated to be 259,808.

III. Energy Efficiency Goals and Projected Savings

The Central Division's 2017 annual demand and energy reduction goals to be achieved are 15.83 MW and 27,734 MWh. The Central Division's 2018 annual goals are 15.99 MW and 28,014 MWh. These goals have been calculated as prescribed by the EE Rule.

The 2017 goal was calculated by applying four-tenths of 1% (0.004) of its summer weather-adjusted peak demand for the combined residential and commercial customers to the five year average (2012-2016) peak demand at the meter of 3,958 MW. This resulted in a calculated goal of 15.83 MW.

The 2018 demand goal is calculated by applying four-tenths of 1% (0.004) of its summer weather-adjusted peak demand for the combined residential and commercial customers to the five year average (2012-2016) peak demand at the meter of 3,998 MW. This results in a calculated goal of 15.99 MW.

Table 5 presents historical annual growth in demand data for the previous five years that was used to calculate the Central Division's goals. Table 6 presents the projected demand and energy savings for Program Years 2017 and 2018 by program, for each customer class with fully-deployed program budgets.

Table 5: Annual Growth in Demand and Energy Consumption – Central Division

Calendar Year	Peak Demand (MW) @ Source						Energy Consumption (MWh) @ Meter				Energy Efficiency Goal Calculations		
	Total System		Residential & Commercial				Total System		Residential & Commercial				
	Actual	Weather Adjusted	Actual	Weather Adjusted	Opt-Out	Peak Demand at Source Net Opt-outs	Actual	Weather Adjusted	Actual	Weather Adjusted	Peak Demand at Meter (9.4% line losses)*	5 year Average Peak Demand at Meter	Goal Metric: 0.4% Peak Demand at Meter
2012	4,815	4,738	4,371	4,292	-1.24	4,290	23,893	23,476	19,312	18,894	3,887	NA	NA
2013	4,681	4,784	4,224	4,327	-1.25	4,326	23,604	23,397	19,136	18,929	3,919	NA	NA
2014	4,948	4,943	4,465	4,461	-1.02	4,460	24,759	24,657	20,020	19,918	4,040	NA	NA
2015	5,043	4,963	4,524	4,444	-7.90	4,436	25,063	24,836	19,525	19,298	4,019	3,863	15.45
2016	5,243	5,089	4,759	4,605	-55.50	4,550	25,891	25,736	20,397	20,242	4,122	3,934	15.73
2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,958	15.83
2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,998	15.99

*Line losses are derived from the loss factors determined in the Central Division’s most recent line loss study.

Table 6: Projected Demand and Energy Savings by Program for Each Customer Class for 2017 and 2018 (at the Meter) – Central Division

2017	Projected Savings	
Customer Class and Program	kW	kWh
Commercial		
Commercial Solutions MTP	992	5,500,000
Commercial SOP	2,337	15,661,815
CoolSaver SM A/C Tune-Up MTP	1,393	4,376,124
Load Management SOP	22,995	55,268
Open MTP	830	3,250,000
SCORE/CitySmart MTP	1,850	8,000,000
SMART Source SM Solar PV MTP	194	374,026
Residential		
CoolSaver SM A/C Tune-Up MTP	1,017	3,223,609
High-Performance New Homes MTP	539	1,631,874
Residential SOP	4,937	18,213,100
SMART Source SM Solar PV MTP	166	320,000
Whisker Labs Residential DR Pilot MTP	3,750	0
Hard-to-Reach		
Hard-to-Reach SOP	2,013	3,678,690
Targeted Low-Income Energy Efficiency Program	768	1,408,000
Total Annual Projected Savings	43,781	65,692,506

**Table 6: Projected Demand and Energy Savings by Program for Each Customer Class for 2017 and 2018 (at the Meter) – Central Division
(Continued)**

2018	Projected Savings	
Customer Class and Program	kW	kWh
Commercial		
Commercial Solutions MTP	992	5,500,000
Commercial SOP	2,337	15,661,815
CoolSaver SM A/C Tune-Up MTP	1,393	4,376,124
Load Management SOP	22,995	55,268
Open MTP	830	3,250,000
SCORE/CitySmart MTP	1,850	8,000,000
SMART Source SM Solar PV MTP	194	374,026
Residential		
CoolSaver SM A/C Tune-Up MTP	1,017	3,223,609
High-Performance New Homes MTP	539	1,631,874
Residential SOP	4,937	18,213,100
SMART Source SM Solar PV MTP	166	320,000
Whisker Labs Residential DR Pilot MTP	3,750	0
Hard-to-Reach		
Hard-to-Reach SOP	2,013	3,678,690
Targeted Low-Income Energy Efficiency Program	768	1,408,000
Total Annual Projected Savings	43,781	65,692,506

IV. Program Budgets

Table 7 presents total proposed budget allocations required to meet the Central Division's projected demand and energy savings to be achieved for Program Years 2017 and 2018. The budget allocations are defined by the overall projected demand and energy savings, the avoided costs of capacity and energy specified in the EE Rule, allocation of demand goals, and the incentive levels by customer class. The budget allocations are detailed by customer class, program, and in the following budget categories: incentives, administration, research and development (R&D), and evaluation, measurement and verification (EM&V).

Table 7: Projected Annual Budget by Program for Each Customer Class for 2017 and 2018 – Central Division

2017	Incentives	Admin	R&D	EM&V	Total Budget
Commercial					
Commercial Solutions MTP	\$508,500	\$56,500			\$565,000
Commercial SOP	\$1,813,500	\$201,500			\$2,015,000
CoolSaver SM A/C Tune-Up MTP	\$596,700	\$66,300			\$663,000
Load Management SOP	\$650,700	\$72,300			\$723,000
Open MTP	\$793,800	\$88,200			\$882,000
SCORE/CitySmart MTP	\$946,800	\$105,200			\$1,052,000
SMART Source SM Solar PV MTP	\$204,000	\$22,667			\$226,667
Residential					
CoolSaver SM A/C Tune-Up MTP	\$675,000	\$75,000			\$750,000
High-Performance New Homes MTP	\$765,000	\$85,000			\$850,000
Residential SOP	\$2,650,140	\$294,460			\$2,944,600
SMART Source SM Solar PV MTP	\$204,000	\$22,667			\$226,667
Whisker Labs DR Pilot MTP	150,300	\$16,700			\$167,000
Hard-to-Reach					
Hard-to-Reach SOP	\$1,103,760	\$122,640			\$1,226,400
Targeted Low-Income Energy Efficiency Program	\$1,283,400	\$142,600			\$1,426,000
Research and Development (R&D)					
R&D	NAP	NAP	\$365,125		\$365,125
Evaluation, Measurement & Verification (EM&V)					
EM&V	NAP	NAP	NAP	\$177,024	\$177,024
Total Budget	\$12,345,600	\$1,371,734	\$365,125	\$177,024	\$14,259,483

**Table 7: Projected Annual Budget by Program for Each Customer Class for 2017 and 2018
– Central Division (Continued)**

2018	Incentives	Admin	R&D	EM&V	Total Budget
Commercial					
Commercial Solutions MTP	\$508,500	\$56,500			\$565,000
Commercial SOP	\$1,813,500	\$201,500			\$2,015,000
CoolSaver SM A/C Tune-Up MTP	\$596,700	\$66,300			\$663,000
Load Management SOP	\$650,700	\$72,300			\$723,000
Open MTP	\$793,800	\$88,200			\$882,000
SCORE/CitySmart MTP	\$946,800	\$105,200			\$1,052,000
SMART Source SM Solar PV MTP	\$204,000	\$22,667			\$226,667
Residential					
CoolSaver SM A/C Tune-Up MTP	\$675,000	\$75,000			\$750,000
High-Performance New Homes MTP	\$765,000	\$85,000			\$850,000
Residential SOP	\$2,666,340	\$296,260			\$2,962,600
SMART Source SM Solar PV MTP	\$204,000	\$22,667			\$226,667
Whisker Labs DR Pilot MTP	\$150,300	\$16,700			\$167,000
Hard-to-Reach					
Hard-to-Reach SOP	\$1,087,560	\$120,840			\$1,208,400
Targeted Low-Income Energy Efficiency Program	\$1,283,400	\$142,600			\$1,426,000
Research and Development (R&D)					
R&D	NAP	NAP	\$365,125		\$365,125
Evaluation, Measurement & Verification (EM&V)					
EM&V	NAP	NAP	NAP	\$176,953	\$176,953
Total Budget	\$12,345,600	\$1,371,734	\$365,125	\$176,953	\$14,259,412

ENERGY EFFICIENCY REPORT – AEP TEXAS - CENTRAL DIVISION

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

Table 8 contains the Central Division’s demand and energy reduction goals and actual savings achieved for the previous five years (2012-2016) calculated in accordance with the EE Rule.

Table 8: Historical Demand and Energy Goals* and Savings Achieved (at the Meter) – Central Division

Calendar Year	Actual Weather Adjusted Demand Goal (MW)	Actual Weather Adjusted Energy Goal (MWh)	Savings Achieved (MW)	Savings Achieved (MWh)
2016	15.73	27,559	39.41	68,278
2015	12.93	22,653	43.78	68,482
2014	12.93	22,653	39.81	63,587
2013	12.93	22,653	34.14	48,954
2012	12.93	22,653	33.67	54,313

* Actual Weather Adjusted MW and MWh Goals as reported in the EEPRs filed in years 2012-2016.

VI. Projected, Reported and Verified Demand and Energy Savings

Table 9: Projected versus Reported and Verified Savings for 2016 and 2015 (at the Meter) – Central Division

2016 Customer Class and Program	Projected Savings		Reported and Verified Savings	
	kW	kWh	kW	kWh
Commercial				
Commercial Solutions MTP	834	3,888,000	712	3,930,677
Commercial SOP	2,417	16,278,090	2,273	15,228,659
CoolSaver SM A/C Tune-Up MTP	1,393	4,376,124	1,487	3,325,045
Load Management SOP	27,092	27,092	20,234	48,673
Open MTP	718	2,051,894	711	3,194,943
SCORE/CitySmart MTP	1,691	5,749,624	1,820	10,287,798
SMART Source SM Solar PV MTP	149	288,000	349	673,224
Residential				
CoolSaver SM A/C Tune-Up MTP	1,017	3,223,609	1,009	3,317,003
Earth Networks Res DR Pilot MTP	3,750	3,750	3,084	0
Efficiency Connection Pilot MTP	190	717,025	53	214,947
High-Performance New Homes MTP	539	1,631,874	459	1,843,501
Reliant Res DR Pilot MTP	60	60	85	0
Residential SOP	4,937	18,211,834	4,590	18,680,742
SMART Source SM Solar PV MTP	142	274,000	206	396,448
Hard-to-Reach				
Hard-to-Reach SOP	1,258	4,578,986	1,560	5,749,025
Targeted Low-Income Energy Efficiency Program	780	1,343,550	780	1,387,550
Total Annual Savings	46,967	62,643,512	39,412	68,278,234

Table 9: Projected versus Reported and Verified Savings for 2016 and 2015 (at the Meter) – Central Division (Continued)

2015 Customer Class and Program	Projected Savings		Reported and Verified Savings	
	kW	kWh	kW	kWh
Commercial				
Commercial Solutions MTP	834	3,888,000	1,185	6,719,171
Commercial SOP	3,625	17,467,000	2,233	15,036,669
CoolSaver SM A/C Tune-Up MTP	1,393	4,376,124	1,593	5,104,501
Load Management SOP	16,255	43,000	27,418	27,418
Open MTP	676	2,051,894	680	3,059,520
SCORE/CitySmart MTP	1,691	5,749,624	1,333	7,159,107
SMART Source SM Solar PV MTP	149	288,000	1,029	1,984,354
Residential				
CoolSaver SM A/C Tune-Up MTP	1,017	3,223,609	1,051	3,997,053
Efficiency Connection Pilot MTP	105	525,131	17	62,004
High-Performance New Homes MTP	393	1,596,286	501	1,903,959
Residential SOP	4,838	14,835,000	4,734	17,465,758
SMART Source SM Solar PV MTP	142	274,000	144	278,032
Hard-to-Reach				
Hard-to-Reach SOP	1,315	3,686,000	1,224	4,456,145
Targeted Low-Income Energy Efficiency Program	634	1,110,000	633	1,228,535
Total Annual Savings	33,067	59,113,668	43,775	68,482,227

VII. Historical Program Expenditures

This section documents the Central Division's incentive and administration expenditures for the previous five years (2012-2016) detailed by program for each customer class.

Table 10: Historical Program Incentive and Administrative Expenditures for 2012 through 2016 (000's) – Central Division

	2016		2015		2014		2013		2012	
	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin
Commercial										
A/C Distributor Pilot MTP	NAP	NAP	NAP	NAP	NAP	NAP	\$40.76	\$6.08	\$29.94	\$5.32
AEP Texas CARE\$ Energy Efficiency for Not-for-Profit Agencies SOP	NAP	NAP	NAP	NAP	NAP	NAP	NAP	NAP	\$54.04	\$11.30
Commercial Solutions MTP	\$464.67	\$52.43	\$660.88	\$62.02	\$479.55	\$50.29	\$424.94	\$42.46	\$419.12	\$35.86
Commercial SOP	\$1,763.34	\$194.52	\$1,675.57	\$178.07	\$1,704.68	\$183.80	\$950.47	\$153.00	\$881.36	\$143.85
CoolSaver SM A/C Tune-Up MTP	\$561.47	\$46.55	\$601.34	\$45.73	\$642.34	\$46.69	\$624.27	\$47.61	\$144.76	\$13.93
Irrigation Load Management MTP	NAP	NAP	NAP	NAP	\$200.00	\$16.65	\$440.00	\$34.78	NAP	NAP
Load Management SOP	\$573.06	\$50.04	\$650.20	\$51.71	\$543.00	\$45.03	\$513.29	\$54.38	\$300.00	\$32.33
Load Management SOP - Expanded	NAP	NAP	NAP	NAP	NAP	NAP	NAP	NAP	\$206.63	\$22.47
Open MTP	\$785.45	\$61.04	\$818.94	\$61.45	\$741.21	\$52.54	\$684.76	\$51.66	NAP	NAP
SCORE/CitySmart MTP	\$971.10	\$88.71	\$840.09	\$73.65	\$1,026.19	\$86.89	\$911.24	\$ 75.97	\$905.59	\$70.72
SMART Source SM Solar PV MTP	\$182.70	\$14.87	\$58.56	\$6.41	\$200.01	\$15.15	\$152.14	\$11.20	\$197.18	\$16.71

(Table continued on next page)

**Table 10: Historical Program Incentive and Administrative Expenditures for 2012 through 2016 (000's) – Central Division
(Continued)**

	2016		2015		2014		2013		2012	
	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin
Residential										
A/C Distributor Pilot MTP	NAP	NAP	NAP	NAP	\$278.05	\$40.25	\$266.43	\$39.77	\$68.07	\$11.73
CoolSaver SM A/C Tune-Up MTP	\$672.78	\$55.83	\$673.27	\$51.20	\$525.36	\$38.18	\$601.41	\$45.95	\$375.08	\$36.09
Earth Networks Res DR Pilot MTP	\$123.35	\$9.07	NAP	NAP	NAP	NAP	NAP	NAP	NAP	NAP
Efficiency Connection Pilot MTP	\$90.16	\$11.2	\$67.03	\$4.45	NAP	NAP	NAP	NAP	NAP	NAP
High-Performance New Homes MTP	\$636.50	\$67.47	\$757.64	\$82.07	\$777.07	\$85.08	\$ 730.16	\$79.58	\$797.45	\$90.48
Reliant DR Pilot MTP	\$3.88	\$0.38	NAP	NAP	NAP	NAP	NAP	NAP	NAP	NAP
Residential SOP	\$2,591.75	\$242.59	\$2,649.88	\$246.42	\$2,626.27	\$263.28	\$2,596.76	\$292.37	\$3,622.65	\$374.20
SMART Source SM Solar PV MTP	\$204.81	\$17.43	\$207.62	\$16.33	\$199.75	\$15.14	\$207.81	\$15.29	\$197.19	\$15.98
Hard-to-Reach										
Hard-to-Reach SOP	\$1,115.74	\$112.52	\$922.10	\$97.61	\$950.70	\$85.02	\$950.33	\$96.29	\$1,177.86	\$114.69
Targeted Low-Income Energy Efficiency Program	\$1,265.06	\$103.46	\$1,270.64	\$98.09	\$1,262.46	\$87.13	\$1,271.58	\$96.69	\$1,267.07	\$93.57
Research and Development (R&D)	NAP	\$327.31	NAP	\$332.54	NAP	\$427.12	NAP	\$184.31	NAP	\$389.54
Evaluation and Measurement Verification (EM&V)	NAP	\$161.05	NAP	\$246.63	NAP	\$305.06	NAP	361.07	NAP	NAP
Total Expenditures	\$12,005.81	\$1,616.47	\$11,853.76	\$1,654.36	\$12,156.64	\$1,843.30	\$11,366.35	\$1,688.46	\$10,643.99	\$1,478.77

VIII. Program Funding for Calendar Year 2016

As shown in Table 11, the total projected budget in 2016 was \$14,265,243 and the actual total funds expended were \$13,622,277. This is an overall total program expenditure difference of less than 10% from the amount budgeted.

The following individual program expenditures differed from their respective proposed program budgets by more than 10% as explained below.

The EarthNetworks Residential DR Pilot MTP was under budget due to lower than projected demand savings of 1.5 kW per participating customer. The average was 1.2 kW per customer.

The EffCon Pilot MTP was under budget due to lower than projected participation.

The actual demand (kW) savings from several Load Management SOP participants were less than what they had initially projected when they signed up to participate in the Program.

The allotted budget for the Reliant DR Pilot MTP was slightly higher than the implementer's budget which included a capped amount for demand savings that were greater than the projected goal.

The commercial component of the PV MTP did not fully utilize its incentive budget during the program year due to several projects withdrawing from the program before the end of the year.

Due to fewer homes receiving incentives, the New Homes MTP was under budget. The decrease in participating homes is attributed to a decline in new home construction and sales in the Central Division service territory.

The combined 2016 expenditures for the TLIP and the HTR SOP constituted 18% of the energy efficiency budget for the 2016 Program Year. The 2016 expenditure for the TLIP constituted 10% of the energy efficiency budget for the 2016 Program Year.

Table 11: Program Funding for Calendar Year 2016 (Dollar amounts in 000's) – Central Division

	Total Projected Budget ⁵	Numbers of Customers Participating	Actual Funds Expended (Incentives)	Actual Funds Expended (Admin)	Research and Development (R&D)	Evaluation and Measurement Verification (EM&V)	Total Funds Expended
Commercial							
Commercial Solutions MTP	\$564.65	85	\$464.67	\$52.43			\$517.10
Commercial SOP	\$2,014.11	81	\$1,763.34	\$194.52			\$1,957.86
CoolSaver SM A/C Tune-Up MTP	\$662.17	532	\$561.47	\$46.55			\$608.02
Load Management SOP	\$722.44	62	\$573.06	\$50.04			\$623.09
Open MTP	\$881.72	76	\$785.45	\$61.04			\$846.50
SCORE/CitySmart MTP	\$1,051.86	92	\$971.10	\$88.71			\$1,059.81
SMART Source SM Solar PV MTP	\$226.67	8	\$182.70	\$14.87			\$197.56
Residential							
CoolSaver SM A/C Tune-Up MTP	\$750.00	1,802	\$672.78	\$55.83			\$728.61
Earth Networks Res DR Pilot MTP	\$166.67	2,473	\$123.35	\$9.07			\$132.42
Efficiency Connection Pilot MTP	\$166.67	538	\$90.16	\$11.20			\$101.36
High-Performance New Homes MTP	\$850.00	454	\$636.50	\$67.47			\$703.96
Reliant DR Pilot MTP	\$5.56	140	\$3.88	0.38			\$4.26
Residential SOP	\$2,956.79	4,945	\$2,591.75	\$242.59			\$2,834.34
SMART Source SM Solar PV MTP	\$226.67	22	\$204.81	\$17.44			\$222.24
Hard-to-Reach							
Hard-to-Reach SOP	\$1,059.35	1,657	\$1,115.74	\$112.52			\$1,228.26
Targeted Low-Income Energy Efficiency	\$1,408.25	349	\$1,265.06	\$103.46			\$1,368.52
Research and Development	\$368.89	NAP	NAP	NAP	\$327.31	NAP	\$327.31
EM&V							
Statewide EM&V Contractor	\$182.79	NAP	NAP	NAP	NAP	\$161.05	\$161.05
Total Expenditures	\$14,265.24	NAP	\$12,005.81	\$1,128.11	\$327.31	\$161.05	\$13,622.28

⁵ Projected Budget from the EEPR filed April 2016 Project No. 45675.

IX. Market Transformation Program Results

Commercial Solutions MTP

In 2016, the Commercial Solutions MTP goal was to acquire 834 kW demand savings from this program. A total of 712 kW was achieved by participation of 85 customers.

CoolSaverSM MTP

In 2016, the Central Division projected to acquire 2,410 kW demand savings from this program. The Central Division verified and reported 2,496 kW. This included participation by 2,334 residential and commercial customers.

EarthNetworks Residential DR Pilot MTP

The EarthNetworks Residential DR Pilot MTP goal was to acquire 3,750 kW demand savings. A total of 3,084 kW was achieved by participation of 2,473 residential customers in 2016.

Efficiency Connection Pilot MTP

The Efficiency Connection Pilot MTP goal was to acquire 190 kW demand savings and 717,025 kWh in energy savings. A total of 53 kW and 214,947 kWh were achieved in 2016.

High-Performance New Homes MTP (New Homes)

In 2016, 454 high-performance homes were constructed in the Central Division through the New Homes MTP program with a savings of 459 kW. The savings per home increased as a result of improved building practices promoted by the program. The Central Division provided continuing education courses and other training opportunities for contractors, homebuilders, home energy raters, HVAC contractors and other market actors on the advantages of High-Performance and ENERGY STAR homes and building practices. Training activities in 2016 included workshops and presentations to prepare market actors for the implementation of the 2015 International Energy Conservation Code (IECC). The Environmental Protection Agency (EPA) has recognized AEP Texas' New Homes program's accomplishments by awarding it the ENERGY STAR Partner of the Year Award for 2011-2012 and the ENERGY STAR Partner of the Year Sustained Excellence Award 2013-2017. AEP Texas was also recognized by the EPA with the ENERGY STAR Leadership in Housing/ Certified Homes Market Leader Award 2009-2016.

Open MTP

The Open MTP goal was to acquire 718 kW demand savings. A total of 711 kW was achieved with 76 small commercial customers and 8 participating contractors.

Reliant Residential DR Pilot Program

The Reliant Residential DR Pilot MTP goal was to acquire 60 kW demand savings. A total of 85.2 kW was achieved by participation of 140 residential customers in 2016.

SCORE/CitySmart MTP

The SCORE/CitySmart MTP was projected to acquire 1,691 kW demand savings from this program. A total of 1,820 kW was achieved. This included participation by 92 customers. To date, the program has benchmarked 971 facilities for 35 school districts, and 9 government customers.

SMART SourceSM Solar PV MTP

The 2016 PV MTP projected to acquire 291 kW in demand savings and 562,000 kWh in energy savings from the residential and non-residential components. A total of 30 residential and non-residential solar PV projects were completed within the program, resulting in a peak demand reduction of 555 kW and 1,069,672 kWh of energy savings.

X. Administrative Costs and Research and Development

Administrative Costs

Administrative costs incurred to meet the energy efficiency goals and objectives include, but may not be limited to, energy efficiency employees' payroll, costs associated with regulatory filings, and EM&V costs outside of the actual cost associated with the EM&V contractor. Any portion of these costs which are not directly assignable to a specific program are allocated among the programs in proportion to the program incentive costs.

Program Research and Development

R&D activities are intended to help meet future energy efficiency goals by researching new technologies, program options and developing better, more efficient ways to administer current programs. The following is a summary of the R&D activities for 2016.

AEP Texas dedicated resources in 2016 to develop a new electronic data collection and management system for current programs. In addition, AEP Texas participated with Electric Utility Marketing Managers of Texas (EUMMOT) in researching potentially new deemed savings measures for various programs.

Informational Activities

The Central Division continues its best efforts to encourage and facilitate the involvement of REPs and EESPs in the delivery of its programs to customers. The Central Division utilizes local, regional and national conferences, trade shows, and other events for outreach and information exchange with participating REPs and EESPs. The Central Division again disbursed program information at its annual AEP Texas Competitive REP workshop in September 2016. The Central Division provides new and existing energy efficiency program information to the REPs and EESPs throughout the year on a timely basis via e-mail distribution.

XI. 2017 Energy Efficiency Cost Recovery Factor (EECRF)

The total amount approved to be collected through the Central Division's 2017 EECRF is \$9,003,339, which consists of the following components:

- recovery of \$6,869,313 in energy efficiency expenses budgeted for Program Year 2017 (the actual projected budget for energy efficiency expenses for Program Year 2017 is \$14,082,459, which is reduced by \$6,334,949 in energy efficiency costs expressly included in base rates and \$878,197 of load growth);
- recovery of a performance bonus in the amount of \$3,459,596 for achieving energy efficiency goals in Program Year 2015;
- return to customers \$1,306,003 in energy efficiency program costs over-collected through the EECRF in Program Year 2015;

- recovery of \$5,433 for 2015 EECRF proceeding expenses incurred in Docket No. 44717 by municipalities as authorized by 16 TAC § 25.181(f)(3)(B); and
- a settlement adjustment of \$25,000 as approved in PUC Docket No. 45929.

Table 12: 2017 EECRF – Central Division

Customer Class	EECRF
Residential Service	\$0.000532 per kWh
Secondary Service (less than or equal to 10 kW)	\$0.000331 per kWh
Secondary Service (greater than 10 kW)	\$0.000426 per kWh
Primary Service	\$0.000294 per kWh
Transmission Service	(\$0.041089) per kW

XII. 2016 EECRF Summary

2016 Collections for Energy Efficiency

The Central Division collected \$7,269,368 through its 2016 base rates, including \$6,334,949 expressly included in base rates and an adjustment for load growth in the amount of \$934,419, and \$9,279,980 through its 2016 EECRF for a total of \$16,549,349. A performance bonus of \$2,835,621 for exceeding its 2014 energy efficiency goals and \$1,079,196 returned to customers are reflected in the total amount collected for energy efficiency in 2016.

Energy Efficiency Program Costs Expended

The Central Division expended a total of \$13,622,277 for its 2016 energy efficiency programs. The amount expended is \$642,966 less than the 2016 projected budget of \$14,265,243 for energy efficiency programs.

Over-Recovery of Energy Efficiency Costs

The Central Division’s actual 2016 energy efficiency program costs (including EM&V costs) less municipal rate case expenses are \$13,619,455 and actual energy efficiency program revenues are \$14,792,924. These associated 2016 costs and revenues result in an over-recovery of energy efficiency costs of \$1,173,469. This is the amount that the Central Division will request be returned to customers within its 2018 EECRF.

XIII. Underserved Counties

The Central Division has defined Underserved Counties as any county in the service territory for which the Central Division reported no demand or energy savings through any of its 2016 SOPs or MTPs. Per 16 TAC § 25.181(n)(2)(U), a list of the Underserved Counties is as follows:

- Gonzales
- Guadalupe
- Kenedy
- McMullen

XIV. Performance Bonus

The Central Division achieved a 39,412 kW reduction in peak demand from its energy efficiency programs offered in 2016. The demand reduction goal for 2016 was 15,730 kW. This achievement represents 251% of its 2016 demand reduction goal. The Central Division also achieved energy savings of 68,278,234 kWh, which represents 248% of its 2016 energy goal of 27,559,000 kWh. These results qualify the Central Division for a Performance Bonus. Per 16 TAC § 25.181(h), the Central Division is eligible for a Performance Bonus of \$3,535,762, which it will request within its June 1, 2017 EECRF Filing for recovery in 2018.

In 2016, the total spending on energy efficiency programs was \$13,622,277. This includes actual EM&V expenditures to the EM&V contractor of \$161,054. Per the PUC, the total program costs to be used in the performance bonus calculation should include the EM&V cost allocation provided by the EM&V contractor for Program Year 2016, instead of the actual EM&V contractor expenditures. As a result, the total program expenditures for the bonus calculation will not match the actual total program expenditures exhibited in the applicable tables in this EEPR. For the purposes of the performance bonus calculation, the 2016 total program costs equaled \$13,647,287.

Table 13: Energy Efficiency Performance Bonus Calculation for 2016 – Central Division

	kW	kWh
2016 Goals	15,730	27,559,000
2016 Savings		
<i>Reported/Verified Total (including HTR and measures with <10yr EUL)</i>	39,412	68,278,234
<i>Reported/Verified Hard-to-Reach</i>	2,341	
2016 Program Costs		\$13,647,287
2016 Performance Bonus		\$3,535,762

Performance Bonus Calculation

251%	Percentage of Demand Reduction Goal Met (Reported kW/Goal kW)
248%	Percentage of Energy Reduction Goal Met (Reported kWh/Goal kWh)
TRUE	Met Requirements for Performance Bonus?
\$49,004,906	Total Avoided Cost (Reported kW * PV(Avoided Capacity Cost) + Reported kWh * PV(Avoided Energy Cost))
\$13,647,287	Total Program Costs
\$35,357,619	Net Benefits (Total Avoided Cost - Total Expenses)

Bonus Calculation

\$26,615,959	Calculated Bonus ((Achieved Demand Reduction/Demand Goal - 100%) / 2) * Net Benefits
\$3,535,762	Maximum Bonus Allowed (10% of Net Benefits)
\$3,535,762	Bonus (Minimum of Calculated Bonus and Bonus Limit)

Acronyms

CSOP	Commercial Standard Offer Program
CS MTP	Commercial Solutions Market Transformation Program
DR	Demand Response
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 Providers
EffCon	Efficiency Connection Pilot Market Transformation Program
EPA	Environmental Protection Agency
EUMMOT	Electric Utility Marketing Managers of Texas
HTR	Hard-To-Reach
HTR SOP	Hard-to-Reach Standard Offer Program
IECC	International Energy Conservation Code
LM SOP	Load Management Standard Offer Program
MTP	Market Transformation Program
NAP	Not Applicable
New Homes	High-Performance New Home Market Transformation Program
Open	Open Market Transformation Program

Acronyms (Continued)

PUC	Public Utility Commission of Texas
PURA	Public Utility Regulatory Act
PV	Photovoltaic
PV MTP	SMART Source SM Solar PV Market Transformation Program
R&D	Research and Development
REP	Retail Electric Provider
RES	Residential
RSOP	Residential Standard Offer Program
SCORE	Schools Conserving Resources
SCORE/CS MTP	SCORE/CitySmart Market Transformation Program
SOP	Standard Offer Program
TCC	AEP Texas Central Company (now the Central Division of AEP Texas)
TDU	Transmission and Distribution Utility
TLIP	Targeted Low-Income Energy Efficiency Program
TRM	Texas Technical Reference Manual

APPENDIX A:

REPORTED AND VERIFIED DEMAND AND ENERGY REDUCTION BY COUNTY

CALENDAR YEAR 2016

COMMERCIAL SOLUTIONS MTP

County	Reported and Verified Savings	
	kW	kWh
Atascosa	3.23	21,167
Cameron	97.52	633,620
Hidalgo	248.13	1,378,363
Kleberg	30.38	148,580
Kinney	0.50	3,297
Matagorda	39.29	244,304
Maverick	7.70	42,864
Nueces	127.48	691,617
Pharr	22.43	77,842
Starr	4.45	29,997
Val Verde	0.91	5,934
Webb	104.25	538,185
Wharton	22.40	90,443
Willacy	3.68	24,464
Total	712.35	3,930,677

COMMERCIAL SOP

County	Reported and Verified Savings	
	kW	kWh
Aransas	2.78	18,222
Bee	2.82	83,230
Cameron	32.33	222,671
Duval	0.34	2,238
Hidalgo	227.91	1,044,774
Jackson	6.61	37,310
Jim Wells	17.61	132,910
Karnes	0.68	4,476
Kleberg	43.90	185,636
Medina	89.10	531,418
Nueces	1,192.02	8,633,651
San Patricio	96.05	639,141
Val Verde	135.70	863,604
Victoria	105.67	864,546
Webb	319.14	1,964,832
Total	2,272.66	15,228,659

COOLSAVERSM A/C TUNE-UP MTP

County	Reported and Verified Savings	
	kW	kWh
Aransas	1.14	3,090
Brooks	0.36	1,209
Cameron	231.26	468,890
Hidalgo	1,972.42	5,440,113
Jim Wells	0.41	1,403
Kinney	1.94	5,203
Maverick	50.95	129,173
Nueces	23.14	75,102
San Patricio	4.88	19,790
Starr	18.54	53,093
Uvalde	2.60	9,040
Val Verde	91.15	242,303
Webb	1.75	5,932
Willacy	65.33	116,223
Zavala	30.04	71,484
Total	2,495.91	6,642,048

EARTHNETWORKS RESIDENTIAL DR PILOT MTP

County	Reported and Verified Savings	
	kW	kWh
Aransas	5.18	N/A
Atascosa	20.96	N/A
Bee	30.81	N/A
Brooks	10.46	N/A
Calhoun	1.59	N/A
Cameron	171.98	N/A
Dewitt	-0.34	N/A
Dimmit	24.11	N/A
Duval	25.89	N/A
Frio	11.88	N/A
Goliad	3.11	N/A
Hidalgo	488.71	N/A
Jackson	1.33	N/A
Jim Hogg	11.76	N/A
Jim Wells	126.50	N/A
Karnes	8.81	N/A
Kleberg	47.69	N/A
La Salle	6.13	N/A
Live Oak	16.14	N/A
Matagorda	11.46	N/A
Maverick	110.87	N/A
Medina	0.49	N/A
Nueces	659.67	N/A
Refugio	7.39	N/A
San Patricio	120.55	N/A
Starr	39.34	N/A
Uvalde	30.54	N/A
Val Verde	56.53	N/A
Victoria	57.74	N/A
Webb	901.74	N/A
Wharton	4.21	N/A
Willacy	-0.45	N/A
Zapata	58.88	N/A
Zavala	12.08	N/A
Total	3,083.74	N/A

EFFICIENCY CONNECTION MTP

County	Reported and Verified Savings	
	kW	kWh
Aransas	1.76	6,781
Atascosa	0.49	2,491
Bee	0.76	3,839
Brooks	0.09	327
Caldwell	0.03	142
Cameron	7.71	29,654
Colorado	0.61	3,074
DeWitt	0.15	776
Dimmit	0.63	3,202
Duval	0.36	1,380
Frio	0.15	761
Goliad	0.30	1,528
Hidalgo	12.53	48,229
Jackson	0.22	1,103
Jim Hogg	0.09	327
Jim Wells	1.12	4,315
Kinney	0.06	318
Kleberg	0.69	2,655
La Salle	0.04	183
Live Oak	0.06	318
Matagorda	1.09	5,539
Maverick	0.79	3,998
Medina	0.07	372
Nueces	9.73	37,559
Refugio	0.36	1,388
San Patricio	2.23	8,561
Starr	1.29	4,975
Uvalde	0.54	2,724
Val Verde	0.94	4,794
Victoria	0.82	4,168
Webb	6.68	25,678
Wharton	0.25	1,259
Willacy	0.47	1,815
Wilson	0.05	258
Zapata	0.02	93
Zavala	0.07	363
Total	53.25	214,947

HARD-TO-REACH SOP

County	Reported and Verified Savings	
	kW	kWh
Calhoun	1.38	4,035
Cameron	106.54	315,280
Colorado	2.50	16,587
Dimmit	3.44	10,853
Hidalgo	263.99	985,962
Jackson	4.15	11,010
Jim Wells	1.14	2,192
Kleberg	248.60	891,238
La Salle	0.57	3,433
Matagorda	4.59	18,059
Maverick	19.91	66,291
Nueces	225.48	560,839
Starr	105.72	452,613
Victoria	447.19	1,887,062
Webb	99.11	431,671
Wharton	4.74	10,355
Willacy	21.48	81,545
Total	1,560.53	5,749,025

HIGH-PERFORMANCE NEW HOMES MTP

County	Reported and Verified Savings	
	kW	kWh
Aransas	20.37	73,213
Cameron	2.18	8,339
Hidalgo	93.13	424,155
Jackson	0.66	2,564
Nueces	255.72	988,867
San Patricio	79.11	310,011
Victoria	1.65	6,890
Webb	6.38	29,462
Total	459.20	1,843,501

LOAD MANAGEMENT SOP

County	Reported and Verified Savings	
	kW	kWh
Aransas	16.22	32
Bee	61.30	123
Calhoun	94.59	189
Cameron	1,647.84	3,296
Dimmit	119.21	238
Hidalgo	3,705.73	10,234
Jim Wells	93.33	187
Kleberg	115.08	230
Maverick	35.45	71
Nueces	3,222.57	9,307
San Patricio	3,894.85	6,003
Starr	94.09	188
Val Verde	99.48	199
Victoria	4,583.09	13,474
Webb	1,592.48	3,185
Wharton	45.76	92
Willacy	812.49	1,625
Total	20,233.56	48,673

OPEN MTP

County	Reported and Verified Savings	
	kW	kWh
Brooks	5.85	22,723
Cameron	60.79	282,300
Hidalgo	580.55	2,589,015
Nueces	35.68	177,816
Starr	11.26	48,459
Webb	5.13	18,906
Uvalde	3.08	23,245
Zapata	8.24	32,479
Total	710.58	3,194,943

RELIANT RESIDENTIAL DR PILOT MTP

County	Reported and Verified Savings	
	kW	kWh
Aransas	1.81	N/A
Atascosa	1.79	N/A
Bee	1.41	N/A
Calhoun	-0.14	N/A
Cameron	3.66	N/A
Colorado	0.68	N/A
Hidalgo	23.47	N/A
Jim Wells	0.78	N/A
Kleberg	4.09	N/A
Matagorda	-0.13	N/A
Nueces	24.24	N/A
San Patricio	1.69	N/A
Starr	0.78	N/A
Uvalde	-0.81	N/A
Val Verde	1.60	N/A
Victoria	4.78	N/A
Webb	14.88	N/A
Wharton	0.57	N/A
Willacy	812.49	N/A
Total	85.15	N/A

RESIDENTIAL SOP

County	Reported and Verified Savings	
	kW	kWh
Bee	48.93	142,013
Calhoun	20.87	81,863
Cameron	841.53	3,687,810
Colorado	32.77	143,827
Dimmitt	2.54	14,824
Duval	1.84	8,359
Frio	1.55	8,062
Goliad	1.49	7,414
Hidalgo	1,655.98	7,163,160
Jackson	22.71	93,792
Jim Wells	23.11	76,043
Kleberg	10.87	35,596
La Salle	3.63	20,721
Matagorda	44.77	200,207
Maverick	34.13	159,904
Nueces	607.11	1,936,874
Refugio	0.89	3,982
San Patricio	225.47	882,951
Starr	131.56	591,117
Uvalde	32.52	76,263
Victoria	341.70	1,068,248
Webb	478.13	2,171,453
Wharton	20.32	81,254
Willacy	5.47	25,005
Total	4,589.89	18,680,742

SCORE/CITYSMART MTP

County	Reported and Verified Savings	
	kW	kWh
Atascosa	4.56	25,713
Calhoun	260.78	1,497,094
Dimmit	49.05	310,914
Hidalgo	606.96	3,222,822
Nueces	114.65	623,932
Starr	2.67	17,494
Webb	781.02	4,589,829
Total	1,819.69	10,287,798

SMART SOURCESM SOLAR PV MTP

County	Reported and Verified Savings	
	kW	kWh
Aransas	9.26	17,856
Cameron	356.60	687,408
Hidalgo	93.23	179,728
La Salle	5.40	10,416
Nueces	36.75	70,848
Webb	47.28	91,128
Wharton	6.37	12,288
Total	554.89	1,069,672

TARGETED LOW-INCOME ENERGY EFFICIENCY PROGRAM

County	Reported and Verified Savings	
	kW	kWh
Calhoun	122.43	201,192
Cameron	142.13	319,615
Dimmit	5.62	10,098
Edwards	5.39	9,825
Goliad	37.78	49,626
Hidalgo	94.43	198,425
Kinney	10.03	20,292
La Salle	21.36	41,285
Matagorda	9.53	18,780
Maverick	11.90	18,570
Nueces	39.47	76,226
Real	3.06	6,566
Uvalde	92.14	131,913
Val Verde	20.41	44,797
Webb	153.62	217,797
Willacy	3.22	8,197
Zavala	7.65	14,346
Total	780.17	1,387,550

APPENDIX B:

PROGRAM TEMPLATES

AEP Texas – Central Division does not have any Program Templates to report this year.

APPENDIX C:

EXISTING CONTRACTS OR OBLIGATIONS

AEP Texas – Central Division has no Existing Contracts or Obligations documentation to provide.

APPENDIX D:

OPTIONAL SUPPORT DOCUMENTATION

AEP Texas – Central Division provides the following Optional Supporting Documentation.



The AEP Texas Central Division CSOP presented a \$61,914 incentive check to the CHRISTUS Spohn Health System Foundation in Corpus Christi. CHRISTUS Spohn completed two large LED lighting retrofit projects.



Detar Healthcare System in Victoria was awarded a \$91,452 incentive check through the AEP Texas Central Division CSOP. Detar Hospital completed a retrofit project including two 450 ton chillers.

ENERGY EFFICIENCY PLAN – AEP TEXAS - NORTH DIVISION

I. 2017 Programs

A. 2017 Program Portfolio

AEP Texas – North Division has implemented a variety of programs in 2017 to enable it to meet its goals in a manner that complies with PURA § 39.905 and the EE Rule. These programs target broad market segments and specific market sub-segments with significant opportunities for cost-effective energy savings.

Table 14 summarizes the programs and targeted customer class markets for Program Year 2017. The programs listed in Table 14 are described in further detail in Subsection B. AEP Texas maintains a web site containing information on participation and forms required for project submission at www.AEPTexas.com. This site is the primary method of communication used to provide program updates and information to Retail Electric Providers (REPs), potential Energy Efficiency Service Providers (EESPs), and other interested parties.

Implementation Process

MTPs are implemented by a third-party implementer. These implementers design, market and execute the applicable MTP. Based on the specific MTP, the implementer may perform outreach activities to recruit local contractors and provide participating contractors specialized education, training/certification and tools as necessary. Implementers validate proposed measures/projects, perform quality assurance/quality control, and verify and report savings derived from the program.

SOPs are managed in-house with project sponsors providing eligible program measures. Project sponsors are typically EESPs; however, for commercial projects an AEP Texas end-use customer may serve as its own project sponsor. Eligible project sponsors can submit an application(s) for project(s) meeting the minimum SOP requirements.

The North Division monitors projects being submitted so as to not accept duplicate enrollments.

Outreach Activities

- Promote internet web sites with program information including project eligibility, end-use measures, incentives, procedures, application forms, and in some cases a list of participating project sponsors and the available program budget;
- Utilize mass e-mail notifications to inform and update potential project sponsors on AEP Texas energy efficiency program opportunities;
- Conduct workshops as necessary to explain program elements such as responsibilities of the project participants, program requirements, incentive information and the application and reporting process;
- Conduct specific project sponsor/contractor training sessions as necessary based on the energy efficiency programs being implemented;
- Participate in local, regional, state-wide, and industry-related outreach activities as may be necessary; and
- Facilitate earned media opportunities, spotlighting successful projects and/or interesting stories as applicable.

Table 14: 2017 Energy Efficiency Program Portfolio – North Division

Program	Target Market	Application	Link to Program Manual
Commercial Solutions MTP	Commercial	Retrofit & New Construction	https://www.aeptexas.com/commercial-solutions/
Commercial SOP	Commercial	Retrofit & New Construction	https://www.aeptexas.com/save/business/programs/wTX/CommercialStandardOfferProgram.aspx
Hard-to-Reach SOP	Residential Hard-to-Reach	Retrofit	https://aep.com/global/utilities/lib/docs/save/residential/programs/AEPTexas/TNC/2017/htr/2017_HTR_Manual_Final_v2.pdf
Load Management SOP	Commercial	Retrofit	https://www.aeptexas.com/save/business/programs/wTX/LoadManagementProgram.aspx
Open MTP	Commercial	Retrofit	https://www.aeptexas.com/open-small-business
Residential SOP	Residential	Retrofit	https://www.aeptexas.com/save/residential/programs/wTX/ResidentialStandardOffer.aspx
SCORE/City Smart MTP	Commercial	Retrofit & New Construction	https://www.aeptexas.com/score/ https://www.aeptexas.com/citysmart/
SMART Source SM Solar PV MTP	Commercial Residential	Retrofit & New Construction	http://www.txreinc.com/apv/documents/AEP-TCC%20AEP-TNC%20PV%20Program%20Guidebook%202017%2020161114.pdf
Targeted Low-Income Energy Efficiency Program	Low-Income Residential	Retrofit	No Website Available
Whisker Labs Residential DR Pilot MTP	Residential	Retrofit	No website available

B. Existing Programs

Commercial Solutions Market Transformation Program (CS MTP)

The CS MTP targets commercial customers (other than governmental and educational entities) that do not have the in-house expertise 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. Incentives are paid to customers for eligible energy efficiency measures installed in new or retrofit applications that result in verifiable demand and energy savings.

Commercial Standard Offer Program (CSOP)

The CSOP targets commercial customers of all sizes. Variable incentives are available to project sponsors based upon deemed and/or verified demand and energy savings for eligible measures installed in new or retrofit applications.

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

The HTR SOP targets residential customers with total annual household incomes at or below 200% of current federal poverty guidelines. Incentives are paid to project sponsors for eligible measures installed in retrofit applications that result in verifiable demand and energy savings. Project comprehensiveness is encouraged and customer education materials regarding energy conservation behavior are distributed by project sponsors.

Load Management Standard Offer Program (LM SOP)

The LM SOP targets commercial customers with a peak electric demand of 500 kW or more. Incentive payments are based upon measured and verified peak demand reduction of curtailed loads during the summer peak period. Load management events are dispatched by AEP Texas, using a one-hour-ahead notice for load reduction periods of one to four hours duration.

Open Market Transformation Program (Open MTP)

The Open MTP targets traditionally underserved small commercial customers who may not employ knowledgeable personnel with a focus on energy efficiency, who are limited in the ability to implement energy efficiency measures, and/or who typically do not actively seek the help of a professional EESP. Small commercial customers with a peak demand not exceeding 100 kW in the previous 12 consecutive billing months may qualify to participate in the program. Available incentives are paid directly to the contractor, thereby reducing a portion of the project cost for the customer.

The program is intended to overcome market barriers for participating contractors by providing technical support and incentives to implement energy efficiency upgrades and produce demand and energy savings.

Residential Standard Offer Program (RSOP)

The RSOP targets residential customers in existing homes. Incentives are paid to project sponsors for eligible measures installed in retrofit applications that result in verified demand and energy savings. Project comprehensiveness is encouraged.

SCORE/CitySmart Market Transformation Program (SCORE/CS MTP)

The SCORE/CS MTP provides energy efficiency and demand reduction solutions for public and private educational entities grades K-12 as well as colleges and universities. In addition to educational facilities, SCORE/CS MTP provides these same solutions to local, state, county and federal government customers. This program is designed to help educate and assist these customers in lowering their energy use by facilitating the integration of energy efficiency into their short- and long-term planning, budgeting, and operational practices. Incentives are paid to participating customers for eligible energy efficiency measures that are installed in new or retrofit applications that result in verifiable demand and energy savings.

SMART SourceSM Solar PV Market Transformation Program (PV MTP)

The PV MTP offers incentives to customers for the installation of solar photovoltaic (PV) systems interconnected on the customer's side of the meter. The incentives help offset the initial costs of installing solar PV systems, and encourage service providers to seek more installation opportunities. In addition to demand and energy savings achieved from the installations, the PV MTP aims to transform the solar PV market by increasing the number of qualified companies offering installation services in the service area, and decreasing the average installed cost of PV systems, thereby creating greater market economies of scale.

Targeted Low-Income Energy Efficiency Program (TLIP)

The TLIP is designed to cost-effectively reduce the energy consumption and energy costs for low-income residential customers in the North Division service territory. Weatherization service providers install eligible weatherization and energy efficiency measures in qualified households that meet the Department of Energy (DOE) income-eligibility guidelines of at or below 200% of the current federal poverty guidelines. A Savings-to-Investment Ratio of 1.0 or higher is required at each serviced dwelling unit.

Whisker Labs Residential Thermostat Demand Response (DR) Pilot Market Transformation Program (WLDR MTP)

Whisker Labs (WL), formerly known as Earth Networks (EN), will use their Connected Savings platform to deliver an Integrated Demand Side Management (IDSM) aggregation program that will bring residential energy and demand savings. On the days that AEP Texas requests demand response services be implemented, WL will optimize the control thermostats to reduce HVAC load. The load reduction period will be for a duration of no more than three hours with at least an hour notice prior to the desired event start time.

C. New Programs for 2017

The North Division has no new programs for 2017.

D. Discontinued Programs

Efficiency Connection Pilot MTP (EffCon)

The Efficiency Connection Pilot MTP was a program with a partnership with REPs to help promote energy efficiency to residential customers by offering discounted LED lamps via an online marketplace. A third-party implementer facilitated customer/REP participation and aided in the selection and management of an online retailer/vendor for the program website and order fulfillment. Due to lower than expected sales volume, the program has been cancelled.

E. Existing DSM Contracts or Obligations

The North Division has no existing DSM contracts or obligations.

II. Customer Classes

The North Division’s energy efficiency programs target its Residential and Commercial customer classes. The North Division’s energy efficiency programs also target customer sub-classes, such as Residential Hard-to-Reach and Low-Income, Schools, Small Businesses, and Local Governments.

The annual projected savings targets are allocated among these customer classes and sub-classes by examining historical program results and by evaluating economic trends, in compliance with 16 TAC § 25.181(e)(3).

Table 15 summarizes the number of customers in each customer class and the Residential Hard-to-Reach sub-class. The numbers listed are the actual number of active electric service accounts by class served for the month of January 2017. These numbers were used to determine goal and budget allocations for each customer class and program. It should be noted however, that the actual distribution of the annual goal and budget required to achieve the goal must remain flexible based upon the conditions of the marketplace, the potential interest of a customer class, and the overriding objective of meeting the mandated demand and energy reduction goals in total. The North Division offers a varied portfolio of SOPs and MTPs such that all eligible customer classes have access to energy efficiency alternatives.

Table 15: Summary of Customer Classes – North Division

Customer Class	Number of Customers
Commercial	37,365
Residential	155,180
Hard-to-Reach ⁶	53,382*

* Hard-to-Reach customer count is a sub-set of the Residential total.

⁶ According to the U.S. Census Bureau’s 2015 Current Population Survey, 34.4% of Texas families fall below 200% of the poverty threshold. Applying that percentage to the North Division’s residential customer base of 155,180, the number of Hard-to-Reach customers is estimated at the North Division’s residential customer base of 53,382.

III. Energy Efficiency Goals and Projected Savings

The North Division's 2017 annual demand and energy reduction goals to be achieved are 4.26 MW and 7,464 MWh, respectively. These goals have been calculated as prescribed by the EE Rule.

The 2017 goal was calculated by applying four-tenths of 1% (0.004) of its summer weather-adjusted peak demand for the combined residential and commercial customers to the five year average (2012-2016) peak demand at the meter of 998 MW. This resulted in a calculated goal of 3.99 MW.

The 2018 demand goal is calculated by applying four-tenths of 1% (0.004) of its summer weather-adjusted peak demand for the combined residential and commercial customers to the five year average (2012-2016) peak demand at the meter of 1,004 MW. This results in a calculated goal of 4.02 MW.

As stated in 16 TAC § 25.181(e)(1)(E), except as adjusted in accordance with subsection (w), a utility's demand reduction goal shall not be lower than the previous year's goal which was 4.26 kW, with a corresponding 7,464 MWh goal. The goal for 2017 and 2018 will be 4.26 kW and 7,464 MWh.

Table 16 presents historical annual growth in demand data for the previous five years that was used to calculate the goals. Table 17 presents the projected demand and energy savings for Program Years 2017 and 2018 by program, for each customer class with fully-deployed program budgets.

Table 16: Annual Growth in Demand and Energy Consumption – North Division

Calendar Year	Peak Demand (MW) @ Source						Energy Consumption (MWh) @ Meter				Energy Efficiency Goal Calculations		
	Total System		Residential & Commercial				Total System		Residential & Commercial		Peak Demand at Meter (11.5% line losses)*	5 year Average Peak Demand at Meter	Goal Metric: 0.4% Peak Demand at Meter
	Actual	Weather Adjusted	Actual	Weather Adjusted	Opt-Out	Peak Demand at Source	Actual	Weather Adjusted	Actual	Weather Adjusted			
2012	1,172	1,114	1,168	1,107	-9.5	1,098	5,145	5,055	5,016	4,926	972	NA	NA
2013	1,147	1,145	1,142	1,140	-9.6	1,130	5,221	5,131	5,084	4,994	1,000	NA	NA
2014	1,086	1,164	1,084	1,161	-9.1	1,152	5,600	5,526	5,459	5,385	1,020	NA	NA
2015	1,193	1,177	1,179	1,163	-15.7	1,147	5,779	5,741	5,532	5,495	1,015	993	3.97
2016	1,169	1,181	1,151	1,163	-19.4	1,144	5,524	5,521	5,205	5,202	1,012	1,002	4.01
2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	998	3.99
2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,004	4.02

*Line losses are derived from the loss factors determined in the North Division’s most recent line loss study.

Table 17: Projected Demand and Energy Savings by Program for Each Customer Class for 2017 and 2018 (at the Meter) – North Division

2017	Projected Savings	
	kW	kWh
Customer Class and Program		
Commercial		
Commercial Solutions MTP	400	2,909,280
Commercial SOP	420	2,660,077
Load Management SOP	2,175	7,797
Open MTP	409	1,630,000
SCORE/CitySmart MTP	161	1,280,000
SMART Source SM Solar PV MTP	65	216,280
Residential		
Residential SOP	1,244	2,630,373
SMART Source SM Solar PV MTP	53	174,825
Whisker Labs Residential DR Pilot MTP	500	0
Hard-to-Reach		
Hard-to-Reach SOP	609	1,039,947
Targeted Low-Income Energy Efficiency Program	109	246,626
Total Annual Projected Savings	6,145	12,795,205

**Table 17: Projected Demand and Energy Savings by Program for Each Customer Class for 2017 and 2018 (at the Meter) – North Division
(Continued)**

2018 Customer Class and Program	Projected Savings	
	kW	kWh
Commercial		
Commercial Solutions MTP	400	2,909,280
Commercial SOP	420	2,660,077
Load Management SOP	2,175	7,797
Open MTP	409	1,630,000
SCORE/CitySmart MTP	161	1,280,000
SMART Source SM Solar PV MTP	65	216,280
Residential		
Residential SOP	1,244	2,630,373
SMART Source SM Solar PV MTP	53	174,825
Whisker Labs Residential DR Pilot MTP	500	0
Hard-to-Reach		
Hard-to-Reach SOP	609	1,039,947
Targeted Low-Income Energy Efficiency Program	109	246,626
Total Annual Projected Savings	6,145	12,795,205

IV. Program Budgets

Table 18 presents total proposed budget allocations required to meet the projected demand and energy savings to be achieved for the Program Years 2017 and 2018. The budget allocations are defined by the overall projected demand and energy savings, the avoided costs of capacity and energy specified in the EE Rule, allocation of demand goals, and the incentive levels by customer class. Budget allocations are detailed by customer class, program, and the following budget categories: incentives, administration, research and development (R&D), and evaluation, measurement and verification (EM&V).

**Table 18: Projected Annual Budget by Program for Each Customer Class
for 2017 and 2018 – North Division**

2017	Incentives	Admin	R&D	EM&V	Total Budget
Commercial					
Commercial Solutions MTP	\$363,660	\$54,340			\$418,000
Commercial SOP	\$308,850	\$46,150			\$355,000
Load Management SOP	\$87,000	\$13,000			\$100,000
Open MTP	\$419,340	\$62,660			\$482,000
SCORE/CitySmart MTP	\$160,080	\$23,920			\$184,000
SMART Source SM Solar PV MTP	\$82,650	\$12,350			\$95,000
Residential					
Residential SOP	\$530,700	\$79,300			\$610,000
SMART Source SM Solar PV MTP	\$102,660	\$15,340			\$118,000
Whisker Labs Residential DR MTP	\$20,010	\$2,990			\$23,000
Hard-to-Reach					
Hard-to-Reach SOP	\$314,070	\$46,930			\$361,000
Targeted Low-Income Energy Efficiency Program	\$287,970	\$43,030			\$331,000
Research and Development					
R&D	NAP	NAP	\$200,000		\$200,000
Evaluation, Measurement & Verification (EM&V)					
EM&V	NAP	NAP	NAP	\$31,221	\$31,221
Total Budget	\$2,676,990	\$400,010	\$200,000	\$31,221	\$3,308,221

**Table 18: Projected Annual Budget by Program for Each Customer Class
for 2017 and 2018 – North Division (Continued)**

2018	Incentives	Admin	R&D		Total Budget
Commercial					
Commercial Solutions MTP	\$363,660	\$54,340			\$418,000
Commercial SOP	\$308,850	\$46,150			\$355,000
Load Management SOP	\$87,000	\$13,000			\$100,000
Open MTP	\$419,340	\$62,660			\$482,000
SCORE/CitySmart MTP	\$160,080	\$23,920			\$184,000
SMART Source SM Solar PV MTP	\$82,650	\$12,350			\$95,000
Residential					
Residential SOP	\$530,700	\$79,300			\$610,000
SMART Source SM Solar PV MTP	\$102,660	\$15,340			\$118,000
Whisker Labs Residential DR MTP	\$20,010	\$2,990			\$23,000
Hard-to-Reach					
Hard-to-Reach SOP	\$314,070	\$46,930			\$361,000
Targeted Low-Income Energy Efficiency Program	\$287,970	\$43,030			\$331,000
Research and Development					
R&D	NAP	NAP	\$200,000		\$200,000
Evaluation, Measurement & Verification (EM&V)					
EM&V	NAP	NAP	NAP	\$31,209	\$31,209
Total Budget	\$2,676,990	\$400,010	\$200,000	\$31,209	\$3,308,209

ENERGY EFFICIENCY REPORT – AEP TEXAS - NORTH DIVISION

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

Table 819 contains the demand and energy reduction goals and actual savings achieved for the previous five years (2012-2016) calculated in accordance with the EE Rule.

Table 19: Historical Demand and Energy Goals* and Savings Achieved (at the Meter) – North Division

Calendar Year	Actual Weather Adjusted Demand Goal (MW)	Actual Weather Adjusted Energy Goal (MWh)	Savings Achieved (MW)	Savings Achieved (MWh)
2016	4.26	7,464	6.38	10,817
2015	4.26	7,464	4.54	12,289
2014	4.26	7,464	8.15	11,867
2013	4.26	7,464	6.93	9,087
2012	4.26	7,464	6.02	7,353

* Actual Weather Adjusted MW and MWh Goals as reported in the EEPRs filed in years 2012-2016.

VI. Projected, Reported and Verified Demand and Energy Savings

**Table 20: Projected versus Reported and Verified Savings
for 2016 and 2015 (at the Meter) – North Division**

2016	Projected Savings		Reported and Verified Savings	
Customer Class and Program	kW	kWh	kW	kWh
Commercial				
Commercial Solutions MTP	323	2,000,000	294	2,220,044
Commercial SOP	391	2,476,965	303	1,743,971
Load Management SOP	2,014	7,222	3,378	5,767
Open MTP	380	1,344,000	382	1,843,603
SCORE/CitySmart MTP	161	1,000,000	387	1,001,809
SMART Source SM Solar PV MTP	83	160,000	60	116,480
Residential				
Earth Networks Residential DR Pilot	500	500	388	0
Efficiency Connection Pilot MTP	123	659,221	33	138,277
Residential SOP	795	2,471,851	753	2,632,186
SMART Source SM Solar PV MTP	79	151,481	78	150,848
Hard-to-Reach				
Hard-to-Reach SOP	231	733,841	230	736,447
Targeted Low-Income Energy Efficiency Program	88	186,989	95	227,901
Total Annual Savings	5,168	11,192,070	6,381	10,817,333

**Table 20: Projected versus Reported and Verified Savings
for 2016 and 2015 (at the Meter) – North Division (Continued)**

2015	Projected Savings		Reported and Verified Savings	
Customer Class and Program	kW	kWh	kW	kWh
Commercial				
Commercial Solutions MTP	323	2,000,000	389	2,717,077
Commercial SOP	740	2,920,000	427	2,704,863
Load Management SOP	2,751	19,282	1,744	6,252
Open MTP	357	1,344,000	392	1,680,387
SCORE/CitySmart MTP	161	1,000,000	258	1,300,469
SMART Source SM Solar PV MTP	61	117,000	101	194,416
Residential				
Efficiency Connection Pilot MTP	105	525,131	5	22,397
Residential SOP	800	2,451,000	844	2,624,877
SMART Source SM Solar PV MTP	71	137,143	67	129,664
Hard-to-Reach				
Hard-to-Reach SOP	224	589,828	228	722,719
Targeted Low-Income Energy Efficiency Program	122	268,166	88	186,149
Total Annual Savings	5,715	11,371,550	4,542	12,289,271

VII. Historical Program Expenditures

This section documents the North Division’s incentive and administration expenditures for the previous five years (2012-2016) detailed by program for each customer class.

Table 21: Historical Program Incentive and Administrative Expenditures for 2012 through 2016 (000’s) – North Division

	2016		2015		2014		2013		2012	
	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin
Commercial										
AEP Texas CARE\$ Energy Efficiency for Not-for-Profit Agencies SOP	NAP	NAP	NAP	NAP	NAP	NAP	NAP	NAP	\$52.12	\$14.36
Commercial Solutions MTP	\$330.00	\$32.98	\$410.11	\$33.41	\$296.58	\$31.42	\$177.64	\$20.69	\$231.71	\$29.01
Commercial SOP	\$187.96	\$22.89	\$218.53	\$22.47	\$196.10	\$35.58	\$132.02	\$29.32	\$64.17	\$18.66
Irrigation Load Management MTP	NAP	NAP	NAP	NAP	\$ 50.00	\$ 6.59	\$140.00	\$18.25	NAP	NAP
Load Management SOP	\$80.58	\$10.52	\$ 31.89	\$ 3.17	\$ 41.50	\$ 8.64	\$ 96.30	\$18.30	\$50.00	\$11.27
Load Management SOP – Expanded	NAP	NAP	NAP	NAP	NAP	NAP	NAP	NAP	\$14.46	\$3.18
Open MTP	\$417.06	\$47.99	\$461.04	\$45.24	\$421.18	\$48.23	\$374.73	\$50.56	NAP	NAP
SCORE/CitySmart MTP	\$153.27	\$17.42	\$185.88	\$16.49	\$216.14	\$23.49	\$230.35	\$26.39	\$184.17	\$24.48
SMART Source SM Solar PV MTP	\$49.81	\$5.37	\$ 60.48	\$ 4.83	\$ 44.29	\$ 4.32	\$ 67.74	\$ 8.90	\$79.44	\$10.76

(Table continued on next page)

**Table 21: Historical Program Incentive and Administrative Expenditures for 2012 through 2016 (000's) – North Division
(Continued)**

	2016		2015		2014		2013		2012	
	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin	Incent.	Admin
Residential										
A/C Distributor Pilot MTP	NAP	NAP	NAP	NAP	\$139.28	\$21.69	\$133.59	\$22.28	\$41.01	\$9.38
Earth Networks Residential DR Pilot	\$15.51	\$1.49	NAP	NAP	NAP	NAP	NAP	NAP	NAP	NAP
Efficiency Connection Pilot MTP	\$81.76	\$7.59	\$ 62.05	\$ 10.23	NAP	NAP	NAP	NAP	NAP	NAP
Residential SOP	\$415.69	\$60.12	\$445.52	\$61.55	\$414.45	\$57.48	\$364.19	\$62.57	\$362.49	\$59.73
SMART Source SM Solar PV MTP	\$88.34	\$9.52	\$100.88	\$ 8.06	\$102.04	\$ 9.96	\$ 68.73	\$ 9.03	\$100.70	\$13.45
Hard-to-Reach										
Hard-to-Reach SOP	\$162.14	\$25.46	\$160.19	\$ 15.79	\$160.60	\$23.69	\$177.12	\$32.97	\$213.45	\$36.82
Targeted Low-Income Energy Efficiency Program	\$255.66	\$32.69	\$256.02	\$ 27.07	\$248.23	\$32.82	\$251.37	\$37.13	\$199.29	\$40.23
Research and Development (R&D)	NAP	\$82.69	NAP	\$ 86.35	NAP	\$122.51	NAP	\$86.56	NAP	\$108.66
Evaluation, Measurement & Verification (EM&V)	NAP	\$28.41	NAP	\$ 43.51	NAP	\$53.82	NAP	\$68.34	NAP	NAP
Total Expenditures	\$2,237.76	\$385.14	\$2,392.59	\$378.19	\$2,330.39	\$480.24	\$2,213.78	\$491.29	\$1,593.01	\$379.99

VIII. Program Funding for Calendar Year 2016

As shown in Table 22, the total projected budget in 2016 was \$2,987,851 and the actual total funds expended in 2016 were \$2,622,904, an overall total program expenditure difference of 12% from the amount budgeted.

The following individual program expenditures differed from their respective proposed program budgets by more than 10% as explained below.

The CS MTP did not expend its full incentive budget due to a combination of some projects not being completed in time to perform the final savings validation and verification and a higher mix of measures receiving incentives at the lower tier. Regardless, higher than expected energy savings were obtained from the customers energy efficiency projects that were completed, thus exceeding the programs main driver, kWh savings.

The EarthNetworks Residential DR Pilot MTP was under budget due to lower than projected demand savings of 1.5 kW per participating customer. The average was 1.2 kW per customer.

The EffCon Pilot MTP was under budget due to lower than expected sales volume.

The commercial component of the PV MTP did not fully utilize its incentive budget during the program year due to a project withdrawing from the program before the end of the year.

The residential component of the PV MTP did not fully utilize its incentive budget during the program year due to lower than expected participation.

The combined 2016 expenditures for the TLIP and the HTR SOP constituted 16% of its energy efficiency budget for the 2016 Program Year. The 2016 expenditure for the TLIP constituted 10% of its energy efficiency budget for the 2016 Program Year.

Table 22: Program Funding for Calendar Year 2016 (Dollar amounts in 000's) – North Division

	Total Projected Budget ⁷	Numbers of Customers Participating	Actual Funds Expended (Incentives)	Actual Funds Expended (Admin)	Research & Development	Evaluation, Measurement & Verification	Total Funds Expended
Commercial							
Commercial Solutions MTP	\$417.77	9	\$330.00	\$32.98			\$362.98
Commercial SOP	\$229.88	12	\$187.96	\$22.89			\$210.85
Load Management SOP	\$92.62	18	\$80.58	\$10.52			\$91.10
Open MTP	\$481.89	70	\$417.06	\$47.99			\$465.05
SCORE/CitySmart MTP	\$183.91	15	\$153.27	\$17.42			\$170.68
SMART Source SM Solar PV MTP	\$94.97	1	\$49.81	\$5.37			\$55.18
Residential							
Earth Networks Residential DR Pilot	\$22.99	324	\$15.51	\$1.49			\$17.00
Efficiency Connection Pilot MTP	\$172.41	494	\$81.76	\$7.59			\$89.35
Residential SOP	\$482.31	842	\$415.69	\$60.12			\$475.80
SMART Source SM Solar PV MTP	\$117.24	10	\$88.34	\$9.52			\$97.86
Hard-to-Reach							
Hard-to-Reach SOP	\$187.03	219	\$162.14	\$25.46			\$187.60
Targeted Low-Income Energy Efficiency Program	\$295.57	65	\$255.66	\$32.69			\$288.35
Research and Development	\$177.01	NAP	NAP	NAP	\$82.69	NAP	\$82.69
EM&V							
Statewide EM&V Contractor	\$32.25	NAP	NAP	NAP	NAP	\$28.41	\$28.41
Total Expenditures	\$2,987.85	NAP	\$2,237.76	\$274.03	\$82.69	\$28.41	\$2,622.90

⁷ Projected Budget from the EEPR filed April 2016, Project No. 45675.

IX. Market Transformation Program Results

Commercial Solutions MTP

For 2016, the North Division projected to acquire 2,000,000 kWh of energy savings from CS MTP. The North Division verified and reported 2,220,044 kWh. This included participation by 9 customers.

EarthNetworks Residential DR Pilot MTP

The EarthNetworks Residential DR Pilot MTP goal was to acquire 500 kW demand savings. A total of 388 kW was achieved by participation of 324 residential customers in 2016.

Efficiency Connection Pilot MTP

The Efficiency Connection Pilot MTP goal was to acquire 123 kW demand savings and 659,221 kWh in energy savings. A total of 33 kW and 138,277 kWh were achieved in 2016. Reported savings included 494 customers.

Open MTP

The Open MTP goal was to acquire 380 kW demand savings and 1,344,000 kWh in energy savings. A total of 382 kW and 1,843,603 kWh were achieved in 2016. Reported savings included 70 small commercial customers and 9 participating contractors.

SCORE/CitySmart MTP

For 2016, the North Division projected to acquire 1,000,000 kWh of energy savings from this program. The North Division verified and reported 1,001,809 kWh. This included participation by 15 customers.

SMART SourceSM Solar PV MTP

The 2016 PV MTP projected to acquire a 162 kW in demand savings and 311,481 kWh in energy savings from the residential and non-residential components. A total of 11 residential and non-residential solar PV projects were completed within the program, resulting in a peak demand reduction of 139 kW and 267,328 kWh of energy savings.

X. Administrative Costs and Research and Development

Administrative Costs

Administrative costs incurred to meet the energy efficiency goals and objectives include, but may not be limited to, energy efficiency employees' payroll, costs associated with regulatory filings, and EM&V costs outside of the actual cost associated with the EM&V contractor. Any portion of these costs which are not directly assignable to a specific program are allocated among the programs in proportion to the program incentive costs.

Program Research and Development

R&D activities are intended to help meet future energy efficiency goals by researching new technologies, program options and developing better, more efficient ways to administer current programs. The following is a summary of the North Division's R&D activities for 2016.

AEP Texas dedicated resources to develop a new electronic data collection and management system for current programs. In addition, AEP Texas participated with Electric Utility Marketing Managers of Texas (EUMMOT) in researching potentially new deemed savings measures for various programs.

Informational Activities

The North Division continues its best efforts to encourage and facilitate the involvement of REPs and EESPs in the delivery of its programs to customers. The North Division utilizes local, regional and national conferences, trade shows, and other events for outreach and information exchange with participating REPs and EESPs. The North Division again presented detailed program information at its annual AEP Texas Competitive REP workshop in September. The North Division also provides new and existing energy efficiency program information to the REPs and EESPs throughout the year on a timely basis via e-mail.

XI. 2017 Energy Efficiency Cost Recovery Factor (EECRF)

The total amount approved to be collected through the North Division’s 2017 EECRF is \$1,758,574, which consists of the following components:

- recovery of \$1,790,454 in energy efficiency expenses budgeted for 2017 (North Division’s actual projected budget for energy efficiency expenses for 2017 is \$3,277,000, which is reduced by \$1,294,430 in energy efficiency costs expressly included in base rates and \$192,116 of load growth);
- recovery of a performance bonus in the amount of \$186,197 for achieving energy efficiency goals in Program Year 2015;
- return to customers in the amount of \$203,607 in energy efficiency program costs over-collected through North Division’s EECRF in 2015;
- recovery of \$4,530 for 2015 EECRF proceeding expenses incurred in Docket No. 44718 by municipalities as authorized by 16 TAC § R. 25.181(f)(3)(B); and
- a settlement adjustment of \$19,000 as approved in PUC Docket No. 45928.

Table 23: 2017 EECRF

Customer Class	EECRF
Residential Service	\$0.000449 per kWh
Secondary Service (less than or equal to 10 kW)	(\$0.000154) per kWh
Secondary Service (greater than 10 kW)	\$0.000485 per kWh
Primary Service	(\$0.000005) per kWh
Transmission Service	(\$0.010866) per kW

XII. 2016 EECRF Summary

2016 Collections for Energy Efficiency

The North Division collected \$1,439,228 through its 2016 base rates, including \$1,294,430 expressly included in base rates and an adjustment for load growth in the amount of \$144,798, and \$1,696,149 through its 2016 EECRF for a total of \$3,135,377. A performance bonus of \$518,092 for exceeding its 2014 energy efficiency goals and \$333,281 returned to customers are reflected in the total amount collected for energy efficiency in 2016.

Energy Efficiency Program Costs Expended

The North Division expended a total of \$2,622,904 for its 2016 energy efficiency programs. The amount expended is \$364,947 less than the 2016 projected budget of \$2,987,851 for energy efficiency programs.

Over-Recovery of Energy Efficiency Costs

The North Division's actual 2016 energy efficiency program costs (including EM&V costs) less municipal rate case expenses are \$2,621,891 and actual energy efficiency program revenues are \$2,950,566. These associated 2016 costs and revenues result in an over-recovery of energy efficiency costs of \$328,675. This is the amount that the North Division will request be returned to customers within its 2018 EECRF.

XIII. Underserved Counties

The North Division has defined Underserved Counties as any county in the service territory for which the North Division reported no demand or energy savings through any of its 2016 SOPs or MTPs. Per 16 TAC § 25.181(n) (2) (U), a list of the Underserved Counties is as follows:

- Baylor
- Crane
- Edwards
- Gillespie
- Hall
- King
- Mason
- McCullough
- Nolan
- Stephens

XIV. Performance Bonus

The North Division achieved a 6,381 kW reduction in peak demand from its energy efficiency programs offered in 2016. This achievement represents 150% of its 2016 demand reduction goal of 4,260 kW. The North Division also achieved 10,817,333 kWh, which represents 145%, of its energy reduction goal of 7,464,000 kWh. These results qualify the North Division for a Performance Bonus. Per 16 TAC § 25.181(h), the North Division is eligible for a Performance Bonus of \$556,184, which it will request within its June 1, 2017 EECRF Filing for recovery in 2018.

In 2016, the North Division's total spending on energy efficiency programs was \$2,622,904. This includes actual EM&V expenditures to the EM&V contractor of \$28,413. Per the PUC, the total program costs to be used in the Performance Bonus calculation should include the EM&V cost allocation provided by the EM&V contractor for Program Year 2016, instead of the actual EM&V contractor expenditures. As a result, the total program expenditures for the bonus calculation will not match the actual total program expenditures exhibited in the applicable tables in this EEPR. For the purposes of the Performance Bonus calculation, the North Division's 2016 total program costs equaled \$2,627,930.

Table 24: Energy Efficiency Performance Bonus Calculation for 2016 – North Division

	kW	kWh
2016 Goals	4,260	7,464,000
2016 Savings		
<i>Reported/Verified Total (including HTR and measures with <10yr EUL)</i>	6,381	10,817,333
<i>Reported/Verified Hard-to-Reach</i>	325	
2016 Program Costs		\$2,627,930
2016 Performance Bonus		\$556,184

Performance Bonus Calculation

150%	Percentage of Demand Reduction Goal Met (Reported kW/Goal kW)
145%	Percentage of Energy Reduction Goal Met (Reported kWh/Goal kWh)
TRUE	Met Requirements for Performance Bonus?
\$8,189,770	Total Avoided Cost (Reported kW * PV (Avoided Capacity Cost) + Reported kWh * PV(Avoided Energy Cost))
\$2,627,930	Total Program Costs
\$5,561,839	Net Benefits (Total Avoided Cost - Total Expenses)

Bonus Calculation

\$1,384,800	Calculated Bonus ((Achieved Demand Reduction/Demand Goal - 100%) / 2) * Net Benefits
\$556,184	Maximum Bonus Allowed (10% of Net Benefits)
\$556,184	Bonus (Minimum of Calculated Bonus and Bonus Limit)

Acronyms

CSOP	Commercial Standard Offer Program
CS MTP	Commercial Solutions Market Transformation Program
DR	Demand Response
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 Providers
EffCon	Efficiency Connection Pilot Market Transformation Program
EUMMOT	Electric Utility Marketing Managers of Texas
HTR	Hard-To-Reach
HTR SOP	Hard-to-Reach Standard Offer Program
LM SOP	Load Management Standard Offer Program
MTP	Market Transformation Program
NAP	Not Applicable
Open MTP	Open Market Transformation Program
PUC	Public Utility Commission of Texas
PURA	Public Utility Regulatory Act
PV	Photovoltaic
PV MTP	SMART Source SM Solar PV Market Transformation Program
R&D	Research and Development

Acronyms (Continued)

REP	Retail Electric Provider
RES	Residential
RSOP	Residential Standard Offer Program
SCORE	Schools Conserving Resources
SCORE/CS MTP	SCORE/CitySmart Market Transformation Program
SOP	Standard Offer Program
TDU	Transmission and Distribution Utility
TLIP	Targeted Low-Income Energy Efficiency Program
TNC	AEP Texas North Company (now the North Division of AEP Texas)

APPENDIX A:

REPORTED AND VERIFIED DEMAND AND ENERGY REDUCTION BY COUNTY

**CALENDAR YEAR 2016
COMMERCIAL SOLUTIONS MTP**

County	Reported Savings	
	kW	kWh
Brewster	0.98	6,394
Runnels	37.13	278,357
Taylor	41.13	323,466
Tom Green	215.03	1,611,827
Total	294.27	2,220,044

COMMERCIAL SOP

County	Reported Savings	
	kW	kWh
Childress	5.75	37,682
Hardeman	60.63	303,808
Menard	4.46	10,444
Taylor	87.37	384,063
Tom Green	142.66	993,511
Wilbarger	2.23	14,463
Total	303.10	1,743,971

EARTHNETWORKS RESIDENTIAL DR PILOT MTP

County	Reported Savings	
	kW	kWh
Callahan	4.75	N/A
Childress	6.29	N/A
Coleman	-1.52	N/A
Concho	-0.59	N/A
Crocket	-0.35	N/A
Dickens	0.02	N/A
Eastland	11.74	N/A
Fisher	0.35	N/A
Hardeman	2.43	N/A
Haskell	-1.88	N/A
Jones	-0.23	N/A
Kent	0.78	N/A
Menard	0.06	N/A
Reagan	21.22	N/A
Runnels	1.13	N/A
Schleicher	2.35	N/A
Sterling	0.76	N/A
Sutton	0.57	N/A
Taylor	177.29	N/A
Tom Green	95.41	N/A
Upton	5.60	N/A
Wilbarger	61.63	N/A
Total	387.81	N/A

EFFICIENCY CONNECTION MTP

County	Reported Savings	
	kW	kWh
Brewster	2.09	8,983
Briscoe	0.06	189
Brown	0.05	218
Callahan	1.50	6,455
Childress	0.36	1,189
Coke	0.28	1,198
Coleman	0.02	87
Cottle	0.29	944
Crockett	0.07	306
Dickens	0.11	377
Eastland	0.30	1,292
Fisher	0.31	1,311
Foard	0.21	684
Hardeman	0.23	746
Haskell	0.47	2,010
Irion	0.05	218
Jeff Davis	0.28	1,198
Jones	0.69	2,956
Kimble	0.05	218
Knox	0.32	1,047
Menard	0.22	924
Motley	0.13	440
Pecos	0.56	2,384
Presidio	0.62	2,659
Reagan	0.17	743
Reeves	0.05	218
Runnels	0.63	2,702
Schleicher	0.05	218
Shackelford	0.16	699
Sterling	0.34	1,446
Sutton	0.17	743
Taylor	12.03	51,672
Throckmorton	0.05	218
Tom Green	9.02	38,734
Upton	0.15	655
Wilbarger	0.66	2,194
Total	32.75	138,275

HARD-TO-REACH SOP

County	Reported Savings	
	kW	kWh
Coke	1.18	10,124
Taylor	135.09	451,661
Tom Green	63.99	226,254
Wilbarger	29.89	48,409
Total	230.15	736,448

LOAD MANAGEMENT SOP

County	Reported Savings	
	kW	kWh
Taylor	2,744.86	4,624
Tom Green	518.18	913
Wilbarger	114.86	230
Total	3,377.90	5,767

OPEN MTP

County	Reported Savings	
	kW	kWh
Childress	34.04	138,370
Haskell	12.95	84,811
Runnels	17.44	75,062
Taylor	178.31	883,643
Tom Green	132.99	634,970
Wilbarger	6.34	26,747
Total	382.07	1,843,603

RESIDENTIAL SOP

County	Reported Savings	
	kW	kWh
Callahan	3.97	13,028
Crockett	39.61	93,936
Irion	0.83	1,589
Jones	0.85	1,468
Reagan	17.88	41,641
Runnels	0.49	940
Shackelford	6.49	10,345
Sutton	31.89	72,925
Taylor	496.12	1,718,960
Tom Green	150.22	673,100
Wilbarger	4.14	4,254
Total	752.49	2,632,186

SCORE/CITYSMART MTP

County	Reported Savings	
	kW	kWh
Runnels	19.08	108,861
Taylor	361.38	875,965
Tom Green	6.25	16,983
Total	386.71	1,001,809

SMART SOURCESM SOLAR PV MTP

County	Reported Savings	
	kW	kWh
Brewster	0.91	1,760
Callahan	7.62	14,688
Knox	8.42	16,224
Presidio	15.68	30,240
Sutton	15.24	29,376
Taylor	73.01	140,744
Tom Green	17.79	34,296
Total	138.67	267,328

**TARGETED LOW-INCOME
ENERGY EFFICIENCY PROGRAM**

County	Reported Savings	
	kW	kWh
Brewster	0.01	41
Callahan	25.63	45,716
Concho	3.33	4,730
Fisher	2.23	3,709
Foard	1.68	1,368
Haskell	1.69	1,885
Jones	6.2	14,205
Kent	3.64	12,535
Menard	1	7,668
Presidio	1.43	3,277
Schleicher	1.24	1,587
Stonewall	3.46	11,412
Taylor	2.57	3,148
Tom Green	34.76	100,615
Upton	0.89	2,596
Wilbarger	5.47	13,409
Total	95.23	227,901

APPENDIX B:

PROGRAM TEMPLATES

AEP Texas North Division does not have any Program Templates to report this year.

APPENDIX C:

EXISTING CONTRACTS OR OBLIGATIONS

AEP Texas North Division has no Existing Contracts or Obligations documentation to provide.

APPENDIX D:

OPTIONAL SUPPORT DOCUMENTATION

AEP Texas North Division provides the following Optional Supporting Documentation.



AEP Texas North Division presented an incentive check to the Chillicothe Independent School District for the installation of high efficiency LED lighting and HVAC equipment through the CSOP.



AEP Texas North Division presented the Jim Ned Consolidated Independent School District (CISD) with a cash incentive for its participation in the SCORE/CitySmart MTP. Jim Ned CISD installed high-efficiency lighting and cooling systems in two of its elementary schools.