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**AEP Texas Central Company**  
**2015 Energy Efficiency Plan and Report**  
**Substantive Rules § 25.181 and § 25.183**

**April 1, 2015**

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## Introduction

AEP Texas Central Company (TCC or Company) presents this Energy Efficiency Plan and Report (EEPR) to comply with Public Utility Commission of Texas (PUCT or Commission) Substantive Rules 25.181 and 25.183 (EE Rule), which implement the Public Utility Regulatory Act (PURA) § 39.905. As mandated by this section of PURA, 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). Substantive Rule 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.
  - (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. TCC's plan enables it to meet its statutory goals through implementation of energy efficiency programs in a manner that complies with PURA § 39.905 and the EE Rule. This EEPR 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.

- Executive Summary summarizes TCC's plans for achieving its goals and projected energy efficiency savings for program years 2015 and 2016 and highlights TCC's achievements for Program Year 2014.

### **Energy Efficiency Plan**

- Section I describes TCC's 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 TCC's 2014 EEPR.
- Section II explains TCC's targeted customer classes, describes the estimated size of each class and the method of determining those class sizes.
- Section III presents TCC's energy and demand goals and projected savings for the prescribed planning period detailed by program for each customer class.
- Section IV describes TCC's proposed energy efficiency budgets for the prescribed planning period detailed by program for each customer class.

### **Energy Efficiency Report**

- Section V documents TCC's demand reduction goal for each of the previous five years (2010-2014) based on its weather-adjusted peak demand and actual savings achieved for those years.
- Section VI compares TCC's projected energy and demand savings to its reported and verified savings by program for calendar years 2013 and 2014.
- Section VII details TCC's incentive and administration expenditures for each of the previous five years (2010-2014) detailed by program for each customer class.
- Section VIII compares TCC's actual 2014 expenditures with its 2014 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 TCC's overall program budget and from each program budget.
- Section IX describes the results from TCC's MTPs.
- Section X describes Research and Development activities.
- Section XI documents TCC's 2015 Energy Efficiency Cost Recovery Factor (EECRF).
- Section XII documents TCC's 2014 EECRF Summary.
- Section XIII documents TCC's Underserved Counties.
- Section XIV describes TCC's Performance Bonus calculation for Program Year 2014.

### **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 TCC's 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)

TCC plans to achieve its 2015 mandated demand and energy goals of 15,730 kW and 27,559,000 kWh as shown in Table 1 below through residential and non-residential SOPs and MTPs. TCC will utilize a budget of \$14,395,591 to accomplish these goals.

**Table 1: Summary of Goals, Projected Savings (at the Meter),<sup>1</sup> and Budgets**

Calendar Year	Average Growth in Demand at Meter (MW)	Average Peak Demand at Meter (MW)	Goal Metric: 30% Growth (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)*
2015	70.35	3,934	21.10	15.73	15.73	27,559	33.07	59,114	\$14,395
2016	NA	3,966	NA	15.86	15.86	27,786	33.07	59,114	\$14,265

\* The 2015 Projected Budget includes costs associated with Evaluation, Measurement & Verification activities.

## Executive Summary – Energy Efficiency Report (Report)

TCC achieved demand and energy reductions of 39,831 kW and 63,814,820 kWh, respectively, in 2014. The total energy efficiency cost for achieving these savings was \$13,999,942. TCC's achievement exceeded the 2014 mandated energy efficiency goals of 12,930 kW and 22,653,000 kWh, thus allowing TCC to earn a Performance Bonus.

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

<sup>1</sup> Average Growth in Demand figures are from Table 4; Projected Savings from Table 5; Projected Budgets from Table 6.

## **ENERGY EFFICIENCY PLAN**

### **I. 2015 Programs**

#### ***A. 2015 Program Portfolio***

TCC has implemented a variety of programs in 2015 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 2 summarizes TCC's programs and targeted customer class markets for Program Year 2015. The programs listed in Table 2 are described in further detail in Subsections B and C. TCC maintains a web site containing information on participation and forms required for project submission at [www.AEPTexas.com](http://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 a TCC 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.

TCC 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 TCC 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 2: 2015 Energy Efficiency Program Portfolio**

<b>Program</b>	<b>Target Market</b>	<b>Application</b>	<b>Link to Program Manual</b>
Commercial Solutions MTP	Commercial	Retrofit & New Construction	<a href="http://www.eeprograms.net/aep/texascentral/commercial_solutions.php">http://www.eeprograms.net/aep/texascentral/commercial_solutions.php</a>
Commercial SOP	Commercial	Retrofit & New Construction	<a href="https://www.aeptexas.com/save/business/programs/TCCPrograms.aspx">https://www.aeptexas.com/save/business/programs/TCCPrograms.aspx</a>
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	Commercial; Residential	Retrofit	<a href="http://www.eeprograms.net/aep/texascentral/cool saver.php">http://www.eeprograms.net/aep/texascentral/cool saver.php</a>
Efficiency Connection Pilot MTP	Residential	Retrofit	No website available
High-Performance New Homes MTP	Residential	New Construction	<a href="http://www.southtxsaves.com/resources-and-tips">http://www.southtxsaves.com/resources-and-tips</a>
Hard-to-Reach SOP	Residential Hard-to-Reach	Retrofit	<a href="https://www.aeptexas.com/save/residential/programs/TCCPrograms.aspx">https://www.aeptexas.com/save/residential/programs/TCCPrograms.aspx</a>
Load Management SOP	Commercial	Retrofit	<a href="https://www.aeptexas.com/save/business/programs/TCCPrograms.aspx">https://www.aeptexas.com/save/business/programs/TCCPrograms.aspx</a>
Open MTP	Commercial	Retrofit	<a href="http://eeprograms.net/texascentral/open.php">http://eeprograms.net/texascentral/open.php</a>
Residential SOP	Residential	Retrofit	<a href="https://www.aeptexas.com/save/residential/programs/TCCPrograms.aspx">https://www.aeptexas.com/save/residential/programs/TCCPrograms.aspx</a>
SCORE/CitySmart MTP	Commercial	Retrofit & New Construction	<a href="http://www.eeprograms.net/aep/texascentral/score.php">http://www.eeprograms.net/aep/texascentral/score.php</a> <a href="http://www.eeprograms.net/aep/texascentral/citysmart.php">http://www.eeprograms.net/aep/texascentral/citysmart.php</a>
SMART Source <sup>SM</sup> Solar PV MTP	Commercial; Residential	Retrofit & New Construction	<a href="http://www.txreincntives.com/apv/">http://www.txreincntives.com/apv/</a>
Targeted Low-Income Energy Efficiency Program	Low-Income Residential	Retrofit	No website available

## ***B. Existing Programs***

### **Commercial Solutions Market Transformation Program (CS MTP)**

The CS MTP targets commercial customers 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 served by TCC 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.

### **CoolSaver<sup>SM</sup> A/C Tune-Up Market Transformation Program (CoolSaver<sup>SM</sup> MTP)**

The CoolSaver<sup>SM</sup> 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; and
- Paying incentives to A/C contractors for the successful implementation of A/C tune-up and air flow correction services.

In 2015, the program has expanded to offer incentives to A/C contractors who replace existing air conditioners and/or heat pumps with new high efficiency units of 16 SEER or higher in residential homes.

### **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. Program incentives are higher for work performed in historically underserved counties and for identified under-utilized measures to encourage activity. 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 highly energy efficient homes, and homebuilders supply them. Incentives are paid to homebuilders who construct homes in the TCC service territory to strict energy-efficient building guidelines and that are at least 10% above the local building code. The program also offers a bonus incentive for homes that are ENERGY STAR<sup>®</sup>-certified. Each home results in verifiable demand and energy savings. In addition to homebuilder and consumer outreach, the New Homes MTP targets key allies 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 TCC, 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.

The program implementer works with TCC to conduct outreach and planning activities for the Open MTP in the following manner:

- Identifies and recruits contractors who provide services to customers served by TCC to develop a network of participating contractors who will deliver the program directly to customers;
- Develops a recruitment packet with outreach information and enrollment materials that participating contractors can use when marketing the program to customers; and

- Conducts training as necessary to explain elements of the program, such as responsibilities of the participants, project requirements, incentive information, and the application and reporting process.

### **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. Program incentives are higher for work performed in historically underserved counties to encourage activity. 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 Source<sup>SM</sup> 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 TCC's 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.

## ***C. New Programs for 2015***

### **Efficiency Connection Pilot MTP (EffCon)**

The EffCon Pilot MTP is a partnership with REPs to help promote energy efficiency to TCC residential customers by offering discounted LED lamps via an online marketplace. A third-party implementer facilitates customer/REP participation and aids in the selection and management of an online retailer/vendor for the program website and order fulfillment. Savings will be calculated using assumptions derived from national statistics and localizing that information to make it relevant to the local market.

## ***D. Discontinued Programs***

### **A/C Distributor Pilot Market Transformation Program (ACD MTP)**

The objective of the ACD MTP was to increase the market penetration of high-efficiency A/C equipment for residential customers served by TCC. The program targeted a select number of A/C equipment distributors that supply A/C contractors operating in the TCC service territory. Incentives were paid to the distributor for the installation of the high-efficiency A/C equipment up to five tons in cooling capacity. Participation in the program was less than anticipated and the decision was made to discontinue the program.

### **Irrigation Load Management Market Transformation Program (ILM MTP)**

The ILM MTP targeted commercial agricultural customers using electric drive irrigation pumps with at least 25 kW of electric peak demand. Incentive payments were based on measured and verified demand reduction of irrigation pump loads during the summer peak period. Load

management events were dispatched by TCC, using a one-hour-ahead notice for curtailment periods of one to four hours duration. A key challenge of this program was meeting the program cost-effectiveness standard as described in the EE Rule. Per the Final Order in PUCT Docket No. 42508, TCC agreed to work with Commission Staff to re-evaluate the program to determine how best to proceed for Program Year 2015. As a result of discussions with Commission Staff, TCC has discontinued the ILM MTP for 2015.

### ***E. Existing DSM Contracts or Obligations***

TCC has no existing DSM contracts or obligations.

## II. Customer Classes

TCC's energy efficiency programs target its Residential and Commercial customer classes. TCC'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 Substantive Rule 25.181(e)(3).

Table 3 summarizes the number of customers in each customer class and the Residential Hard-to-Reach sub-class at TCC. The numbers listed are the actual number of active electric service accounts by class that TCC served for the month of January 2015. 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 TCC's mandated demand and energy reduction goals in total. TCC offers a varied portfolio of SOPs and MTPs such that all eligible customer classes have access to energy efficiency alternatives.

**Table 3: Summary of Customer Classes**

<b>Customer Class</b>	<b>Number of Customers</b>
<b>Commercial</b>	139,613
<b>Residential</b>	722,320
<b>Hard-to-Reach <sup>2</sup></b>	268,703*

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

<sup>2</sup> According to the U.S. Census Bureau's 2014 Current Population Survey, 37.2% of Texas families fall below 200% of the poverty threshold. Applying that percentage to TCC's residential customer base of 722,320, the number of HTR customers is estimated to be 268,703.

### III. Energy Efficiency Goals and Projected Savings

TCC's 2015 annual demand and energy reduction goals to be achieved are 15.73 MW and 27,559 MWh, respectively. These goals have been calculated as prescribed by the EE Rule.

TCC calculated its 2015 goal using both methods prescribed by the EE Rule. TCC's goal calculated at 30% of the most recent five-year average load growth in demand is 21.10 MW. TCC's goal calculated at four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential commercial customers for the previous program year (2014) is 15.73 MW. As stated in P.U.C. SUBST. R. 25.181(e)(1), if the demand reduction goal of 30% reduction of its annual growth in demand of residential and commercial customers is equivalent to at least four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential commercial customers for the previous program year, it shall meet the energy efficiency goal described in (D). It shall acquire four-tenths of 1% of its summer weather-adjusted peak demand for the combined residential commercial customers for the previous program year. As stated in P.U.C. SUBST. R. 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. Neither of these goal calculation reductions are less than the prior year goal of 12.93 MW.

TCC's savings goal is calculated by applying the 20% conservation load factor to the 15.73 MW demand savings goal ( $15.73 \text{ MW} * 8,760 \text{ hrs.} * 20\%$ ).

Table 4 presents historical annual growth in demand data for the previous five years that was used to calculate TCC's goals. Table 5 presents the projected demand and energy savings by program for each customer class, and for each of the years 2015 and 2016. Projected savings reflect the estimated demand and energy savings TCC's programs are expected to achieve with fully-deployed program budgets for each of the years shown.



**Table 4: Annual Growth in Demand and Energy Consumption**

Calendar Year	Peak Demand (MW) @ Source						Energy Consumption (MWh) @ Meter				Energy Efficiency Goal Calculations				Previous Goal Metric		
	Total System		Residential & Commercial				Total System		Residential & Commercial		Peak Demand at Meter (9.4% line losses)*	5 year Average Peak Demand at Meter	Goal Metric: 0.4% Peak Demand at Meter	Load Growth at Meter	5 year Average Growth at Meter	30% Growth at Meter	
	Actual	Weather Adjusted	Actual	Weather Adjusted	Opt-Out	Peak Demand at Source Net Opt-outs	Actual	Weather Adjusted									
2010	4,643	4,746	4,362	4,300	-1.24	4,299	22,305	18,192	18,129	3,895	NA	NA	206.37	NA	NA	NA	
2011	4,809	4,774	4,369	4,335	-1.24	4,334	23,983	19,586	18,667	3,927	NA	NA	31.67	NA	NA	NA	
2012	4,815	4,738	4,371	4,292	-1.24	4,290	23,893	19,312	18,894	3,887	NA	NA	-39.45	NA	NA	NA	
2013	4,681	4,784	4,224	4,327	-1.25	4,326	23,604	19,017	18,810	3,919	NA	NA	31.91	NA	NA	NA	
2014	4,948	4,943	4,465	4,461	-1.02	4,460	24,759	19,894	19,792	4,040	NA	NA	121.24	NA	NA	NA	
2015	NA	NA	NA	4,477	-1.21	4,476	NA	NA	NA	4,055	3,934	15.73	NA	70.35	21.10	NA	
2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,966	15.86	NA	NA	NA	NA	

\*Line losses are derived from the loss factors determined in TCC's most recent line loss study.

**Table 5: Projected Demand and Energy Savings by Program for Each Customer Class for 2015 and 2016 (at the Meter)**

<b>2015</b>	<b>Projected Savings</b>	
<b>Customer Class and Program</b>	<b>kW</b>	<b>kWh</b>
<b>Commercial</b>		
Commercial Solutions MTP	834	3,888,000
Commercial SOP	3,625	17,467,000
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	1,393	4,376,124
Load Management SOP	16,255	43,000
Open MTP	676	2,051,894
SCORE/CitySmart MTP	1,691	5,749,624
SMART Source <sup>SM</sup> Solar PV MTP	149	288,000
<b>Residential</b>		
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	1,017	3,223,609
Efficiency Connection Pilot MTP	105	525,131
High-Performance New Homes MTP	393	1,596,286
Residential SOP	4,838	14,835,000
SMART Source <sup>SM</sup> Solar PV MTP	142	274,000
<b>Hard-to-Reach</b>		
Hard-to-Reach SOP	1,315	3,686,000
Targeted Low-Income Energy Efficiency Program	634	1,110,000
<b>Total Annual Projected Savings</b>	<b>33,067</b>	<b>59,113,668</b>

**Table 5: Projected Demand and Energy Savings by Program for Each Customer Class for  
2015 and 2016 (at the Meter)  
(Continued)**

<b>2016</b>	<b>Projected Savings</b>	
<b>Customer Class and Program</b>	<b>kW</b>	<b>kWh</b>
<b>Commercial</b>		
Commercial Solutions MTP	834	3,888,000
Commercial SOP	3,625	17,467,000
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	1,393	4,376,124
Load Management SOP	16,255	43,000
Open MTP	676	2,051,894
SCORE/CitySmart MTP	1,691	5,749,624
SMART Source <sup>SM</sup> Solar PV MTP	149	288,000
<b>Residential</b>		
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	1,017	3,223,609
Efficiency Connection Pilot MTP	105	525,131
High-Performance New Homes MTP	393	1,596,286
Residential SOP	4,838	14,835,000
SMART Source <sup>SM</sup> Solar PV MTP	142	274,000
<b>Hard-to-Reach</b>		
Hard-to-Reach SOP	1,315	3,686,000
Targeted Low-Income Energy Efficiency Program	634	1,110,000
<b>Total Annual Projected Savings</b>	<b>33,067</b>	<b>59,113,668</b>

## **IV. Program Budgets**

Table 6 presents total proposed budget allocations required to meet TCC's projected demand and energy savings to be achieved for Program Years 2015 and 2016. 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. Table 6 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 6: Projected Annual Budget by Program for Each Customer Class for 2015 and 2016**

<b>2015</b>	<b>Incentives</b>	<b>Admin</b>	<b>R&amp;D</b>	<b>EM&amp;V</b>	<b>Total Budget</b>
<b>Commercial</b>					
Commercial Solutions MTP	\$508,187	\$56,465			\$564,652
Commercial SOP	\$1,812,700	\$201,411			\$2,014,111
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	\$595,950	\$66,217			\$662,167
Load Management SOP	\$650,200	\$72,244			\$722,444
Open MTP	\$793,546	\$88,172			\$881,718
SCORE/CitySmart MTP	\$946,678	\$105,186			\$1,051,864
SMART Source <sup>SM</sup> Solar PV MTP	\$200,000	\$22,222			\$222,222
<b>Residential</b>					
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	\$675,000	\$75,000			\$750,000
Efficiency Connection Pilot MTP	\$150,000	\$16,666			\$166,666
High-Performance New Homes MTP	\$765,000	\$85,000			\$850,000
Residential SOP	\$2,661,115	\$295,679			\$2,956,794
SMART Source <sup>SM</sup> Solar PV MTP	\$200,000	\$22,222			\$222,222
<b>Hard-to-Reach</b>					
Hard-to-Reach SOP	\$953,417	\$105,935			\$1,059,352
Targeted Low-Income Energy Efficiency Program	\$1,267,421	\$140,825			\$1,408,246
<b>Research and Development (R&amp;D)</b>					
R&D	NAP	NAP	\$550,000		\$550,000
<b>Evaluation, Measurement &amp; Verification (EM&amp;V)</b>					
EM&V	NAP	NAP	NAP	\$313,133	\$313,133
<b>Total Budget</b>	<b>\$12,179,214</b>	<b>\$1,353,244</b>	<b>\$550,000</b>	<b>\$313,133</b>	<b>\$14,395,591</b>

**Table 6: Projected Annual Budget by Program for Each Customer Class for 2015 and 2016  
(Continued)**

<b>2016</b>	<b>Incentives</b>	<b>Admin</b>	<b>R&amp;D</b>	<b>EM&amp;V</b>	<b>Total Budget</b>
<b>Commercial</b>					
Commercial Solutions MTP	\$508,187	\$56,465			\$564,652
Commercial SOP	\$1,812,700	\$201,411			\$2,014,111
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	\$595,950	\$66,217			\$662,167
Load Management SOP	\$650,200	\$72,244			\$722,444
Open MTP	\$793,546	\$88,172			\$881,718
SCORE/CitySmart MTP	\$946,678	\$105,186			\$1,051,864
SMART Source <sup>SM</sup> Solar PV MTP	\$200,000	\$22,222			\$222,222
<b>Residential</b>					
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	\$675,000	\$75,000			\$750,000
Efficiency Connection Pilot MTP	\$150,000	\$16,666			\$166,666
High-Performance New Homes MTP	\$765,000	\$85,000			\$850,000
Residential SOP	\$2,661,115	\$295,679			\$2,956,794
SMART Source <sup>SM</sup> Solar PV MTP	\$200,000	\$22,222			\$222,222
<b>Hard-to-Reach</b>					
Hard-to-Reach SOP	\$953,417	\$105,935			\$1,059,352
Targeted Low-Income Energy Efficiency Program	\$1,267,421	\$140,825			\$1,408,246
<b>Research and Development (R&amp;D)</b>					
R&D	NAP	NAP	\$550,000		\$550,000
<b>Evaluation, Measurement &amp; Verification (EM&amp;V)</b>					
EM&V	NAP	NAP	NAP	\$182,785*	\$182,785
<b>Total Budget</b>	<b>\$12,179,214</b>	<b>\$1,353,244</b>	<b>\$550,000</b>	<b>\$182,785</b>	<b>\$14,265,243</b>

\*Estimated EM&V costs for 2016 to evaluate Program Year 2015.

## ENERGY EFFICIENCY REPORT

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

Table 7 contains TCC's demand and energy reduction goals and actual savings achieved for the previous five years (2010-2014) calculated in accordance with the EE Rule.

**Table 7: Historical Demand and Energy Goals\* and Savings Achieved (at the Meter)**

<b>Calendar Year</b>	<b>Actual Weather Adjusted Demand Goal (MW)</b>	<b>Actual Weather Adjusted Energy Goal (MWh)</b>	<b>Savings Achieved (MW)</b>	<b>Savings Achieved (MWh)</b>
<b>2014</b>	12.93	22,653	39.83	63,815
<b>2013</b>	12.93	22,653	34.14	48,954
<b>2012</b>	12.93	22,653	33.67	54,313
<b>2011</b>	12.93	22,653	27.50	69,158
<b>2010</b>	12.93	22,653	26.96	57,665

\* Actual Weather Adjusted MW and MWh Goals as reported in TCC's EEPRs filed in years 2010-2014.

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

**Table 8: Projected versus Reported and Verified Savings for 2014 and 2013 (at the Meter)**

<b>2014</b>	<b>Projected Savings</b>		<b>Reported and Verified Savings</b>	
<b>Customer Class and Program</b>	<b>kW</b>	<b>kWh</b>	<b>kW</b>	<b>kWh</b>
<b>Commercial</b>				
Commercial Solutions MTP	834	3,888,000	834	4,445,236
Commercial SOP	3,580	12,539,000	2,803	15,988,200
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	1,393	3,548,015	1,389	4,364,242
Irrigation Load Management MTP	4,000	192,000	326	652
Load Management SOP	13,760	38,148	22,997	67,384
Open MTP	643	1,987,000	668	2,975,834
SCORE/CitySmart MTP	1,691	5,749,624	1,692	5,524,683
SMART Source <sup>SM</sup> Solar PV MTP	145	280,000	611	1,176,768
<b>Residential</b>				
A/C Distributor Pilot MTP	248	893,014	289	1,089,371
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	865	2,877,018	825	3,144,001
High-Performance New Homes MTP	393	1,596,286	435	1,777,564
Residential SOP	5,370	11,750,000	4,829	17,595,431
SMART Source <sup>SM</sup> Solar PV MTP	125	240,000	122	235,168
<b>Hard-to-Reach</b>				
Hard-to-Reach SOP	1,590	3,480,000	1,328	4,256,719
Targeted Low-Income Energy Efficiency Program	510	1,110,000	683	1,173,567
<b>Total Annual Savings</b>	<b>35,147</b>	<b>50,168,105</b>	<b>39,831</b>	<b>63,814,820</b>



**Table 8: Projected versus Reported and Verified Savings for 2014 and 2013 (at the Meter)  
(Continued)**

<b>2013</b>	<b>Projected Savings</b>		<b>Reported and Verified Savings</b>	
<b>Customer Class and Program</b>	<b>kW</b>	<b>kWh</b>	<b>kW</b>	<b>kWh</b>
<b>Commercial</b>				
A/C Distributor Pilot MTP	283	1,022,204	0	0
Commercial Solutions Pilot MTP	806	3,887,682	838	4,722,839
Commercial SOP	5,448	21,563,452	1,962	8,031,113
CoolSaver <sup>SM</sup> A/C Tune-Up Pilot MTP	824	1,552,500	997	2,472,811
Irrigation Load Management	4,000	256,000	486	3,405
Load Management SOP	14,516	38,148	17,731	123,120
Open MTP	530	1,987,000	533	2,382,363
SCORE/CitySmart MTP	1,591	5,749,624	1,806	6,113,212
SMART Source <sup>SM</sup> Solar PV Pilot MTP	110	211,200	91	174,592
<b>Residential</b>				
A/C Distributor Pilot MTP	248	893,014	237	880,501
CoolSaver <sup>SM</sup> A/C Tune-Up Pilot MTP	608	1,955,200	828	2,835,349
High-Performance New Homes MTP	300	550,000	402	1,318,722
Residential SOP	5,365	15,721,073	5,935	14,728,936
SMART Source <sup>SM</sup> Solar PV Pilot MTP	110	211,000	107	205,472
<b>Hard-to-Reach</b>				
Hard-to-Reach SOP	1,324	4,216,566	1,665	3,972,378
Targeted Low-Income Energy Efficiency Program	398	1,261,041	518	989,468
<b>Total Annual Savings</b>	<b>36,461</b>	<b>61,075,704</b>	<b>34,136</b>	<b>48,954,281</b>

## VII. Historical Program Expenditures

This section documents TCC's incentive and administration expenditures for the previous five years (2010-2014) detailed by program for each customer class.

**Table 9: Historical Program Incentive and Administrative Expenditures for 2010 through 2014 (000's)**

	2014			2013			2012			2011		2010	
	Incent.	Admin		Incent.	Admin		Incent.	Admin		Incent.	Admin	Incent.	Admin
<b>Commercial</b>													
A/C Distributor Pilot MTP	NAP	NAP		\$40.76	\$6.08		\$29.94	\$5.32		NAP	NAP	NAP	NAP
AEP Texas CARE\$ Energy Efficiency for Not-for-Profit Agencies SOP	NAP	NAP		NAP	NAP		\$54.04	\$11.30		\$145.00	\$18.40	\$149.53	\$25.08
Commercial Solutions MTP	\$479.55	\$50.29		\$424.94	\$42.46		\$419.12	\$35.86		\$467.23	\$56.45	\$419.25	\$43.47
Commercial SOP	\$1,704.68	\$183.80		\$950.47	\$153.00		\$881.36	\$143.85		\$1,830.61	\$192.01	\$834.29	\$132.69
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	\$642.34	\$46.69		\$624.27	\$47.61		\$144.76	\$13.93		\$159.00	\$13.18	\$19.48	\$1.86
Irrigation Load Management MTP	\$200.00	\$16.65		\$440.00	\$34.78		NAP	NAP		NAP	NAP	NAP	NAP
Load Management SOP	\$543.00	\$45.03		\$513.29	\$54.38		\$300.00	\$32.33		\$225.98	\$24.38	\$229.62	\$29.15
Load Management SOP - Expanded	NAP	NAP		NAP	NAP			\$22.47		NAP	NAP	NAP	NAP
Open MTP	\$741.21	\$52.54		\$684.76	\$51.66		NAP	NAP		NAP	NAP	NAP	NAP
SCORE/CitySmart MTP	\$1,026.19	\$86.89		\$911.24	\$ 75.97		\$905.59	\$70.72		\$610.43	\$39.00	\$626.24	\$39.96
SMART Source <sup>SM</sup> Solar PV MTP	\$200.01	\$15.15		\$152.14	\$11.20		\$197.18	\$16.71		\$344.97	\$21.67	\$42.80	\$2.20

(Table continued on next page)

**Table 9: Historical Program Incentive and Administrative Expenditures for 2010 through 2014 (000's)**  
(Continued)

	2014			2013			2012			2011			2010		
	Incent.	Admin		Incent.	Admin		Incent.	Admin		Incent.	Admin		Incent.	Admin	
<b>Residential</b>															
A/C Distributor Pilot MTP	\$278.05	\$40.25		\$266.43	\$39.77		\$68.07	\$11.73		NAP	NAP		NAP	NAP	
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	\$525.36	\$38.18		\$601.41	\$45.95		\$375.08	\$36.09		\$178.91	\$14.84		\$103.89	\$9.94	
High-Performance New Homes MTP	\$777.07	\$85.08		\$ 730.16	\$79.58		\$797.45	\$90.48		\$671.60	\$73.09		\$704.16	\$80.62	
Residential Energy Efficiency Pilot MTP	NAP	NAP		NAP	NAP		NAP	NAP		NAP	NAP		\$27.12	\$6.82	
Residential SOP	\$2,626.27	\$263.28		\$2,596.76	\$292.37		\$3,622.65	\$374.20		\$3,712.17	\$375.14		\$3,641.54	\$307.38	
SMART Source <sup>SM</sup> Solar PV MTP	\$199.75	\$15.14		\$207.81	\$15.29		\$197.19	\$15.98		\$184.89	\$12.39		\$278.48	\$14.29	
<b>Hard-to-Reach</b>															
Hard-to-Reach SOP	\$950.70	\$85.02		\$950.33	\$96.29		\$1,177.86	\$114.69		\$2,024.93	\$183.43		\$2615.63	\$216.18	
Targeted Low-Income Energy Efficiency Program	\$1,262.46	\$87.13		\$1,271.58	\$96.69		\$1,267.07	\$93.57		\$1,149.19	\$89.66		\$1,749.76	\$125.80	
<b>Research and Development (R&amp;D)</b>															
Evaluation and Measurement Verification (EM&V)	NAP	\$427.12		NAP	\$184.31		NAP	\$389.54		NAP	\$314.13		NAP	\$351.05	
	NAP	\$305.06		NAP	361.07		NAP	NAP		NAP	NAP		NAP	NAP	
<b>Total Expenditures</b>	\$12,156.64	\$1,843.30		\$11,366.35	\$1,688.46		\$10,643.99	\$1,478.77		\$11,704.91	\$1,427.77		\$11,511.79	\$1,386.49	

## **VIII. Program Funding for Calendar Year 2014**

As shown in Table 10, the total projected budget in 2014 was \$14,422,891 and the actual total funds expended were \$13,999,942. This is an overall total program expenditure difference of less than 10% from the amount budgeted.

TCC's combined 2014 expenditures for the TLIP and the HTR SOP constituted 17% of its energy efficiency budget for the 2014 Program Year. TCC's 2014 expenditure for the TLIP constituted 9.6% of its energy efficiency budget for the 2014 Program Year.

**Table 10: Program Funding for Calendar Year 2014 (Dollar amounts in 000's)**

	Total Projected Budget <sup>3</sup>	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	Funds Committed (Not Expended)	Funds Remaining (Not Committed)
<b>Commercial</b>									
Commercial Solutions MTP	\$564.65	76	\$479.55	\$50.29			\$529.84	\$0	\$34.81
Commercial SOP	\$1,988.00	126	\$1,704.68	\$183.80			\$1,888.48	\$0	\$99.52
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	\$662.17	386	\$642.34	\$46.69			\$689.03	\$0	\$0
Irrigation LM MTP	\$222.22	39	\$200.00	\$16.65			\$216.65	\$0	\$5.57
Load Management SOP	\$611.33	84	\$543.00	\$45.03			\$588.03	\$0	\$23.30
Open MTP	\$881.72	101	\$741.21	\$52.54			\$793.75	\$0	\$87.97
SCORE/CitySmart MTP	\$1,051.86	105	\$1,026.19	\$86.89			\$1,113.08	\$0	\$0
SMART Source <sup>SM</sup> Solar PV MTP	\$222.22	10	\$200.01	\$15.15			\$215.16	\$0	\$7.06
<b>Residential</b>									
A/C Distributor Pilot MTP	\$333.33	447	\$278.05	\$40.25			\$318.30	\$0	\$15.03
CoolSaver <sup>SM</sup> A/C Tune-Up MTP	\$583.33	1,578	\$525.36	\$38.18			\$563.54	\$0	\$19.79
High-Performance New Homes MTP	\$850.00	549	\$777.07	\$85.08			\$862.15	\$0	\$0
Residential SOP	\$2,956.79	5179	\$2,626.27	\$263.28			\$2,889.55	\$0	\$67.24
SMART Source <sup>SM</sup> Solar PV MTP	\$222.22	23	\$199.75	\$15.14			\$214.89	\$0	\$7.33
<b>Hard-to-Reach</b>									
Hard-to-Reach SOP	\$1,059.35	1,777	\$950.70	\$85.02			\$1,035.72	\$0	\$23.63
Targeted Low-Income Energy Efficiency SOP	\$1,408.25	333	\$1,262.46	\$87.13			\$1,349.59	\$0	\$58.66
<b>Research and Development</b>	\$465.00	NAP	NAP	NAP	\$427.12	NAP	\$427.12	NAP	NAP
<b>Evaluation and Measurement Verification</b>									
<b>Statewide EM&amp;V Contractor</b>	\$340.44	NAP	NAP	NAP	NAP	\$305.06	\$305.06	NAP	NAP
<b>Total Expenditures</b>	\$14,422.89	NAP	\$12,156.64	\$1,111.12	\$427.12	\$305.06	\$13,999.94	NAP	NAP

<sup>3</sup> Projected Budget from the EEPR filed April 2014 Project No. 42264.

## **IX. Market Transformation Program Results**

### **A/C Distributor Pilot MTP**

The goal for the ACD MTP in 2014 was to acquire 248 kW demand savings. A total of 289 kW was actually achieved.

### **Commercial Solutions MTP**

In 2014, TCC projected to acquire 834 kW demand savings from this program. TCC verified and is reporting 834 kW. This included participation by 76 customers in 14 different counties.

### **CoolSaver<sup>SM</sup> MTP**

In 2014, TCC projected to acquire 2,258 kW demand savings from this program. TCC verified and reported 2,214 kW. This included participation by 13 contractors completing 3,726 residential and commercial tune-ups.

### **High-Performance New Homes MTP (New Homes)**

In 2014, 549 high-performance homes were constructed in the New Homes MTP program with a savings of 435 kW. TCC provided continuing education courses and other training opportunities for contractors, homebuilders, home energy raters, and HVAC contractors on the advantages of High-Performance and ENERGY STAR homes and building practices. The training included various aspects of building efficient homes, from construction and measure installation, to the importance of whole-house energy efficiency.

## **Irrigation Load Management MTP**

The ILM MTP was implemented in the spring of 2013. The program goal was to recruit a total of 40 sites with an expected average curtailable load per site of 100 kW. A total of 39 sites participated in the 2014 program. The ILM MTP was dispatched one time for a total of two hours. This resulted in a total energy savings of 652 kWh and an average hourly load reduction of 326 kW.

## **Open MTP**

In 2014, TCC projected to acquire 643 kW demand savings from this program. TCC verified and is reporting 668 kW. The savings were achieved with 101 small commercial customers and seven participating contractors across six counties.

## **SCORE/CitySmart MTP**

In 2014, TCC projected to acquire 1,691 kW demand savings from this program. TCC verified and is reporting 1,692 kW. This included participation by 105 customers in six counties. To date, the program has benchmarked 695 facilities for 28 school districts, and nine government customers.

## **SMART Source<sup>SM</sup> Solar PV MTP**

The 2014 PV MTP projected to acquire 270 kW in demand savings and 520,000 kWh in energy savings from the residential and non-residential components. A total of 33 residential and non-residential solar PV projects were completed within the program, resulting in a peak demand reduction of 733 kW and 1,411,936 kWh of energy savings.

## **X. Research and Development**

In 2014, R&D activities and projects accounted for 3% of TCC's total program expenses. R&D activities are intended to help TCC 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 TCC's R&D activities for 2014:

### **Energy Games**

AEP Texas and the Energy Systems Transformation (EST) group at The University of Texas at Austin under direction of Professor Varun Rai applied insights from established research in information systems, technology adoption, social psychology, and behavioral economics to design a web-based energy game to facilitate customer learning and behavior change in energy conservation, efficiency, and new technology adoption. This research was in participation with the DOE Solar Energy Evolution and Diffusion Studies (SEEDS) program.

The goals of Energy Games were to:

1. Increase awareness of AEP Texas' incentive programs, particularly solar incentives
2. Develop methodologies for successful interventions for solar adoption, including impact of motivation, social comparisons, and goal setting
3. Provide actionable information for energy efficiency measures and upgrades to participants
4. Increase participant knowledge and reduce uncertainties with solar technology

Prior research indicates that uncertainties and non-monetary costs (UNMCs), such as information search costs and uncertainty regarding performance and maintenance and operations costs, may be significant barriers to adoption of solar. While financial barriers have been studied extensively and are addressed through incentive programs, the role of non-financial barriers in solar adoption remains understudied.

Using the Ringorang® platform, an interactive trivia-style game for smartphones and PCs, we studied the use of gamification to convey information on energy efficiency measures and residential solar PV to address UNMCs.

Energy Games had an 85% participation rate, with 69% of participants intending to implement some of the energy efficiency tips and upgrades as a result of participating in the game.



## **Program Research and Development**

In 2014, TCC dedicated resources to develop a new electronic data collection and management system for current programs. In addition, TCC participated with Electric Utility Marketing Managers of Texas (EUMMOT) in researching potentially new deemed savings measures for various programs.

## **Informational Activities**

TCC continues its best efforts to encourage and facilitate the involvement of REPs and EESPs in the delivery of its programs to customers. TCC utilizes local, regional and national conferences, trade shows, and other events for outreach and information exchange with participating REPs and EESPs. TCC again disbursed program information at its annual AEP Texas Competitive REP workshop in October 2014. TCC 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. 2015 Energy Efficiency Cost Recovery Factor (EECRF)**

The total amount approved to be collected through TCC's 2015 EECRF is \$10,402,430, which consists of the following components:

- recovery of \$7,228,897 in energy efficiency expenses budgeted for Program Year 2015 (TCC's actual projected budget for energy efficiency expenses for Program Year 2015 is \$14,082,454, which is reduced by \$6,334,949 in energy efficiency costs expressly included in base rates and \$518,609 of load growth);
- recovery of a performance bonus in the amount of \$4,595,235 for achieving energy efficiency goals in Program Year 2013;
- return to customers \$1,752,047 in energy efficiency program costs over-collected through TCC's EECRF in Program Year 2013;
- recovery of \$313,133 in EM&V costs for evaluation of Program Year 2014; and
- recovery of \$17,212 for 2013 EECRF proceeding expenses incurred in Docket No. 41538 by municipalities as authorized by P.U.C SUBST. R. 25.181(f)(3)(B).

**Table 11: 2015 EECRF**

<b>Customer Class</b>	<b>EECRF</b>
Residential Service	\$0.000703 per kWh
Secondary Service (less than or equal to 10 kW)	\$0.000086 per kWh
Secondary Service (greater than 10 kW)	\$0.000453 per kWh
Primary Service	\$0.000356 per kWh
Transmission Service	(\$0.000117) per kWh

## **XII. 2014 EECRF Summary**

### **2014 Collections for Energy Efficiency**

TCC collected \$7,157,825 through its 2014 base rates and \$9,521,683 through its 2014 EECRF for a total of \$16,679,508. A performance bonus of \$3,751,904 for exceeding its 2012 energy efficiency goals and \$2,120,902 returned to customers are reflected in TCC's total amount collected for energy efficiency in 2014.

### **Energy Efficiency Program Costs Expended**

TCC expended a total of \$13,999,942 for its 2014 energy efficiency programs. The amount expended is \$422,949 less than TCC's 2014 projected budget of \$14,422,891 for energy efficiency program.

### **Over-Recovery of Energy Efficiency Costs**

TCC's actual 2014 energy efficiency program costs (including EM&V costs) less municipal rate case expenses are \$13,981,308 and actual energy efficiency program revenues are \$15,048,506. These associated 2014 costs and revenues result in an over-recovery of energy efficiency costs of \$1,067,198. This is the amount that TCC will request be returned to customers within its 2016 EECRF.

### **XIII. Underserved Counties**

TCC has defined Underserved Counties as any county in the TCC service territory for which TCC reported no demand or energy savings through any of its 2014 SOPs or MTPs. Per Substantive Rule 25.181(n)(2)(U), a list of the Underserved Counties is as follows:

Caldwell	Guadalupe	McMullen
Edwards	Karnes	Real
Gonzales	Kenedy	Wilson

### **XIV. Performance Bonus**

TCC achieved a 39,831 kW reduction in peak demand from its energy efficiency programs offered in 2014. TCC's demand reduction goal for 2014 was 12,930 kW. This achievement represents 308% of its 2014 demand reduction goal. TCC also achieved energy savings of 63,814,820 kWh, which represents 282% of its 2014 energy goal of 22,653,000 kWh. These results qualify TCC for a Performance Bonus. Per Substantive Rule 25.181(h), TCC is eligible for a Performance Bonus of \$2,848,294, which it will request within its June 1, 2015 EECRF Filing for recovery in 2016.

In 2014, TCC's total spending on energy efficiency programs was \$13,999,942. This includes actual EM&V expenditures to the EM&V contractor of \$305,061. Per the PUCT, 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 2014, 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, TCC's 2014 total program costs equaled \$14,026,649.

**Table 12: Energy Efficiency Performance Bonus Calculation for 2014**

	kW	kWh
<b>2014 Goals</b>	12,930	22,653,000
<b>2014 Savings</b>		
<i>Reported/Verified Total (including HTR and measures with &lt;10yr EUL)</i>	39,831	63,814,820
<i>Reported/Verified Hard-to-Reach</i>	2,011	
<b>2014 Program Costs</b>	\$14,026,649	
<b>2014 Performance Bonus</b>	\$2,848,294	

### Performance Bonus Calculation

308%	Percentage of Demand Reduction Goal Met (Reported kW/Goal kW)
282%	Percentage of Energy Reduction Goal Met (Reported kWh/Goal kWh)
TRUE	Met Requirements for Performance Bonus?
\$42,509,586	Total Avoided Cost (Reported kW * PV(Avoided Capacity Cost) + Reported kWh * PV(Avoided Energy Cost))
\$14,026,649	Total Program Costs
\$28,482,936	Net Benefits (Total Avoided Cost - Total Expenses)

### Bonus Calculation

\$29,628,863	Calculated Bonus ((Achieved Demand Reduction/Demand Goal - 100%) / 2) * Net Benefits
\$2,848,294	Maximum Bonus Allowed (10% of Net Benefits)
\$2,848,294	Bonus (Minimum of Calculated Bonus and Bonus Limit)

# Acronyms

<b>ACD MTP</b>	A/C Distributor Pilot Market Transformation Program
<b>CARE\$ SOP</b>	AEP Texas CARE\$ Energy Efficiency for Not-for-Profit Agencies Standard Offer Program
<b>CoolSaver<sup>SM</sup> MTP</b>	CoolSaver <sup>SM</sup> A/C Tune-Up Market Transformation Program
<b>CSOP</b>	Commercial Standard Offer Program
<b>CS MTP</b>	Commercial Solutions Market Transformation Program
<b>DSM</b>	Demand Side Management
<b>EECRF</b>	Energy Efficiency Cost Recovery Factor
<b>EEPR</b>	Energy Efficiency Plan and Report
<b>EE Rule</b>	Energy Efficiency Rule, PUCT Substantive Rules 25.181 and 25.183
<b>EESP</b>	Energy Efficiency Service Providers
<b>EffCon</b>	Efficiency Connection Pilot Market Transformation Program
<b>EUMMOT</b>	Electric Utility Marketing Managers of Texas
<b>ILM MTP</b>	Irrigation Load Management Market Transformation Program
<b>HTR</b>	Hard-To-Reach
<b>HTR SOP</b>	Hard-to-Reach Standard Offer Program
<b>LM SOP</b>	Load Management Standard Offer Program
<b>MTP</b>	Market Transformation Program

## Acronyms (Continued)

<b>NAP</b>	Not Applicable
<b>New Homes</b>	High-Performance New Home Market Transformation Program
<b>Open</b>	Open Market Transformation Program
<b>PUCT</b>	Public Utility Commission of Texas
<b>PURA</b>	Public Utility Regulatory Act
<b>PV</b>	Photovoltaic
<b>PV MTP</b>	SMART Source <sup>SM</sup> Solar PV Market Transformation Program
<b>R&amp;D</b>	Research and Development
<b>REP</b>	Retail Electric Provider
<b>RES</b>	Residential
<b>RSOP</b>	Residential Standard Offer Program
<b>SCORE</b>	Schools Conserving Resources
<b>SCORE/CS MTP</b>	SCORE/CitySmart Market Transformation Program
<b>SOP</b>	Standard Offer Program
<b>TCC</b>	AEP Texas Central Company
<b>TDU</b>	Transmission and Distribution Utility
<b>TLIP</b>	Targeted Low-Income Energy Efficiency Program

# **APPENDIX A:**

## **REPORTED AND VERIFIED DEMAND AND ENERGY REDUCTION BY COUNTY**

## CALENDAR YEAR 2014

### A/C DISTRIBUTOR PILOT MTP

County	Reported and Verified Savings	
	kW	kWh
Aransas	8.82	33,549
Brooks	0.59	2,177
Cameron	35.36	135,421
Dewitt	0.99	3,409
Goliad	1.60	5,646
Hidalgo	87.56	335,170
Jim Wells	1.01	3,809
Kleberg	1.28	4,717
Maverick	7.40	23,141
Nueces	92.55	350,261
San Patricio	26.62	102,342
Starr	0.69	2,540
Uvalde	0.98	3,065
Victoria	9.76	34,438
Webb	12.14	44,782
Zavala	1.57	4,904
<b>Total</b>	<b>289</b>	<b>1,089,371</b>



**COMMERCIAL SOLUTIONS MTP**

<b>County</b>	<b>Reported and Verified Savings</b>	
	<b>kW</b>	<b>kWh</b>
Aransas	0.21	1,509
Brooks	1.30	7,088
Cameron	195.74	1,480,476
Hidalgo	274.76	1,284,491
Jim Wells	0.58	3,175
Maverick	17.37	42,877
Medina	16.97	80,222
Nueces	211.59	1,002,348
San Patricio	8.23	53,874
Starr	11.66	74,675
Uvalde	5.52	21,475
Val Verde	11.11	43,220
Victoria	23.66	116,871
Webb	55.57	232,935
<b>Total</b>	<b>834</b>	<b>4,445,236</b>

**COMMERCIAL SOP**

<b>County</b>	<b>Reported and Verified Savings</b>	
	<b>kW</b>	<b>kWh</b>
Aransas	15.81	69,991
Bee	8.03	18,073
Calhoun	1.48	8,705
Cameron	296.83	1,206,173
Colorado	7.76	34,875
Hidalgo	1,166.87	6,189,305
Jim Wells	48.69	316,306
Kleberg	73.25	485,254
Matagorda	0.97	6,566
Nueces	757.56	5,291,204
San Patricio	2.37	11,155
Uvalde	217.28	1,248,985
Val Verde	33.44	156,348
Victoria	14.68	81,328
Webb	156.57	857,366
Wharton	0.97	6,566
<b>Total</b>	<b>2,803</b>	<b>15,988,200</b>

**COOLSAVER<sup>SM</sup> A/C TUNE-UP MTP**

<b>County</b>	<b>Reported and Verified Savings</b>	
	<b>kW</b>	<b>kWh</b>
Aransas	14.57	43,143
Bee	0.63	1,949
Brooks	3.12	10,963
Cameron	257.81	632,871
Duval	0.54	1,905
Hidalgo	1,115.93	4,299,912
Kleberg	26.12	96,768
Maverick	326.88	1,048,974
Nueces	198.11	617,293
San Patricio	188.58	423,300
Starr	69.18	283,979
Webb	9.63	34,899
Willacy	2.96	12,287
<b>Total</b>	<b>2,214</b>	<b>7,508,243</b>

**HARD-TO-REACH SOP**

County	Reported and Verified Savings	
	kW	kWh
Aransas	18.94	44,755
Calhoun	7.29	30,069
Cameron	15.53	70,635
Colorado	4.22	17,685
Duval	1.08	4,644
Frio	20.37	69,576
Goliad	1.02	6,352
Hidalgo	498.34	1,547,741
Jackson	2.19	9,701
Jim Hogg	2.98	10,729
Jim Wells	183.92	718,139
Kleberg	7.01	21,060
Matagorda	26.58	80,620
Medina	22.94	94,741
Nueces	273.84	674,727
Refugio	44.55	153,946
San Patricio	12.37	46,935
Starr	2.85	14,523
Victoria	44.21	180,294
Webb	133.03	437,074
Zapata	4.68	22,773
<b>Total</b>	<b>1,328</b>	<b>4,256,719</b>

**HIGH-PERFORMANCE NEW HOMES MTP**

County	Reported and Verified Savings	
	kW	kWh
Aransas	17.28	66,267
Cameron	11.28	51,646
Hidalgo	88.34	389,833
Nueces	235.97	921,190
San Patricio	49.71	200,901
Starr	2.50	10,658
Victoria	0.61	1,667
Webb	29.64	135,402
<b>Total</b>	<b>435</b>	<b>1,777,564</b>

### IRRIGATION LOAD MANAGEMENT MTP

County	Reported and Verified Savings	
	kW	kWh
Atascosa	6.00	12
Medina	262.00	524
Zavala	58.00	116
<b>Total</b>	<b>326</b>	<b>652</b>

### LOAD MANAGEMENT SOP

County	Reported and Verified Savings	
	kW	kWh
Aransas	159.00	204
Bee	13.00	59
Calhoun	65.00	156
Cameron	2,075.00	5,579
Colorado	0.00	0
Hidalgo	6,177.00	19,762
Jim Wells	0.00	87
Kleberg	152.00	207
Matagorda	841.00	2,384
Maverick	0.00	0
Nueces	2,525.00	7,121
Refugio	926.00	2,821
San Patricio	6,610.00	18,838
Starr	51.00	112
Uvalde	43.00	158
Val Verde	0.00	0
Victoria	1,418.00	4,144
Webb	1,233.00	3,371
Wharton	19.00	38
Willacy	690.00	2,343
<b>Total</b>	<b>22,997</b>	<b>67,384</b>

**OPEN MTP**

<b>County</b>	<b>Reported and Verified Savings</b>	
	<b>kW</b>	<b>kWh</b>
Cameron	45.87	227,213
Hidalgo	570.68	2,499,674
Jim Wells	3.85	13,912
Maverick	6.09	39,920
Nueces	41.95	195,115
<b>Total</b>	<b>668</b>	<b>2,975,834</b>

### RESIDENTIAL SOP

County	Reported and Verified Savings	
	kW	kWh
Aransas	6.05	19,080
Brooks	0.61	3,123
Calhoun	12.00	49,236
Cameron	544.41	2,170,397
Colorado	8.48	31,273
Dimmitt	51.02	199,119
Duval	47.25	169,537
Hidalgo	1,464.85	5,810,358
Jackson	17.81	60,184
Jim Hogg	10.84	30,607
Jim Wells	404.11	1,424,857
Kleberg	105.02	318,629
Live Oak	2.73	11,270
Matagorda	101.51	414,410
Maverick	45.22	240,413
Nueces	1,218.78	3,713,047
Refugio	1.31	4,208
San Patricio	126.88	397,063
Starr	71.75	328,878
Victoria	195.13	757,786
Webb	364.63	1,347,136
Wharton	25.98	90,452
Zapata	2.16	4,368
<b>Total</b>	<b>4,829</b>	<b>17,595,431</b>

### SCORE/CITYSMART MTP

County	Reported and Verified Savings	
	kW	kWh
Calhoun	16.57	29,083
Cameron	3.10	13,960
Hidalgo	850.34	2,068,960
Nueces	462.34	1,797,092
Victoria	42.52	90,172
Webb	317.23	1,525,416
<b>Total</b>	<b>1,692</b>	<b>5,524,683</b>

### SMART SOURCE<sup>SM</sup> SOLAR PV PILOT MTP

County	Reported and Verified Savings	
	kW	kWh
Aransas	12.18	23,496
Cameron	11.62	22,400
Goliad	4.36	8,400
Hidalgo	559.50	1,077,600
Live Oak	4.40	8,480
Maverick	30.63	59,040
Nueces	68.02	131,120
Victoria	4.98	9,600
Webb	37.25	71,800
<b>Total</b>	<b>733</b>	<b>1,411,936</b>

### TARGETED LOW-INCOME ENERGY EFFICIENCY PROGRAM

County	Reported and Verified Savings	
	kW	kWh
Aransas	0.69	1,489
Calhoun	41.37	104,321
Cameron	44.28	135,462
Dimmit	11.61	32,610
Hidalgo	87.30	211,825
Jackson	0.51	1,805
Kinney	198.36	324,331
Kleberg	0.60	3,091
La Salle	2.31	6,205
Matagorda	2.65	7,929
Nueces	23.12	59,426
Refugio	1.87	4,202
Val Verde	107.01	116,617
Victoria	9.64	19,140
Webb	151.31	145,114
<b>Total</b>	<b>683</b>	<b>1,173,567</b>

## **APPENDIX B:**

### **PROGRAM TEMPLATES**

TCC does not have any program templates to report this year.



## **APPENDIX C:**

### **EXISTING CONTRACTS OR OBLIGATIONS**

TCC does not have any Existing Contracts or Obligation documentation to provide.

## **APPENDIX D:**

### **OPTIONAL SUPPORT DOCUMENTATION**